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R.A.F. NARRATIVE

(First Draft)

THE MIDDLE EAST CAMPAIGNS

VOLUME IV

OPERATIONS IN LIBYA, THE WESTERN DESERT AND TUNISIA

JULY 1942 - MAY 1943

Air Historical Branch (1),

AIR MINISTRY.

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'We can, of course, agree that bombing will not turn defeat into victory, or vice versa; but it is not a question of whether aircraft could turn defeat into victory, but of preventing defeat from developing into disaster; nor of turning victory into defeat, but of converting an inconclusive offensive into a real break through.'

'Air Power and Armies'
W/Cdr. J. C. Slessor (1936)

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THE MIDDLE EAST CAMPAIGNS

VOLUME IV

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CODE-NAMES

Operation 'Hercules' German plan for the invasion of Malta.

Operation 'C.3' Italian plan for the invasion of Malta.

Operation 'Exalted' Eighth Army's plan for an advance prepared in early July 1942.

Operation 'Theseus' Rommel's offensive at Gazala on 26 May 1942.

Operation 'Manhood' General Auchinleck's last offensive in the Western Desert 26 July 1942.

Operation 'Bellows' On 11 August 1942 Spitfire reinforcements were flown off the aircraft carrier Furious during Operation 'Pedestal'. The aircraft carrier Eagle was lost during this operation.

Operation 'Pedestal' The August convoy to Malta (11 to 15 August 1942). Out of 14 MV.s nine were sunk together with an aircraft carrier, a cruiser, an anti-aircraft ship and a destroyer sunk and an aircraft carrier and two cruisers damaged.

'Gamebirds' Eighth Army code-word to bring forces to readiness at the Battle of Alam el Halfa night 30/31 August 1942.

Operation 'Bulimba' Attack during Battle of Alam el Halfa by 9th Australian Division on night 31 August.

Operation 'Beresford' Attempt during Battle of Alam el Halfa (night 3/4 September 1942) to close gap in British minefields as enemy retreated.

Operation 'Agreement' Raid on Tobruk night 13 September 1942.

Operation 'Bigamy' Raid on Benghazi night 14 September 1942.

Operation 'Lightfoot' Battle of El Alamein launched 23 October 1942.

Operation 'Bertram' The Eighth Army cover plan for the Battle of El Alamein.

Operation 'Buster' The Western Desert Air Force's plan for the Battle of El Alamein and for the pursuit.

Operation 'Grapeshot' Plan to capture Tobruk. This operation did not take place.

Operation 'Snapper' Plan for the occupation of L.G. 122 in the Maddalena area to cut the enemy's air transport of supplies. This operation did not take place.

Operation 'Supercharge' The second El Alamein offensive by the Eighth Army launched at 01.05 hours on 2 November 1942.

Operation 'Torch' Anglo-American landings in French North-West Africa 8 November 1942.

Operation 'Guillotine' Plan for the occupation of Tripolitania and for the action at Marsa Brega 13 December 1942.

Operation 'Fireater' Western Desert Air Force Air Staff plan for the advance to Tripoli.

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- Operation 'Symbol' The Casablanca Conference held at Anfa, French Morocco, on 15 January 1943.
- Operation 'Morning Breeze' Rommel's opportunist attack on American IIInd Corps in Central Tunisia on 14 February 1943.
- Operation 'Pugilist' Eighth Army plan for the attack on the Mareth Line which began on 20 March 1943.
- 'Flum' Code-name for the enemy's defended position across the funnel-shaped valley leading to the village of El Hamma.
- Operation 'Supercharge' The second Mareth battle launched by the Eighth Army and Western Desert Air Force on 26 March 1943.
- Operation 'Scipio' Attack on the Wadi Akarit positions on 6 April 1943 by the Eighth Army. The offensive failed.
- Operation 'Vulcan' Final offensive in North Africa on 6 May 1943.

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CHRONOLOGY

<u>Date</u>	<u>Events in Mediterranean</u>	<u>Events in Other Theatres</u>
<u>1942</u>		
26 May	Rommel's offensive at Gazala (Operation 'Theseus')	
30/31 May		First 1,000 bomber raid on Cologne
4 June		Battle of Midway Island
10 June	Fall of Bir Hacheim	
13-16 June	Convoys 'Harpoon' and 'Vigorous' to Malta	
15 June	Eighth Army withdrawal from Gazala	
21 June	Fall of Tobruk	Germans drive wedge into Sevastopol defences. Arnold-Towers-Portal Agreement on the alloca- tion of aircraft.
25 June	General Auchinleck assumes command of Eighth Army	
25-26 June	Beginning of 'round-the- clock' bombing of the enemy.	
29 June	Enemy capture Mersa Matruh	
29-30 June	Eighth Army withdrawal to El Alamein line	
1 July	Capture of Deir el Shein	Germans capture Sevastopol
1/2 July	No. 205 Group night-bombers drop 100 tons of bombs on enemy concentrations in battle area. Rommel's supply columns blown up.	
1/8 July	Malta 'blitz'.	
2 July	Failure of Rommel's renewed offensive on Alamein line	
4 July	Rommel's decision to go over to the defensive	U.S.A.A.F. first offensive against Germans, raiding airfields in Holland
26 July	Operation Manhood, General Auchinleck's last offensive in the Western Desert.	
30 July	General Auchinleck's decision to go over to the defensive	
11-15 August	Operation Pedestal, the August convoy to Malta	
12 August		First Moscow Conference

<u>Date</u>	<u>Events in Mediterranean</u>	<u>Events in Other Theatres</u>
15 August	Appointment of General Sir Harold Alexander as Commander-in-Chief, Middle East Forces and General Sir B. L. Montgomery as General Officer Commanding the Eighth Army	
19 August	Beginning of air offensive prior to Battle of Alam el Halfa	Dieppe raid
24 August		Germans cross the Don in force
27 August	<u>Dielpi</u> (1,527 tons) carrying urgently-needed supplies to Panzer Army sunk by R.A.F.	
27/28 August	<u>Istria</u> (5,416 tons) sunk by R.A.F. Carrying fuel and ammunition	
30 August	<u>San Andrea</u> a tanker of 5,077 tons sunk by R.A.F. Carrying 2,285 tons of fuel for Panzer Army	
30/31 August	Rommel launches final offensive in Egypt at 22.00 hours (Battle of Alam el Halfa)	
31 August	Direct hit scored by Wellington on Afrika Korps H.Q. Commanding General wounded and several Staff Officers	
1/2 September	Sinking of supply ships <u>Picci Fascio</u> (2,800 tons) and <u>Abruzzi</u> damaged and beached	
2 September	<u>Davide Bianchi</u> (1,500 tons) and <u>Paderna</u> (1,600 tons) sunk by R.A.F.	
6 September	End of Battle of Alam el Halfa	
13/14 September	Operations Agreement and Bigamy to seize temporarily ports of Tobruk and Benghazi	
30 September/ 1 October	Munassib operation by Eighth Army	
9 October	'Weather Blitz' on enemy flooded airfields round Daba	
11-19 October	Final Axis Air Offensive against Malta	
18/19 October	<u>Panucco</u> with 2,600 tons of fuel damaged and beached. Kesselring asked to fly petrol across to North Africa	

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<u>Date</u>	<u>Events in Mediterranean</u>	<u>Events in Other Theatres</u>
19-23 October	Pre-battle air offensive by R.A.F.	
23/24 October	Operation Lightfoot, the Battle of El Alamein, launched at 21.40 hours	
24 October	Death of General Stumme, enemy Commander-in Chief	
25 October	Rommel returns from Germany to North Africa and re-assumes command of the Panzer Army	
26 October	Sinking of tanker <u>Proserpina</u> (4,870 tons) and <u>Tergestea</u> (5,890 tons) off Tobruk by R.A.F.	
28 October	R.A.F. breaks up Panzer Army's counter-attack	
	The tanker <u>Luisiano</u> (2,550 tons) carrying 1,500 tons of petrol, sunk by R.A.F.	
28/29 October	9th Australian Division attack northwards towards coast and gain 'cocked-thumb' salient	
30 October	Rommel orders a second line of defence to be reconnoitred at Fuka	
31 October/ 1 November	Sinking of <u>Tripolino</u> (1,464 tons) carrying petrol and ammunition to Panzer Army by R.A.F.	
	Auxiliary naval ship <u>Zara</u> (1,976 tons) sunk by R.A.F.	
2 November	Auxiliary naval ship <u>Brioni</u> destroyed in bombing of Tobruk by U.S.A.A.F.	
	Operation Supercharge launched at 01.05 hours by Eighth Army	
	Heaviest night-bombing attacks of the battle by No. 205 Group. Breakdown of all enemy telephone communications	
	R.A.F. fly 1,000 sorties in direct support of Operation Supercharge	
	Rommel's decision to retreat to a new line at Fuka	

<u>Date</u>	<u>Events in Mediterranean</u>	<u>Events in Other Theatres</u>
2 November (Contd)	Battle of Tell el Aqqaqir involving 9th Armoured Brigade and Panzer Divisions	
3 November	Peak air effort of battle. Eleven hundred effective sorties flown and 364 tons of bombs dropped	
	Hitler's 'Victory or Death' message received by Rommel at 13.30 hours and all orders for withdrawal cancelled	
4 November	The final break-through by Eighth Army's X Corps. End of the Battle of El Alamein	
5/6 November	Heavy bombers (Halifax II) used tactically in support of Eighth Army for first time	
6 November	'Rain and 8/10ths cloud from Fukka to Sida Barrani'	
	Tanker <u>Portofino</u> (6,424 tons) and <u>Mars</u> (369 tons) sunk by U.S.A.A.F. bombers at Benghazi and <u>Etiopia</u> (2,153 tons) at Tobruk	
7 November	Pursuit brought to halt by the rains	
8 November	Mersa Matruh recaptured	
	Allied landing in French North-West Africa (Operation Torch)	
10 November	7th Armoured Division cross Egyptian frontier into Cyrenaica	
11 November	Capture of Halfaya Pass	German troops enter Unoccupied France
12 to 16 November	Operation from Desert landing-ground (L.G. 125) of Hurricanes of Nos. 213 and 238 Squadrons	
13 November	Occupation of Tobruk	
16 to 20 November	Operation Stoneage, the east to west convoy to Malta	
17 to 19 November	Enemy troops immobilised for lack of petrol	
17 to 29 November	Air attack accounts for 40,000 tons of enemy shipping, 29,000 tons on supply route to North Africa and 11,000 tons in Tripoli harbour	

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<u>Date</u>	<u>Events in Mediterranean</u>	<u>Events in Other Theatres</u>
22 November		Stalingrad counter-offensive
27 November		French warships scuttled in Toulon harbour.
13 December	Action at Marsa Brega	
18 December	Occupation of Marble Arch L.G.s by air-lift	
24 December		Admiral Darlan assassinated in Algiers
<u>1943</u>		
15 January	The action at Buerat The Casablanca Conference (Operation Symbol)	
23 January	The Eighth Army enters Tripoli	
30 January		Adana Conference
14 February	Rommel's offensive in Central Tunisia (Operation Morning Breeze)	
17 February	Eighth Army occupies Medenine Reorganisation of Air Command in the Mediterranean. Air Chief Marshal Tedder assumes command of Mediterranean Air Command as Air Commander-in-Chief, Mediterranean. Middle East Command placed under command of Air Chief Marshal Sholto Douglas	
23 February	The Western Desert Air Force placed under the control of H.Q. North-West African Tactical Air Force formed at Constantine with effect from same date, Air Vice-Marshal Coningham the Air Officer Commanding	
6 March	Battle at Medenine. Rommel's last offensive in North Africa	
8 March	Rommel hands over command of Army Group to von Arnim	
9 March	Rommel leaves North Africa	
10 March	Operations by No. 6 Squadron 'Tankbusters' in support of the Fighting French at Ksar Rhilane	
20 March	Battle of Mareth (Operation Pugilist)	

<u>Date</u>	<u>Events in Mediterranean</u>	<u>Events in Other Theatres</u>
26 March	Battle of El Hamma (Operation Supercharge). No. 205 Group night-bombers drop 400 tons of bombs and, in close support of the New Zealanders, 26 squadrons of W.D.A.F. carry out low-level attacks on the enemy positions over a period of 2½ hours	
28 March	Mareth Occupied	
5 April	Destruction of 43 transport aircraft and 32 damaged by bombers and fighters of U.S.A.A.F.	
6 April	Battle of Wadi Akarit (Operation Scipio)	
18 April	U.S.A.A.F. fighters of W.D.A.F. escorted by Spitfires destroy 33 Ju.52 transport aircraft and damage 6.	
20 April	Battle of Enfidaville	
22 April	Fourteen giant Me.323 six-engined transport aircraft destroyed by W.D.A.F. fighters. (Final figures for the month of April 157 transport aircraft destroyed or damaged)	
26 April	IXth U.S. Air Force's raid on Bari air base with 62 Liberators when 105 German aircraft destroyed (46 of them F.W. 190 and 39 Me. 109s) and 46 damaged.	
6 May	The final assault in Tunisia (Operation Vulcan). Concentrated air offensive, and 2,154 sorties flown by Allied air forces	
7 May	Tunis and Bizerta captured	
12 May	All organised resistance by Germans in Tunisia ends. General von Arnim taken prisoner	
13 May	Marshal Messe with 1st Italian Army surrenders. End of the campaigns in North Africa.	

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Introduction

The summer of 1942 was a period of acute crisis in the fortunes of both the opposing forces in the Mediterranean, in which the struggle for air bases, the problems of supply and reinforcement as influenced by the balance of air power, and the retention of our island base of Malta, played an increasingly vital strategic rôle. Although attention was mainly centred on the actual field of battle, where the pattern of traditional land warfare could be easily understood, more often than not the solution to the unexpected failure, or success, of one side or the other on land was ultimately to be traced to air action whose real significance, at the time, was often concealed even from those responsible for the conduct of the operation. Intimately linked, also, with the battles in the Libyan Desert at that time, particularly from the point of view of air reinforcement, was the close relationship that existed between the campaigns in which the enemy was engaged simultaneously in the Mediterranean and on the Russian front.

During Rommel's eastward drive, from Cyrenaica into Egypt, which began at Gazala on 26 May 1942, the Germans were developing their offensive in South Russia with an attack on Sevastopol, in the Crimea, and a thrust towards the Caucasian oilfields. On 21 June, the day the Tobruk garrison surrendered, involving the Eighth Army in the loss of 28,000 men and a vast store of material, the Germans had managed to drive a wedge into the Sevastopol defences. By 30 June, when the Afrika Korps had reached the vicinity of the El Alamein position - a mere sixty miles along the coast from Alexandria - Sevastopol had fallen.

The Importance of Malta

At that time, the immediate prospect for the Imperial forces in North Africa was indeed a grim one. From 26 May, when Rommel began his offensive against the Eighth Army positions at Gazala, to 30 June when the spearhead of his Panzer Army had reached El Alamein, our situation had deteriorated alarmingly. Four hundred miles of strategically important coastline, with its vital airfields and the ports of Tobruk and Mersa Matruh, had been surrendered. Between Gibraltar and this untried and still incomplete defensive position at El Alamein, a distance of over 2,000 miles, the minute land area of Malta was our only base. This, an 'unsinkable aircraft carrier', anchored a mere sixty miles due south of the important Axis air base of Sicily, had withstood the concentrated assault of more than 500 enemy aircraft. Time after time, it had been effectively 'neutralised' to use the expression favoured by the enemy, and yet, like the legendary phoenix, it had risen again from its ashes.

Operation "Hercules"

Ironically enough, the unexpected success of Rommel's May offensive, which recalled the pace his 7th Panzer Division had maintained in France, in 1940, had averted the full-scale invasion of Malta, known by the German code-name of Operation 'Hercules' and, to the Italians by the prophetic title of Operation 'C.3.' The projected invasion of Malta was delayed for various reasons and finally postponed, on 23 June, at the request of Rommel who, two days after the fall of Tobruk, reached out with justifiable optimism for what seemed to be the more immediate prizes of the Nile Delta and Suez. Once this enterprise had been accomplished, and the Mediterranean had become virtually Mare Nostrum, the

'German Air Force Activities in the Mediterranean' 8th Abt. Trans. A.H.B./VII/11

'The Plan for the Invasion of Malta', Trans. A.H.B./VII/47 Page 13.

Rommel Signal to OKW Operations Staff. Trans. A.H.B./VII/80, p.9.

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surrender of Malta in its isolation would, it seemed, be merely a matter of time.

This postponement was one of the most fateful decisions of the war. After eliminating the strongpoints of Bir Hacheim, Gazala, Tobruk and Mersa Matruh, in accordance with orthodox military tactics, Rommel was still outflanked along his lines of communication by the air and naval base of Malta. Tempted by the prospect of a catastrophic defeat of the Eighth Army, Rommel chose not only to ignore the threat of Malta, but, what is even more surprising, to advance into Egypt in the face of an opposing Air Force which still managed to dominate his own, in spite of all the adverse conditions under which it operated.

The Axis Air Forces' Failure to Support Rommel

By the time elements of Rommel's Panzer Army were in contact with the Eighth Army at El Alamein, at the end of June 1942, the pattern of air power in the Mediterranean presented some strangely paradoxical features. In spite of a retreat of 400 miles, involving almost daily changes of bases for the forward units, and very heavy losses in aircraft and personnel, the Royal Air Force in the Middle East still managed to retain superiority over the field of battle. There were other surprising features. The total of fighter and bomber sorties flown by the Western Desert Air Force rose from 2,414 during the first week of the campaign, from 26 May to 2 June, to 4,245 during the week from 1 July to 7 July, when the Eighth Army was stabilising its position at El Alamein. The percentage of serviceability to strength, instead of showing a decline, rose from 67% during the first week of the campaign to 75.3 per cent. in the sixth week.⁽¹⁾

By contrast, as the tempo of Rommel's pursuit into Egypt increased, so the support given to his Panzer Army declined, until the point was reached, soon after the fall of Tobruk, on 21 June, when the enemy ground forces were left without major air support. Presented with the text-book situation of a whole modern motorised army, in retreat, packing a narrow ribbon of coast road, for days on end, the Axis Air Forces had nevertheless failed to deliver the concentrated air attacks which might have converted the defeat of the Eighth Army into complete disaster.⁽²⁾

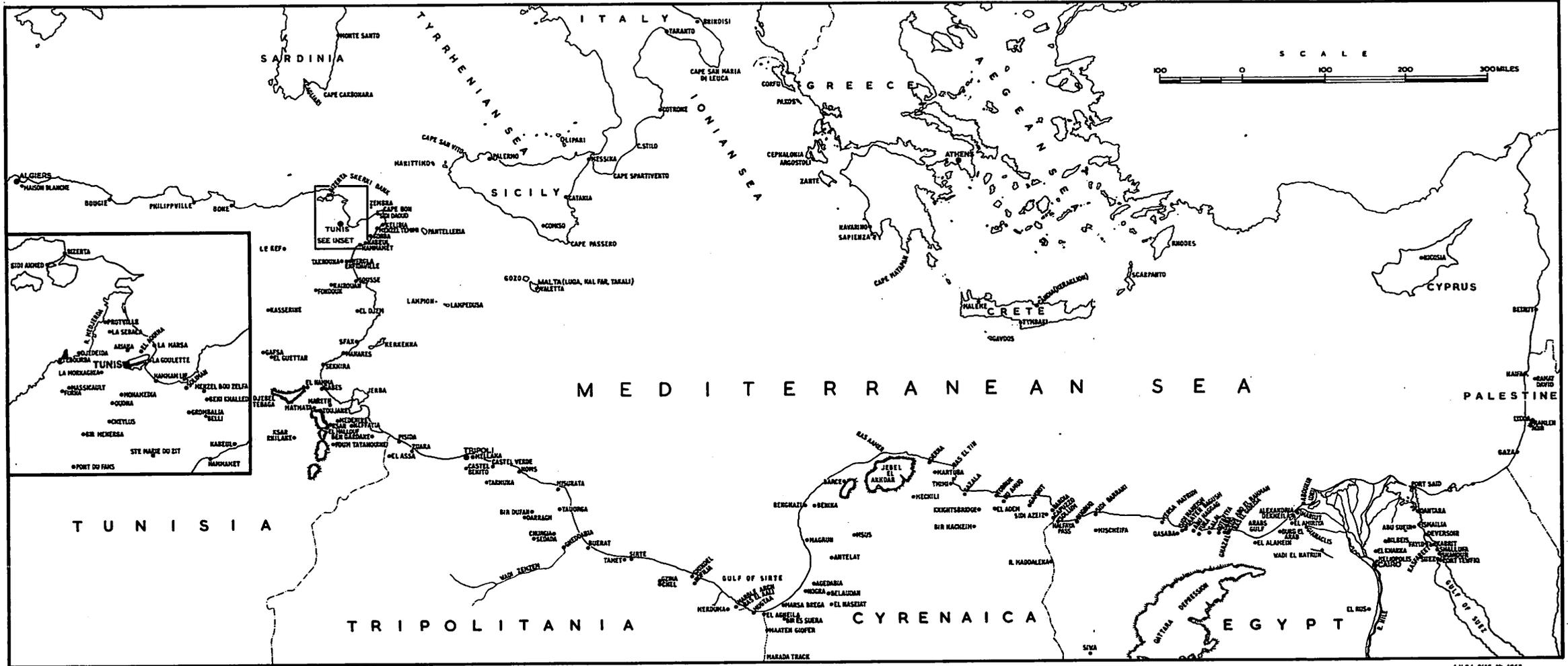
The reason for this unique situation in which an air force supporting a beaten and rapidly retreating army

(1) 'When it is remembered that in modern warfare supplies decide the battle, it is easy to see how the clouds of disaster were gathering for my army. The British, on the other hand, were sparing no effort to master the situation. They organised the move of fresh troops into the Alamein line with admirable speed. Their leading men had clearly realised that the next battle in Africa would determine the situation for a long time to come, and were looking at things very cool-headedly. The peril of the hour moved the British to tremendous exertions, just as always in a moment of extreme danger things can be done which had previously been thought impossible. Mortal danger is an effective antidote for fixed ideas.'
'The Rommel Papers'.

(2) 'It is in the Pursuit against an already broken enemy that the supreme opportunity for assault action will arise... On three different fronts the last months of the Great War turned a new page in military history. In Palestine... the annihilation of the Turkish Seventh and Eighth Armies in the pursuit from Megiddo... Actually on the same day (21 Sept. 1918) on the Macedonian front a similar fate befell the 2nd Bulgarian Army... Finally on the Italian front, the sequel to Vittorio Veneto was another and equally ghastly example of the terrible potentialities of air pursuit.'
'Air Power and Armies' by W/Cdr. Slessor, pps. 102 and 103.

'Report on
R.A.F. Operations
in the
Battle for
Egypt.'
A.H.B./IIJ1/
108. Appendix.
A.H.B. Monograph,
Maintenance
(C.D.1131)

Grp. Capt. Beamish's
Report. A.H.B./
IIJ1/159/19.
Part IV, page 1.



A.H.B. 6

8th. Abteilung
Report A.H.B.
Trans. No. VII/
11 A.H.B.6.

Beamish Report.
A.H.B./IIJ1/159
/19.

nevertheless managed to maintain air superiority cannot be attributed to any single cause, but rather to a series of complex factors. The losses of first-line aircraft inflicted on the enemy over this period, although lower than our own, were very high proportionately, bearing in mind the lower state of serviceability, which was estimated to be in the region of 50 per cent for the Luftwaffe and 60 per cent for the Italian Air Force, and the fact that, although the total strength of enemy aircraft in the Mediterranean was considerably higher than ours, the force the enemy was able to concentrate in North Africa was smaller. During the nine days of the attacks on Bir Hacheim alone, when the enemy flew 1,500 sorties against this single strongpoint, 18 per cent of the total Luftwaffe bomber force in North Africa was dissipated. Attacks on enemy landing-grounds, particularly the Martuba-Derna group, commencing 20 May, in which Air Vice-Marshal Coningham anticipated the enemy offensive, and at Gazala, on 17 June, caused serious disorganisation and losses to the Axis Air Forces.

A.H.B. Monograph,
Maintenance
(C.D.1131).

'Rise and Fall
of the German
Air Force' page
134. (A.M.P.248).

The ceaseless war waged against the enemy supply routes, both by land and sea, contributed very vitally towards weakening the enemy air effort. Sinkings of Axis supply ships in the Mediterranean, for instance, rose sharply from 5 per cent in May 1942, to 35 per cent in June 1942. This not only denied the enemy essential supplies, but drew off an important proportion of his aircraft, from the battle in Libya, for the protection of his convoys. The concentrated attacks on Malta during the three months preceding Rommel's Gazala offensive had involved the enemy Air Forces in a costly effort that had a direct effect on their fighting efficiency, during the land battles in North Africa, in this period. There was also the attempt to run two convoys through to Malta, from east and west, which diverted a high proportion of the available enemy fighter and bomber force, during the 14 to the 16 June, from the field of battle, and at a very critical time when the enemy, even less than ourselves, could ill afford the extra effort and losses entailed.

Von Rintelen to
Army General
Staff. A.H.B./
Trans. No.
VII/80.

Beamish Report
A.H.B./IIJ1/159/
19 Part III
page 2.

The acute shortage of motor transport and petrol which resulted not only from our successful attacks by land and sea, but also from other contributory causes that will be noted later, played a very important part in thinning out the enemy air effort and thus enabling our Air Force to dominate the enemy in the air. It must also be remembered that, as the Eighth Army retreated on to their bases, the enemy supply lines were correspondingly lengthened; and, whereas the Western Desert Air Force who, on 17 June, put into execution their previously prepared plans for withdrawal, whereby the squadrons which had already been reduced, as far as possible, to their operational nucleus, fell back on to landing-grounds previously stocked with fuel and bombs, the enemy advanced on to bases that had been stripped clean by the Western Desert Air Force in their retreat.⁽¹⁾

(1) 'My formations were being repeatedly assailed by heavy R.A.F. bomber attacks. Our own Luftwaffe was regrouping at the time and could not put up any fighters. The Afrika Korps, with its 50 remaining tanks was the most frequent target of the R.A.F.'s attacks.' Extract from 'The Rommel Papers' for the period 24-26 June.

¹German ground organisation and supplies for the Luftwaffe had not been able to keep pace with the Panzer Army's rapid advance because of inadequate motor transport, and British air strength improved as the front approached the central stronghold of Egypt. Despite losses, the R.A.F. was still greatly superior in numbers.' Vice-Admiral Eberhard Weichold who was German Admiral in Rome from June 1940 until March 1943 in his study 'Axis Naval Policy and Operations in the Mediterranean 1939 to May 1943'.

Rommel's Change of Plans

Other factors which contributed vitally to this unusual spectacle of an Air Force in retreat yet managing to dominate the enemy in the air, maintain an increasing weight of air assault on his advancing forces, and at the same time provide effective cover for the withdrawal of their own army, were the changes Rommel made in his original plans for the Gazala offensive and the strain of the enemy air war on three fronts.

The outstanding feature of Rommel's original plan which was evolved by the Duce, who often showed himself to be a more sound strategist than the Germans, was the way in which it was intended that it should link up with Operation 'Hercules'. Briefly, the plan was as follows:-

- (a) Attack and destroy the British mobile forces to the west of Tobruk
- (b) Capture Tobruk
- (c) Advance to the Egyptian frontier and halt there, when a diversion of air and naval forces was to have been made for Operation 'Hercules'.

The timing of the offensive was most important. The destruction of the British forces to the west of Tobruk, together with the capture of the port of Tobruk itself, were to have been accomplished by about the sixth day of the offensive, or 1 June. The Egyptian frontier was to have been reached by 20 June and a halt called to any further advance to enable Operation 'Hercules' to take place.

In this plan, the Axis Air Forces were set the two main tasks of eliminating their opponents in the air and of providing direct support for ground operations against the British army in the field. Field Marshal Kesselring, the Commander-in-Chief South, agreed to the transfer of considerable reinforcements, for the duration of the Cyrenaican operation, to reinforce the Luftwaffe. It is important to note that fuel supplies for only twenty days were accumulated for these air operations in North Africa. Preparations for the projected invasion of Malta involved the accumulation of considerable stocks of fuel in Sicily and Italy and, together with the British action against the enemy's lines of communication and the fixed time-table set for Rommel's offensive, limited very drastically the fuel available, both to the Air Forces in North Africa and also to the Afrika Korps.

The Gazala offensive began on 26 May 1942. The Eighth Army's resistance - particularly the 201st Brigade of Guards at 'Knightsbridge' and General Koenig's isolated garrison of Free French at Bir Hacheim - quickly put Rommel's timetable out of gear. Already by 5 June, or the tenth day of the offensive, Von Rintelen was adopting a defensive attitude to the German General Staff over the failure of the Afrika Korps to 'achieve the planned encirclement and destruction of the British forces', making his excuse 'the difficulties inherent in such an extensive desert terrain.' On 10 June, Von Rintelen stated that Operation 'Hercules' would have to be postponed from three to four weeks, owing to the prolongation of the battle in Libya.

Bir Hacheim fell on 10 June, after a struggle which, combined with the resistance around Gazala, had delayed the enemy advance for nine days when, for this preliminary phase

'High Level Reports and Directives' A.H.B. Trans. No. VII/80 page 6. etc.

Rommel to Italian C.H.Q. in North Africa Idem page 4.

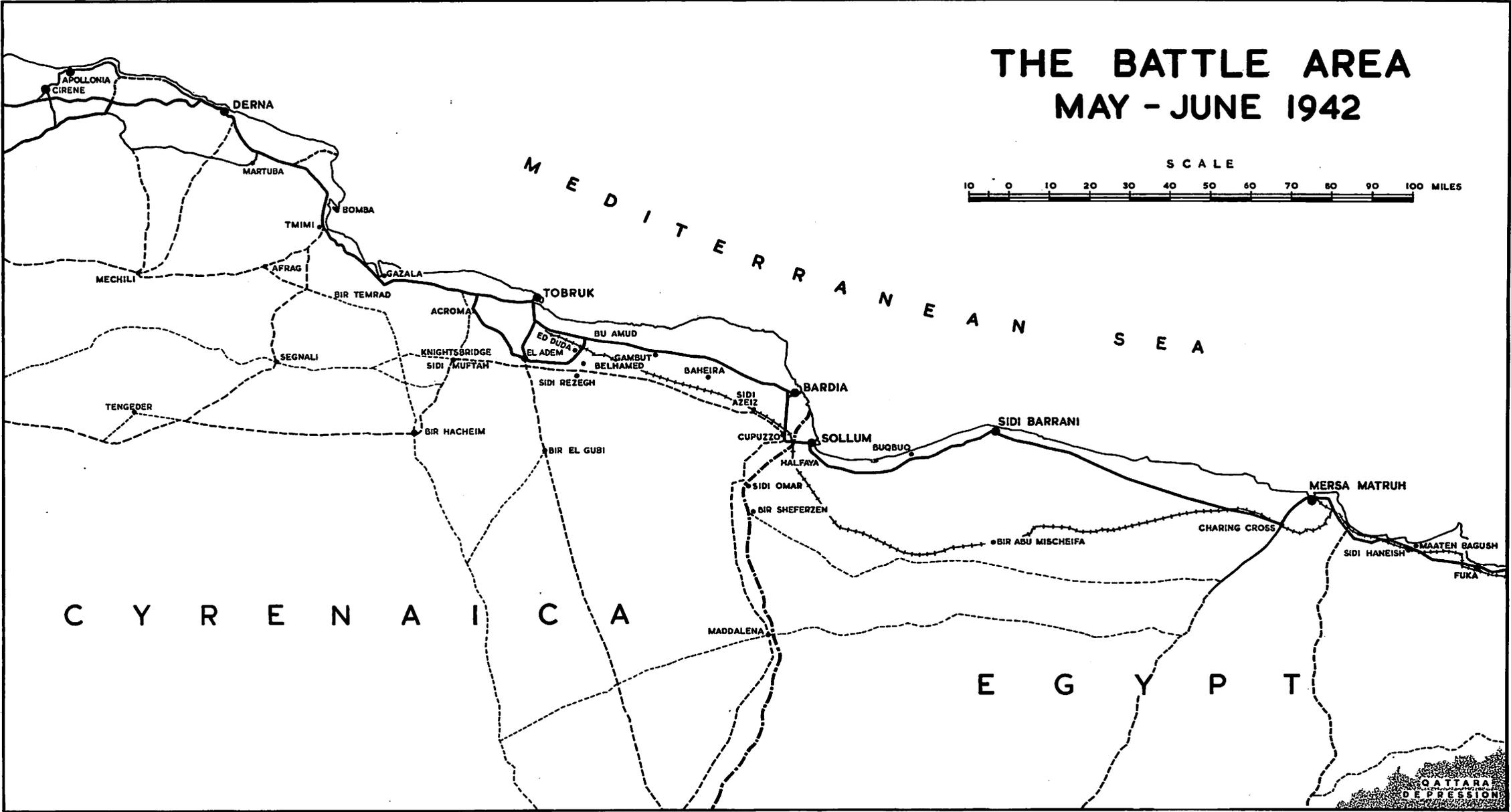
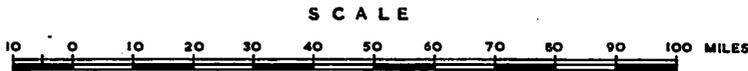
Ibid p. 5.

ibid. p. 7.

Ibid page 7.

Ibid page 8.

THE BATTLE AREA MAY - JUNE 1942



8th Abteilung
Report. A.H.B.
Trans. No. VII
/11.

of the battle, he had allowed but two. 'This meant a nine days' gain for the enemy,' says a report published by 8th Abteilung, the German Historical Section, 'and for our army and air force, nine days of losses in material, personnel, aircraft and petrol. Those nine days were irrecoverable.'

A.H.Q.W.D.
Report.

With the fall of Bir Hacheim, Eighth Army positions in Cyrenaica became untenable, and by 15 June it was falling back all along the line. Two days later, the withdrawal plan prepared by the Admin' Staff of Air Headquarters Western Desert Air Force was put into operation. Tobruk fell on 21 June, the enemy capturing large quantities of petrol, transport, food and other stores, after a concentrated air attack involving 400 enemy sorties and the whole of the German divebomber force.

'The Rise and
Fall of the
German Air
Force' page
142. (A.M.P.248)

Nevertheless, on 22 June, Von Rintelen reported to O.K.W. Operations Staff that the Duce still held to his original plan in which the Axis advance was to be halted at the Egyptian frontier and the speedy transfer of air forces, for Operation 'Hercules' was to be ensured. On that same day, however, Rommel sent a signal to the Comando Supremo requesting the 'suspension of former limitations on freedom of movement.' On receiving the news of the Axis victory, the Fuehrer pronounced oracularly that 'the historic moment has now come to conquer Egypt and must be exploited.' The Duce agreed guardedly, in an 'interim answer', but added that difficulties 'after the collapse of the British Eighth Army lay less in the battle on the ground than in the transport situation at sea. Owing to Malta's active revival, supply of the Panzer Army in Africa has once more entered a critical stage. In his (the Duce's) opinion it is absolutely essential to neutralise Malta, as it is not possible at the moment to commence the attack to conquer the island once and for all.' On 23 June, nevertheless the enemy plan for Operation 'Hercules' was postponed until the beginning of September and Rommel's pursuit into Egypt was on.

A.H.B. Trans.
No. VII/80
page 9.

Idem p. 10.

After the fall of Tobruk - almost three weeks after the date assigned by Rommel in his original plan and at the limit, it will be noted, of the operational preparedness of the Axis Air Forces in North Africa - the Afrika Korps outran their major air support as the German and Italian Air Forces were only able to move forward in small numbers. It was during this phase of Rommel's advance, from 21 June until the end of the month, that the failure of the enemy Air Forces to support the Afrika Korps was most dramatically evident, thus enabling the Eighth Army to reach the El Alamein position, 'virtually unscathed by enemy air attack'.

A.H.Q.W.D.
Report. Part IV,
p.1. A.H.B./
IIJ1/159/19.

On 26 June, Rommel tried to remedy his mistake. He went to the length of ordering that motor transport was to be taken away from the Italian infantry, in order to assist his Air Forces to push forward more quickly, thereby compelling the Italians to march through the Libyan desert in midsummer. But it was already too late. In spite of severe losses and Rommel's attempts to encircle and destroy them, the Eighth Army was not only still intact as a fighting force, but supported by an Air Force which showed increased, rather than decreased, fighting efficiency as it fell back on to its bases.

Trans. A.H.B./
VII/80 p.II.

The enemy Air Forces had failed in the tasks set them of eliminating their opponents in the air and giving support to Rommel in his advance, when presented with an almost unparalleled opportunity. At the root of this failure,

Alexander
Dispatch
p. 10.

however, was Rommel himself. 'Happiest when controlling a mobile force directly under his own eyes,' wrote Field Marshal Alexander in his dispatch, 'he was liable to over-exploit immediate success, without sufficient thought for the future.'

The Strain of the Axis Air War on Three Fronts

'The Rise and
Fall of the
German Air
Force.'
(A.M.P. 248)

Beyond the immediate tactical problems of the war in the Mediterranean, lay other broader strategic issues which had an important influence on the air war in North Africa at this time. These were the effect of the Russian campaign, the Anglo-American convoys in the far north and our bomber and fighter effort in the west in containing enemy aircraft, personnel and essential supplies which might otherwise have been diverted to augment Luftflotte II in the Mediterranean.

'The German
Air Force'
A.P. 3038 p. 16.

Throughout Rommel's drive to the east at this time, operations by the Germans in the Crimea and the Caucasus were regarded by the enemy as being of paramount importance. The North African campaign was considered to be only a secondary theatre of operations and complaints were made of 'the poor man's war' which the enemy were forced to wage there. In December 1941, the war in North Africa had already drawn off Kesselring's 'crack' Luftflotte II, which had been employed in the Battle of Britain in 1940, from the Moscow front, and no further diversion of air strength to that theatre from Russia could be contemplated. In fact, the reverse was true, for on the conclusion of the air offensive against Malta, in May, and prior to Rommel's attack, a part of the force used against Malta was diverted to Russia. Enemy records show, however, that a total of only 38 aircraft were sent during the whole of this period to Russia from the Mediterranean. Indeed, the ease with which these movements of enemy aircraft could be made and reinforcements switched from one theatre to another was a constant threat to our own Air Force in the Middle East whose own supply and reinforcement routes were so difficult and circuitous.

The Rise and
Fall of the
German Air
Force'. p. 176.
(A.M.P. 248)

A.H.B. 6.

The Possibility of a Quarrel Between the Enemy Air and Army Commanders

A factor which may have had some bearing on the enemy Air Forces' failure to make the most of the opportunities presented to them, at this time, of converting the defeat of the Eighth Army into a rout was the possibility of friction between the enemy air and land forces reaching such a pitch that air support was deliberately withheld.

No. 211 Group
Int. Report.
A.H.B./IIJ1/
122/73 (E).

There is no concrete evidence available, however, that a quarrel between such well-disciplined forces as the Luftwaffe and Rommel's Afrika Korps was carried to such extremes, although bitter criticism was levelled at the Axis Air Forces for their inability to give the army the necessary air support and air protection, especially during the latter phase of Rommel's advance. The conflict of such strong personalities as Rommel and Kesselring, and Rommel's lack of appreciation of the difficulties peculiar to an air force (and in which he was by no means unique among Army commanders) certainly did not make for the most harmonious relations. It has been established that Rommel's overbearing treatment of Generalmajor Froelich, the Fliegerfuehrer Afrika, had caused the latter to avoid him which must have had some adverse effect on the necessary close co-operation between the enemy air and land forces. By March, 1942, Froelich had, however, been replaced by General Von Waldau who was sufficiently high in the Nazi hierarchy to refuse to be

'Rise and Fall
of the German
Air Force'
page 140
(A.M.P. 248)

SECRET

(xxix)

browbeaten by Rommel, and co-operation between the two Forces had, in consequence, to some extent improved by the time Rommel had begun his Gazala offensive.

There is little doubt that, within the limitations outlined in this Chapter, the Luftwaffe gave of their best when following the traditional rôle assigned to them during this period of giving close support to the forces on land. If, in the process, they were consistently outfought by their opponents, nevertheless the way in which squadrons on both sides were decimated to an extent that had not happened since the days of the Battle of Britain demonstrates the bitterness of the fighting and the quality of the co-operation that the Luftwaffe gave to the Afrika Korps, when circumstances permitted them to do so.

Summary

During the advance of Rommel's forces from Cyrenaica into Egypt, the Axis Air Forces failed in the main tasks allotted to them of eliminating their opponents in the air and giving close support to the Afrika Korps when invading Egypt.

By midsummer, 1942, the air war on three fronts - in North Africa, Russia and in the West - had stretched the enemy Air Forces to the limit. In the Mediterranean, under the impact of the Western Desert Air Force's constant struggle for air supremacy, the bombing of enemy landing grounds, the war waged against enemy supplies and transport, together with the extensive advance into Egypt, for which the enemy Air Forces were unprepared and which had not formed a part of the original plan for the Gazala offensive, the operational efficiency of the German and Italian Air Forces dropped to such an extent that their land forces were left without major air support, during the last and most vital phase of the advance.

When Rommel altered the original plan, which was to advance to the Egyptian frontier and halt there for the invasion of Malta, he took an opportunist's risk. He gambled on making such a quick advance that our bases in Egypt would be overrun and our Forces - naval, army and air - neutralised at source. At the time, with the Eighth Army in full retreat, the risk seemed amply justified. With the prospect of the Mediterranean being converted into an Axis lake by the victory on land, the surrender of Malta from the cutting off of food and military supplies appeared to be inevitable. Nevertheless, the enemy appreciation of the situation which seemed richly to justify such optimism, failed to give full consideration to the increasing strength of the Western Desert Air Force, as they fell back on to their bases, the precariousness of Rommel's lines of communication in the face of an enemy who continued, even in retreat, to maintain air superiority, the recuperative powers of the Eighth Army, and the importance of Malta in the strategic pattern of war in the Mediterranean.

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PART I

EL ALAMEIN -- THE FIRST PHASE

STABILISATION OF THE EIGHTH ARMY AT

EL ALAMEIN (1 TO 6 JULY 1942.)

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CHAPTER I

THE GENERAL SITUATION AT EL ALAMEIN DURING JULY AND AUGUST 1942

SECTION I

THE SITUATION ON LAND

'High Level
Reports and
Directives'
A.H.B.6. Trans.
VII/80

The fourth of July 1942 was a significant date in the history of the fighting in North Africa at this time. On that day, Rommel reported to the General Staff of the Wehrmacht that he must temporarily suspend further attacks against the Eighth Army and go over to the defensive, for approximately two weeks, in order to bring up men and supplies and regroup units.

Idem page 13.

Only two days before, on 2 July, still sustained by the high flush of optimism that had impelled Rommel to postpone Operation Hercules and strike at Egypt instead, a plan for the Afrika Korps to advance on Alexandria and reach Cairo and the Suez Canal, by way of Wadi el Natrun and Cairo, had been announced. Although it was not until after the Battle of Alam el Halfa, two months later, that the Eighth Army's position, at El Alamein, could be said to be really secure, by 4 July, on the enemy Commander's own admission, the remarkable six weeks' advance that had taken his Panzer Army over 350 miles across the Libyan Desert to the last line of defence before the Nile Valley, was virtually spent. (1)

The Condition of the Eighth Army

'Situation
Reviews'
AOC/14

The losses inflicted on the Eighth Army, during their rapid withdrawal from Cyrenaica into Egypt, had been most grievous ones. The initial force of some 125,000 men that had confronted Rommel at Gazala, on 26 May 1942, had been reduced, by the end of the following month, by the loss of some 65,000 killed, wounded or missing, or by approximately one half of its original front-line strength. A great quantity of booty had been captured by the enemy. Rommel had been able to make good 50 per cent of his losses of vehicles alone. It was this accession of captured material which had enabled his Afrika Korps to continue 'punching forward' to Egypt's last line of defence, at El Alamein.

(1) 'The successful British resistance to the onslaught of the Italo-German army in the fighting which took place during 1-3 July 1942, stemmed the tide of the victorious Axis advance and saved Egypt, the Suez Canal and perhaps even the whole of the Middle East. This battle must therefore be regarded as the turning point in the great Axis offensive in the Mediterranean. The cause of failure was one of tactics. The German and Italian troops, exhausted by weeks of heavy fighting under most arduous climatic conditions, weakened by losses and the wear and tear of equipment, were unable to prevail against an adversary resolved on stubborn resistance and encouraged by the advantage of a natural stronghold. While the German and Italian troops suffered from the lack of transport to bring up reserves and supplies quickly from their now far-distant storage depots in Cyrenaica, the British had their own supply base, with its greater potential of men and material, a short distance behind the front line. In addition to this change in the relative strengths of the opposing armies, there was the ascendancy of the Royal Air Force. The Germans had insufficient fighters to oppose the furious British air attacks. Hence the scales during battle inevitably swung to the disadvantage of the Axis.' Admiral Weichold 'Axis Naval Policy and Operations in the Mediterranean 1939 to May 1943.'

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A.O.C./11
Western Desert
Operations
Part. IV.

D/A.O.C./1
Chiefs of
Staff Papers

'I believe,' wrote General Auchinleck to the Prime Minister, "that practically without exception the troops in the Eighth Army are as determined to beat the enemy as ever they were which is saying much, and that their spirit is unimpaired.... But as you know, we are trying to train an army and use it on the battlefield at the same time. We are catching up, but have NOT caught up yet.... Infantry can NOT win battles in the desert so long as the enemy has superiority in armour and nothing can be said or done to change this fact. Guns and armour and just enough infantry to give them and their supply organisation local protection are what is needed. Masses of infantry are no use without guns and armour.' And again, in a report for the Chiefs of Staff from the Commanders-in-Chief, "It must always be realised that all three fighting services in the Middle East suffer from a chronic shortage of material and personnel. In fact, we live from hand to mouth and at critical periods are expected to reinforce other theatres.... The only tank capable of meeting the German tanks on anything approaching equal terms is the Grant. We deployed 138 Grants against 320 Mark III and IV's. All other tanks, Crusader, Stuart, Valentine, Matilda now hardly count in battle for lack of more powerful weapon than the two-pounder. The two-pounder anti-tank gun does not penetrate German frontal armour and German tactics ensured that their AFV's did not present vulnerable flanks.'(1)

The El Alamein Defensive Position

Some sixty miles along the coast, south-east from Alexandria, and in the vicinity of the small railway halt of El Alamein, the desert narrows to the semblance of an isthmus or pass, between the waters of Arabs Gulf, to the north, and a vast fault in the limestone formations of the Libyan Plateau, to the south, known as the Qattara Depression. It is one of those curious aberrations of geography in which natural features seem to conspire together to form a ready-made defensive position. It extends in what may be roughly described as a huge leaf-shaped area, with the stalk-end pointing due east towards Cairo and Suez and the main body of the Depression falling away in a southwesterly direction towards the Siwa Oasis, some 150 miles away. The bed of the depression, which was formerly an inland sea, is mainly salt-marsh and quicksands, and is thus quite impassable to a modern mechanised army.

Alexander
Despatch.

On the Depression's northern edge is a rim of precipitous cliffs running from a height of over 600 feet

(1) 'My troops had at all times given of their best. But it had repeatedly been the superiority of certain German weapons over the British equivalents that had been our salvation. Now there were already signs, in the new British tanks and anti-tank guns, of a coming qualitative superiority of British material. If this were achieved, it would clearly mean the end for us. For that reason alone, therefore, it was essential to do everything possible to bring about a British collapse in the Near East before any considerable shipments of arms could arrive from Britain or the United States. And so there followed during July a series of violent and bloody battles in front of El Alamein, the main feature of which was continuous round-the clock bombing by the R.A.F.' 'The Rommel Papers.'

A.H.B. Trans.
No. VII/80
page 25.

above to more than 200 feet below sea-level. The most easterly tip of the stalk-like end approaches to within 40 miles of the coast, forming, as Rommel himself pointed out, 'the most favourable defensive position in the eastern part of North Africa.'

Alexander
Despatch.

C.-in-C.
Operational
Memoranda
Enc. 5a. A.H.B./
IIJ1/122/71

The value of El Alamein, as a defensive position in the event of an invasion of Egypt from the west, had long been realised. General Auchinleck's foresight had caused its military potentialities to be developed, in 1941, by the construction of four defensive localities or 'boxes'. These ran roughly in a south-easterly direction from El Alamein itself, on the coast road and on which the whole system hinged, through Deir el Shein and Qaret el Abd (Bab el Qattara) in the centre, and so to the Taqa plateau, on the fringe of the Qattara Depression. Incomplete as they then were, in the early days of July 1942, and based on the already outmoded system of 'boxes', whose main weakness that of denying manoeuvre to the defenders and the development of what might be termed a 'box psychology' had already been fully demonstrated in the desert, this fortified position comprising minefields, wire entanglements and gun positions with fixed fields of fire, nevertheless offered the last defence against Rommel's invading forces, before they reached the rich Delta area.

General Auchinleck's Task

'Hitler
Conferences'
A.H.B. Trans.
VII/44

Auchinleck
Despatch.

General Auchinleck, Commander-in-Chief Middle East Forces, had taken over personal command of the Eighth Army from General Ritchie on 25 June. On his shoulders, therefore, in this dual capacity had rested the burden of checking the Eighth Army in its retreat and of turning it about on a fixed line. The Fuehrer expressed a point of view that is a military commonplace and yet is too easily overlooked when surveying the history of this period. 'Once an army is in flight,' he told General Jodl, when discussing the situation in North Africa, 'only iron discipline can prevent the bonds of law and order from breaking. It is much easier to send an army forward to victory than it is to make an orderly retreat after a setback or defeat.' Also, in the words of General Auchinleck, 'Except for the semi-permanent fortifications around El Alamein itself, our positions were still weak, disconnected and lacking in depth. Moreover, there was a serious shortage of troops to hold such an extended front.'

It was here, therefore, on a forty-mile front, extending from El Alamein on the coast road, in the north, to the edge of the Qattara Depression, in the south, that General Auchinleck had decided to turn the Eighth Army about for a 'last ditch stand' and endeavour to halt Rommel's advance towards the Delta area and the Suez Canal. That the Eighth Army, tired, 'baffled' and enormously depleted in strength after its long retreat was finally able to do so is an achievement that must rank higher, from some military aspects, than the Battle of El Alamein itself.

There is no doubt, too, as the Army Commander himself was the first to admit, that the rôle the Royal Air Force played, at this time, was of decisive importance in saving the Imperial Forces in the Middle East from a disaster that would have affected vitally the whole future course of the war. 'Throughout this first phase of the battle for Egypt,' General Auchinleck wrote, in his despatch, 'our air forces could not have done more than they did to help and sustain

Auchinleck
Despatch
page 98.

(84234)35

the Eighth Army in its struggle. Their effort was continuous by day and night and the effect on the enemy was tremendous. I am certain that, had it not been for their devoted and exceptional efforts, we should not have been able to stop the enemy on the El Alamein position.'

The Enemy Plan for the Advance on Suez

The enemy plan to isolate Alexandria and then advance by way of Wadi Natrun and Cairo to Suez was in no sense cancelled, but merely delayed by Rommel's decision, of 4 July, to go over to the defensive for two weeks, in order to regroup his units and bring up supplies and reinforcements. During the whole of the struggle at El Alamein until the enemy was finally driven out of Egypt, this remained Rommel's basic plan of campaign and ambition and, certainly until his defeat at Alam el Halfa, this was the threat that the Imperial forces in the Middle East were called upon to counter. This was the master plan which governed the enemy strategy for this period and in terms of which the fighting must be reviewed.

Once Suez had been captured, a change in the direction of the enemy's thrust from east to north was to have taken the invading forces to Ismailia, and thence along the Suez Canal to Port Said. This typical enveloping movement to the south, followed by a drive to the north, would not only have outflanked Alexandria, but the whole of the Delta area, leaving the Eighth Army the choice of surrendering its bases, or else of fighting a 'last ditch' stand with their backs to the sea. In spite of its lack of originality, for it followed the pattern of Rommel's 'right hook' to the coast that had been the outstanding feature of his tactics in the desert, it had bid fair to succeed by virtue of its very boldness and simplicity. This time, with the Afrika Korps deep in Egypt and the Eighth Army back on its bases, the successful completion of these tactics promised another Dunkirk, or else the virtual annihilation of General Auchinleck's forces.

The Characteristics of the Fighting

During this period of stabilisation at El Alamein, the main characteristic of the fighting on land was that it still retained the fluidity and mobility of desert warfare, and only gradually did it coalesce into a battle of fixed positions. Under the stress and strain of the long retreat, the basic structure of the Eighth Army, with its divisional formations, had tended to break down into improvised battle groups and 'Jock Columns' to deal with the immediate emergency. The fighting, too, was confused and complex, consisting in the main of small but none the less important engagements in which, with the vital assistance of the Royal Air Force, the Imperial Forces managed to retrieve a desperate position and gradually wrest the tactical initiative from the enemy.

The El Alamein defended localities, or 'boxes', were sited for the most part on dominating ground in a barren desert terrain whose rocky eroded ridges, intersected by sand-filled depressions, offered some of the worst going in the desert. The salient geographical features of this broken, hilly country and which conditioned to a large extent the character of the fighting were, in the northern sector, the Miteiriya Ridge (190 feet) which commanded the ground to the north east, with Tell el Eisa (the 'Hill of Jesus'), a low hill some 80 feet in height, a few miles to the north-east

'High Level Reports and Directives' A.H.B. Trans. VII/80 pages 12 and 13.

Churchill Speech to the House 2 July 1942

'Record of Operations A.H.Q.W.D.' A.H.B./IIJ1/124/69 (A)

Alexander
Despatch.

from the main El Alamein fortifications along the coast road. In the centre, the Ruweisat Ridge (200 feet), some 12 miles south of the coast, extended due east athwart the British position as far as Alam el Halfa (430 feet). This Ruweisat Ridge was of outstanding tactical importance, for it dominated the El Alamein fortifications and its summit provided a narrow corridor of reasonably good going for armoured vehicles leading almost due east towards the Delta. It was around this ridge that some of the bitterest fighting centred. In the southern sector the country was very broken and difficult, as it approached the steep escarpment which formed the northern edge of the Qattara Depression. This area was controlled by the 'box' on the Taqa Plateau (720 feet) which was flanked, to the east, by another commanding feature known as the Qaret el Himeimat.

XIII Corps
War Diary

The Deir el Shein 'box', a little to the east of Ruweisat Ridge, had already been overrun by the enemy on 1 July and a serious gap had been opened in the British line, but by 4 July the position had been partly retrieved and the Eighth Army had not only managed to regain the tactical initiative, but had succeeded in inflicting an important reverse on the enemy. It was partly this reverse that had forced Rommel to report that he must go over to the defensive, and the fact that the enemy had started digging in on an extensive scale at this time made it obvious that his initial drive that had taken him almost 400 miles to the east, in six weeks, had been temporarily checked.

The Disposition of the Eighth Army

Auchinleck
Despatch.

The main disposition of the Eighth Army at this time was that XXX Corps, under Lieut.-General Norrie (who was succeeded by Major-General Ramsden on 7 July) concentrated on the defence of the northern sector and especially the El Alamein fortifications. They were reinforced by the Australian 9th Division, fresh from a period of rest and training in Palestine, between 5 and 7 July, under Lieut.-General Morshead. The defence of the southern half of this El Alamein-Qattara Depression line was entrusted to XIII Corps, under Lieut.-General Horrocks. The main German Armoured Forces were some twelve miles to the south-west of the El Alamein 'box', in the central sector, with the British Armoured Forces due east of them and also to the south east. Rommel followed what has been described as his 'corset' policy of alternating, as far as possible, German with the weaker Italian formations, in order to strengthen them. There was little stability in the disposition of the forces on either side, however, and troops were being constantly moved to strengthen a thrust or to reinforce a weakness that had shown itself in what proved to be for both armies a very extended line.

XIII Corps
War Diary

Auchinleck
Despatch.

Broadly speaking, the main tactics Rommel employed at this time followed his time-honoured formula of a right hook to the coast in order to outflank and isolate the greater part of XXX Corps in the El Alamein 'box'. In order to carry out this plan, possession of the vital Ruweisat Ridge was essential. General Auchinleck, in turn, countered this outflanking movement on 2 July with a left-hook by XIII Corps from their position in the south which threatened Rommel's rear and his lines of communication and supplemented this attack with another by XXX Corps in the north. At one time, General Auchinleck had hoped that XIII Corp's advance would succeed in rolling up the enemy's

line, but as he had no reserves and in the face of increasing enemy opposition the advance gradually came to a standstill.

Section II

The Air Situation

Close Support to the Eighth Army

The pattern of air action at this time and which will be dealt with in detail later on was conditioned in the main by the enemy armour being forced, both by the nature of the ground and for tactical reasons, to concentrate in order to launch an attack, and those concentrations being bombed so heavily and so consistently, both by day and night, that dispersal was forced on them for self-protection. Time after time, enemy attacks failed to deliver the necessary 'punch' and momentum because of the debilitating effect of our bombing which not only caused widespread material damage, but had a serious effect on the morale of the troops involved. In certain cases, after the preliminary concentrations of armoured vehicles had been dispersed by air action, the attack failed to develop at all. The enemy armour was most vulnerable to air attack when refuelling with the result that they were often forced to retire in order to do so which meant that the impetus of an attack was lost at a very critical moment of the battle.

Beamish
Report A.H.B./
IIJ1/122/69 (A)

XIII and XXX
Corps' War
Diaries.

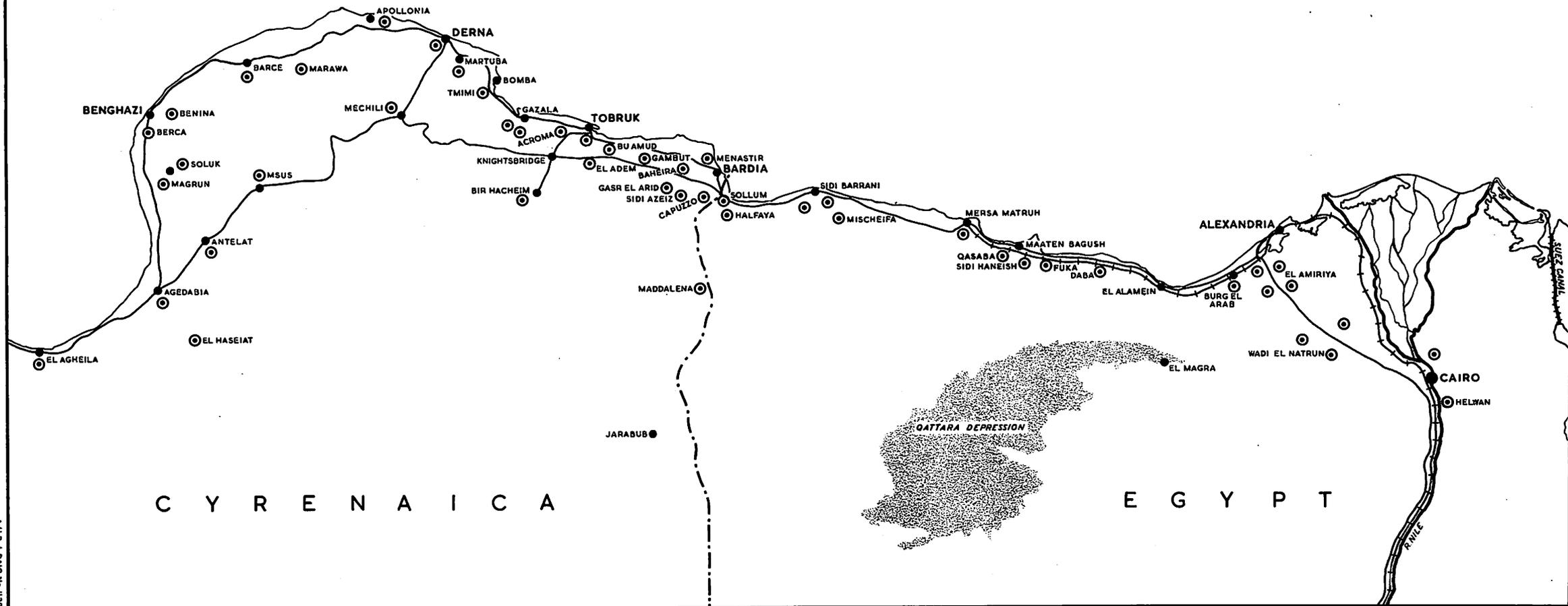
Numerous references were found in captured diaries to the effect of this 'round-the-clock' bombing which was enhanced by the rocky terrain, giving the bombs a terrifying explosive force. 'The enemy air force is bothering us a lot,' read one entry for 4 July. 'From five until eleven o'clock it was over us more than five or six times - the least of the bombings we had. Night and day it seems to go on without interruption, and there's not a moment's peace. We are becoming like potatoes - always underground.' An Italian officer's diary contained the following entries: '3 July. Air supremacy belongs to the enemy. During the day we had eight raids. 4 July. Since early morning, the sky above us has been invested by squadrons of eighteen to twenty bombers, escorted by about ten fighters.' Another wrote, 'From five o'clock onwards there has been no action on either side. But we're still to stay underground, so as not to be seen by the enemy air force. We come out of our holes at night to take the air, otherwise we are buried all day, and with a slit trench as deep and narrow as mine is it's no fun. There are two of us in mine (1) and when we want to turn round it's agony, as we are as tightly packed as anchovies in a tin.' Also, according to a German prisoner of war, Italian troops near the sea abandoned their positions on the approach of the Royal Air Force and hurried down to the sea. Another prisoner of war, an Italian, stated that his unit did not do this: his unit being ten kilometres from the sea.

XIII Corps
Intelligence
Summary.

(1) It was midsummer. Italian morale, rarely of a high order, had also been severely affected by their enforced march across the Libyan desert when their transport had been taken away from them in order to hasten the advance of the enemy Air Forces.

Von Rintelen
to O.K.W.
A.H.B. Trans.
VII/80

AIRFIELDS IN THE WESTERN DESERT



The Battle of Supplies

Supplementary to these operations over the immediate battle area were the attacks on the enemy's lines of communication both by land and sea. Aircraft ranged far behind the lines seeking out concentrations of M.T. and other soft-skinned vehicles and causing heavy damage and casualties. Other aircraft of Middle East Command, filling a strategic rôle, attacked the ports of departure of Africa-bound convoys, the convoys themselves when at sea, and on their arrival at Benghazi, Tobruk or Mersa Matruh. During what General Auchinleck termed 'this major emergency' whilst the Eighth Army's grip on the El Alamein position was still most precarious, these broader strategic conceptions were necessarily subordinated to the task of providing close-support to the army. Later, however, as the Eighth Army were able to consolidate their position, the Air Force of Middle East Command concentrated increasingly on the battle of supplies. Just as the attacks on the spearhead of the enemy armour contributed vitally in bringing the Panzer Army to a halt at El Alamein in July, so the steady interdiction of supplies became the most important factor in the dramatic failure of Rommel's last offensive in Egypt, at the Battle of Alam el Halfa, at the end of August.

Beamish
Report. A.H.B./
IIJ1/122/
69 (A)

Von Rintelen
To Army General
Staff A.H.B.
Trans. VII/
80, page 24.

Tedder
Despatch

In the handling of this force which had already taken shape as a three-pronged weapon, with the tactical force of the Western Desert field striking force of fighters, fighter-bombers and light bombers, the strategical force of No. 205 Group's heavy and medium bombers and No. 201 Group's coastal force of medium bombers, the greatest flexibility was shown by the Air Officer Commanding-in-Chief, Air Chief Marshal Sir Arthur Tedder⁽¹⁾, and it was this wide conception of an Air Force as a separate air arm, on terms of equality with the other two services, which later served as a prototype for Allied air effort for the remainder of the war.

The Location of the Opposing Air Forces

Table of
Operations.
A.H.B. IIJ1/
31/1

Tedder
Despatch.

During this period of stabilisation at El Alamein, the field fighter force was based in the Delta area, near Heliopolis, at Helwan, and at a point ten miles south-west of Cairo, with the forward operational bases near El Amiriya, to the east of Alexandria. The light bombers were based on the Suez Canal Zone, with their advanced landing-grounds to the south-west of El Amiriya. For lack of space, the force of medium bombers was forced to move to Palestine, with their operational bases located in the Suez Canal Zone, while the small force of heavy bombers, including the handful of U.S.A.A.C. aircraft, were located entirely in Palestine.

'Record of
Operations
A.H.Q.W.D.'
A.H.B./IIJ1/
122/69 (A)
A.H.B.6.

'The German
Air Force'
A.P.3038.

The enemy air forces, as they managed to move forward, gradually established themselves with the German Air Force at Fuka and using the Daba group of landing-grounds as advanced bases. The Italians followed in the wake of the Luftwaffe with an advanced base in the Fuka area and the greater part of their air forces engaged in defensive commitments from Tripoli onwards. Crete was also used as a bomber base on the Eighth Army's flank from which a 'shuttle-service' was flown to North Africa. It was also an important staging post in the enemy transport route from Italy, when Rommel was experiencing increasing difficulties

(1) The promotion of Air Marshal Sir Arthur Tedder to Air Chief Marshal was Gazetted on 3 July 1942.

with sea-borne supplies. To the west, Sicily was the focal point of the attacks on Malta which were renewed at the beginning of July.

The Enemy Air Strength in the Mediterranean

The strength of the Axis Air Forces in North Africa on 30 June 1942 has been established from various German and Italian documentary sources as totalling some 600 front-line aircraft, or approximately one fifth of the 3,000 operational aircraft available to the enemy in the Mediterranean. (1)

North Africa

	<u>German Air Force</u>		<u>Italian Air Force</u>
A.H.B. 6/ Cor/163	Close Recce	23	
	Bombers	11	Bombers 29
	Dive Bombers	85	Torpedo Bombers 32
	S.E. Fighters	104	Fighters 282
	T.E. Fighters	36	
	Total	<u>259</u>	Total <u>343</u>

Serviceability was approximately 50 per cent for the German Air Force and 60 per cent for the Italian.

A.H.B. 6/
Cor/174

These figures for 30 June show a falling off in the strength of the German Air Force of some 17 per cent in operational aircraft in North Africa, compared with the total at the beginning of the offensive, on 26 May. The strength of single-engined fighters had dropped by 23 per cent, twin-engined fighters by 35 per cent, but surprisingly enough, dive-bombers, in spite of their heavy losses during the advance, had risen by 20 per cent. The force of long-range recce aircraft, of which there had been 13 in North Africa at the beginning of the Gazala offensive, had been diverted to other parts of the Mediterranean.

Middle East
Weekly Int.
Summary No.
107.

A contemporary British intelligence estimate for 7 July put the effective force of Fliegerfuehrer Afrika at as low a figure as 25 per cent of the total strength at the beginning of the campaign. This discrepancy can be attributed in part to the acute difficulties the enemy were experiencing in bringing forward their Air Forces, and also that the serviceability, as shown by German records, was actually 50 per cent and not the $33\frac{1}{3}$ per cent given in this contemporary estimate.

According to enemy records, the total front-line Axis aircraft in the Mediterranean theatre, on 30 June, numbered no less than 3,300. They were located in North Africa, Sicily, Italy and the Aegean.

(1) As Italian aircraft are included in this figure of 3,000 a proportion must be discounted owing to Latin exuberance.

<u>Luftflotte 2</u>		<u>Italian Air Force</u>	
Bombers	161		
Dive Bombers	85		
S.E. Fighters	156		
T.E. Fighters	56	Bombers	732
Night Fighters	28	Fighters	1294
Close Recce	23	Land Recce	376
Long Range Recce	51	See Recce	278
Coastal	48	Seaplanes	30
Total	<u>608</u>	Total	<u>2710</u>

The Enemy Failure to Concentrate Air Power in North Africa

It is a fact difficult of simple explanation that, while the Air Officer-in-Chief Middle East Command concentrated almost the whole of his available striking force to meet the grave emergency that had arisen in the Western Desert, owing to the collapse of the Eighth Army at Gazala, Field Marshal Kesselring, faced with an unparalleled opportunity for assisting the Afrika Korps to destroy the Eighth Army, and with a potential force of over 3,000 operational aircraft at his disposal, only managed to concentrate approximately 20 per cent of the total strength in North Africa.

One of the most serious effects of the onslaught which the Royal Air Force and the Navy were waging against the enemy's supply lines was not merely the way in which it starved his existing land and air forces there, but the definite limitations it placed on the size of the force that could be effectively operated in direct support of the land battle. There was a chronic shortage of supplies and of ships in which to carry them, so that stores that were urgently needed in North Africa were piling up in Axis controlled ports on the Mediterranean's northern littoral. Above all, the Axis Commanders were ceaselessly preoccupied with the shortage of petrol and of tankers. (1) Recourse had to be made to the hopelessly uneconomic and wasteful expedient of air transport.

Rommel's quick change of plan from Operation 'Hercules' in favour of an invasion of Egypt had certainly resulted in a grave lack of balance in the geographical and strategical deployment of the enemy Air Forces, and this had been aggravated by the increased activity of Malta-based aircraft which made a renewed assault on that island imperative, in early July. There was also a constant drain on the Axis Air Forces for the protection of their shipping, ports, aerodromes and other bases. The occupation of Crete had given the enemy a valuable base on our flank, comparable with Malta in the west, but it was never adequately exploited.

(1) In an interrogation, a P/W stated that Rommel put the whole blame for his failure at this time on the Luftwaffe. His constant complaint, expressed in broad Swabian dialect, was, 'Der Kesselring schickt mer kca Schprit.' ('Kesselring won't send me any petrol.')
No. 211 Group Int. Sum. A.H.B./IIJ1/122/73/ (E).

'Record of Operations
A.H.Q.W.D.'
A.H.B./IIJ1/
122/69 (A)

'High Level Reports and Directives'
A.H.B. Trans.
VII/80.

'The Decline and Fall of the German Air Force'

'The German
Air Force in
Maps and
Diagrams'
A.P. 3038

'The German
Air Force'
W/Cdr. Asher
Lee.

'The Rise and
Fall of the
German Air
Force.'
(A.M.P. 248).

A. O. C. -in-C.
Correspondence
Part V.

A. H. B. 6.

After due consideration has been given to the muddled and conflicting air strategy which was pursued by the enemy in the Mediterranean, other factors influencing the efficient use of Crete as an air base were the poor road and rail facilities through the Balkans, the Royal Air Force attacks on aerodromes and ports there, and the fact that the battle area and also our bases were out of range of escorted day bombers. The failure of the Germans to train personnel and equip aircraft for night bombing in sufficient numbers for concentrated night attacks was a deficiency whose repercussions were widespread.

In a sense it may be said, too, in this connection that geography had come to the help of the Royal Air Force, in their struggle against the enemy in the Mediterranean, just as was happening to a much greater extent, at that time, in Russia. The conception of military success in terms of advance, and of defeat in terms of retreat, still held good in its essentials, but while valuable and strategically important air bases had been surrendered, not only in North Africa but in Greece and Crete, the advantage to the enemy had been largely offset by the tremendously increased length of his lines of communication and the extensive liability of the vulnerable coastline and hinterland of territory that had to be safeguarded. The Duce undoubtedly thought primarily in terms of Italian metropolitan security and prestige, and such considerations as these, as General von Thoma implied in a frank statement he made to an interrogating officer after his capture at El Alamein, affected quite considerably not only the disposition of enemy Air Forces in the Mediterranean, but also their strategic employment. When asked why the German Air Force dispersed its bombing effort in the Mediterranean area, instead of concentrating on Suez and the arrival of British convoys, and was this the policy of Kesselring or greatly influenced by Rommel? General von Thome replied, 'Air policy in Africa was never influenced by Rommel, but was laid down entirely by Kesselring who did not, however, have a free hand, as decisions of major strategy were always subject to the approval or disapproval of "political gentlemen" (the Italians). And when asked why the Luftwaffe did not make fuller use of the aircraft at its disposal? his reply was, "I do not know, but one reason was certainly that we were so short of petrol.'

Luftflotte II was a single, homogeneous force, under Field-Marshal Kesselring, who was also Commander-in-Chief South, and the German Air Force Chain of Command in the Mediterranean was expressly designed to facilitate strategic mobility and quick reinforcement.

Luftflotte II - Generalfeldmarschall Kesselring

Fliegerkorps II - General der Flieger Loerzer (W. Med')	Fliegerkorps X - General der Flieger Geizler (E. Med')
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Fliegerfuehrer Afrika
Generalleutenant von Waldau

In spite of this organisation, however, it was precisely in this policy of concentration which, as Slessor pointed out,

'in air warfare, even more than on land, is the foundation and corner-stone of sound strategy' that the enemy failed.⁽¹⁾

The Strength of the Royal Air Force in the Middle East

H. Q. M. E.
Strength
Returns.

The State of Aircraft, on 1 July, for the whole of the Royal Air Force in the Middle East, including the Western Desert, Egypt, Malta, the Levant and Aden, gives the following figures of front-line aircraft in operational and other flying units, including O.T.U.s.

Bombers	552
T.E. Fighters	92
S.E. Fighters	463
G.R. Types	40
Total	<u>1147</u>

of which 765 were considered serviceable.

Table of
Operations.
A.H.B./IIJ¹/31/1

The strength of the Western Desert Air Force field striking force may be assessed as a total of some 470 aircraft, but bearing in mind the policy of tactical mobility followed by the Air Officer Commanding-in-Chief and his Subordinate Commanders in which part of the fighter force would be switched over from the field of battle to the defence of Egypt and bombers from the attack on strategic targets to tactical night bombing in the desert, the actual strength of the field striking force was subject to considerable fluctuation.

The Importance of the R.A.F. Pool of Aircraft in Store or Undergoing Repair.

H. Q. M. E.
Strength
Returns.

A further 1369 operational aircraft were held, on 1 July, in store and undergoing repair, of which 111 were immediately serviceable, and 268 were judged serviceable within seven days. Receipts of new aircraft for the month of June 1942, totalled 347, of which 61 were issued.

When it is realised that, during a month that saw a loss of over 100 per cent in some fighter squadrons only 61 new aircraft were issued to units the strategic advantage of the retreat on to the Delta bases, the importance of this great pool of aircraft in store and undergoing repair, and the invaluable services rendered by the Middle East Maintenance and Supply Organisation, under Air Vice-Marshal Dawson can be fully appreciated. Without this efficient organisation backing up the efforts of the Royal Air Force, during

(1) 'The one essential lesson which all air force commanders must constantly hold in the forefront of their minds is this principle of concentration. If we concentrate every available aeroplane at the decisive point, against the smallest possible number of targets, and for really adequate periods, then modern air bombardment, against railways or any other class of targets, may well have decisive results. But if we neglect this principle our bombers will be a nuisance to the enemy...but they will be nothing more.' W/Cdr. J.C. Slessor 'Air Power and Armies', 1936.

this period, in which such heavy losses of aircraft were sustained, air superiority would have been ultimately transferred to the enemy, and the Eighth Army could never have halted Rommel at El Alamein.

The Comparative Obsolescence of R.A.F. Fighter Aircraft

A.O.C. -in-C.
Correspondence Part V

Out of the total strength of Royal Air Force fighter aircraft in the Middle East at this time, only 21 of those serviceable were Spitfires. During the retreat from Gazala, there were only six Spitfires available on the battlefront. At a time when the Imperial forces in the Middle East, in actual physical contact with the élite of the German Army, were fighting to stave off disaster, they had at their disposal in N. Africa this handful of the most modern front-line type fighters whilst the Fighter Command in Great Britain disposed of a force of over 800 Spitfires alone

A.O.C.I Part II

The Air Officer Commanding-in-Chief was increasingly perturbed by the comparative obsolescence of his fighter force which was outclassed in range, speed and armament by the German M.E. 109F and G, and the Italian Macchi 202 and 205. 'One of our major handicaps in all respects,' the Air Officer Commanding-in-Chief wrote to Group Captain Bilney of the Ministry of Aircraft Production, 'is that whereas the Hun sends his most modern types of aircraft and equipment out here, we, for one reason and another, have to do with second-best (sometimes scarcely even second-best).'

Indeed, a very dangerous situation had arisen in the desert at this time in which, owing to the superior performance and armament of the enemy fighters, the air superiority which the Western Desert Air Force had won at such high cost was being threatened, as our heavy casualty figures in fighters revealed. Any considerable increase in the number of enemy fighters, especially of the Focke-Wulf 190 which was soon to make its appearance in the Mediterranean, could have brought about a complete reversal of our fortunes such as took place in the Spring of 1917 by the introduction, by the Germans, in the autumn of 1916 of the Albatros D IV (1)

The Threat to the Delta Area

War in the Middle East theatre had crystallised, by this time, into a battle of supplies which, in turn, was largely a struggle for air bases. Whereas the enemy, with the exception of the hazards of the Mediterranean crossing, worked on comparatively safe internal lines of reinforcement, those of the Air Forces in the Middle East involved the external lines of communication of the long sea-haul around the Cape, a distance of some 14,000 miles, or else the

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- (1). 'In a war of any duration, the air situation may be subject to a succession of remarkable - even violent - variations, such as those which marked the war in the air on the Western Front... And it was to a great extent the appearance on the German side of a very superior type of fighter in the spring of 1917 that occasioned, perhaps, the most notable reversal of British fortunes in the air, to the extent that within nine months of our attack on the Somme, we had almost completely lost the air superiority we enjoyed in that battle.' 'Air Power and Armies' by Wing Commander J. C. Slessor, 1936.

A.H.B.
 Monograph,
Maintenance
 (C.D.1131)

shipping of aircraft to Takoradi, on the west coast of Africa, and the flight across some 4,000 miles of tropical swamp and desert, to the Egyptian bases. The use of Malta as a refuelling base for long-range aircraft, 'en route' to Egypt, was largely nullified by enemy attacks on the island and the acute shortage of petrol at this time. The time-lag in the reinforcement of the fighter force which was mainly American in origin was further increased by the fact that sources of supply were located in the United States and was affected by changes in Allied policy. This meant, virtually, that the Air Force in the Middle East from the point of view of aircraft reinforcement was fighting a war several months in arrears.

Meeting of
 Middle East
 War Council
 No. 55

Beamish
 Report. A.H.B./
 IIJ1/12/69 (A)
 Meeting of
 Middle East
 Defence Com'

Although the added strength which had accrued to the Imperial forces by this withdrawal on to their main bases, together with a corresponding lengthening of the enemy's lines of communication, were later to become fully evident, at the time it seemed that these advantages were more than off-set by the threat that the enemy Air Forces presented to the Nile Valley and the Canal Zone. Earlier raids on Alexandria had shown clearly the native population's instability under air bombardment. There was a very real danger that a series of heavy bombing attacks, especially if accompanied by a breakthrough to the east by Rommel's Panzer Army, would bring about a repetition of the panic conditions among the civilian population that had been such a decisive factor in the German invasion of France, in 1940. Ground to air defences were weak and practically the whole of our fighter force was employed in the battle area. Admiral Sir Henry Harwood, the Commander-in-Chief Mediterranean, was gravely perturbed by the threat to the Fleet at Alexandria, now that the loss of Egyptian aerodromes had brought that port within reach of escorted day bombers.

In Egypt, then, the German and Italian Air Forces were offered the most vital and concentrated aggregate of targets since the German advance to the Channel coast, in 1940. There was the signal opportunity for causing tremendous disorganisation and material damage by intensive air attacks on ports, bases, aerodromes and other installations which might have had a decisive effect on the land operations then in progress. In many ways, the situation bore a close resemblance to the days in 1940 when the Battle of Britain was being fought.⁽¹⁾

Summary

By 4 July 1942, the enemy's advance into Egypt, in pursuit of a defeated and decimated Eighth Army, had received its first check, and Rommel was forced temporarily to go over to the defensive. The offensive spirit of the Royal Air Force had contributed vitally to this situation in which a victorious Panzer Army, under "round-the-clock" bombing and the onslaught on its lines of communication, was gradually brought to a halt at El Alamein.

(1) 'From every quarter the reports come in of the effect of the vital part which your officers and men are playing in the Homeric struggle for the Nile Valley. The days of the Battle of Britain are being repeated far from home.' Churchill to A.O.C.-in-C. 4 July 1942.

Nevertheless, Rommel's plan for an advance on Cairo and the Suez Canal still held good. Even after six weeks' of fighting a strenuous rear-guard action, with a constant change of bases, there was little promise of a lull in the operational intensity of the air fighting. Although the Eighth Army had managed to regain the tactical initiative with XIII Corps' offensive of 2 July, their depleted forces were stretched to the limit in holding the forty-mile line between the Qattara Depression and the sea. Also, the enemy were within escorted day-bombing range of the most vital and concentrated aggregate of targets since the Battle of Britain. They held, too, a numerically superior force in the Mediterranean theatre, and the positional advantage, with practically all the airfields of the Libyan and Egyptian coastline, and of Italy, Greece and Crete.

Inherent in this extensive commitment, however, was the root of the enemy's failure to concentrate their air attacks in an incisive and systematic policy. In the meantime, whilst the Royal Air Force policy was essentially offensive in close support of the Army to enable them to counter Rommel's thrusts to the east and stabilise their position at El Alamein, they had to be prepared to act on the defensive to guard the important Egyptian bases and the pipeline for supplies through the Suez Canal.

Finally, in keeping the Royal Air Force up to a high state of operational preparedness in which still further heavy losses of aircraft could be met, at a time when reinforcements to squadrons were slow in arriving, the Middle East Maintenance Organisation played a crucial part.

CHAPTER 2

THE EIGHTH ARMY CONSOLIDATES ITS POSITION AT EL ALAMEINThe British System of Command in the Middle East

This period of the fighting in North Africa was so essentially dependent on the measure and quality of the co-operation achieved between the three Services, and in particular between the Army and the Air Force, that it is necessary at this stage to outline the system of Command in the Middle East whereby this co-operation was achieved. In this connection, Slessor in his 'Air Power and Armies' (1) made some observations which foreshadowed subsequent alterations in the system of command which lie outside the scope of this narrative and yet were implicit in the situation in the Middle East at this time.

'It may well be,' he wrote, 'that in the near future, as the size and relative importance of the air expeditionary force increases, we shall find one Commander-in-Chief, who may be a soldier or an airman, served by a small, specially selected, combined staff, in supreme command of two contingents of co-equal status, the air and the land forces, each with its own subordinate commander. This is a question of real importance, and we should take care to secure an amicable and reasonable settlement, in the leisured atmosphere of peace, of any differences of opinion which may lead to rancour and misunderstanding between commanders in war.... It is not an easy problem: the system of "two Kings in Israel", of co-operation as opposed to command, is never very satisfactory. It is certain that ... we cannot go back to the old idea that any and all air forces in the field should be automatically under the command of the General commanding a small land expeditionary force of four or five divisions. Nevertheless it is a problem for which common sense and our national capacity for compromise will find a satisfactory solution.'

A.O.C.-in-C.
Defence Committee
Papers Part III.
Enc. 157.

There were not 'two Kings in Israel' during this period of the Middle East Campaign, but three. The British system of command there consisted of a triumvirate of the three Service Chiefs in which the Commander-in-Chief Middle East Forces, General Sir Claude J. E. Auchinleck was the dominant partner. Joint Command was exercised from a combined Headquarters in Cairo.

AOC/4/A
Conference
Minutes Part II
15.7.42.

In an area as complex politically and racially as the Balkans, the post of Minister of State in Cairo which was held at that time by the Right Honourable R. G. Casey, was of particular significance. Although a member of the War Cabinet, the Minister of State was in no way responsible for the conduct of operations. His function was to provide guidance to the Commanders-in-Chief and relieve them of the many political and economic problems which arose. Having received a Directive from the Chiefs of Staff in London, the Commanders-in-Chief prepared jointly agreed instructions which were then issued to their respective Commanders. In particular, the Air Officer Commanding-in-Chief decentralised the responsibility for the preparation of the operational plan in so far as it involved the Field Striking Force to

A.O.C.-in-C.
Defence
Committee
Papers Part III.
Enc. 157.

(1) 'Air Power and Armies' by Wing Commander J. C. Slessor, 1936, page 87.

the Air Officer Commanding Western Desert Air Force, Air Vice-Marshal Coningham who, together with a naval liaison officer appointed by the Commander-in-Chief Mediterranean, normally lived alongside the Commander, Eighth Army⁽¹⁾ in a Combined Headquarters in the field.

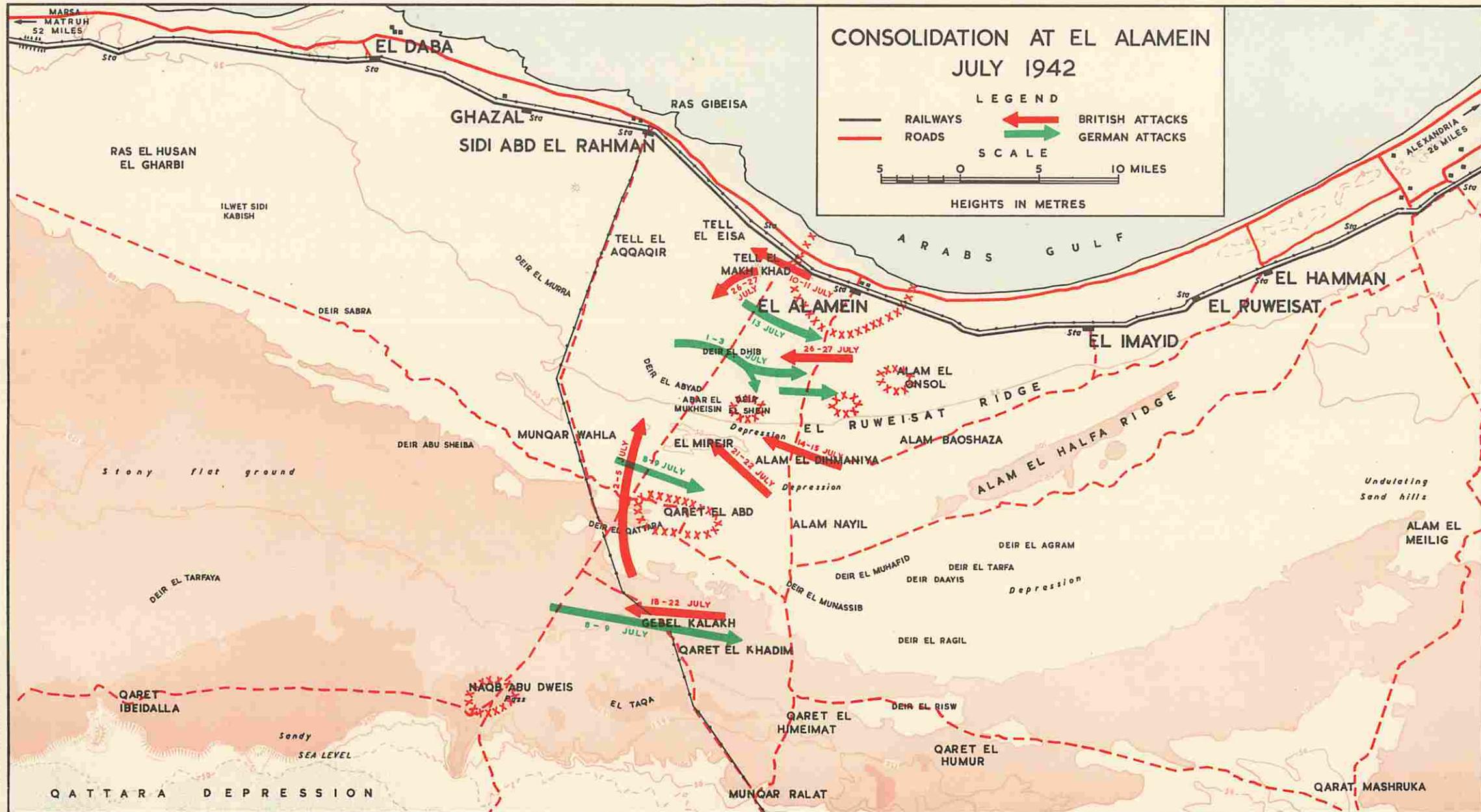
A predominant partner in each phase of the Campaign was agreed between the three Commanders-in-Chief. In practice it was not found necessary for any one Service Chief to be placed under the operational control of another, so that the Air Force, under its Air Officer Commanding, functioned as an independent air arm on terms of equality with the other two Services, though naturally subordinated to the requirements of the Campaign as a whole which were mainly, at this particular time, in close support of the land forces. This independent status of the Air Force which was established at a time when both the Army and the Navy were in a subordinate position to the Air Force in terms of military success was still not generally acknowledged. On 7 July 1942, a Member of Parliament asked the Prime Minister 'whether the aircraft allocated to General Auchinleck for the campaign being fought in the Middle East were under his direct command'. In reply, the Prime Minister said, 'On October 7 1941, before the winter battle in Libya, I gave a ruling on this subject as follows: "Upon the Military Commanders-in-Chief in the Middle East announcing that a battle is in prospect, the Air Officer Commanding-in-Chief will give him all possible aid, irrespective of other targets, however attractive. The Army Commander-in-Chief will specify to the Air Officer Commanding-in-Chief the targets and tasks which he requires to be performed, both in the preparatory attack on the rearward installations of the enemy and for air action during the progress of the battle. It will be for the Air Officer Commanding-in-Chief to use his maximum force for these objects in the manner most effective. This applies not only to any Squadrons assigned to Army Co-operation permanently, but also to the whole air force available in the theatre."'

In July 1942, certain American observers found it difficult to believe that effective co-operation could be achieved and a common purpose assured in a campaign unless one Commander was supreme. To this criticism the Air Officer Commanding-in-Chief replied, 'The respective Commanders are normally reasonable men who have the same purpose at heart, i.e. the defeat of the enemy, and if these conditions are met, there is no difficulty in practice in assuring that the operations of available forces are properly directed to the common aim.' Nevertheless, that there were difficulties inherent in this system of 'three Kings in Israel' cannot be denied. The solution arrived at was one that befitted, in Slessor's words, 'the national capacity for compromise', but which might have been subjected to acute

(1) For a period, whilst General Auchinleck was acting in the dual capacity of C.-in-C. M.E.F. and G.O.C. Eighth Army, the R.A.F. and Army Advanced Headquarters were separated. When General Alexander became C.-in-C. in August and General Montgomery assumed command of the Eighth Army, the Eighth Army Headquarters was moved back to Burg el Arab and sited alongside Advanced Air Headquarters Western Desert.

Churchill's
Speeches.

Western Desert
Operations
Part IV
A.O.C.-in-C to
V.C.A.S. 9.7.42.



strain had there been any wide divergence in temperament or outlook between the three Commanders-in-Chief.

Except for a generous supply of American equipment, the actual fighting in North Africa until the invasion of French North-West Africa in November 1942 was almost wholly Imperial in character. It was this homogeneity which made the British system of command in the Middle East by a triumvirate of the three Commanders-in-Chief at all practicable. Had American participation in the Middle East Campaign been greater, then the appointment of a Supreme Commander⁽¹⁾ must have been the inevitable and, indeed, the only logical solution, in order to knit together all those divergencies in outlook that are inseparable from differences in national origin.

The 'Battle' Headquarters

It was impossible to have a forward operational Headquarters combining the Staffs of both Army and R.A.F., and so the splitting of the Army and Air Headquarters into an Advanced and Rear became necessary. The Army and the Royal Air Force shared the Advanced or 'Battle' Headquarters in which the G.O.C. Eighth Army and the Air Officer Commanding Western Desert Air Force were located. For part of the time, when General Auchinleck was acting as G.O.C. Eighth Army, as well as Commander-in-Chief Middle East, and personally conducting the fighting whilst the Eighth Army endeavoured to stabilise its position at El Alamein, he preferred to site his Headquarters much further forward from Advanced Air Headquarters Western Desert, with the result that there was a decline in the organisation for the necessary close co-operation between the Army and the Royal Air Force. Normally, however, there was a combined Headquarters and the Senior Officers also shared the same Mess. This system ensured as far as possible the closest co-ordination of plans. Further, in order to enable the Air Officer Commanding Western Desert Air Force to exercise immediate and direct control over the Field Fighter Force under his command, the location of the Advanced Air Headquarters was kept within five to ten miles of the forward operational aerodromes and close to a landing ground for its own use. This position, some forty to sixty miles behind the front line, was one that usually suited the Army: the siting of the Advance Army and Air Headquarters was therefore a compromise to suit both.

Memorandum on
the organisation of the
W.D.A.F. for
co-operation
with the
Eighth Army.
July 1942.
Air Cdre.
T. W. Elmhirst.

(1) In this connection, it is interesting to note Admiral Weichold's observations on a similar situation which had arisen on the enemy side, 'The third phase of the Mediterranean war, extending roughly over 1942, has been the period of the great Axis offensive, made possible by the support which Germany sent on land, at sea and in the air. But still there was no unified Axis command of operations. This was the most serious error in the Axis Powers conduct of the Mediterranean war. The lack of a supreme commander and staff drawn from both Axis nations seriously affected the planning and conduct of operations, and was the cause of much indecision and wavering. The friendly agreement concluded between F/M Kesselring and the Italians proved to be no real substitute for a unified command and joint responsibility in the conduct of operations.'

Co-operation Between the Army and R.A.F.

A.O.C.-in-C.
correspondence
with Prime
Minister etc.;
Part V.
A.O.C.-in-C. to
Chief of Air Staff
12.7.42.

Report on Visit
to Middle East by
A.O.C.-in-C. Army
Co-op. Command.
Paragraph 36.

During the retreat from Gazala in June 1942, and the preliminary phase of the stabilisation at the Eighth Army's position at El Alamein in the first week of July 1942, complaints were often made by the R.A.F. of the lack of information that was being received from the Army. No doubt this resulted, to a very large extent, from the disorganisation produced by the rapid retreat in which the Army Staff were themselves often ignorant of the disposition of their own forces and also their requirements, from an air support point of view.⁽¹⁾ Requests to the R.A.F. from the Army during the last two weeks of June 1942, when the Eighth Army were withdrawing to El Alamein and their requirements for support from the R.A.F. were at their highest numbered a mere twelve. This could easily have led to catastrophic results had the R.A.F. not made use of its own system of tactical reconnaissance developed mainly from information brought back by aircraft when returning from operational missions. Also, the bomb-lines set by the Army tended to be either so conservative, for fear of having their own troops bombed, or else there was so much delay in their transmission⁽²⁾ that the bombing effort was often

- (1) The extent to which the machinery for co-operation between the Army and the Royal Air Force had broken down by the end of the retreat from Gazala is exemplified by this excerpt taken from written answers to questions given by Air Commodore G. R. Beamish, S.A.S.O. Western Desert Air Force, in August 1942, during the Eighth Army Court of Enquiry into Operations in the Western Desert during the period 27 May - 2 July 1942. '8th Question. On 1 July, the 18th Indian Infantry Brigade was overrun in the El Alamein defensive system, and for a period was isolated. Was any direct air support contemplated or asked for?

Answer: On 1 July, an enemy attack in some strength was anticipated. The intention for the R.A.F. was to concentrate against enemy supply columns in the immediate rear of his fighting forces, with particular reference to the Panzer Divisions. There was no doubt as to the Sector the enemy would select and, consequently, early information was vital to the R.A.F. if support at a particular point was required. No air support was requested for this Brigade on 1 July. Information from ground sources, as a whole, was particularly scanty on this day, despite the fact that information was requested from all units, and particularly 1st South African Division. During the day, 102 bomber sorties were made against targets in the Alamein area, while fighter bomber and fighter activity was continued at maximum intensity. Therefore, although air support was not asked for, it was undertaken in full measure.'

'Report of Court of Enquiry. Operations in the Western Desert 27 May - 2 July 1942.' Vol. II, pages 192/3. Cabinet Archives Box No. 2.

- (2) One formation submitted a bomb-line in cypher through normal signals channels at 07.10 hours which was received at approximately 15.50 hours.

AOC/4/A Minutes
of Commanders'
Conferences and
No. 3 S.A.A.F.
Wing O.R.B.

wasted and on occasion the enemy forces obtained sanctuary between the bomb-line and the Eighth Army. A new system was adopted at the beginning of July 1942 - prompted, ironically enough, by the bombing of the 1st South African Division in the Alamein 'box' by a combined No. 12 South African and No. 223 Squadron raid on 4 July - whereby the Eighth Army gave the position of their most forward troops for the next two hours, making it an Army responsibility to notify any changes in position. Using this information, the R.A.F. themselves fixed the bomb-line. This resulted in the Army obtaining far more accurate and helpful close-support.

It was not, however, until August 1942, when Eighth Army Advanced Headquarters joined up again with Advanced Air Headquarters at Burg El Arab that co-operation between the Army and Air Force reached the necessary high standard of efficiency. By the end of August 1942, when the Battle of Alam el Halfa took place, co-operation between the Army and the Royal Air Force reached a very high level indeed.

The Rôle of the Royal Air Force - Almost Entirely
Tactical in Scope

The tasks set the Royal Air Force at this time were not new and were ones in which they were well versed. Under the pressure of events, long-term strategic needs were temporarily ignored for the short-term tactical requirements of the field of battle. In this, the Royal Air Force was balanced in rivalry against its chief opponents, the German Air Force, who had always maintained their traditional rôle in close support of the Wehrmacht. 'The German Air Force was ... essentially the air arm of the German Army. The function of its bombers and dive-bombers was that of long-range artillery - to blast a way for Infantry and Armour, and to break up defences and supply lines. The function of its fighters was simply to protect them from interference ... Here was the kind of war for which the G.A.F. was built and trained, yet the G.A.F. was once more decisively defeated - this time on its "home-ground", so to speak.' Everything, the dangerous state of operational fatigue of the British aircrews, losses of experienced flying personnel, the continued heavy wastage of aircraft of Western Desert Air Force Squadrons which had already been badly depleted during six weeks of intensive air operations, even the training programmes ere all subordinated to the immediate problem of stopping the Panzer Army at El Alamein, and giving the maximum support possible to the Eighth Army in their acute difficulties.

A.H.B./ILJ1/22/
73(E)
No. 211 Group
Opsums.

The Three Major Problems Presented to the Royal Air Force
in Giving Support to the Eighth Army.

The tactical rôle which the pressure of events caused the Royal Air Force to adopt to the exclusion of almost every other consideration, in the early days of July 1942 presented three major problems for solution. The first was how best to weaken the enemy on the field of battle and in particular the spearhead of his armour, by direct assault from the air and so give close support, in its most limited sense, to the Eighth Army. The second was the problem of isolating the enemy's field fighting force from its sources of supply and reinforcement. The third problem presented was how best to maintain air superiority over the field of battle, thus enabling our own aircraft to operate with maximum efficiency in support of its own land forces and deny this same liberty to the enemy.

A.H.B./IIJ1/54
 Report on Visit
 to the Middle
 East by
 A.O.C.-in-C. Army
 Co-operation
 Command

Apart from the protection which the Axis fighters could give to their own troops, which was severely limited at this time, reliance was chiefly on anti-aircraft gunfire, dispersal and camouflage. Ground to air defence with the Germans reached a high standard of efficiency and, except under favourable conditions, prevented air attack from a low altitude, limiting especially the employment of aircraft in a 'Tank-buster' role. Discipline was good and in many cases, instead of taking cover, German infantry would lie on their backs and fire at low-flying aircraft. Those 'flak' units whose duty it was to protect convoys or other vulnerable targets from attack would disperse to left and right of them and bring cross-fire to bear on low-flying aircraft. Where the attackers were flying at a higher altitude, no aim was taken, relying instead on the volume of fire creating a protective curtain above the threatened target. Dispersal and camouflage were comparatively easy in an open sandy terrain in which obstacles to movement such as escarpments and deep sand were not numerous, where dust made its own protective covering and, particularly with movements of A.F.V's enveloped them in a natural smoke screen.

Attacks by day on enemy motorised columns, both Panzer and infantry, on the field of battle were complicated by the enemy's efficiency in ground to air defence and the passive defence of mobility and dispersal which they exploited to the full. It was only, therefore, when the enemy were attacking or being attacked by ground forces and were forced to concentrate that really good targets were offered to the Air Force.(1)

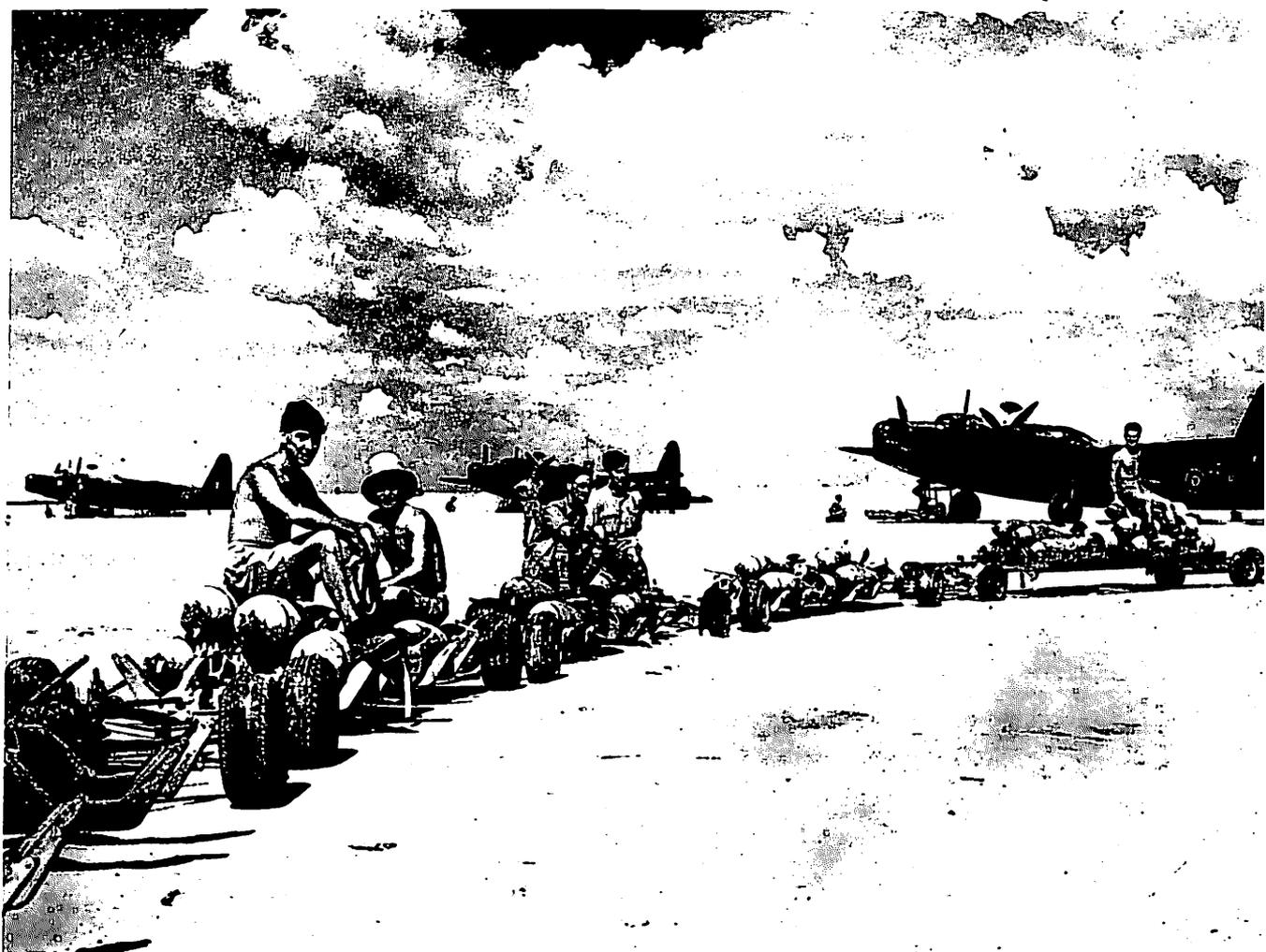
The use of the word 'concentration' which it is difficult to avoid can be most misleading. Frequent references are made, both by the Air Force and the Army, especially in reconnaissance reports, to 'concentrations' of M.T. amounting to several thousands of enemy vehicles. The impression obtained by the use of the word in this context is of a vast car park presenting a wonderful target for air bombardment. The term is, however, merely relative and aerial photographs taken at the time give very much the impression of coarse grains of sand scattered loosely over a plate. These reports of concentrations of as many as three thousand M.T. vehicles which were observed in assembly areas to the rear of the front-line troops and tank formations certainly presented targets, but often comparatively unproductive ones, especially for night bombing, each vehicle being perhaps fifty to one hundred yards from its neighbour and, in the aggregate, possibly covering several square miles of open, more or less featureless desert. It was a target, in fact, as large perhaps as a fair-sized town in which the individual houses were no bigger than the average truck and dispersed one to a block. Even in scientific pattern or 'carpet' bombing the mesh was often proved to be too wide.

The paradox thus arises that whilst these impressive 'concentrations' of enemy M.T. were reported inland, in the battle area, they sometimes appeared to be comparatively ignored, especially at night, in favour of attacks along the coast road, in the north. This area undoubtedly

(1) An additional complication was presented by the large number of captured Eighth Army vehicles and tanks which the enemy were using without any alteration in the camouflage.



Duststorm on a Desert Landing-ground



Bombing up Wellingtons

provided the most productive aggregate of targets. It was there that the enemy were canalised by the coast road and where congestion was most frequent. These thirty miles of coast road between Alamein and Gazala were the last stages in the essential 'pipe-line' for supplies and reinforcements for the Panzer Army. There, also, was located the desert railway stretching back through Matruh for nearly three hundred and fifty miles as far west as the port of Tobruk. At Daba and Fuka, too, were sited the main series of advanced enemy landing-grounds. Often, therefore, in a single night raid attacks would be launched on convoys and supply dumps along the road, on trains along the track or in sidings and finally on dispersed aircraft and tentage around enemy landing-grounds.

These factors, therefore, set the main pattern for Air Force policy at this particular stage of the desert Campaign. Close support for the Eighth Army, in its narrowest sense, was provided primarily by daylight attacks by light bombers and fighter bombers on enemy forces in the actual battle area, their efficiency being in direct proportion to the concentration forced on the enemy by tactical considerations on the ground. These attacks on the enemy ground forces were supplemented at night by attacks by the medium bombers. Isolation of the enemy's forward troops from their sources of supply and reinforcement, as a tactical problem, was a task mainly assigned to the force of medium bombers of No. 205 Group in their night attacks on the lines of communication along the coast road and the railway. The field fighter force of the Western Desert Air Force was primarily responsible for the maintenance of air superiority over the battle area, a task in which they were assisted by attacks both by night and day on enemy landing-grounds.

Meteorological Conditions During July 1942

The weather on 2 July 1942 is worthy of mention as, with some variation, it followed a pattern of meteorological conditions that remained fairly constant throughout the month and which had necessarily a marked influence on air operations. Generally speaking, in the early morning, cloud of strato-cumulus type with a base of one to two thousand feet was frequently encountered. By about 0990 hours to 1000 hours, this cloud has usually dispersed along the coast, but scattered cloud remained over inland areas and lasted throughout the day to disappear altogether at night. Dust storms often worked up in the afternoon and abated in the evening about 1800 hours. These dust storms were usually quite local in character, affecting merely a proportion of the landing grounds, so that whilst aircraft were grounded in one place, others might be able to operate a few miles away. Ground mists were quite common at night, but these dispersed completely when the sun was up, by about 0700 hours. Generally speaking the weather was hot during the day, with cool evenings and nights. Except on rare occasions, when the wind veered round to the south, when conditions were hot, humid and generally unpleasant, the prevailing north-to north-westerly winds for this period made the weather quite tolerable.

The Serious Effects of the Loss of Deir el Shein - 1 July

The enemy success at last light on the evening of 1 July in overrunning the 18th Indian Infantry Brigade, at Deir el Shein, some eight miles to the southwest of the Eighth Army's main defensive position at El Alamein, and in line with the vital Ruweisat Ridge, had opened a serious

No. 223
Squadron
O.R.B.

XIII Corps
War Diary.

breach in the El Alamein defensive system on which General Auchinleck was relying to halt Rommel's advance towards the Delta. A report from XIII Corps described how, after a full-scale attack by German armour on Deir el Shein, the position there became untenable and it was decided to evacuate eastwards. In spite of this, 'a small band of Imperial forces decided to remain and were last seen, in fading light, firing at oncoming infantry at 100 yards range.'

This resistance of the 18th Indian Brigade Group, which continued for five hours, was by no means wasted. It gained valuable time for the organisation of the El Alamein line generally. The position, however, was an extremely grave one. The loss of Deir el Shein had opened a gap in the Alamein line in what was tactically its most important area, leaving Rommel in a most advantageous position for outflanking the main 'box' at El Alamein, on the coast road, and opening the way to the Delta. It was anticipated that the enemy Commander would lose no time, on the following day, in exploiting fully this important success by forcing a way through the gap and cutting the road to the east of Alamein with another of his 'right hooks to the coast' which had paid him such extremely good dividends in the past.

C.I.G.S. from
General
Auchinleck.
(CS/1372).

The capture of Deir el Shein was noted on 1 July with satisfaction in the Afrika Korps War Diary and was followed with comments about the activity of the Royal Air Force and the general supply position, both of which were portents of increasing difficulties.

Afrika Korps
War Diary.
A.H.B.6 Trans.

'Twelve hundred prisoners were taken at Deir el Shein and large numbers of guns put out of action. In spite of difficulties which have arisen, the German Afrika Korps has wrested great success from an enemy built into strongholds. The activity of the enemy air force during this day has again been noticeably lively. Many bombing attacks were successful. The enemy is also attacking on into the night with night bombers. Activity of our own air force was very minor. The supply position, with regard to ammunition and fuel is tightening. Replenishments urgently needed.'

The critical weakness of the Eighth Army, however, was all too apparent to its Commander-in-Chief. 'Except for the semi-permanent fortification round El Alamein itself,' General Auchinleck wrote in his despatch, 'our positions were still weak, disconnected and lacking in depth. Moreover, there was a serious shortage of troops to hold our extended front, and the defence of the all-important Ruweisat Ridge had had to be entrusted to battle groups weak in infantry, backed by what remained of our armoured troops.' In this period of acute crisis, with the Eighth Army depleted and disorganised and the line which it had so recently reached and was trying so hard to consolidate already breached, the rôle of the Air Force was of outstanding importance.

Medium-Bomber Effort Night 1/2 July

Corps Int.
Sum.

A Tac/R at last light on the evening of 1 July had shown the main concentration of enemy armour, most probably representing the whole of the 15th and 21st Panzer Divisions, together with supporting M.T., assembled between the 28th and 29th northing grids on an axis stretching east through Abar el Mukheisin to the Deir el Shein locality, from which the main attack on the following day, with the intention of isolating the El Alamein 'box', was expected. Rommel himself has described the attack as having been made 'with the

object of breaking through to the coast road and thus closing in the Alamein fortress and either destroying its garrison or forcing it to break out.'

During the night 1/2 July, the main effort of the medium bomber force with its Wellingtons, Blenheims and borrowed Albacores was directed towards exerting the maximum possible pressure on the enemy, the primary target being the coast road area to the west of El Alamein. Subsidiary to this, as a target, were enemy concentrations to the south west of El Alamein, in the important Deir el Shein sector, and also attacks on enemy forward landing-grounds at Daba and Fuka.

No. 37 Squadron
O.R.B.

Table of Operations. A.H.B./
IIJ1/31/1.

No. 40 Squadron
O.R.B.

No. 104 Squadron
O.R.B.

Air Support Control reported in their War Diary, 'a heavy Wellington and Albacore effort was planned and was most successful on concentrations near bomblines seen by last-light Tac/R.' The bomblines were the desert tracks running from six miles to the west of El Alamein down to Naqb Abu Dweis, in the extreme south of the front. As was to be expected, a number of good targets were found in the enemy armour, transport and troops concentrations behind the battle front, in the central sector, but the best were located along the supply route, in the north. By the time the No. 205 Group bombers had returned to their bases towards dawn, they had carried out over one hundred sorties and had unloaded a hundred tons of bombs and expended many thousands of rounds of ammunition on the enemy. Among the most spectacular successes in these raids were those of aircraft of Nos. 37, 40, 70 and 104 Squadrons whose Wellingtons left behind a trail of fires, exploding ammunition trucks and bomb-blasted lorries. Some aircraft increased fires previously started by aircraft of other squadrons. Between Galal and Fuka, along the coast road, one of the twelve Wellingtons of No. 40 Squadron dropped a stick of bombs the length of a large convoy moving east of which, in addition to fires, it was claimed that eighteen vehicles were overturned. After very successful bombing attacks on transport in the battle area and along the coast road, aircraft of No. 104 Squadron shot up M.T. from as low as one hundred feet, causing a number of explosions and fires. The desert railway stations of Sidi Abd el Rahman, Ghazal, El Daba and Galal together with rolling stock in sidings and along the track were bombed, as were dispersed aircraft and tentage at Daba and Fuka satellite landing grounds. It can be assumed that targets on the airfields were bombed with some satisfaction, as certain of these had been the home landing-grounds of the attacking aircraft but a short time before. The Albacores of the Fleet Air Arm which accompanied the Wellingtons on the raid not only performed their usual task of flare-dropping, but dive-bombed the enemy, wrecking vehicles and causing a considerable number of fires.

For the most part little anti-aircraft gunfire was encountered and the enemy night fighters do not appear to have been in evidence. The two Wellingtons which were lost possibly fell victims to venturesomeness and may have been caught by low anti-aircraft gun fire when attacking from a low altitude.

Attacks on road convoys during the night of 1/2 July are too numerous to describe in detail and individually are impossible to assess, but Rommel's Forces were extremely short of vital supplies especially of ammunition, and it was undoubtedly the damage inflicted on these convoys which contributed very largely to the dislocation of the German Commanders' plans for an offensive on the following day. 'In the night', says the Afrika Korps War Diary,

Afrika Korps
War Diary
A.H.B.6.
Translation.

'continuous bombing raids met with success. The supply columns were blown up and an improvement in the supply situation did not materialise'. The primary policy of this bombing in disrupting lines of communication and helping to isolate the enemy on the field of battle from supplies and reinforcements was thus being fulfilled.

In contrast, the enemy's power of retaliation in kind was negligible. In the course of this night when Royal Air Force medium bomber squadrons were operating over one hundred aircraft in the battle area to such good effect, three enemy bombers attacked the port of Alexandria and seven policemen were injured.

Rommel's Renewed Offensive on 2 July 1942 Failed to Develop

Air Support
Control War
Diary. A.H.B./
ILJ1/122/80.

The early morning tactical reconnaissance at 06.15 hours on 2 July showed that the enemy dispositions had been relatively unchanged since the preceding evening, and very heavy bomber effort was arranged on German concentrations in the expected area of attack between 28 and 29 Northing grids. 'The enemy is concentrating opposite 1st South African Div'', reported XXX Corps War Diary, 'with intention of attacking early with bulk of his forces. Enemy's probable intention to cut off El Alamein. They were bombed all last night by large forces of bombers and hoped will be short of sleep'.

XIII Corps
Int. Sum.

The enemy infantry were massed round the west and south west areas of the El Alamein position while the German armour consisting of the 15th and 21st Panzer Divisions was in square 8628, in the central sector, in tactically the most favourable position to continue the drive eastwards along the Ruweisat Ridge. The Pavia Division had been moved up to consolidate the captured 'box' at Deir el Shein with the Brescia Division in their support to the west, while the Sabratha Division was moved forward from the Daba area to assist the Trento Division to the west of El Alamein. The employment of the Ariete and Littorio Divisions was considered by the Eighth Army as being indicative that Rommel was about to stake everything on this big attempt to reach the Delta.

The Importance of 'Round-the-Clock' Bombing

High Level
Reports and
Directives.
A.H.B. Transla-
tion No. VII/80.

The term 'round-the-clock' bombing was of particular significance during this period when the Eighth Army was trying to stabilise its position at El Alamein and regroup its disorganised and seriously depleted forces. As has been revealed in Rommel's despatch to OKW of 6 July and which will be studied in detail later in relation to the fighting at this time, this systematic bombing by night and day, merely from its cumulative effects on the morale and the fighting efficiency of battle-weary troops, had an outstandingly important effect in bringing the victorious Panzer Army to a halt at El Alamein.

A matter of an hour or two after the last of the medium bomber force had returned to their bases in the Canal Zone after a most successful series of night operations, light bombers and fighter bombers, with fighter escort, were ranging the whole of the battle area and well into the rear, attacking enemy motorised infantry columns, Panzer formations and their supporting transport. As soon as the sun was up, the full weight of the bomber effort of the Field Striking Force was directed to the task of halting a further offensive by the Panzer Army which, after its success at Deir el Shein the previous evening, threatened to roll up the so recently

Auchinleck
despatch
Page 93.

stabilised Eighth Army defensive position at El Alamein, from the centre to the north. 'I was still very anxious,' wrote the Commander-in-Chief, 'lest a sudden and concentrated attack should break through our defences and repeat what had occurred at Matruh'.

A.H.B./IIJ1/31/1
H.Q. Middle East
Table of
Operations.

Before severe duststorms and thick cloud closed down all flying in the early afternoon of 2 July for nearly five hours, Western Desert Air Force activity was intense. Before 10,00 hours Bostons alone flew sixty-eight sorties and, in spite of the adverse weather conditions, one hundred and twenty-eight during the day, and Kittybombers one hundred and six. In the first hour of daylight fifty bomber sorties were made by Bostons, Kittybombers and Baltimores, excluding, of course, supporting fighter sorties on escort and patrol work.

XIII Corps War
Diary.

There is little doubt that this incessant air bombardment of the enemy forces on the field of battle and on his lines of communication throughout the night of 1/2 July and resumed at dawn on 2 July, caused the enemy to falter and lose the momentum of the previous day's success. Eighth Army reported significantly enough, on 2 July, 'despite success against one of our defensive positions in the Alamein line, the enemy has not been able to push on and, in fact, our armoured force reports that enemy attacks did not show their usual initiative.' This lack of initiative must be attributed directly to the effects of air attacks in aggravating the acutely difficult supply position, particularly of ammunition, on the battle field and breaking up enemy concentrations before they could attack. The enemy had shown no weakness when over-running the defensive locality of Deir el Shein, and bearing in mind Rommel's opportunist temperament and the optimism of his despatches, it is significant that this change of heart should have taken place between last light on 1 July when Deir el Shein was captured and the next day, during which time no clash between the rival armoured forces took place.

The Main German Offensive Resumed at 15.00 hours 2 July 1942

Cositrep No. 435
C.-in-C. to War
Office. Hist (B)
(Crusader) 4
(Final).

The rising duststorms and overcast, however, which closed down flying almost completely for some five hours during the afternoon of 2 July, did give the enemy a most necessary and valuable respite from air attack. By 15.00 hours, heavy shelling of the El Alamein 'box' was reported which, so the Commander-in-Chief thought, presaged the anticipated attack. Two Stuka raids were also launched, one on the railway station at El Alamein and another in the south, in the Bab el Qattara area. These comprised the only bombing operations the enemy were able to undertake throughout the whole of 2 July, so that whilst the Afrika Korps sustained very heavy bombing attacks, the Eighth Army were able to pursue their essential task of reorganisation and consolidation on its recently attained defensive position at El Alamein almost unhindered by interference from the Axis Air Forces.

Heavy Scale of R.A.F. Attacks over the Battle Area -
Afternoon 2 July.

Owing to severe duststorms and dense cloud, only one raid was made between mid-day and late afternoon by the Western Desert Air Force. At 14.37 hours, six Blenheims of No. 14 Squadron unloaded twenty-four 250 lb. G.P. bombs on dispersed M.T. along the coast road. As soon as conditions permitted flying to be resumed, reconnaissance aircraft reported significant movement of enemy mobile forces

eastwards, from their assembly areas, in the central sector. It was obvious that the main enemy attack had begun to get under way. Squadrons which had been standing by all the afternoon, waiting for the severe duststorms sweeping their landing-grounds to die down, hurriedly serviced their aircraft, freeing them from the all-pervasive sand, and went into the attack again.

Shortly before 17.00 hours, nine Kittybombers of No. 3 R.A.A.F. Squadron were first out over the battle area. They dropped seven 250 lb. and two 500 lb. bombs on troop concentrations and enemy M.T. in the Mukheisin area, to the west of Deir el Shein, and reported two large fires. Shortly afterwards, the same target was visited by nine Bostons of No. 12 S.A.A.F. Squadron and eighteen of No. 24 S.A.A.F. Squadron which dropped over one hundred 250 lb. G.P. bombs, scoring at least seven direct hits on enemy M.T. At the same time, Baltimores of No. 223 Squadron were out over the same area of the battlefield and dropped nine 250 lb. and six 500 lb. bombs on enemy armour and transport concentrations, starting seven fires.

By 18.00 hours, bombing attacks by the light bombers were at their height. Within a few minutes of one-another, thirty-three Bostons, Kittyhawks and Baltimores of Nos. 12 S.A.A.F., 3 R.A.A.F., 112 Squadron and 223 Squadron had dropped ninety-two 250 lb. and seven 500 lb. bombs. Returning from a raid at last light, Bostons of No. 12 S.A.A.F. Squadron reported that the enemy in this area were making a well-dispersed general movement west and north west. Rommel's eastward advance had been checked, at least for the time-being. In the short space of time remaining to them, before daylight faded, eight raids comprising 74 Bostons, Baltimores and Kittyhawks dropped over thirty tons of bombs on the enemy armoured and motorised columns.

In the face of this renewed air bombardment, Eighth Army reported that the German 90th Light Division of motorised infantry 'never got going'. The Afrika Korps War Diary for 2 July records that 'the Army communicates its fresh intention of attacking towards the east in order to make a thrust later in the direction of the coast. The Chief of the General Staff, who is in command of the Army, brings the order for attack by word of mouth. The Divisions are to attack next 7 kilometres towards the coast and then pivot towards the north in order to include the enemy's strong point at El Alamein. Decisive for the direction of the advance towards the north is the 21st Panzer Division which have to surround the sand dunes near Alam el Onsol (to the north-east of the Ruweisat Ridge). The 15th Panzer Division is to move up towards the 21st Panzer Division. The opening of the attack at 15.00 hours, however, is soon brought to a halt on account of the great vehicle massing. At the approach of darkness, the War Diary records, 'at 18.35 hours, in spite of all efforts, the attack has got no further forward than 3 to 6 kilometres beyond the starting point. During the whole of the day, heavy air raids were once again successful. Our own fighter defence was in no way extensive. The Army communicates that, in the coming night, fighters will be brought into action. The supply situation is again tense and ammunition is especially short.'

Taking the bomber effort of the R.A.F. over the battle area, from dusk on 1 July when Deir el Shein had been captured until last light on 2 July, throughout these vitally important 24 hours, and including medium, light and fighter bombers in a single programme devoted almost

H.Q.M.E.
Table of
Operations.

A.H.B./IIJ1/31/1.

Afrika Korps
War Diary.



Bostons taking off from a Desert Landing-ground



Hurricane fighters

entirely to close support of the Eighth Army, an aggregate of some 180 tons of bombs was dropped.

Rommel's Confidence Still Unshaken

Von Rintelen to
Army General
Staff Operations
Division
2 July 1942

A.H.B.6.
Translation
No. VII/80.

It was on this day, 2 July 1942, that the Germans interrupted their broadcasting to announce that El Alamein had been taken and that the Eighth Army was again in full retreat. This announcement most probably derived from Rommel's success the previous evening at Deir el Shein. It was on this day, also that Rommel's general plan for the Panzer Army's advance on Cairo and the Suez Canal via Wadi el Natrun was notified to the German Army General Staff. Bearing these facts in mind, it is obvious that Rommel regarded the check he had received at El Alamein on that day -- the first that had occurred since the battles of Knightsbridge and Bir Hacheim - as nothing more than a variation in an unparalleled military success which had taken his forces deep into Egypt. It appeared that nothing more than the tempo of his advance had slackened. The objectives remained the same and seemed just as certain of attainment.

During the night 2/3 July, the task set the Axis Air Forces, during the last lap of the advance on Cairo and Suez of minelaying in Alexandria Harbour and in the Suez Canal was put into operation. According to an order sent on 2 July from Kesselring to Fliegerkorps X, Hitler himself had ordered 'the immediate heavy mining of the Suez Canal and Suez Harbour'. It should be noted, however, that this air operation was subsidiary to the main task, outlined in the Despatch of 30 June to OKW, of 'support of troops fighting on the ground by covering them against enemy air attack and by attacks against strong enemy concentrations and on retreating troops'. Weather conditions which had grounded almost the whole of the Western Desert Air Force during the afternoon of 2 July had prevented the German Air Force from providing close support to the Panzer Army on that day, apart from the two Stuka raids already mentioned. This main effort was reserved for 3 July.

R.A.F. Middle
East Weekly
Intelligence
Summary No. 107

A.H.B./ILJ1/1
R.A.F. Middle
East Weekly
Intelligence
Summary No. 287

In fulfilment of Hitler's instructions to Kesselring, bombers of Luftflotte II, mainly drawn from the force of Crete and Greece-based aircraft of Fliegerkorps X, undertook an ambitious programme of minelaying, with the object of sealing off Egypt from reinforcements and preventing the escape of shipping, should Egypt fall. In all, a force estimated at some fifty enemy aircraft operated over the Delta Area and the Suez Canal on the night of 2/3 July with what must have seemed very disappointing results. Out of twenty-six mines dropped over the Suez Canal only ten fell in the Canal itself, mainly owing to the heavy concentration of A.A. fire. All these mines were subsequently taken up and no vessels were lost. Delays to shipping plying up and down the Canal were not great, in spite of this and subsequent raids during the month. Attacks were also made on landing grounds in the Amirya area which, with its complex system of landing-grounds stretching both sides of the Cairo - Alexandria road offered a most attractive target, but damage was slight.

The port of Suez which experienced just a light raid offered a superlative target at this time. It was the main port of disembarkation where thousands of troops were being landed daily from transports, together with vast quantities of motorised equipment and other stores, and the port was congested with craft of all kinds and sizes. The same weight of effort directed on this crowded port, as a target,

together with landing-grounds and dump areas in a systematic policy of night bombing with the whole of the enemy bomber forces then available in Crete, Greece and North Africa could not well have failed to have had a most damaging effect on the fortunes of the Eighth Army during this most critical period of the battle.⁽¹⁾

Night 2/3 July, The Royal Air Force Medium Bomber Effort
Again Tactical in Scope

The two outstanding targets for the medium-bomber effort arranged for the night 2/3 July were again the enemy concentrations spread over the inland desert area to the south west of El Alamein and the latter part of the enemy supply route along the coast road and railway, running roughly north west to Daba and Fuka. The late afternoon tactical reconnaissance on 2 July made by No. 208 Army Co-operation Squadron had revealed enemy concentrations of some 3,500 M.T. as being spread over a triangular area covering approximately 15 square miles of desert (Map reference 860293 - 865280 - 874292) some 7 miles to the east and north east of Deir el Shein and to the West of the El Alamein-Naqb Abu Dweis track which was used as the bomb-line. This concentration which was the largest reported during this period, most probably represented the whole of the armoured fighting vehicles and supporting M.T. including ammunition, petrol, food, water and troop carriers for the German 15th and 21st Panzer Divisions, in preparation for their drive east towards the Ruweisat Ridge in the morning and the German 90th Light Division for their supporting attack on the El Alamein 'box'. It is also now known that Rommel's Battle Headquarters was sited at Deir el Abyad which was roughly the locality covered by this triangular area.

It does not appear that any especial significance was attached to this outstanding item of air intelligence and there is no evidence that the information obtained by this Army Co-operation Squadron was ever passed on to the R.A.F. If it was, then no specific reference was made in No. 205 Group's briefing of the medium bomber force for the night of 2/3 July, which read, '... aircraft ... are to attack and destroy by bombing and machine gunning enemy units in the area West of a track given by the intersection of Grid 88 and Grid 30, joined by Grid 85 and Grid 25, and North of Grid 25 North'. This was the already familiar track which roughly bisected the battle front from El Alamein in the north to Naqb Abu Dweis, on the edge of the Qattara Depression, in the extreme south. 'Alternative target Landing Grounds 16, 17 and 18. It is most important that the primary target

(1) According to enemy sources, the total strength in bombers of Luftflotte II in the Mediterranean Theatre at the beginning of July 1942 was 246 bombers (of which 85 were dive-bombers) with a serviceability of 50 per cent. The Italian bomber strength, including those in Metropolitan Italy, comprised 732 aircraft reputed to have a 60 per cent. serviceability. Had the use of Crete and Greece for strategic bombing of the Delta and Suez Canal areas been adequately planned and exploited to the full, then it is reasonable to assume that the combined Axis Air Forces could have put out a night bomber effort to compare favourably with the 80-100 sorties a night made by the Royal Air Force medium bombers.

No. 208
Squadron
O.R.B.

Afrika Korps
War Diary

No. 205 Group
O.R.B.
Appendices
B.184

A.H.B.6.

should be attacked if found'. No. 205 Group's Operational Instruction A.865 dated 2 July continued with its generalisation, 'to attack and destroy by bombing and machine-gunning enemy Units wherever found in the Battle area ... Albacores will be illuminating the above area continually from 0001 hours L.T. They will drop their flares from 6,000 feet to light at 3,000 feet. Any particular target the Albacores see will be signalled by firing a red Verey light.' Excluding the lines of communication in the north and giving the battle area to the west of the bomb-line a depth of 5 miles, this target area covered something like 200 square miles of desert, whereas reconnaissance had revealed that the main German forces could be pinpointed to something less than one tenth of this area. It is tantalising to speculate what would have been the effect on the fighting efficiency of the Panzer Army the following day had the full weight of the medium bomber effort been directed specifically on this target. It was known to Army Intelligence that Rommel had, at most, a total of some 40 tanks⁽¹⁾ as 'runners' at this particular date, the loss of any high proportion of which would have crippled his offensive.

XXX Corps
Intelligence
Summary

A.H.B./IJJ1/
122/80 Record
of Operations
Air Support
Control War
Diary

It is pertinent, at this juncture, to quote the entry for 2 July as noted in the Air Support Control War Diary, 'After much incitement and a signal from B.G.S. tentacles responded and three targets were called for in the afternoon and evening. There was a great deal of confusion over the bomb-line during the day and for the night-bombing attack owing to the fact that Tac. Army were trying to lay down the bomb-line in addition to or counter to lower formations. Finally, for the night, a compromise was arrived at with the Air Staff, and it is to be hoped that no accidents occurred. Though risks must be taken to attack a good target, after a certain success that ground troops had today, to be bombed by our own aircraft tonight would have the worst possible moral effect.'

There is no doubt that under the strain and confusion attending the retreat the organisation for the close integration of the Army and Air Force on the field of battle had broken down. On a day of major significance such as 2 July, only 'after much incitement and a signal from B.G.S. were these three calls made for air support by the Army.' The Air Officer Commanding-in-Chief was worried intensely by this problem. 'I am very far from being satisfied over the working of what is known as air support,' he wrote to the Chief of the Air Staff on 12 July. 'We still lack Army support and Army co-operation Coningham in order to get the necessary information to give effective support has had to rely almost entirely on his own sources of information. The Army still (do not know) the positions and movements of their own forces. The 'bomb line' given by Corps, if adhered to, would again and again have completely hamstrung our ability to give effective help in the battle. Coningham has had to arrange his own Tac. R. throughout the day in order to be able usefully to direct his fighter bombers and bombers. Incidentally, fighters and fighter bombers have become quite expert at this. We are now trying to arrange that position reports given by

A.O.C.-in-C Part V.
Correspondence with
Prime Minister,
Secretary of State and
Chief of Staff.

(1) The D.A.K. War Diary records on 2 July 1942, 'Tank situation is again bad. There are only 37 vehicles ready for action.'

subordinate Army formations are received direct by A.H.Q. Auchinleck fully appreciates the situation.'

At this stage of the fighting, there was also room for closer liaison between the Army and the Royal Air Force whereby key personnel of squadrons, without prejudice to security, could have been given a much more accurate picture of the tactical pattern of the land battle, thus enabling them to obtain an intelligent appreciation of what part their own efforts was playing in the land fighting. 'The most frustrating part of this episode of the Battle,' one diarist of a Boston Squadron recorded, on 3 July, 'is the Air Force lack of knowledge of what is happening on the ground. We see the bomblines moving backwards and forwards and up and about, and tend to let our spirits follow it, though rarely, and then only generally does it bear any relation to the tactical situation.'

No. 3 S.A.A.F.
Wing O.R.B.

In spite of this question of closer specification of targets for the medium bomber force for the night of 2/3 July, the operation in which eighty-seven Wellingtons and fourteen Albatrosses took part and in the course of which nearly 140 tons of H.E. and incendiaries were dropped, must be judged outstandingly successful, especially bearing in mind Rommel's acute shortage of supplies, particularly of ammunition and fuel. With the exception of a few isolated bombing runs over targets in the battle area and also over the secondary targets of enemy advanced landing grounds, the whole of this heavy weight of explosives was dropped on enemy M.T. trains and dumps in the vicinity of the coast road and the railway. Successes were numerous on these varied targets and in some cases most spectacular. One sortie which involved Wellington aircraft No. Z. 8990, captained by Pilot Officer S. J. Thorne is worthy of individual mention for the heavy loss of either fuel or ammunition it entailed to the enemy at a time when an acute shortage of these supplies was crippling the fighting efficiency of Rommel's Panzer Army, and also for a tragic accident in which the captain of the aircraft was involved, after what must be accounted one of the most successful single raids of the campaign. Pilot Officer Thorne noticed eight artificial-looking sand dunes at Ras Gibeisa, a few miles behind the enemy front line troops in the El Alamein sector. These were bombed in two sticks, obtaining direct hits on two of the sand dunes. The result was a most violent explosion with a fierce red glare covering the entire area, followed by a cloud of black smoke reaching to five thousand feet. The aircraft which was caught in this terrific blast was badly damaged and limped back to base with one engine faulty, the bomb-aimer's Perspex shattered and the entrance hatch blown open. Just after crossing the lakes at Wadi el Natrun the starboard airscrew fell off and the engine caught fire, whereupon the Captain ordered the crew to bale out. 'He left the controls to open the bulkhead door for the front gunner' No. 37 Squadron O.R.B. records 'and as the escape hatch was unserviceable, he must have fallen through on his return. The Captain's parachute was found unopened on the ground, unattached to the body. The harness was also found near the body, broken.'

A.H.B./IIJ1/31/1
Table of
Operations

No. 37 Squadron
O.R.B.

In the course of these raids which caused great havoc among enemy M.T. and stores, particularly in the Daba area, along the coast and railway, the Fleet Air Arm Albatrosses of Nos. 821 and 826 Squadrons assisted by dropping flares and also dive-bombing and machine-gunning. It was an Albatross of No. 826 Squadron which hit an ammunition train, near Daba station, which not only depleted still further Rommel's

Afrika Korps
War Diary

slender stocks of ammunition, but provided a very useful illumination of the area for subsequent bombing by captains of other aircraft. Aircraft of Nos. 37, 40, 70, 104, 148 and 162 Squadrons took part in these raids on which the Afrika Korps War Diary commented, 'In the night, British air activity was again very intense. The continual raids by day and night are seriously hindering the troops. Our own fighter defence is not to be seen.'

No. 38
Squadron
O.R.B.

For the most part, anti-aircraft gunfire opposition over the targets was light. En route to the target area much cloud was encountered, but over the targets themselves this had mainly cleared and visibility was quite good. Two Wellingtons failed to return from these raids, while Pilot Officer Thorne's aircraft crashed near Wadi el Natrun and was a total loss. That same night, whilst these most successful medium-bomber raids were taking place, four Wellingtons of No. 38 Squadron laid mines from a height of ten to fifty feet at the entrance to Tobruk harbour and at other spots along the coast. Tobruk was also visited again that night when three Liberators of U.S.A.A.C. unloaded 6 tons of bombs on the port, starting one large spreading fire in the dock area. Three others jettisoned their bombs due, it was reported, to engine trouble and failure to locate their target.

Rommel's Reverse on 3 July 1942.

From the point of view of battle honours, 3 July 1942, has little to distinguish it, for there were only two engagements between the opposing land forces on that day and both are nameless.⁽¹⁾ Nevertheless, 3 July is an important date in the history of the fighting in North Africa, for it was then that Field Marshal Rommel staked all that was left of his Panzer Army's strength, after his six weeks' victorious campaign, in trying to repeat his previous spectacular successes at Gazala, Bir Hacheim, Tobruk, Mersa Matruh and, most recently, at Deir el Shein. A conviction that the seriously weakened forces under General Auchinleck could not resist him much longer and continue to bar his victorious Afrika Korps from entry into the rich Delta area still sustained him and his forces. All that was needed, it seemed, was a renewal of the momentum that had carried them for nearly four hundred miles, from Cyrenaica to within seventy miles of the port of Alexandria, thus enabling him to thrust forward through the gap in the El Alamein line eastwards, from Deir el Shein. The high hopes he entertained on 3 July are evident in the first entry in the Afrika Korps War Diary on that day. 'The army orders the continuing of the attack for 3 July at 09.00 hours. Recce Unit 3 is following the attack of the German Afrika Korps on the right wing and is to hold itself in preparation for a later overhauling pursuit towards the N.E.'

(1) The importance of this phase of the fighting at El Alamein is borne out by this extract from Admiral Weichold's essay on 'Axis Naval Policy and Operations in the Mediterranean 1939 to May 1943'. As has already been mentioned, Vice-Admiral Eberhard Weichold was German Admiral in Rome from June 1940 until March 1943. 'Some German and Italian airborne regiments which had been standing by for the invasion of Malta were among the forces rushed to Egypt to prevent a collapse of the front. This meant that the Malta plan would have to be postponed indefinitely. On 7th July the Command Supremo abandoned the project, and a week later the Germans did likewise ... The fact that the German and Italian authorities had to sacrifice the airborne operation in order to go to the assistance of the Axis troops in Egypt shows how serious the plight of the Panzer Army had become. It also proves that General Auchinleck's victory was not merely a local tactical success but a victory which had far-reaching strategic effects on the entire Mediterranean war.'

A.H.B./ILJ1/22/8
Operations
11 June to
18 July 1942

The outstanding tactical importance of the Ruweisat Ridge was recognised by Rommel from the moment his forces began their exploratory thrusts in the El Alamein area. His efforts to gain control of this vital ridge governed the pattern of the fighting, at this time, to the exclusion of almost every other consideration. It was a fixed idea from which Rommel could not escape and in pursuit of which, time after time, he expended his weary troops. Once he could gain possession of this Ridge, he knew that the main El Alamein 'box' on which the whole Eighth Army system of defences depended for its security, would be outflanked and prove untenable. He was confident that this familiar plan of a 'right hook to the coast', if successful, would be bound to bring the Eighth Army's tanks to battle and, depleted as they were and with the superior armament and protection of his own outstandingly efficient Mark III and Mark IV tanks, he knew that he could defeat them. Once this hard core of the Eighth Army had been broken, there would remain no effective weapon in the possession of the Eighth Army to hinder him in his drive towards the Delta and Suez.

It was the Royal Air Force, in their ceaseless attacks on Rommel's forces in the field, by day, and on his lines of communication where they debouched into the main battle area, by night, that was foiling him and to which he had no effective retort. As at sea, where it had been proved decisively that ships could not operate effectively within range of hostile shore-based aircraft, so on land, with the Western Desert Air Force dominating the skies, air power and not armies - not even tanks - was being proved the ultimate deciding factor. The folly of pressing on deep into Egypt, with the British air and naval base of Malta still unreduced on his flank, and in the face of an Air Force which, contrary to all expectations, had improved in efficiency and fighting power as the army it supported had weakened was to be impressed on him in the course of the next twelve hours' critical fighting.⁽¹⁾ For even though the enemy Commander put his plan of 30 June into operation, whereby the Axis Air Force Squadrons which had managed to move forward were called upon to make a supreme effort to support the Panzer Army on the field of battle, whipping serviceable aircraft to an average of four sorties a day, he still failed to force a decision in his own favour. With the prize of all this hard campaigning in the Western Desert before his eyes, all his previous successes which had provided his forces with enough battle honours for a whole war, appeared more and more in the nature of Dead Sea fruit, and it was this ascendancy which the Royal Air Force had won over the German and Italian Air Forces which was denying him and his Army the rewards of victory in the field. The realisation was to come to him, not with the traditional

A.H.B. 6
Document

(1) Afrika Korps Diary 21 June 1942 'Divisions will rest 1 - 2 days in this area and wait for Luftwaffe units to be brought forward.' 22 June 1942. 'As opposed to original plans, the Army has ordered the Afrika Korps to be ready to move at 17.00 hrs... The enemy is in full retreat towards the east and must be left no time to re-organise. Units will therefore continue their advance eastwards, and days set aside for rest are cancelled... The advance must begin at 19.30 hrs, irrespective of whether all units have been brought up or supply measures fully carried out.'

turn of fortune of a battle with a grandiloquent-sounding name, but on a day of minor and seemingly inconclusive engagements between the two armies, that it was possible to win battles on land, and yet be robbed of victory by the stricture and slow strangulation resulting from innumerable anonymous air operations.

The Outstanding Effort Made by Aircraft of the Western Desert Air Force on 3 July

A.H.B./ILJ1/41/1
Table of
Operations

No. 12 S.A.A.F.
O.R.B.

A.H.B./ILJ1/41/1
Table of
Operations

A.H.B./ILJ1/122/
80 Air Support
Control War
Diary

On 3 July, the weather gave the enemy ground forces no respite from bombing by the Royal Air Force such as had been afforded on the previous day. Attacks by light bombers and fighter bombers continued without intermission for the full twelve hours of daylight. It was a superb achievement of well co-ordinated corporate activity, during which 156 light bomber and 624 fighter and fighter-bomber sorties were flown and some 80 tons of bombs were dropped on the enemy in the battle area. By the evening of 3 July, one diarist was able to record, with a certain subdued contentment, 'This is the end of another busy day and am sure that the enemy must be 'bomb happy' by now, as formation after formation swept the skies over them.' By 10.00 hours, approximately one hundred Bostons, Baltimores and Kittybombers had attacked targets in the battle area, and this steady average of twenty-five light bomber and fighter bomber sorties an hour was maintained, without remission, throughout the whole of the day. Supplementary and to a large extent complementary to the battle on land was the battle in the air, in which fighter aircraft of the Western Desert Air Force were ceaselessly engaged in 'keeping the enemy heads down' which raised the total operational sorties flown on 3 July to seven hundred and eighty, or an average of over one a minute.

'This was about the best day for Air Support Control that we have had, 'the Air Support Control War Diary, Advanced Air Headquarters Western Desert recorded on that day, '156 bomber and 524⁽¹⁾ fighter sorties were flown and all targets were good ones. The effort all day was concentrated between 87 and 88 grid above 280 grid and to the West of the Alamein 'box'. Nearly 30 enemy aircraft were destroyed and every one of the few Stuka raids was intercepted. Formations improved very considerably in reporting and giving information, some forty-eight messages being received from them, including many reports of enemy air activity and several close support calls. A very heavy Wellington effort was put out at night, Landmark for night 3/4 was arranged with 1 S.A. Div. but L.O. responsible became a casualty.'⁽²⁾

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- (1) This figure of 524 is an error. The Table of Operations gives the correct total of 624 sorties. This total of 624 fighter sorties was a record for the campaign to date. After six weeks of fighting it more than doubled the W.D.A.F. figure of 267 for the first day of Rommel's offensive, on 26 May.
- (2) A combination of bad visibility and this accident to the L.O. was most probably responsible for the bombing of 3 S.A. Brigade by aircraft of No. 12 S.A.A.F. Squadron at 19.24 hours that evening. Fortunately there were no casualties.

XIII Corps
War Diary

General Auchinleck still held to his previous day's orders which were for XXX Corps to hold fast in the north and for XIII Corps to press north and north west to disrupt the enemy's rear and protect the left flank of XXX Corps. An enemy movement south from the central sector to ward off this threat to their flank and rear by XIII Corps had been noted by No. 24 S.A.A.F. Bostons whilst returning from a close-support raid late the previous evening. The enemy Commander, not thinking that this threatened enveloping movement by XIII Corps had sufficient to sustain it, and being unwilling to be deflected from his set purpose of attacking the Ruweisat Ridge with the full strength of his German Panzer Army, had despatched the Italian Ariete Division. Rommel underrated the power of the New Zealand troops to hit back. These Italian reinforcements attacked the New Zealanders on Alam Nayil Ridge (Map Reference 882270) and by 10.00 hours had been completely routed by them. 'It has turned out,' as a depressed-sounding entry in the Afrika Korps War Diary records, 'that the Ariete has lost almost the whole of its artillery and tank strength from the enemy attack in the early morning.'

Ibid

Afrika Korps
War Diary

The Adverse Effect of Night-and-Day Bombing on the Morale of Enemy Troops

Although this particular Division, The Ariete, had given the Germans staunch support in the past, it was the Italians who were to prove the truth of the dictum that 'the strength of a chain is that of its weakest link'. If not altogether 'bomb happy', in the telling phrase quoted above, their morale and value as fighting troops had been severely affected by the weight of 'round-the-clock' bombing to which they had been subjected. 'The enemy air force is bothering us a lot,' an officer of an Italian artillery unit entered in his diary, on 4 July, the following day. 'From 5 to 11 o'clock it was over us more than five or six times. Night and day it seems to go on without interruption, and there's not a moment's peace. We are becoming like potatoes - always underground.' Also, in order to accelerate the forward movement of the German and Italian Air Forces which had been greatly impeded by the shortage of transport caused by these almost ceaseless air attacks, Rommel, by his order of 26 June, had taken transport away from the Italian infantry and forced them to march for several days through the Libyan Desert, in the height of the summer. Reports were being received from prisoners of war of the acute dislocation to their supply system - even ordinarily precarious in a desert terrain - that had resulted from constant air attack, and units, particularly in the south, were frequently short of supplies not merely of ammunition and fuel, but even of food and water.

Eighth Army
Intelligence
Summary No. 263

Von Rintelen
to Army General
Staff. A.H.B.6
Translation
No. VII/80
page 12

Thus the repercussions of the Royal Air Force day and night offensive mounted, until eventually they were to swamp all other considerations. Rommel was beginning to find that even members of the German Afrika Korps, picked as they were from among the finest cadres of the Wehrmacht, were subject to average human limitations. 'It must be borne in mind,' says a revealing entry for 3 July in the Afrika Korps War Diary, 'that action has been going on for days, unbroken by day and by night, and signs of fatigue must tell on officers and men.' It was on these vital reserves of energy, then, perhaps more than anything else, that the pressure of the Royal Air Force offensive preyed, bringing the troops of this victorious army to a point of exhaustion.

Afrika Korps
War Diary

Rommel's Main Offensive on 3 July, Directed Against the Ruweisat Ridge

XXX Corps
Intelligence
Summary No. 120

Afrika Korps
War Diary

Cositrep 436
Hist. (B)
(Crusader)
4 (Final)

A.H.B./IIJ1/41/1
Table of
Operations

At 10.25 hours on 3 July, soon after the New Zealanders had scored their morning success against the Ariete Division, Rommel's main offensive involving the German 15th and 21st Armoured Divisions was launched against the Ruweisat Ridge, with strong field and medium artillery support. Further north, a frontal attack was made against the south-west perimeter of the El Alamein 'box' by the German 90th Light Division which at first was attended by some slight success and then came to a halt. The armoured attacks against the Ruweisat Ridge, backed up by artillery fire from the Deir el Shein 'box', continued intermittently until last light and involved the whole of the German tank strength. By 18.00 hours the enemy seemed to be within reasonable hope of reaching their objective, with thirty tanks having worked their way round to the east of the Ruweisat Ridge, and were able to report that Point 79, Alam Baoshaza, due south of the most easterly part of the El Alamein perimeter, had been reached. But this, Rommel's most easterly advance to date could not be sustained and by 20.25 hours a frustrated enemy was seen to be withdrawing westwards, under cover of smoke. Eighth Army sources were able to report, 'Probably the most successful day over the whole front since the end of May.'

'Our Air Force has again been most active and had good targets,' the Commander-in-Chief, Middle East signalled to the War Office. 'Army is most appreciative.' From dawn until dusk, bombers and fighter bombers were over the assembly areas and refuelling points for the 15th and 21st Panzer Divisions which extended along a lateral axis eastwards from Abar el Mukheisin, through Deir el Shein to the root of the Ruweisat Ridge. Gun pits in the captured 'box' at Deir el Shein, from which the enemy were directing heavy shelling in support of their armour, were also repeatedly bombed. The Boston and Baltimore Squadrons surpassed themselves and alone made one hundred and fifty-six bombing runs on a shuttle service, backwards and forwards from their landing-grounds to this area, and which was only made possible by the high state of serviceability of their aircraft. Frequent allusions to the efficacy of these 'Balbos', or Boston-cum-Baltimore raids, which ran with the frequency and regularity of a suburban train service, were made by the enemy. In this central area alone two hundred and seventy-two bombing attacks were made by Bostons, Baltimores, Kittybombers and Hurribombers of the Western Desert Air Force, in the course of which six hundred and seventy 250 lb. and fifty-six 500 lb. bombs were dropped, making a total of nearly 90 tons of high explosives.

The Enemy Operation Order of 30 June for the Axis Air Forces to Give Close Support to the Panzer Army Put into Operation on 3 July

High Level
Reports and
Directives
dealing with
the North
African
Campaign.
A.H.B.6.
Translantion
No. VII/80

Having begun the previous night with an operation for the systematic mining of the Suez Canal and its approaches, the most important phase of the enemy air programme was put into effect on the morning of 3 July 1942, which was the 'support of troops fighting on the ground by covering them against enemy air attacks and by attacks against strong enemy concentrations and on retreating troops.' Fighters of the Western Desert Air Force accepted the challenge in the spirit of a contemporary description of the Junkers Ju. 87 which states, 'This aircraft is usually hailed with delight by fighter pilots and is attacked from quarter

A.H.B./IIJ6/69
(A)
Analysis of 360
Fighter
Victories
by 90 Western
Desert Pilots

No. 1 Squadron
S.A.A.F. O.R.B.

astern to dead astern Burns very easily if hit in the wing roots or underneath between the wings. Normal attacking distances have been 150 yards coming in to point blank range. Short bursts are essential, as he usually has a fighter escort somewhere handy.'

The success attending No. 1 Squadron S.A.A.F. 'Stuka Party' of 3 July merits a verbatim extract from the Squadron O.R.B. 'During the afternoon, the Squadron was informed by 211 Group of a very important job for it in the evening. These are critical days, and the spearhead of the attack is being directed against a bulge... in the Alamein line. This line, across the bottle-neck, is our last line of defence... Our job is straightforward. We are at all costs to prevent the Stukas from dive-bombing our troops. Top cover will be provided by another Squadron (No. 203 Squadron). No. 1 is to disorganise the Stukas regardless of their fighter escort... This is the first big operation which the Squadron has carried out for some months. It is also the first real operation in which our new pilots have ever taken part... The Squadron arrived as the Stukas peeled off to bomb. The C.O. tallyhoed and the Squadron went into it, making a starboard beam attack. The Major was the first to draw blood. The Stuka which he attacked exploded, and Sinclair had to dodge pieces of it, as he flew through the spot where it had been. The results of the operation are 13 Ju. 87B's destroyed, 3 damaged and 1 Me. 109F destroyed and 1 damaged.... Within half an hour of landing, the Army had confirmed 9 of the Stukas as having crashed.... The ground crews have worked magnificently. Our machines are old and worn, and it is due to the untiring efforts of the ground crews that they have been kept serviceable.' The advantage, however, was not altogether on the side of fighter pilots of the Western Desert Air Force faced with German 'Stukas'. There must have been times when enemy pilots of Me. 109's must have 'hailed with delight' the sight of small formations of the obsolescent Hurricane. In the course of two offensive sweeps over the northern sector of the line, Hurricanes of No. 213 Squadron were 'jumped' by a total of seventeen Me. 109F's with the result that four Hurricanes were destroyed and 3 damaged for one Me. 109F damaged. 'The Me. 109F's were out in force,' one Squadron diarist observed, 'and, with their superior speed and climb, gave the Hurricane a gruelling time.' Out of fourteen fighters destroyed or damaged by enemy action on 3 July, eleven were Hurricane Mark II. (1)

No. 1 Squadron
S.A.A.F. O.R.B.

A.H.B./IIJ1/
102/18
Diary of R.A.F.
Operations
in the M.E.

'Nevermore must the ground troops expect, as a matter of course, to be protected against the air by aircraft. If this can be done, it must only be as a happy make-weight and a piece of good luck.' Whether 'happy make-weight' or 'a piece of good luck', the Eighth Army was given a full measure of protection from enemy dive-bombers in the course of this day. Front-line troops were heartened by the sight of so many enemy aircraft being shot down before their eyes. It meant that the tragedy of Tobruk when Stukas dive-bombed the defences with comparative impunity was not to be repeated and, in fact, in the course of the next few days' fighting in

(1) According to enemy records their losses in North Africa on 3 July amounted to five dive-bombers, two Me. 109's and one Me. 110. They claimed fourteen victories. The R.A.F. lost nine fighters, eight of which were Hurricanes.

the air, was to be revenged. It meant also that the rôle Field Marshal Rommel had assigned to the Axis Air Forces and which he had seen used with such success in France in 1940, that of airborne artillery, was to be proved ineffective in face of a resolute enemy who held, and were determined to maintain, local air superiority over the field of battle.

A Comparison of Enemy and R.A.F. Activity - 3 July

A.H.B.6
Fliegerfuehrer
Afrika Document

German sources state that the total sorties made on 3 July 1942, excluding reconnaissance, were two hundred and three of which one hundred and twenty-six were fighter, sixty-one Stuka and sixteen heavy fighter. The serviceable aircraft consisted of twenty-six fighters, twenty-one Stukas and eight heavy fighters, so that each aircraft made, on an average, four sorties. The G.A.F. strength in North Africa was given on 1 July 1942 as eleven bombers, eighty-five dive-bombers, one hundred and four S.E. fighters, and thirty-six T.E. fighters, with an approximate serviceability of 50 per cent. From this it may be deduced that less than a quarter of the G.A.F. strength in North Africa was available to take part in the battle.

A.H.B.6.
Records

In the twenty-four hour period, from dusk 2 July to dusk 3 July 1942, the Royal Air Force effort in support of the Eighth Army involved approximately one thousand operational sorties by Middle East bombers and fighters in which over 220 tons of bombs were dropped, almost exclusively in the battle area and the coast road in the north. There are no figures for the weight of bombs dropped by the German Air Force, but their total sorties over this period amounted to approximately two hundred and fifty. Using operational sorties as a yardstick, then the support the German Air Force was able to give to the Panzer Army during these crucial twenty-four hours of the fighting in North Africa, when so much was at stake, was 25 per cent of that obtained by the Eighth Army. In addition, the attacks made by German bombers were either dive-bombing attacks on fixed positions or else a few sporadic night raids and the mine-laying operations already recounted, so that Eighth Army troop movements, their assembly areas and base depots were kept free from molestation.

Ibid

Rommel's Request for Air Reinforcement 'Because of the Fighting Condition of the Troops'

A.H.B.6
Fliegerfuehrer
Afrika Document

A Fliegerfuehrer Afrika diary entry for 3 July shows to what extent Rommel was alarmed by the ascendancy which the Royal Air Force had won over the Axis Air Forces and which threatened the whole future of German arms in North Africa. In reply to a signal from Rommel requesting increased G.A.F. support 'because of the fighting condition of the troops', the Fliegerfuehrer Afrika said that it was not possible to increase Luftwaffe operations, unless he received reinforcements. He accordingly made an urgent request to Field Marshal Kesselring, the Air Officer Commanding-in-Chief South, for bomber reinforcements to be sent from Crete and fighters from Sicily. There is no evidence that Field Marshal Kesselring acceded to this request, and it was most improbable that he was, in fact, able to do so. Already, considerable diversions of fighters from Sicily to North Africa and to Russia had taken place about the time of Rommel's Gazala offensive in late May, and over one quarter of the total bomber force based on Crete and Greece had been transferred to North Africa between 19. and 23 June.

A.H.B.6
Records

The precarious supply position in North Africa, alone, made the logistical problem of supporting a considerable increase of aircraft strength in North Africa out of the question. Kesselring's complaint that he was nothing but a glorified quartermaster had a basis in fact. The task of protecting his supply lines and ensuring that the forces in North Africa were kept adequately reinforced and equipped under the pressure of the R.A.F. policy of interdiction of supplies was his main preoccupation. The phoenix of Malta was beginning to rise again from its ashes: it could almost be said that it had risen and was nearly fully fledged. After expending hundreds of aircraft and crews on its neutralisation in the spring of 1942 with a prodigality that had seriously depleted the Axis Air Force strength in the Mediterranean, at a time when it was most needed to reinforce Rommel's forces, the active employment of this island base for air and naval forces by the British had again become a serious menace, causing such heavy losses on the western Mediterranean supply route that diversions had had to be made to the eastern Mediterranean for which, again, extra aircraft were required for escort duties. In addition, the German Mediterranean fleet of transport aircraft and even U-boats were pressed into service for the uneconomic task of transporting reinforcements, urgent supplies and fuel to North Africa. A decision had had to be made to attempt yet again to neutralise Malta, the air offensive being scheduled for 4 July, the day following Fliegerfuehrer Afrika's request for the despatch of Sicily-based fighters to Africa.

Thus it will be seen how, under pressure from Rommel whose mind was obsessed by tactical considerations on the ground, the German Air Force and particularly its bomber strength was being frittered away in close support of the Army when concentrated night bombing of the Delta area and Canal Zone, target by target, along sound strategic lines, offered a far more economic return for effort expended. Instead of which, even when the bombers were used in a strategic rôle, mines were dropped in and around the Canal and collected the next day with as little effect, almost, as if they had been left in their dumps in Greece and not carried fruitlessly, with considerable expenditure of effort and fuel, across some four hundred miles of the Eastern Mediterranean.

The Night Bombing Programme 3/4 July Limited by XIII Corps' Advance.

The advance of XIII Corps from their positions in the South, in a wide encircling movement to the north west, with the object of threatening Rommel's flank and rear, however encouraging from the Army Commander's point of view, had the unfortunate effect of imposing severe limitations on the night-bombing programme of 3/4 July.

The 4th and 5th New Zealand Brigades and the 5th Indian Division, pressing forward during 3 July, had reached the line of 272 Northing Grid, to the south of Deir el Shein, while one New Zealand patrol had penetrated as far west as Point 72 (Map Reference 858279), over twenty miles to the rear of the enemy's forward troops in the Ruweisat Ridge area. In order to avert the possibility of these units of XIII Corps, which were operating so far to the west of the main Eighth Army forces, being bombed by friendly aircraft, the bomblines set for No. 205 Group's medium bomber operations for the night of 3/4 July was pushed back, in the inland battle area, to 86 Grid.

XIII Corps
War Diary

A.H.B. IIM/
B205/1A
Appendices to
No. 205 Gp. O.R.B.

(84234)70

This meant that the main body of the enemy forces, including the Panzer Army, located to the east of 86 Grid, were thus completely exempt from night-bombing attacks.

A.H.B./IIJ1/31/1
'Table of
Operations.'

Fortunately, during the raids on the night of 3/4 July, almost the whole of the bomber effort was concentrated on the supply route to the north, where past experience had shown that good targets were assured along the coast road and railway. In all, over 130 tons of bombs, mostly 250 lb. G.P. bombs fitted with extension rods, were dropped by the 85 aircraft, of which seventy-one were Wellingtons, five Blenheims, seven Albacores and two Fortresses. The main action centred around Daba and Ghazal Stations, where dumps and motor transport were hit. Again, the numerous fires and explosions showed that a heavy toll was being taken of enemy transport and supplies.

No. 40 Squadron
O.R.B.

A specific mission was assigned to twelve aircraft of No. 40 Squadron for an attack on a tank-repair workshop to the east of Matruh (Map Reference 726352). A low building, most probably a repair shed, was demolished and fires were started from which clouds of smoke rose to 1,000 feet. Heavy anti-aircraft gunfire and searchlights were encountered and one Wellington failed to return. The majority of the aircraft involved in the raid appear to have missed the primary target, the workshop, and attacked the fairly numerous concentrations of M.T. in the area.

No. 70 Squadron
O.R.B.

The first waves of Wellingtons to arrive over the enemy's northern supply route found that a high standard of illumination had already been provided by the Fleet Air Arm Albacores, for the most part to the west of El Daba. No. 70 Squadron reported considerable cloud on the way out, but over the target area visibility was clear. A big fire was started among large vehicles, believed to be tanks, and hits were registered among trucks in a siding. Other concentrations of enemy vehicles were attacked and in one case a vivid orange-red fire was started. The most profitable result of the bombing by sixteen Wellingtons of

No. 104 Squadron
O.R.B.

No. 104 Squadron was to set fire to a train in Daba Station. This proved to be an ammunition train which, as the fires burned and the explosions increased, attracted many other aircraft to the locality. Buildings, huts, tents and transport were also successfully attacked by Wellingtons of this Squadron. The loss of ammunition occasioned to the enemy in the course of the medium-bomber operations for the night 3/4 July was to have serious repercussions on the following day when, as was logged in the Afrika Korps War Diary, batteries were reduced to ten rounds. Rommel was also intensely worried by the way in which the steady drain on his reserves of transport vehicles, which may be attributed almost entirely to the effects of air action, was having on the ability of the Axis Air Forces to move forward in support of the Panzer Army.

O.R.B.s &
Table of
Operations
A.H.B./IIJ1/31/1

Other attacks by Wellingtons of Nos. 37, 108 and 162 Squadrons and Albacores of No. 821 Squadron (F.A.A.) which covered this vital sector of the enemy supply route as far east as Matruh, in which sidings, dumps, concentrations of motor transport and convoys were bombed, augmented still further the losses inflicted on the enemy, on the night of 3/4 July. One Wellington aircraft was lost in the course of these operations. A Blenheim bomber of No. 14 Squadron also failed to return from an attack on Bagush main and satellite landing grounds where a ground haze prevented any assessment of the results of the bombing. Two Fortresses of the U.S.A.A.F. had little to report as a result of

dropping sixteen 500 lb. bombs from a height of between 8,500 and 10,000 feet on targets between Daba and Matruh. Bursts were seen and a cluster of lights which had been noticed before the bombing were extinguished.

No. 205 Group
O.R.B.

An enemy convoy bound for the port of Benghazi from Greece and consisting of three merchant vessels with naval escorts were the object of an important operation by Liberators of No. 159 Squadron and the U.S.A.A.F. Halverson Detachment. Thirteen of these heavy bombers were briefed for the attack which was to take place early on the morning of 4 July. Only three aircraft, however, all of No. 159 Squadron, were able to locate the convoy. In their case the bombs overshot and no claims were made, although it was believed that one vessel was damaged.

Enemy Air Activity, Night 3/4 July

A.H.B./IIJ6/8
A.A.H.Q.
W.D. Int.
Summary.

A total of some twenty-five enemy bombers, operating from Crete, continued to try to implement Hitler's instructions to close the Suez Canal by mining. A number of sporadic raids were also made in the course of which bombs were dropped on the ports of Suez, el Qantara and Port Said, all with negligible results.

The Enemy Commander-in-Chief's Conference Morning 4 July

At a conference the next morning as was logged in the Afrika Corps War Diary for 4 July, Rommel ordered that the Afrika Panzer Army should go over to the defensive. '4 July 1942, considerable enemy flying activity again during the night.

War Diary of
Afrika Corps
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Page 7

'0900 hours. At the Corps Battle Headquarters conference with the C.-in-C is taking place; also taking part are G.O.C. X Army Corps, G.O.C. XX Army Corps, O.C. Littorio Division and the Operation Officer of the 90th Light Division. After an explanation of the situation the C.-in-C. orders that Panzer Army Afrika is to go over to the defensive in order to ease the difficult supply situation and to allow the non-motorised units to keep up but this will not cause other attacks to be abandoned.next operation will probably be towards the south or south-east to wipe out the New Zealand Division.'

After the optimistic declaration of but two days earlier of his plan to advance on Cairo, it was plain that Rommel's gamble to push forward in advance of Luftwaffe support and 'irrespective of whether all Units had been brought up or supply measures fully carried out' had failed in the face of constant air attacks and the stiffening resistance of the Eighth Army. Up to the time of the fall of Deir el Shein on the evening of 1 July Rommel's optimism had seemed fully justified. His inability to exploit the gap he had forced in the Alamein line, leading to a condition of stalemate on 2 July and a definite reverse on 3 July, meant that the days of easy victories were finished, at least for the time being.

As a result of this C.-in-C's conference the following message was sent to Army General Staff Operations Division.

'On the morning of 4 July Field Marshal Rommel reported that he must temporarily suspend further attacks and go over to the defensive. Regarding this Comando Supremo informed Italian G.H.Q. in North Africa 'that the Duce shares the opinion of the Panzer Army that a temporary suspension of

High level reports
and directives
dealing with the N.
African campaign
1942. A.H.B.6 Trans.
No. VII/80.
(84234)72

operations is necessary to regroup units and to bring up reinforcements and equipment. Special importance must be attached to these reinforcements being brought up. Comando Supremo will, for its part, attend to the matter in Italy. The duration of this lull is left to the discretion of the German and Italian Panzer Army which must report to G.H.Q. North Africa.'

'The Panzer Army has reported that it must go over to the defensive for approximately two weeks in order to bring up men and supplies to regroup units.

(Signed) von Rintelen.'

The heavy and sustained weight of attacks both by night and day of the Royal Air Force were primarily responsible for this situation in which Rommel's forces found themselves, whereby through shortage of supplies and sheer fatigue they were forced to call a halt to hopes of a quickened settlement of the main Eighth Army forces at El Alamein and advance to the Nile and Suez. In this context, two diary entries of the German 90th Light Division are of interest. '2 July. The attack is haltedthere is nothing to indicate that the enemy is withdrawing. On the contrary, the impression is created that he intends to halt the assault of the Italian German African Army in front of the Alamein line with all the forces at his disposal. The German units badly exhausted through the heavy fighting and the hardships suffered (day and night marches) during the preceding days and weeks, do not seem able to take this last fortress of the English in front of the Nile Delta with the available forces. The enemy throws all the air force at his disposal into the battle against the attacking Africa Army. Every 20 or 30 minutes, 15, 18 or sometimes even 20 bombers with adequate fighter protection launched their attacks. Although the visible success of this heavy and continuous bombing and low flying attacks is negligible owing to the disposition of the fighting and supply units, the morale effect on the troops is so much more important. Everyone prays for German fighter protection knowing only too well that the German Africa Air Force cannot advance so very quickly. Sometimes German fighters appear singly greeted by the roaring applause of the troops, but naturally they are not in a position to attack such heavy bomber formations. The last hope that remains is the Italian divisions which so far have seen very little action and are therefore more fit. However, from such comrades there is little to be hoped.

War Diary
of German
90th Light
Division

'3 July. With all the weapons at his disposal the enemy drives to prevent a further advance of German forces to the east. For this purpose strong enemy artillery fire and heavy infantry fire from S.Ps. Strong enemy bomber and fighter formations noticeably weaken what still remains of the forces of the division.'(1)

(1) The entry on 2 July which states that the visible effect of these constant air attacks was negligible is hardly borne out by the subsequent entry for 3 July nor by Rommel's own despatches. For the most part, as far as can be established from enemy records, casualties to personnel from air attack, especially in the open desert, were comparatively light. Nevertheless, the cumulative effect on enemy transport and armour - apart from the morale of the troops - was undoubtedly considerable. Rommel himself estimated the loss of vehicles from air attack alone during this period as 30 a day. Special instructions for the protection of stationary tanks by the building of blast-proof walls also had to be given.

The note of disillusionment, almost despair, which creeps into enemy war diaries at this period reflects the utter weariness of the troops. Constant references are made to the superiority enjoyed by the Royal Air Force, the inability of the Luftwaffe to protect them from air attacks and the consequent shortage of supplies. Counter balancing these pessimistic enemy reports is the remarkable wave of optimism that surged through the forces under the command of General Auchinleck. After the bewilderment and frustration of defeat and the long retreat came a conviction that Rommel had overreached himself and that for the Eighth Army which, after the loss of Deir el Shein, had successfully withstood the further assaults on the El Alamein line, there was a possibility of the limited counter attack of XIII Corps from the south developing into an advance along the whole front.

The operational order issued to XIII Corps on 4 July 1942, summarised the position as follows - 'the enemy are endeavouring to penetrate the El Alamein position by thrusting south of El Alamein directly eastwards towards the coast road. These thrusts have been held so far and the enemy has been strongly attacked from the south and east. The situation may arise when the enemy is exhausted and endeavours to withdraw. In this case XIII Corps are carrying out pursuit, partly to, but south of coast road towards 850 Grid and R.A.F. are paying particular attention to area between coast road and railway. XIII Corps will carry out indirect pursuit directed on (a) Daba and (b) the escarpment six miles west of Fuka.'

Morning of 4 July 1942: the Western Desert Air Force's Concentrated Attacks in Support of the Eighth Army

The fourth of July 1942, came near to being a disaster for German arms in North Africa. The day was only saved through a combination of German ability in defence, ruthlessness in checking troops from surrendering, a failure on the part of the Eighth Army to exploit the very favourable situation which had arisen through the weakness of the Afrika Korps, and a diversion in the afternoon of air support from the field of battle to secondary targets along the coast road.

The Commander-in-Chief, Middle East, was fully aware of the trend that events were taking. At dawn, on 4 July, in a signal to the War Office, he outlined his 'Plan for To-day'.

'Hold fast on the north and press hard from the south with New Zealand and 5th Indian Division Battle Groups, also 7th Motor Brigade Group, 1st Armoured Division, watching enemy armour ready to engage on favourable opportunity. Estimated 300 25-pounders in action. Leading Brigade Group 9th Australian Division due arrive behind 1st South African Division to-day. Divisional Commander here at XXX Corps Headquarters.

Air Force yesterday night attacked enemy transport on road very heavily and bombed tank workshop Matruh good effect. They are continuing the good work this morning. Had conference with Gott and Norrie here last night and gave orders for pursuit if enemy starts to crack. It will be relentless. No sign yet of enemy going and he is still likely, in my opinion, to try to adhere to his plan of breaking through. Closest watch is being kept on him and there is no complacency or slackening of effort.'

Hist. (B)
(Crusader)
4 (Final)
No. 87.

What was subsequently missed, however, in the course of the day's fighting, on 4 July, was the fact that a significant defeat was inflicted on the enemy which was not correctly evaluated at the time, so that no concentration of all arms at the decisive point and at the correct moment, ever took place. Although the German reports reveal a state of confusion, amounting almost to demoralisation, in their forces, it does not appear that any especial significance was attributed by Eighth Army sources to the outcome of the day's fighting.

The main battle area, on 4 July, still continued to be in the vicinity of the Ruweisat Ridge, some ten miles to the south of El Alamein Station where, through continued offensive operations, Rommel hoped to outflank the El Alamein 'box'. Subsidiary to this was the front established by XIII Corps in their advance from the south, with the intention of threatening Rommel's flank and rear. The enemy's nervousness of this flank was evident as all three Stuka attacks made during the morning were directed against these columns.

XXX Corps
War Diary.

Although, as has been seen from the enemy Commander-in-Chief's morning conference, the governing policy of the enemy was to be a defensive one, precipitated mainly by an acutely difficult supply position and the exhaustion of his troops, it had nevertheless been Rommel's decision that 'further attack operations will not be desisted from.' At first light, reconnaissance had shown that the enemy's main concentration, consisting of some 3,000 vehicles, was still centred at Map Reference 880280, in the Ruweisat Ridge sector. The battle was joined soon afterwards when enemy tanks advancing eastwards were met by the armour of the 1st Armoured Division. By 10.30 hours, as was recorded in the War Diary of the German Afrika Korps, 'the tank battle in the 15th Panzer Division area is at a standstill. The Division's ammunition situation is still very grave; there are only ten rounds available to each battery.' By 13.00 hours the position was one of such urgency that the General Officer Commanding was himself on the field of battle. This crisis was precipitated not, as might be expected, by a weakness in a part of the battle-front for which the Italians were responsible, but in the most vital of all sectors to which the crack German formations, the 15th Panzer Division and the 90th Light Division, were assigned.

War Diary of
the German
Afrika Korps.
A.H.B. 6 Trans.
No. VII/87.

As its contribution to the land-battle, throughout the morning of 4 July, the Western Desert Air Force countered with a series of light bomber and fighter bomber attacks which were outstanding not only because of their weight, but for the way in which they followed the principle of concentration - a principle, moreover, which had not always been observed as closely as the situation warranted, during this period. Within five hours, from 07.30 hours to 12.30 hours, aircraft comprising Bostons of Nos. 12 and 24 Squadrons (S.A.A.F.), Baltimores of Nos. 223 and 55 Squadrons, together with fighter-bombers of escorting aircraft, dropped almost 90 tons of bombs on the spearhead of the enemy armour, its supporting transport and on battery positions in an area some five miles square, in the Deir el Shein, Abar el Mukheisin and Ruweisat Ridge areas. It was some of the most concentrated bombing, in close support of the Eighth Army, that the Western Desert had seen. Numerous fires, direct hits and explosions were reported and some of the fires were visible for as much as forty miles. Enemy fighters were out in strength, the anti-aircraft gunfire was heavy and accurate and a tendency for the enemy to adopt measures for a wider dispersal of their M.T. and tanks were noted. It was

H.Q.R.A.F.
Middle East
Table of
Operations.
A.H.B./IIJ1/31/1.

Squadron
O.R.B.s.

Hist. (B)
Crusader
4 (Final),
No. 92.

evident that the enemy were reacting violently to this intense bombardment from the air. 'Damage inflicted by these attacks,' reads an entry in the Commander-in-Chief, Middle East's Cositrep to the War Office, 'contributed to enemy withdrawal to the north west in the afternoon'.

Unhappily, these intensive bombing operations which took place on the morning of 4 July, were marred by two serious incidents. Two major raids which involved a total of thirty-six Bostons and Baltimores of No. 3 Wing (S.A.A.F.) bombed the 3rd South African Brigade who were located in the defensive position at El Alamein.

O.R.B.
Appendices
3 Wing (S.A.A.F.)
Reported Cases of
No. 3 Wing
Aircraft Bombing
Our Own Troops'.

'On 4/7/'42, at 09.25 hours, 3 S.A. Bde. report that 18 bombers, thought to be Bostons, dropped bombs in Bn. and Coy. areas, at 883290. Number of bombs not known. No casualties, but considerable damage to vehicles and equipment.

Comments: Wing records show that at 09.21 hours, nine Bostons and nine Baltimores (Lt.-Col. Martin) attacked between 878285 and 874295, on a course of 315 degrees. One direct hit on trenchwork and four fires reported. On 4/7/'42, at 18.57 hours, 3 S.A. Bde. report that Bn. area was bombed by twelve Bostons, escorted by four fighters. Approximately twenty-five bombs were dropped, most of which fell in Bn. H.Q. area, at 884290. No casualties, one wounded and three trucks immobilised.

Comments: 3 Wing Records show that at 11.10 hours, twelve Bostons and six Baltimores (Lt. Davis) bombed along grid 288 from 876 to 868, on a course of 280 degrees. Bombs fell astride track. Four plus fires started.'

Within two days, these were the fifth and sixth incidents respectively in which Bostons and Baltimores of No. 3 Wing (S.A.A.F.) bombed the 3rd South African Brigade, making a total of ninety-one aircraft. After these experiences, it is not surprising that the Eighth Army tended to mistrust the efficacy of close-support bombing and that as a precaution, as the day wore on and the fighting became more and more confused, the bomber force was switched away from the inland battle area to safer but less important secondary targets in the north.

The Acute Weakness of Rommel's Panzer Army. Afternoon of 4 July

The shortage of supplies, particularly of ammunition, together with the steady enfeeblement of the troops which, as has already been noted, were the main reasons for the failure of the Panzer Army to exploit their success at Deir el Shein on the evening of 1 July 1942, reached a climax on 4 July when as was logged in the Afrika Corps War Diary, only 10 rounds were available to each battery. By 1300 hours the weakness of the enemy forces, particularly of the 15th Panzer Division, was such that the G.O.C. of the Afrika Korps himself was on the field of battle directing operations. An hour later an enemy infantry attack began at Map reference 885278 which failed so completely that it looked like developing into a general surrender until the movement was checked with customary German ruthlessness. Some 600 Germans of 115th Lorried Infantry Regiment drove forward making signs of surrender. British light tanks advanced to receive their surrender but were fired on by

XIII Corps
War Diary

enemy 88mm. guns. At the same time the enemy artillery opened fire on the would-be prisoners of war and, assisted by our own artillery, caused very severe casualties among them. Only very few prisoners could be taken.(1)

Weary and harassed from air attack and short of supplies as they were the whole enemy position was in acute danger of crumbling. There were signs of a general withdrawal of the enemy tanks and infantry westwards along the Ruweisat Ridge in late afternoon. British tanks began to move up but Rommel with his customary speed and skill in defence, put up a screen of field and anti-tank guns on a line running south west from the Ruweisat Ridge to Alam el Dihmaniya.

Afternoon 4 July 1942: the W.D.A.F. Bomber Effort Diverted from the Battle Area to the Coast Road and Landing Grounds

The contemporary account of the action on 4 July, contained in the Air Support War Diary, is of particular interest.

A.H.B./IILJ1/122/
80 'Record of
Operations-
Withdrawal
from
Cyrenaica.'

'To-day was very much a repetition of yesterday. Most successful heavy bomber and fighter effort against enemy ground and air. Unfortunately, a certain amount of our air attack fell on the wrong side of the bomb line, in the Alamein 'box'. Targets were attacked first south of the 'box' and later, when fighting there became confused, the centre of attack was moved north-west of the 'box' and on to the road. Enemy air attack was on an increased scale and 29 reports were sent in by tentacles. Several good targets were offered in the early part of the day. In the afternoon a number of Germans were taken prisoner and there appeared to be the beginning of a movement north-west. Plans were made for our attack and pursuit westward.(2)

A.H.B.6 Trans.
No. VII/87.

It was most unfortunate, at a stage in the battle when the morale and fighting condition of the enemy troops were at such a low ebb, that air support was withdrawn from the field of battle, in the afternoon, and diverted to attacks on landing grounds and supply routes, to the north and north-west. The War Diary of the German Afrika Korps records at 14.15 hours how, 'Because of the critical position of the 15th Panzer Division, it is out of the question for the G.O.C. to leave the field of combat.' By 15.00 hours, 'the position of the 15th Panzer Division remains as grave as ever ... There are no forces to reinforce 15th Panzer Division at the disposal either of Panzer Army Afrika or the Afrika Korps ... About 40 tanks have broken through and overcome units of

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- (1) This version of the attempted surrender of the 600 Germans was later altered in official despatches and interpreted as a ruse. The earlier version, however, does appear to be borne out by German sources which make allusion to the fact that British tanks had broken through and had overcome units of the motorised Infantry Regiment 115. This took place at a very critical stage in the battle when the German 90th Light Infantry Division had begun to show definite signs of demoralisation.
- (2) According to Rommel, this was the 21st Panzer Division withdrawn from the front for reorganisation and refit. It was this regrouping which gave the Eighth Army the impression that Rommel had decided to retreat.

Motorised Infantry Regiment 115.' There seems every likelihood that the additional confusion and losses caused by a renewal of close-support air attacks on a scale comparable with the morning's efforts would have involved the enemy forces in a decisive defeat.

The reasons for this diversion of air effort, at such a critical time in the fortunes of the land battle, were complex. In the battle area, the weather deteriorated during the afternoon and not only hampered operations but stopped them completely for two hours. Then the enemy withdrawal was interpreted as being the initial stages of a full-scale retreat, and it was part of the combined army-air plan for the air attacks to be concentrated on the coast road. The main reason, however, appears to have been the one put forward in the Air Support Control War Diary. Fighting in the afternoon had become confused and the Eighth Army were afraid of having their own forces bombed. As has already been seen, this nervousness was considerably strengthened by the heavy bombing attacks made by aircraft of No. 3 Wing (S.A.A.F.) on the 3rd South African Brigade in the Alamein 'box'.

The afternoon sorties, directed as they were against the enemy's supply route and landing grounds, did, however, cause further interruption to the arrival of urgently-needed supplies to the battle area. They also helped to reduce the enemy air activity, particularly of dive-bombers, directed against XIII Corps in their successful drive towards the north. At 13.40 hours, twelve Bostons of No. 24 Squadron (S.A.A.F.) bombed an enemy concentration of some five hundred M.T. located along the road and between the road and the railway-line, from a point just north of Tell el Eisa to the railway station at Sidi Abd el Rahman. Eight fires were reported, one explosion and nine direct hits, including one on a tank.

Sortie
Report
No. 24 Squadron
(S.A.A.F.)

That afternoon, also, Beaufighters of Nos. 252 and 272 Squadrons ranged the whole stretch of coast road, between Sidi Barrani and Tobruk, and were highly successful in their attacks on enemy motor transport, consisting mainly of troop-carriers bringing reinforcements to the battle front. Claims were made of over fifty vehicles either destroyed or damaged by these low-level attacks, and many casualties among troops. One Beaufighter of No. 252 Squadron was lost.

Nos. 252 and
272 Squadron
O.R.B.s.

Attacks by fighters and fighter-bombers of Nos. 112, 250, 3 (R.A.A.F.) and 450 (R.A.A.F.) Squadrons were also made against enemy landing grounds in the El Daba area. The results of these attacks were believed to be good, but no claims were made except for one Me.110 which was destroyed in the air. The last raid of the day was at 19.00 hours, when eighteen Bostons of No. 24 Squadron (S.A.A.F.) dropped seventy-two 250 lb. bombs on concentrations of enemy transport between Sidi Abd el Rahman and El Daba. Many direct hits . . . and near-misses were seen and one large fire was started with smoke rising to 2,000 feet.

A.H.B./ILJ/
31/1 H.Q.
Middle East
'Record of
Operations'

No. XIII Corps' Advance from the South

In the south, XIII Corps' enveloping movement continued unchecked until the 5th New Zealand Brigade reached the El Mireir area, a few miles to the south west of the Deir el Shein position, where the 18th Indian Brigade had been overrun on the evening of 1 July. There the

XIII Corps
War Diary

New Zealanders were halted in the course of the afternoon by heavy artillery fire from astride the El Alamein-Abu Dweis track.

A.H.B./IIJ6/8
Report on
'Operations'.

In their attempt to check this threat from the south, the enemy reverted to Stuka attacks which caused casualties among the New Zealanders. In the late afternoon, in the course of an offensive sweep by twelve Hurricanes of No. 80 Squadron with six Hurricanes of No. 1 S.A.A.F. Squadron acting as top cover, one of these raids consisting of twenty Stukas escorted by twelve Me. 109's was intercepted. Claims were made of three enemy dive-bombers shot down for the loss of three Hurricanes. An hour later, another raid of escorted dive-bombers was broken up by Kittyhawks of Nos. 250 and 112 Squadrons in the course of which one Ju. 87 was probably destroyed.

Fighter Activity on 4 July

A.H.B./IIJ1/31/1
'Table of
Operations'

An analysis of the sorties flown by fighter aircraft on 4 July gives a total of 467 sorties, of which 376 were over the actual battle zone. Of these 376 sorties, 47 per cent were made by fighters engaged on offensive sweeps, 28 per cent by fighter bombers, 22 per cent were on bomber escort and 3 per cent ground attack by fighters.

A.H.B.6.
Figures.

Enemy records state that the Luftwaffe losses were one dive-bomber, one single-engined fighter and one short-range reconnaissance aircraft destroyed. If these enemy figures of losses are accepted, then the results achieved by this intense activity on fighter sweeps, which absorbed almost half of the total fighter effort on 4 July, appear very meagre. During this critical period, however, when the Eighth Army was stabilising its position at El Alamein, it was most important to give them the fullest measure of protection possible from enemy air attack. Had the enemy been able to concentrate the full weight of their bombing on the Eighth Army's depleted forces to synchronise with the attacks by their armour, then the break-through for which Rommel was trying so desperately might have been effected.

XXX Corps
War Diary

As a corollary to this protection of the Eighth Army provided by the 'air umbrella' of the Western Desert Air Force was the way in which General Auchinleck was able not only to alter the disposition of his troops, unhampered by enemy air attack, but also to bring forward powerful reinforcements in complete safety. On 4 July, a most important movement of fresh troops from the rear areas to the front was effected without the loss of a single casualty from hostile air attack. An Operation Order issued by XXX Corps stated that 'the 9th Australian Division, commanded by Lt. Gen. Morshead, is joining the Eighth Army and has been placed under the Command of XXX Corps. Although the enemy air has been dominated by our own R.A.F., some interference is possible on the way up.' As it so happened, this very considerable and important movement of reinforcements which were to play such an outstanding part in later battles on the El Alamein line was made in complete safety.

Plans for an advance by the Eighth Army and the Western Desert Air Force

Plans were made by Air Headquarters Western Desert for an imminent advance involving the move of the advance parties of certain squadrons to forward landing grounds. After the retreat from Gazala to El Alamein which had ended so recently - Mersa Matruh had fallen to the enemy only the

No. 3 Wing
S.A.A.F. O.R.B.

preceding week and Deir el Shein but three days before - it was not surprising that the news of this change in fortune was treated with a certain amount of scepticism. 'At 1530 hours', recorded one diarist, 'there was jubilation; the Hun was on the move and 600 Germans had walked in with their hands up and surrendered. 'Bomb happy' was the verdict of the wing. They are now talking of a move forward on the 6th though it is difficult to see why Rommel, with the prize of Egypt before his eyes, should give up after so little effort.'

In preparation for this hoped-for advance, and in order to achieve the maximum mobility, all domestic tentage was withdrawn from certain squadrons and personnel were compelled to sleep in the open air for the most part in slit trenches. No personal equipment other than two blankets was permitted, and in one wing even shaving was forbidden. These regulations, in order to ensure the maximum mobility and conserve space for the carrying of fuel and bombs, were accepted for the most part in a spirit of cynical resignation by the personnel involved. 'The Army is still confident', one wrote 'and advise that they have the initiative at El Alamein. Unfortunately, we have learnt by recent experience that such advice usually precedes a movement in the wrong direction. It is hoped that Jerry has fully extended himself and that the prospective move will be the exception and that we will be doing the chasing for a change.'

It is questionable whether such asceticism imposed on both air and ground crews who had been subjected to intense nervous strain for the past 6 weeks, was justified. Life in the desert, with its sand, flies and midsummer heat, could be sufficiently austere and unpleasant. Moreover, such conditions contrasted unfavourably with the high level of comfort, which Cairo provided.

The Allocation of Duties Between the German and Italian Air Forces

Record of
Operations
A.H.Q. W.D.

With the rapid advance into Egypt of the Afrika Korps, the operational commitments of the Axis Air Forces had been greatly increased. The German Air Force gradually established themselves at Fuka, using the Daba group of landing-grounds as advance bases. In this they fulfilled a rôle directly comparable to that of the Western Desert Air Force, that is to say the field striking force. The Italians, on the other hand, followed in the wake of the Luftwaffe and had an advance base in the Fuka area with the major part of their air force allocated to defensive commitments from Tripoli eastwards. This division of responsibility was expressly designed to suit the fighting potentialities of both the German and the Italian Air Forces.

Rommel's exorbitant demands on the Luftwaffe to provide close support bombing for the Afrika Korps and the amount of opposition which these operations encountered from the Western Desert Air Force soon upset this general allocation of duties. Fliegerfuehrer Afrika found that the Luftwaffe alone could no longer support the intense strain, and reported on 4 July, 'That German fighters are stretched to the limit of their capacity in providing escort for bombers in accordance with the demands of the Panzer Army.' Subjected to the strain of constant bombing, both by day and night, the condition of the enemy troops was such that orders were given by the Fliegerfuehrer Afrika on this date, through Liaison Officers, that Italian aircraft were to fly continuous fighter patrols over the Panzer Army and the

A.H.B. 6
'G.A.F. operations in
North Africa
17 June to
7 July 1942.'

(84234)80

90th Light Division. Although from squadron O.R.B.s it is evident that the Italians were much more in evidence than of late over the battle area, this continuity of Italian fighter patrols was never realised. Italian aircraft, the Cr. 42 was also used in the rôle of a dive bomber usually escorted by German fighter aircraft. They did not prove successful and their presence was only rarely noted.

The Afrika Korps War Diary - The Last Entry for 4 July

War Diary of
The German
Afrika Korps
July 1942.
A.H.B.6 Trans.
No. VII/87

The German who maintained the official diary of the Afrika Korps made his last entry on 4 July with a sense of relief, almost amounting to surprise, that it had been possible for the enemy to hold their positions, and that the Eighth Army had not been able to pursue its initial advantage. Of the German Panzer Army, the 21st Panzer Division alone had been able to hold its own. The 15th Panzer Division had been reduced to such straits, in the course of the day's fighting, that it could no longer be considered as operating as an efficient armoured force, while the German 90th Light Division, in the course of the day, had shown definite signs of demoralisation.

'22.15 hours:- Before the front of the 15th Panzer Division there is movement even in the darkness. The noise of tanks is also to be heard. The Division is expecting an attack and requests the bringing up of guns and the support of units of the Army Artillery. The Afrika Korps is unable to help.

In spite of considerable enemy attacks the front has been held. The fighting strength of the troops diminishes, however, more and more quickly every day. A withdrawal of units in order to give them a few days rest is not possible in the critical situation of the moment.

The enemy is again developing intense activity in the air by day and in the night.

The supply situation with regard to ammunition becomes even worse, although some small supplies came through in the course of the afternoon.'⁽¹⁾

The Prime Minister's Message to the Royal Air Force

Hist. (B) (Crusader)
4 (Final) A.M. to
Middle East No. 89

It was on this day, 4 July 1942, that the Prime Minister sent his historic message of appreciation and encouragement to the Air Force in the Middle East.

'Signal OZ.647 (4/7) following from Prime Minister to Minister to Air Chief Marshal Tedder;

Here at home we are all watching with enthusiasm the brilliant, supreme exertions of the Royal Air Force

(1) Although the Western Desert Air Force bombing activity had been diverted to the lines of communication in the north on the afternoon of 4 July it did not evidently disrupt all supplies from arriving in the battle area. During the day-time it appears that disruption of supplies was more effective when bombing attacks were kept concentrated in the immediate battle zone as had happened throughout the morning of 4 July.

in the battle now proceeding in Egypt. From every quarter the reports come in of the effect of the vital part which your officers and men are playing in this Homeric struggle for the Nile Valley. The days of the Battle of Britain are being repeated far from home. We are sure you will be to our glorious Army the friend that endureth to the end.

It was true in effect that the days of the Battle of Britain were being repeated far from home but with a vital difference. It was no longer an air battle being fought in the skies over home territory. Important as the rôle of the field fighter force was in maintaining local air superiority over the enemy air force, that part of the defensive battle had already been won. The Royal Air Force so soon after the long retreat was now waging a bitter offensive war over territory occupied by the enemy ground forces and in support of an Army on the field of battle. Important though the fighters were in the overall pattern of air operations at this time the day really belonged to the force of medium, light and fighter bombers that struck at the enemy by night and day.

Medium Bomber Operations - Night 4/5 July

No. 205 Group
O.R.B. Appen-
dices Enc.,
B. 192.

Operations for the medium bomber force of No. 205 Group on the night of 4/5 July were directed against enemy squadrons and their lines of communication in the battle area west of the oblique track running south-west from El Alamein to Naqb Abu Dweis on the most easterly tip of the Qattara Depression. A special mission was assigned to ten aircraft of No. 38 Squadron to attack concentrations of enemy M.T. and troops which were known to be in the Dallal - Daba area. For this particular raid, weather conditions were reported as being perfect and no difficulty was experienced in locating the target area as it had already been well illuminated by flares dropped by Fleet Air Arm Albacores. Fires were already burning when the aircraft arrived and big explosions and further fires were caused. Enemy Ju. 88s were in evidence in the role of night fighters and two attacks were carried out by them in the course of which one Wellington was slightly damaged.

No. 70 Squadron
O.R.B.

The main force of the medium bombers attacked a varied assortment of targets in the northern coastal area, mainly in the vicinity of Daba. Targets were reported as good, A.A. defences were not unduly troublesome, but again a number of enemy night fighters were encountered. Of the fifteen aircraft belonging to No. 70 Squadron detailed for the operation thirteen found targets which consisted mainly of enemy concentrations of M.T. to the south-east of Daba. The high standard of the illuminations provided by the Albacores of the Fleet Air Arm (Nos. 821 and 826 Squadrons) was commented on by pilots. The combination of good visibility, illumination of targets and lack of opposition resulted in excellent bombing in which many fires were started. Although a number of night fighters were in evidence and some were seen with their nose lights on, no attacks materialised.

No. 40 Squadron
O.R.B.

A total of sixteen aircraft of No. 40 Squadron found a wide assortment of targets along the coast road, mainly around Daba station and Ghazal. One aircraft bombed stationary motor transport which had been parked to the south of the road, causing a large explosion with smoke rising to 5,000 feet, and also a number of small explosions. A fire was started at Daba Station, tanks were bombed

causing a fire, attacks on M.T. were numerous and successful while one aircraft which aimed a salvo of five 250 lb. bombs on small fires from 6,000 feet caused a terrific explosion which lifted the aircraft violently and damaged the aircrew. There were two reports of attacks by enemy night fighters and one Wellington was damaged.

Nos. 37 and 108
Squadron O.R.B.s

Another very successful series of attacks was carried out by twelve Wellingtons of No. 37 Squadron operating from Abu Sueir. Many fires were reported among trucks, dumps and buildings at Daba and further to the east. Direct hits on railway trucks were also claimed. Ammunition dumps received particular attention and the fire from one explosion was visible for over 25 miles. Nine aircraft of No. 108 Squadron also reported fires among concentrations of M.T. around Daba. Two trains, one of them an ammunition train, were successfully bombed.

Nos. 104, 148
and 162 Squadron
O.R.B.s

Targets around Daba and Sidi Abd el Rahman were attacked by a total of ten aircraft of No. 104 Squadron. Large fires and explosions were seen at Daba and a landing-ground in the same area. Wellingtons of two other squadrons, Nos. 148 and 162, attacked targets in the Ghazal area, thus adding to the destruction caused by other raids on M.T. and an ammunition train. Blenheims of No. 14 Squadron which set out to attack concentrations of enemy M.T. along the coast road were unable to locate satisfactory targets. They therefore turned their attention to Bagush main and satellite landing-grounds where lights and movement could be seen. The results of these attacks, however, were unobserved. One Blenheim failed to return from this operation.

No. 14 Squadron
O.R.B.

This detailed account of the operations that took place on the night of 4/5 July 1942 gives an idea of the destructive nature of these night raids by the medium bomber force of Wellingtons, Blenheims and Albacores which played such a vital part at this time in stopping Rommel's further progress towards the Delta from sheer inability to maintain the necessary even flow of supplies to the front line and in lowering the morale of his troops. In the last stage of the journey, which in many cases had begun in German factories almost 2,000 miles away after the hazards of the Mediterranean crossing had been surmounted, these war stores, so imperatively needed by Rommel's forces in the battle area, were destroyed in the course of this and similar nights of air bombardment along the coast road and the railway.

'Our Only Effective Weapon is our Air Striking Force' -
General Auchinleck

In a signal for the Chief of the Imperial General Staff on the morning of 5 July 1942 General Auchinleck concluded with this shrewd analysis of the situation on Land:

'We have regained measure of initiative by forcing enemy to move troops to south and extend his flank westwards and by making him, temporarily at any rate, abandon his offensive plans. His condition seems to be deteriorating and is now compelled to use his Italians in the open exposed to our action, which has not happened hitherto. His communications are open to attack if we can spare the forces to strike at them; as yet, however, there are no concrete signs of his intention to withdraw. Do not propose therefore to make any detachment from my main force, but to keep it concentrated at the decisive point, which is wherever his German troops are. Am ready at once to pursue and cut off enemy if and when he starts

Hist. (B)
Crusader)
4 (Final)
No. 93.

to go. Propose therefore continue to press round enemy south-west flank and rear with aim of forcing him back on El Alamein position and coast.'

The actual task set the Eighth Army by General Auchinleck was still much what it had been for the last few days. In the North, XXX Corps were to prevent the enemy from operating any further towards the east. They were also to attack as the opportunity offered. In the south XIII Corps were to continue their drive towards the north and north-west with the object of disrupting the enemy's rear and his lines of communication. During the night of 4/5 July 1942 an attack by the 5th New Zealand Brigade on the Brescia Division at Deir el Shein (Map Reference 875280) had proved successful. Heavy casualties had been inflicted on the enemy and prisoners had been taken at the location of the El Alamein strongpoint which had been the scene of the Eighth Army's last serious reverse on the night of 1 July.

In spite of this success, however, 5 July saw but little change in the situation on land. It was described by Eighth Army sources as a day of 'little general activity with both sides given a respite after the strenuous activity of the last two days.' In the north, the enemy continued to dig in and strengthen their defensive position around the El Alamein 'box'. Meanwhile, in the south, the threat from XIII Corps was slowly developing and forcing the enemy to shift some units to the west in order to prevent his communications with El Daba from being cut. The Ruweisat Ridge area (Point 880280) continued to be the centre of the Afrika Korp's main concentration with a flank guard facing south composed of Italians, with the Trieste Division furthest east, Pavia in the centre and Brescia to the West. At first light the enemy screen of infantry and guns was seen to be still in position on a line running south-west from the Ruweisat Ridge to Alam el Dihmaniyah (Map References 885280 and 880275).

One of the most serious problems thrown up by this period of confused fighting on land for General Auchinleck was the lack of precise information on the condition of the enemy ground forces.

'Personal and secret from C.-in-C. to Corps, Div. and Bde. Comdrs. Reports from front line troops are still lacking in accuracy and very often too optimistic regarding enemy losses and movements. This must stop. On this information depends my control of the battle and the ultimate defeat of the enemy. Inaccurate news wastes time and energy and may well lead to disaster. I rely on your active help in this matter.'

This message was followed by another signal on the following day:

'To XIII and XXX Corps. Prisoners urgently required all parts of front to assess enemy state of supplies and morale. Corps will operate actively night and day with strong fighting patrols for this purpose. Particular information required of nature and distribution of enemy opposite El Alamein and south to 280 Grid.'

Mention of this lack of reliable intelligence from Eighth Army Sources appears superficially to be remote from matters of air interest. On this particular date, however, it affected very considerably the handling and, strangely

Tac. H.Q.
8th Army
War Diary.

XIII Corps War
Diary

Tac. H.Q.
8th Army
War Diary

enough, even the operational efficiency, of the air force. Instead of concentrating on weakening still further Rommel's forces in the battle area, attention was diverted to what can only be considered as targets of secondary importance. Also, the first stage of a plan for an advance was put into operation prematurely at a time when the enemy's ground forces had certainly begun to crack, but had not been forced to give. These premature moves undoubtedly resulted in a decline in operational efficiency in the squadrons involved.

The general position on land, therefore, was one of temporary stalemate between the opposing armies. Rommel, because of the exhaustion of his troops and the shortage of supplies which had been mainly forced on him by the Royal Air Force policy of night and day attacks, together with the unexpected resilience of the Eighth Army, was constrained to shelter behind a screen of field and anti-tank guns and hastily-constructed defences. General Auchinleck, on the other hand, being without reserves to reinforce XIII Corps, and in the face of rapidly stiffening opposition and hampered by incomplete intelligence on the condition of the enemy, was unable to pursue the military advantage already gained.

As the pace slackened on the ground, so the emphasis tended to shift to the activities of the respective air forces. In spite of recent heavy losses, particularly in dive-bombers, the Luftwaffe was called upon by Rommel to fresh efforts in close support of the Panzer Army and to make good, as far as possible, the general weakness of the Afrika Korps, particularly in an attempt to frustrate XIII Corps' outflanking movement. On the other hand, the Western Desert Air Force continued their bombing of enemy concentrations and lines of communication and countered the renewed enemy activity in the air with almost continuous fighter sweeps over the battle area and attacks on his advanced landing-grounds. Again, the position was very much as described by General Auchinleck in a personal telegram to the Chief of the Imperial General Staff a week earlier. 'We cannot resume the offensive on land,' he said, 'until we have rebuilt our armoured forces to the required strength. Meanwhile, our only offensive weapon is our air striking force which it is essential to maintain at the maximum possible strength, as it alone enables us to retain any semblance of the initiative.'

Hist. (B)
(Crusader)
4 (Final)
No. 45.

Light Bomber Effort - 5 July

A deterioration in the weather conditions on 5 July served to hamper air operations, particularly by the light-bomber force of Bostons and Baltimores. In the early part of the day, conditions were particularly bad for direct air support. There was a heavy ground mist over many parts of the battle area and much cloud. Although, as was usual, both cloud and mist dispersed as the day progressed and the sun became more powerful, dust-storms were prevalent over the battle zone in the afternoon causing visibility to become so bad that, in the last raid of the day, the 3rd South African Brigade in the El Alamein 'box' were again bombed by aircraft of No. 3 S.A.A.F. Wing.

A.H.Q. W.D.
O.R.B.
Appendices

The first light bomber raid of the day was made as soon as weather conditions permitted at 10.00 hours by twelve Bostons of No. 12 S.A.A.F. which dropped forty-four 250 lb. bombs on a concentration of some five hundred M.T. in the area along the coast road between El Daba and Sidi Abd el Rahman. Among the fires caused one was

Nos. 12 S.A.A.F.,
Nos. 55 and 223
Squadron O.R.B.S.

especially big and was doubtless due to petrol. Half-an-hour later, six Baltimores of No. 223 Squadron together with six from No. 55 Squadron carried out their first independent close-support raid, breaking the traditional 'Balbo' or Boston-cum-Baltimore formation for which the enemy had been taught a very healthy respect. The raid continued the night's hammering by the medium-bombers of enemy concentrations in the Ghazal-El Daba area, along the coast road. A long low wooden building, possibly a German N.A.A.F.I. was hit and set on fire. Several fires were started among enemy M.T. on the road, including a petrol-bowser. Seventy-two 250 lb. bombs were dropped in the course of this raid.

Approximately one hour later, at 12.37 hours, the attention of the light bombers was diverted from the coast road to the battle area when fifteen Bostons of No. 24 Squadron S.A.A.F. attacked various scattered groups of M.T. in a wide area to the south-west of El Alamein. By now it was evident that the quality of the targets had dwindled through dispersal and the huge concentrations of enemy M.T. which were seen at the beginning of Rommel's onslaught on the El Alamein line were no longer apparent. In spite of this measure of dispersal forced on the enemy, the bombing of the S.A.A.F. Bostons in this raid was good. A number of fires were caused one of which was reported as being visible for fifty miles. The enemy reaction to these persistent bombing attacks was further in evidence during the course of this raid. It was noted that the enemy A/A gunfire was particularly heavy and accurate and enemy fighters tried repeatedly to break up the bomber formation. Two Me. 109's did succeed in piercing the fighter screen - a comparatively rare occurrence - but were eventually driven off by the escorting Kittyhawks, aided by defensive fire from the Boston gunners. This operation was further livened by Eighth Army gunners who opened fire on the formation during their return journey, at Map Reference 88128. Tactical Headquarters Eighth Army record the receipt of a brusque signal from Air Support Control, Main Eighth Army because of this incident.

The next raid was at 14.47 hours and was made by eighteen Bostons of No. 12 Squadron S.A.A.F. It was a high-level attack from over 9,000 feet on between two to three hundred well-dispersed M.T. in the Deir el Shein-Abar el Mukheisin area, to the rear of the Afrika Korps main concentration around Map Reference 880280. No claims except for near-misses were made. The poverty of the targets was obvious in this raid, although further to the east, in the actual fighting area, large concentrations of M.T. could still be seen.

At 17.20 hours, the C.O. of No. 223 Squadron led a box of six Baltimores, of which five were from No. 55 Squadron, in a medium-level attack on four hundred enemy M.T. in the battle-area at 874287, slightly to the north of Deir el Abyad where the Afrika Korps Headquarters are now known to have been located. Only near misses were observed as a result of the bombing. The 'Balbo' formation was resumed at 17.20 hours when twelve-Bostons of No. 24 S.A.A.F. Squadron accompanied six Baltimores of No. 223 Squadron carried out attacks on five hundred M.T. and troop-carriers travelling north-west in badly dispersed columns to the south and west of Bir el Makh-Khad (Map Reference 870295). All bombs fell in the target area and many direct hits were scored.

The last light-bomber raid of the day was made at 18.54 hours when falling light and the dust-storms which had

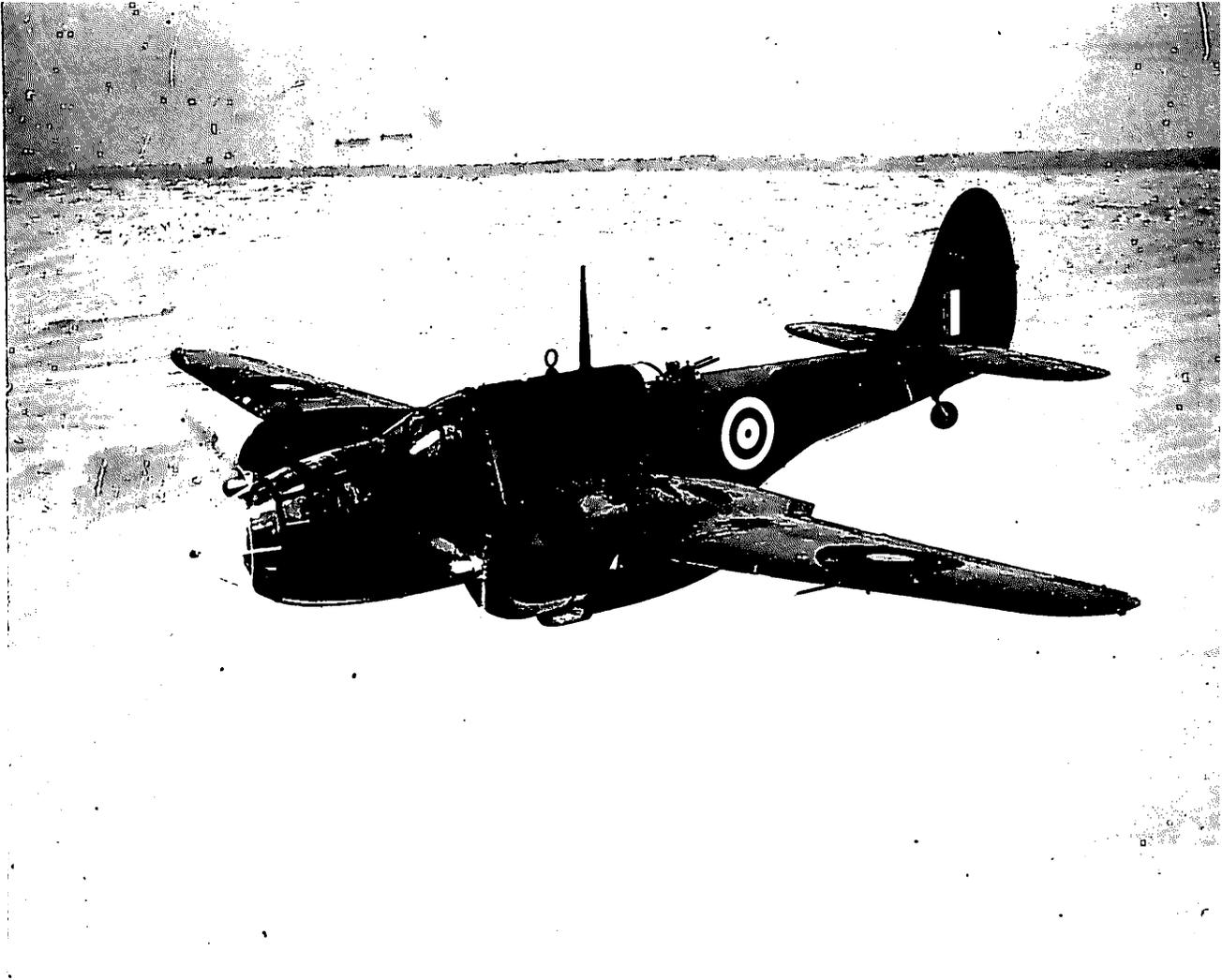
No. 24 S.A.A.F.
O.R.B.

Tac. H.Q.
8th. Army
War Diary

12th S.A.A.F.
O.R.B.

No. 223 and
55 Squadron
O.R.B.s

No. 24
(S.A.A.F.)
and 223 Sqn.
O.R.B.s.



The Baltimore bomber



Kittyhawk fighters

No. 12
(S.A.A.F.)
and 223 Sqdn.
O.R.B.s.

been raging intermittently all day severely affected visibility. The aircraft involved in what ultimately proved to have been an attack on the South African 3rd Brigade, holding the El Alamein 'box', was led by six Bostons of No. 12 S.A.A.F. Squadron who were accompanied by the same number of Baltimores from No. 223 Squadron. The Sortie Report of No. 12 S.A.A.F. for this raid states: 'Visibility poor owing to duststorm over target area. High level attack from 7,300 feet. 24 x 250 lb. bombs. All bombs fell in target area. Several near misses were obtained. No further results could be observed due to duststorm over target.' The O.R.B. for No. 223 Squadron records an 'attack on enemy transport pp. 875295. Bombs fell among well-dispersed tanks and M.T. causing one big red yellow flash and greyish white smoke in mushroom form.'

No. 3 S.A.A.F.
Wing App.
to O.R.B.
'AB'

This was the sixth incident of its kind reported by the 3rd South African Brigade since 3 July 1942. It appears that on all these occasions the 3rd South African Brigade were the only ones who suffered.

'Case VI. On 5/7/'42 at 18.57 hours 3 S.A. Bde. report that Bn. area was bombed by 12 Bostons escorted by 4 fighters. Approximately 25 bombs were dropped, most of which fell in Bn. H.Q. area at 884290.'

The contemporary account of the light bomber activities for 5 July 1942 contained in No. 3 S.A.A.F. Wing O.R.B., with its allusion to this unfortunate incident, is so valuable that it justifies a verbatim extract.

'July 5th. The aim to-day was to turn the enemy's withdrawal into a retreat. Unfortunately there was an early morning ground mist and the operation planned for 12 Squadron, who were to have rendezvoused with the fighters at 06.30, suffered successive postponements until 09.45. With this raid and the next, which were directed against enemy M.T. on the road Daba-Alamein, it became clear that last night's optimism had been somewhat premature. There was no general movement along the road, no great concentrations of transport such as had been expected and no indication of any haste by the enemy to be gone from the area where he had bumped his nose on the Alamein line. The bomb-line which, with the advance of the New Zealanders yesterday, had begun to move round towards the coast, was this morning wheeling back again, and the Bostons settled down to a day of ding-dong bombing against the enemy forces massed in the centre.

'There was an unfortunate accident in the evening. A combined 12 and 223 Squadron raid was reported to have bombed S.A. positions in the Alamein box. The miracle is that this has not happened before. Operations have been so fluid that there is an inevitable time-lag between the need for a change and the receipt by the Wing of the change itself. In addition, the desert is so featureless, and what features there are are so frequently obscured by dust-haze, that it is difficult for observers to pin-point their positions with any certainty, the question of recognition of individual vehicles from 7/10,000 ft. is insoluble, particularly now when the enemy is using so much of our captured transport. The difficulties are increased by the fact that frequently the bomb-line weaves such a devious course.

'July 6th. Photographs show conclusively that 12 and 223 Squadrons did bomb the Alamein Box last night. The observers are very upset. Not so General Auchinleck or the A.O.C. (sic), indeed the C.-in-C. has so much confidence in the bombers that as from tomorrow the old system of bomb-line, laid down by the Army, will be abandoned. That system had two main disadvantages: there was always a time-lag and a too great emphasis on safety, with the result that many a promising target escaped its just punishment, and it was not always drawn with any appreciation of the capabilities of a bomber formation, so that at times the line suffered too many dents and bulges. The new scheme is that the Army should give the Air Force the position of our most forward troops and that the Air Force (and not the Army) should decide what the bomb-line should be. In addition, arrangements are being made for our ground forces to put out letters 20 yards wide, so that the bombers will be able to pinpoint them.

'As a result of last night's affair, consideration also had to be given to the bombing tactics. In the early days, the bombers were briefed to do pattern bombing, all the aircraft bombing on the leader. Then it was felt that they were not getting sufficient spread of bombs, observers were to bomb on the leader, but to bomb at discretion. The leader was allowed a certain amount of discretion for broad targets. Squadron VIC was the formation used for narrow line-astern. Now, where the target is in an area so confined and there is a fear of bombing our own troops, the Wing may have to remove from the formation leader's discretion questions such as run-in and formation, and to lay these down and to prescribe a definite time period, after the bomb-doors are opened by the leading aircraft, during which the bombs must be dropped.'

Morning of 5 July 1942: Attacks by Fighter Bombers Mainly Directed against Enemy Forward L.G.s.

The Axis Air Forces, which had been outpaced during the advance into Egypt by the Afrika Korps, had meanwhile been making strenuous efforts to advance. It has already been seen how the Italians had been ordered forward in order to take a more active part in the struggle over the battle area, while Fliegerfuhrer Afrika was constantly being goaded by Rommel into giving the Panzer Army increased support and protection. Help to the sorely strained enemy ground forces mainly took the form of Stuka attacks on the XIII Corps columns which, isolated as they had become from the main body of the Eighth Army, were most vulnerable to this form of air attack. There was also an attempt by the Axis Air Forces to emulate the Western Desert Air Forces and form a protective 'umbrella' over their ground forces with the aid of fighters on offensive sweeps in the battle zone.

Including the Crete-based bomber force which was using landing-grounds in North Africa as advanced bases for close-support work over the battle area, the German Air Force was estimated at this time to have reached an average of some seventy or eighty bomber sorties in day and night attacks against targets in the Western Desert and Egypt. The sortie rate of German fighter aircraft had risen to approximately one hundred a day, supplemented by a further thirty

A.H.B.6

Middle East
Weekly Int.
Sums No. 87.

sorties a day by Italian fighters. Collaboration with the Italians, as Allies, could take an ironical twist. An entry in the Afrika Korps War Diary for 5 July contains this exasperated comment: 'The Luftwaffe is very active again to-day. Entirely needlessly, moreover, another Italian bombing raid met with success against our own troops.'

The Western Desert Air Force's reply to this increased activity on the part of the Axis Air Forces was a series of fighter and fighter-bomber attacks on the enemy's advanced airfields, for the most part on the Daba area. Making use of the cloud which was hampering the light bomber operations inland, some forty Kittyhawks, almost half of which carried either a 500 lb. or 250 lb. bomb, carried out a series of destructive raids which proved, from a scrutiny of enemy documents, far more successful than the contemporary estimate.

Nos. 450 & 3
R.A.A.F.
Squadron
O.R.B.s.

In the course of the first raid by Kittyhawks of Nos. 450 and 3 R.A.A.F. Squadrons, soon after 08.00 hours, a Ju. 88 was destroyed in the air by a pilot of No. 450 Squadron, as it came in to land, and seven other Junkers aircraft and a Me. 109 were claimed as damaged, mainly by the low-level machine-gunning attacks which followed the bombing. Pilots were constantly on the alert for signs of Rommel who was known to travel around the battle area by Fieseler Storch. The destruction of one of these light aircraft by a pilot of No. 450 Squadron R.A.A.F. and the destruction of a staff car with a red band across the bonnet were therefore given special mention.

Nos. 250 &
112 Squadron
O.R.B.s.

An hour later, six Kittyhawks of No. 250 Squadron and six of No. 112 Squadron bombed enemy aircraft on L.G. 21, to the west of El Daba. Because of their low serviceability due to the operational pressure of the past few weeks, these two squadrons were working together as one and providing six aircraft each. They swept in from the sea, shooting down one Me. 109 over its own landing-ground and damaging another. Owing to the speed with which the attack was carried out the effects of the bombing could not be observed. After machine-gunning a wireless station and setting a petrol bowser on fire, they escaped east along the escarpment. At much the same time as this raid was being carried out, more Kittyhawks of Nos. 450 and 3 Squadrons (R.A.A.F.) attacked a total of twenty Me.'s on L.G. 106. A claim was made of five of the enemy fighters damaged. During this raid, very intense and accurate anti-aircraft gunfire was encountered, causing the loss of two aircraft shot down and of a third which was forced to crash-land.

A.H.B.6
Figures.

Enemy records show that eleven of their aircraft were destroyed in North Africa, on 5 July, and a further nine were badly damaged. This figure was not to be reached again until Coningham's 'weather blitz' or 'opportunist attack' of 9 October on enemy aircraft which had been grounded by a heavy but localised rainstorm, when a total of twenty-one enemy aircraft were either destroyed or badly damaged. Although it is impossible to establish with accuracy the number actually destroyed on the ground, as opposed to those destroyed in combat, it can be safely assumed that the heaviest losses of German aircraft on these two dates were inflicted in this way.

The Adverse Effect of Preparations for an Advance on the Operational Efficiency of Certain Fighter Squadrons

A.H.B./IIJ1/31/1
R.A.F., M.E. Table
of Operations,

Compared with the 624 fighter sorties flown on 3 July, a day of maximum fighter activity in the Western Desert for

this period, the total of 419 for 5 July was not high. Of these 419 sorties, however, 183 were flown in the course of offensive sweeps over the battle area. This was the highest figure yet reached during this period of stabilisation at El Alamein in which by far the greater number of sorties had hitherto been expended on bomber escort and ground attack by fighters and fighter-bombers. Apart from the deterioration in the weather and a falling off in the quality of targets for bombers which affected the overall sortie rate for the field fighter force, on 5 July, a number of the fighter squadrons were to some extent preoccupied on this, and succeeding days, in making preparations for an advance.

On 3 July 1942, an Eighth Army Operation Order was published in anticipation of an early retreat being forced on Rommel's forces. The codename chosen for this operation which was not to materialise for another four months was 'Exalted'. There is a certain irony in the choice of this title which gives a clue to the frame of mind in which it was prepared, just as the Italian name 'Operation C.3' for the projected invasion of Malta, in the summer of 1942, had proved an even more unfortunate and ill-omened title.

On the following day, 4 July, Advanced Air Headquarters Western Desert published their Operation Instruction 2J. Together with the Administrative Plan, it gave precise and detailed instructions for the projected advance, should the Eighth Army Operation 'Exalted' be carried out. The preamble showed a sound appreciation of the factors governing such an advance, especially from the point of view of the use of air power on a retreating enemy.

'In the event of the enemy being driven back from in front of the Alamein positions, his withdrawal to the West is likely to be rapid.

The ability of our land forces to remain in contact with the enemy and complete his defeat will be governed by the speed with which their supplies can be brought forward.

It will be open to our air forces, with their ability to strike far ahead of our own advancing troops, to turn an enemy withdrawal into a rout. The extent to which we can take advantage of such an opportunity will depend on the rapidity with which we can get our units and supplies forward to L.G.s as they become available, and operate as an organised force.

A primary rôle of the Army will be to secure forward landing grounds, the Daba group being the first objective. The Haneish group may be secured soon afterwards.

INTENTION: To keep our air forces within the most effective striking distance possible during an enemy withdrawal.'

During 4 and 5 July 1942, a number of the fighter squadrons under the control of No. 211 Group, moved their 'A' Parties to more advanced landing grounds. By 7 July it had become obvious that the Eighth Army hopes for a quick advance were premature and the majority of these advanced detachments had been recalled to their original stations. How far these moves affected the operational efficiency of the fighter squadrons concerned it is impossible to assess. It is significant that the sortie rate for fighter aircraft, which

A.H.B./IIJ1/
149/7 A.H.Q.
W.D. Air Staff
Operation
Order No. 2J
Dated 4/7/'42.

A.H.B./IIJ1/
31/1 H.Q.R.A.F.
M.E. Table of
Operations

had risen to 624 on 3 July showed a decline to 467 on 4 July, to 419 on 5 July, to 416 on 6 July and then rose by over one hundred to 532 on 7 July. References to these abortive moves are frequent in squadron O.R.B.s and indicate a certain inevitable disorganisation in squadron routine and efficiency.

Extracts from No. 450 R.A.A.F. Squadron O.R.B.

No. 450 R.A.A.F.
Squadron O.R.B.

4/7/1942. At 16.45 hours an order was received from H.Q. 239 Wing that "A" Party was to move forthwith to L.G. 39 ...

5/7/1942. At L.G. 39 Col. Wheeler, O.C. 42nd. Light A.A. Regt. advised that the "A" Parties of 239 Wing Squadrons were to move to L.G. 106, accompanied by the A.A. Regt. for protection. Accordingly, the various "A" Parties dispersed away from the L.G. and awaited the order to move. Col. Eustace Smith, O.C. 15th Light A.A. Regt. is similarly to escort "A" Parties of 243 Wing forward. Col. Smith produced the Movement Order incorporating the Army-Air Force move and advised that probably direct orders to the squadrons would be received from No. 211 Group. On contacting Group again it was found that they had received no orders as yet. At 12.00 hours aircraft "S" arrived requiring a 40 hourly inspection. In the present circumstances "A" Party is unable to do this inspection and the pilot was ordered to return to L.G. 91 by air During the morning, two officers from 239 Wing Operations arrived at this L.G. and advised that the Party will not move to-day and all squadrons are released and have permission to go for a swim during the afternoon. The whole party moved to the beach and a swimming parade was held for 2½ hours, after which the party returned to the camp area and dispersed for the night.

6/7/1942. 239 Wing Operations (Adv.) advised that 211 Group had issued no further orders and that the "A" Party is still to stand by. At 13.00 hrs. Wing Operations advised that the squadron "A" Parties were to return to L.G. 91 and the convoy left at 15.50 hours and proceeding without incident arrived at L.G. 91 at 15.30 hours. Vehicles were dispersed and took up their old positions.'

The Army Commander-in-Chief's lack of adequate intelligence on the condition of the enemy troops, therefore, set in motion a peculiar chain of circumstances which helped to dislocate the momentum of the air offensive at a time when, according to reports by members of Rommel's own staff, the Afrika Korps had reached a condition of almost intolerable strain. Still, this very miscalculation in timing whereby A.H.Q. Western Desert Air Force 'jumped the gun' and which served to hinder rather than help the air offensive, was an aspect of the very prevision which had made the fighting retreat from Gazala possible. It is also very much open to question whether, if the Afrika Korps had been forced to retreat, the Eighth Army and the Western Desert Air Force would have been in a fit condition to sustain the strain of an advance. The Eighth Army was still very weak after the losses sustained during the retreat, while the serviceability of motor transport in the Desert Air Force had dropped to such an extent that a number of the squadrons could no longer be considered as being mobile. In addition, such an advance, had it taken place, would have deprived both the army and air force of the great advantages which had been gained from a retreat on to their bases and the extension of the enemy's lines of communication.

Eighth Army Delays in Transmission of the Bomb-line

A respite was also needed from the pressure of operations in order to improve the system of communication between the Eighth Army and the Western Desert Air Force on which co-operation between the two services was based. The entry in the Air Support Control War Diary for 5 July stresses the difficulties the Royal Air Force were encountering in establishing the position of the Eighth Army's forward troops.

A.H.B.IIJ1/
122/80 Record
of Operations.

'5 July. Recce and bombing hampered early by mist. Good targets most of the day against the enemy pocket South of Alamein and against the area East of Daba. A fighter recce gave a report of a large enemy force to the South. This was easily confirmed as our own troops by the tentacle and led to an order being given that formations would give line of forward troops hourly over A.S.C. links. This goes back to the old days of tentacle officers when our situation map was always a good two or three hours more up-to-date than that of Corps H.Q. It is impossible to fight the air battle, a matter of half hours, with information of forward troops based on Corps or Army information which may be many hours out of date. A short-circuiting of the signal channels has been accepted for targets and must also be accepted for information if judgment bombing is to be a success. Unfortunately one formation again bombed the South African 'box' in the evening.'

The Afrika Korps War Diary for 5 July

The unexpected lull in the land battle, on 5 July, is reflected in the German Afrika Korps War Diary. The enemy Commander's main preoccupation, on this date, was to take full advantage of the Eighth Army's failure to press home the advantage gained on 4 July by a strengthening of their position for defence, a quick regrouping of forces, and arrangements to improve the increasingly precarious supply position of both army and air forces.

Thirteen Corps' break through in the area of the Quattara Track, during the night of 4/5 July, was brushed aside as being of little significance, for the position had been quickly restored by German reinforcements. The acute weakness of the Italians and also of the German 15th Panzer Division was met by a redistribution of forces which placed an even heavier burden on the 21st Panzer Division. The Pavia Division were relieved by the 21st Panzer and were given the task of building up strongpoints behind the 15th Panzer Division front. But this and other regroupings planned by the enemy Commander-in-Chief were only executed with the greatest difficulty. 'After the recent heavy fighting, Motorised Infantry Regiment 115 consists of only 2 Companies.⁽¹⁾ Operational strengths have dropped sharply during the last few days and no Afrika Korps Unit exceeds 50 per cent of its established operational strength.'

The enemy positions still extended along a line running roughly due east and west athwart the El Alamein position at 28 Northing Grid, from the Ruweisat Ridge in the east,

(1) This was the Lorried Infantry Regiment which had been involved, on 4 July, in the incident of the attempted surrender.

through the Deir el Shein area and Abar el Mukheisin to the Littorio Division's new position north east of Munqar Wahla, in the west.

At 19.45 hours, on 5 July, the following entry was recorded in the War Diary of the German Afrika Korps:

'No further changes have occurred in the Afrika Korps action. The divisions are notified that effective defence demands the construction of fortifications, without consideration for the probable duration of the operation.

Extensive mining is ordered to increase the strength of the defence.

In order to fill the positions where troops are lacking, reinforcements are being flown over from Italy to Tobruk. Transport from there must be effected by troop-carrying vehicles. For this purpose, each division is to supply 25 lorries which will be continuously used in the immediate future by Panzer Army Africa on the Tobruk - El Daba stretch.

Each division, moreover, is to supply 50 lorries for the Luftwaffe; this consignment will cause considerable hardship, as the troop-carrying vehicles are already in large measure employed in bringing up supplies, mines and personnel reinforcements. Individual units are only to a limited extent mobile. In addition, the Afrika Korps must make Infantry Regiment 392 mobile to a certain extent. On these grounds, Panzer Army Africa is postponing the carrying out of the order until later.'

This entry is significant for the emphasis placed on defensive, as opposed to offensive preparations. It revealed the urgent need of reinforcement, and the shortage of transport vehicles which, in spite of the large number of British vehicles captured at Tobruk, was one of main reasons why the Luftwaffe had failed so lamentably in their attempts to keep up with the advance of the enemy's ground forces. Motor transport had long been recognised by the A.O.C.-in-C. as the Achilles heel of a mechanized force operating in the Western Desert, and it was on this weak spot that the Royal Air Force policy of day and night attacks had shown some of its best results. Had Rommel not been able to make good 50 per cent of his losses of M.T. at Tobruk, together with a huge supply of fuel, there is no doubt that he could not have advanced into Egypt. On the other hand, it was this tremendous booty which encouraged him to make his greatest tactical blunder of advancing with ever-extending lines of communication in the face of a beaten force which nevertheless continued to maintain a surprising degree of air superiority.

Rommel to
OKW Operations Staff.
21/7
A.H.B.6. Trans.
No. VII/80

A most interesting sidelight on this question of the provision of fifty lorries for the Luftwaffe is contained in the War Diary of the 21st Panzer Division for the next day, 6 July.

21st Panzer Div.
War Diary.
Cabinet
Offices.

'6/7. The (21st Panzer) Division will detach 50 trucks with drivers to the Luftwaffe for the transport of Luftwaffe equipment to the forward area. The Division refuses to do so.'

Although the 21st Panzer Division, like all German units at this time, were loud in their complaints about the failure of the German air force to support them and the instruction for the detachment of the motor transport to the

Luftwaffe had come from Rommel himself, they were so short of trucks that they were forced to ignore the order. This fact is all the more significant when it is realised how close was the reliance of the German armoured divisions on the dive-bomber - a co-operation which had been worked out with a meticulous technique. On a number of occasions it is recorded how an attack by enemy armour had to be countermanded because of the Luftwaffe's inability to provide the necessary dive-bombing attack as a prelude to an advance by the tanks.

The Afrika Korps' Situation Report for 5 July: 'The Troops...
Are Exhausted and strained to the Limit'

On 5 July, a conference was held in the Panzer Army district between the Axis army and air force Commanders, as a result of which the following important account of the situation in North Africa was sent to the enemy High Command.

Von Rintelen
to Army General
Staff 6/7
A.H.B. 6 Trans.
No. VII/80.

'1. The situation of the Panzer Army is as follows:

The enemy on the eastern front of the Panzer Army is relatively inactive, but he is attempting to attack the Panzer Army from the south. The 2nd New Zealand Division, which has not shown much spirit as yet, has been reinforced by movement of forces from the east front. It appears that the plan is to take the Panzer Army in flank and rear. Field Marshal Rommel has therefore decided to relieve the German divisions on the east front by X Army Corps, and to prepare the German Afrika Korps and the 90th Light Infantry Division behind his right flank for defence against this attempt at encirclement. As soon as the condition of the troops permits, he will go over to the counter-attack on the southern wing. The German and Italian Air Forces have weakened the enemy group in the south by several dive-bomber attacks.

'2. Condition of the Troops:

Six weeks of fighting and marching in desert terrain and great heat has lowered the fighting strength of the troops, who are exhausted and strained to the limit. General Gause gives the fighting strength of the German divisions as approximately 1,200 men, and that of the Italian divisions is at present even lower. The number of German tanks amounts to about 40; the Italians have about 60. Even if the German-Italian Air Force is superior to the British as regards combat performance, the latter possesses great numerical superiority, especially in fighters, and is causing uneasiness and losses among the troops by frequent day and night strafing and bombing attacks.

'3. As soon as the troops pause in their victorious advance it is necessary to send up reinforcements as quickly as possible to enable them to repulse enemy attacks and resume the offensive. The following measures, among others, have been taken regarding this:

(a) The German effort: Up to 5th July, 2,250 men have already been flown over to Tobruk. On 6th July, transport of the reinforced infantry regiment from Crete to Greece to Mersa Matruh will begin, at the approximate rate of 1,000 men daily. Ammunition and equipment are being brought up.

'(b) The Italian effort: 7 battalions, 4 artillery detachments, tanks, armoured reconnaissance cars and guns on self-propelled mountings are being brought for the Ariete, Trento, Pavia and Brescia Divisions. Reinforcements are being brought from Italy, troops by air, and tanks in motor barges.

'(c) The German and Italian Air Forces are making every effort to assist ground troops in their defensive operations, but are hindered from lack of vehicles to bring up sufficient supplies. By detailing vehicles from the Panzer Army and with the assistance of the Italian G.H.Q., every effort will be made to relieve this deficiency.

4. Marshal Cavallero and I⁽¹⁾ will fly back to Rome on 6th July to speed up supplies and transport from Italy to Africa. Before taking off on the morning of the 6th I was ordered to confer with the Duce. Apparently the Duce has no immediate intention of returning to Italy.'

From this report, it is evident that Rommel's abrogation of the original plan for the Gazala offensive, which was to advance to the Egyptian frontier and halt there until Operation 'Hercules' had been carried out had resulted in administrative difficulties which he was powerless to surmount in the face of the Eighth Army's unexpectedly resolute defence of the Alamein positions, and, in particular, of a hostile air force which had worn down the morale of his troops, depleted his reserves of vehicles to a dangerous level and prevented the free flow of supplies and reinforcements to the front. It is apparent, too, that the enemy found it difficult to accept the cold realities of their situation, after the optimistic despatch of but three days before, when an easy conquest of the Delta area seemed assured. The statement that 'as soon as the condition of the troops permits, (Rommel) will go over to the counter-attack' conflicts entirely with 'as soon as the troops pause in their victorious advance.'

Another point which requires amplification is the allusion, in paragraph 2, to the superiority of the Axis Air Forces in combat performance and their numerical inferiority in fighter aircraft, compared with the Western Desert Air Force. In spite of a smaller force in North Africa, the Axis Air Forces did inflict disproportionate losses on the Desert Air Force. Basically, the reason for this disparity was due to the inferiority in performance of the greater part of the R.A.F. fighter force, compared with the Me. 109 and the Macchi 202. As for the question of the numerical superiority of the Western Desert Air Force over the combined Axis Air Forces, especially in fighter aircraft, although this was true in the battle area, the potential force available to the Axis in the Mediterranean theatre as a whole was much greater. The essential factor of an air striking force lies in its extreme mobility. The Germans had been quick to recognise and develop this aspect of air power. An illustration of this is provided in the quick moves made by short-range flying units on the Russian front, during the Battle of France, in 1940 and the quick concentration of units from as far afield as

'The German Air Force in Maps and Diagrams,' Air Pub. No. 3038 Maps 19, 21 and 25.

(1) General von Rintalen.

North Norway to the Mediterranean, at the time of the Allied landings in North Africa, in November 1942. The situation in the Mediterranean was governed primarily, at this time, by one factor. In his advance into Egypt, Rommel had sacrificed long-term strategic gains for the sake of immediate tactical advantages. 'The Duce declared,' on 7 September 1942, 'that the battle in the Mediterranean area consisted of two parts - the battle at sea and the battle on land. The battle at sea had been lost, so that the subsequent battle on Egyptian soil could not be carried through.'

'High Level
Reports &
Directives'
Page 25.

It is interesting to compare the tone of the enemy Commander's pessimistic report with the confident optimism of a letter which the Air Officer Commanding-in-Chief sent to the Chief of Air Staff after he had made a tour of the Western Desert Squadrons. This long semi-official despatch also contains valuable comment on air support and the comparative performance of the R.A.F. and enemy fighter aircraft.

'I came back from the Desert p.m. on the 6th having had a most stimulating stay with Mary Coningham's force. I saw all the squadrons at least once. They have all been at full stretch for six weeks and more and the squadrons as a whole would be tired if they would admit it, which they won't. The strain, particularly of the last three weeks, has been pretty intense, but the question I was most frequently asked in the Squadrons was, 'When are we going to start getting the Hun on the run so that we can really get at him?' Fighter squadrons, in particular, are stretched to the barest necessities so that they can move forward with the minimum of delay...

A.O.C.-in-C.
Correspondence
with Prime
Minister,
Secretary of
State, Chief of
Air Staff.
Part V.

I am very far from being satisfied over the working of what is known as air support. We still lack Army support and Army co-operation to quite a deplorable extent. Coningham ... in order to get the necessary information to give effective support has had to rely almost entirely on his own sources of information. The Army still seem to be quite incapable of knowing the positions and movements of their own forces. The bomb-line given by Corps, if adhered to, would again and again have completely hamstrung our ability to give effective help in the battle Coningham has had to arrange his own Tac. R. throughout the day, in order to be able usefully to direct his fighter-bombers and bombers. Incidentally, fighters and fighter-bombers have now become quite expert at this. We are now trying to arrange that position reports by the subordinate Army formations are received direct by A.H.Q. Auchinleck fully appreciates the position.... I feel that one of the most important things is to ensure that the bombing effort continues both day and night. I think the twenty-four hour service against the enemy during our retreat and the fact that, in consequence, he had no rest day or night was probably one of the most important factors in bringing him to a standstill.... As regards fighters, there is no doubt the real answer is Spitfires; the Kittyhawks being mainly used as fighter-bombers. With Kittyhawks and Hurricanes it is almost impossible for our fighters to break through heavy escorts of the enemy Stukas, etc., unless they happen to be lucky. The Squadrons are, I think, doing marvellously with their Hurricanes and Kittyhawks, but the basic fact remains that, owing to the inferior performance, they rarely if ever have the initiative.

I do hope it will be possible to give us at least a fair proportion of our best first-line types. Inferiority in performance is an incessant handicap in every way....'

A.H.B./ILJ/
69(A) Analysis
of 360 Fighter
Victories by
90 Western
Desert Pilots
with Training
and Combat
Hints Suggested
by them.

In the opinion of experienced Western Desert pilots, this comparative inferiority in performance of the Kittyhawk and the Hurricane was to a certain extent outweighed by a superiority in the skill of their pilots, the tactics they employed and in the greater manoeuvrability of their machines. The fighter victories of some ninety Western Desert Fighter pilots were analysed and they themselves questioned with a view to establishing the principles underlying their success. Some of their comments are of particular interest and value.

Idem Annexure
'C'

'Me. 109 F. & G.: Best of Axis fighters in Western Desert. Spearhead of enemy fighter attack. Owing to structural weakness of the ailerons cannot turn quickly at high speed in a dive. Tactics dictated by its strong points - always use speedy dive and ability to climb quickly, but are not keen on mixing it, owing to inferior manoeuvrability. Turns more easily to the left than to right.... Owing probably to the loading being very high on the stabiliser, elevator and ailerons, at a high speed in a dive "rough movement of the aileron controls and especially when recovering will cause a crash" - the words in quotes are a translation from the official German handbook - the controls become heavy in a dive. For these reasons, the Me. 109 pilot probably has a complex about a sudden turn in a dive, so that a quick turn to avoid him once he is committed to his dive is NOT likely to be followed, if the avoiding turn is so sudden and well-judged.... At the beginning of July, Me. 109 F. pilots on sweeps or scrambles were observed not to adhere to any formation, but rather straggled across the sky. When attacking, they made unco-ordinated single attacks.... The firing of German pilots is poor. They usually open up fire at 500-800 yards and break off - unless they are certain of a victim - at about 200 -300 yards. It is generally accepted that the majority of German Fighter pilots in the Western Desert are either inexperienced or poorly trained.... It is considered that they (Macchi 202 aircraft) have the same rate of climb and speed as the Me. 109F, but are more manoeuvrable.... Shooting is wild and we have not known an Italian pilot to press an attack. They are good aerobatic pilots.'

Severe flying losses during June and July when it was not uncommon for fighter squadrons to lose the whole of their aircraft within a month meant that owing to heavy casualties among the more experienced pilots, the quality of the performance of certain of the Squadrons showed a marked deterioration. During an investigation into this matter, the following conclusions were established:-

Idem Annexure
'L'

(a) Insufficient air-firing training at F.T.S. and O.T.U. before joining the Squadrons. Some Kittyhawk replacement pilots first fired their guns on that type in action and the consequent shock made them believe they were being attacked from behind.

(b) Insufficient training after joining the squadron.

(c) Not enough interest taken in air firing. Think all-important thing is being able to fly.

(d) Many new Squadrons, especially Kittyhawks many new pilots that only about 1 in 10 knows is talking about and wrong ideas on shooting a likely to get around unchecked.

(e) Chief reasons for missing enemy aircraft

- (i) Faulty knowledge of deflection shoot
- (ii) Faulty knowledge of the principles of coming through.
- (iii) Firing at too great a range.
- (iv) Taking 'squirts' at impossible angles instead of waiting for a decent opportunity.
- (v) Loss of head due to excitement.'

Night 5/6 July. A Change of Policy for Night Bombing

During the period of crisis in the fighting on land, whilst the Eighth Army had been trying desperately to stabilise its positions on the El Alamein line, almost the whole of the R.A.F. medium-bomber force had been concentrated on targets in the battle zone. Virtually it meant that that the medium bombers had become part of the field striking force used in a tactical rôle in support of the Eighth Army. On the night of 5/6 July, this policy was modified and almost one third of a total force of some ninety night bombers was directed against strategic targets - shipping in the ports of Tobruk and Matruh.

The raid on the port of Tobruk which, up to a fortnight before had been such an important British base, was planned to be the heaviest it had experienced. Of the nineteen Wellingtons detailed for the operation by No. 205 Group, one belonging to No. 38 Squadron was to drop flares, seven from No. 40 Squadron and one from No. 38 Squadron were to attack gun and searchlight positions, as a diversionary measure, while five aircraft of No. 38 Squadron mined the port and five from No. 40 Squadron attacked docks and petrol installations.

Owing to cloud over the target and generally poor visibility this involved operation turned out to be an almost complete fiasco. The Wellington briefed to drop flares failed to locate the target, so that there were no illuminations. Only two mines were laid off the harbour, the others being brought back. The remaining Wellingtons either bombed Tobruk - quite ineffectually - or else directed their efforts against a mixture of alternative targets, such as tents and M.T., along the coast road.

A raid by eight Albacores of No. 821 Squadron against small shipping which was using Matruh harbour proved more successful. They bombed from the comparatively low height of 1,500-2,000 feet and claimed at least one hit on shipping and several near misses.

The battle area for the main operation by fifty-one Wellingtons and nine Albacores, for the night of 5/6 July, was defined in No. 205 Group's Operation Order as 'West of a line drawn through the following points: 860280, 850270 and 850250. 'This was the most conservative bomblines so far assigned to the night bombing force. Except for the

A.H.B./IIM/B205/1a
Appendices to
No. 205 Group O.R.B.

No. 38 Squadron
O.R.B.

A.H.B./IIJ1/
31/1
'Table of
Operations'

H.Q. 205 Group
Op. Order
No. A.880.

coastal area in the north, the whole of the enemy forces in the battle area obtained sanctuary from air attack that night.

Squadron
O.R.B.s.

The enemy had learnt their lesson from previous raids. Captains of aircraft reported, on their return that enemy transport was unusually well dispersed, resulting in a noticeable thinning out of good targets. No indication of a westward movement of the enemy along the coast road was seen. Opposition from the ground was very much increased, particularly in the Daba area, where a number of searchlights and batteries of heavy A.A. guns were noted. Night-fighter defence had also been considerably strengthened and, in addition to Ju. 88 aircraft, single-engined aircraft were also reported for the first time. It was evident that Rommel was seriously perturbed about the security of his supply-lines along the coast road, in the north, and the adverse effect the constant drain of these night bombing attacks were having on his forces in the field.

No. 148 Squadron
O.R.B.

In spite of this marked improvement in the enemy defences and the reduction of the number of aircraft involved, owing to the attack on Tobruk, the medium-bomber operations on the night of 5/6 July proved most effective. The violent fires resulting from these raids were visible for a distance of over sixty miles and fires were left blazing on both sides of the railway track in the sidings at Daba. Aircraft of No. 148 Squadron were responsible for some fifteen fires among enemy transport, rolling stock and dumps. The illuminations provided by the Fleet Air Army Albacores were reported as having been 'of the greatest assistance'. Of the twelve aircraft of No. 70 Squadron involved in the raid, five bombed M.T. in the Daba area, also setting fire to a train in a siding there, while the remainder attacked transport to the south of Ghazal station and started a number of fires.

No. 70 Squadron
O.R.B.

No. 108 Squadron
O.R.B.

Pilots of the Nine Wellingtons from No. 108 Squadron claimed direct hits on M.T. concentrations, near the coast, and also commented on the excellent illuminations provided by the Albacores. One Wellington from this squadron was badly damaged by a Ju. 88 and crash-landed at Abu Sueir. The three Wellingtons from No. 162 Squadron which operated over the Daba and Ghazal areas reported a particularly violent explosion which followed the bombing of Ghazal railway station and also direct hits on enemy M.T. Ten aircraft of No. 104 Squadron scored a number of successes against enemy transport which they located along the beach and the coast road. Six of the eight Wellingtons of No. 37 Squadron involved in the raid attacked M.T. to the south of Ghazal, causing fires, while two others bombed rolling stock in the sidings at Daba. Besides acting as pathfinders, nine Albacores of No. 826 Squadron dive-bombed isolated groups of enemy M.T. in the battle area, starting a number of fires. They reported having seen five enemy night fighters. A raid by five Blenheims of No. 14 Squadron, which was carried out further to the east of the main Wellington effort on a convoy dispersed off the road near Fuka, caused a fire. Finding a shortage of suitable targets along the road, they diverted their attention to Fuka main landing ground, but observed no results of their bombing. One Blenheim was lost on this operation.

No. 162 Squadron
O.R.B.

No. 104 Squadron
O.R.B.

Summary of
Operations
A.H.B./IIJ1/
31/1

The Situation of Land, 6 July

By 6 July, it was obvious that the enemy advance, which had started with the launching of Operation Theseus on 26 May, had dragged to a standstill. The onslaught on the Eighth Army's defensive positions at El Alamein, which had begun so promisingly for Rommel with the fall of Deir el Shein

on the evening of 1 July, had been decisively checked. Whatever the enemy Commander-in-Chief's hopes had been of turning the tables on the Eighth Army, the salient fact to emerge from the fighting of the past few days was that the Eighth Army had managed to stabilise its front on the El Alamein-Qattara Depression line and that the Axis plans for a quick thrust to the Canal Zone had been thwarted, at least for the time being. Eighth Army sources reported, 'On the whole a very quiet day, except for counter-battery fire'. Both sides were preoccupied with measures for improving their positions and making adjustments in the tactical disposition of their forces. The enemy, skilled in deception, ordered the installation of dummy guns, 'since the enemy is especially afraid of our 8.8-cm. A.A. guns.' A strengthening of the western end of the enemy's southern flank 'with 88-mm. guns, of which seven were in the area 8427 during the afternoon and moving north-west' was duly reported by the Eighth Army.

Afrika Korps War Diary
A.H.B.6 Trans.
No. VII/87

Costrep 440 of 7/7
Hist. (B) (Crusader)
4 (final).

A Shortage of Targets for the Light Bombers

From the air point of view, a most noticeable change had taken place in the general situation. On all sides were signs that the Afrika Korps had been forced over to the defensive. The protective measures which the constant air offensive of the past few days had compelled them to adopt had resulted in a widespread dispersal of the enemy armour and their supporting vehicles.

Afrika Korps War Diary for 12.00 hours 6 July 1942

'In order to disperse the large concentrations of vehicles, Panzer Army Africa orders that all vehicles which can be dispensed with should be moved into the area to the west of Deir el Abyad. The divisions receive orders for moving the vehicles; more detailed allocation of the area is to be made by the leader of the battle echelon of the Afrika Korps, which is in action to the south of them.'

Afrika Korps
War Diary
A.H.B.6
Trans. VII/87

If the quality of the targets presented to the Western Desert air striking force had shown a decline, this meant a corresponding failure of the enemy ground forces to sustain the offensive. Although it was not logged until 7 July, this comment which is contained in No. 3 Wing O.R.B. was equally true of the situation on the preceding day:

'There was an air of quiet on the front to-day. No major activity is in progress, or seems to be impending. The battle had dragged to a standstill for the first time since Hacheim was overrun.'

The sense of urgency and tension which had characterised many of the entries in Squadron O.R.B.s for weeks past had been dissipated. It was obvious, from reports brought back by pilots and observers, that the pattern of the land-fighting had shown a dramatic change, and that the battle which the Eighth Army had been waging so desperately, in order to stabilise its position at El Alamein, had been won.

'Last night, A.H.Q. had taken pity on the Bostons and made their stand-by from 08.00 hours this morning and not the 6 o'clock to which they had become accustomed. 24 Squadron had the first raid off at 08.35. They found no suitable target in the area they had been given and so bombed L.G. 025 on which up to 20 aircraft

No. 3 Wing
(S.A.A.F.)
O.R.B., A.H.B./
IIM/C3/1

were dispersed. They claim a fire and near misses among these. 12 Squadron, also short of Army targets, followed suit.... To-day, the Wing's effort was not on the same scale as on the previous days, and rising dust cancelled the last planned operation.'

No. 24 Squadron
(S.A.A.F.)
O.R.B.

Among the twenty enemy aircraft observed on L.G. 025 by Bostons of No. 24 S.A.A.F. Squadron in the first light-bomber raid of the day, three were identified as Ju. 52's. These belonged to the considerable fleet of Greece and Crete-based transport aircraft on which Rommel was relying, now that the sea-routes were again unsafe, for the ferrying of urgently-needed supplies and reinforcements. Bombing was carried out from 10,000 feet. Many near-misses were registered and one fire, was started. A camp adjacent to the L.G. was also bombed. The original briefing for this raid was to bomb enemy concentrations to the west of El Alamein. A complaint was registered on the Sortie Report that the 'bomblines were too far West.'

No. 12 Squadron
(S.A.A.F.)
O.R.B.

A raid by eleven Bostons of No. 12 S.A.A.F. Squadron followed half-an-hour later in the course of which claims were made of a direct hit on one aircraft and two others left smoking from near-misses. Although the No. 24 Squadron attack reported the A.A. gunfire as being 'slight' and that no enemy aircraft was seen, the second raid was subjected to heavy anti-aircraft gunfire and repeated attacks were made on the escort by enemy fighters. Whatever measure of surprise was achieved on the first raid was therefore lost on the second, as the defences had been put on the alert. The most successful light-bomber raid of the day took place soon after mid-day on between 150 to 200 tightly-packed M.T. at map reference 857287 to the north-east of Abar el Mukheisin. These were most probably part of the Italian reinforcements sent by Rommel to bolster up the most westerly part of his defensive flank against XIII Corps' outflanking movement, from the south. Aerial reconnaissance on the following day revealed the success of this raid from the large number of derelict vehicles seen in the area.

No. 12
(S.A.A.F.)
O.R.B. &
Sortie Report

Panzer Army Africa's order that all M.T. surplus to immediate requirements in the forward area should be moved 'to the west of Deir el Abyad' was not altogether fortunate. The next target for eleven Bostons of No. 12 S.A.A.F. was against enemy transport in this very area where a number of direct hits on vehicles and several near-misses were observed. It also meant that attention was drawn to a stretch of the battle-front in which the Afrika Korps' own forward headquarters was located. That the enemy was most sensitive to this air attack is obvious from the unusually heavy volume of anti-aircraft gunfire encountered and the fact that enemy fighters pursued the Bostons practically the whole way back to their base.

O.R.B.s.

A morning raid by twelve Baltimores, nine from No. 223 Squadron and three from No. 55 Squadron, briefed to attack enemy transport moving south along the Sidi Abd el Rahman track had proved unsuccessful, owing to poor visibility and wide dispersal. The weather, which had been poor owing to the number of dust-storms in the battle area, had worsened so much by late afternoon that an attack by twelve Bostons of No. 24 Squadron (S.A.A.F.) on sixty well-dispersed M.T. at Map Reference 872286, in the Deir el Abyad area only registered one direct hit and two near misses and was judged 'most disappointing.' The last light bomber raid of the day was cancelled. In the course of these raids, frequent reports were brought back of

concentrations of as many as one thousand M.T. lying to the east, mainly in the battle zone around the El Ruweisat Ridge sector, but on the safe side of the bomb-line.

Fighter Activity on 6 July

Group Capt.
Beamish
'Report on
Operations'.
A.H.B./IIJ1/
122/69 (A)

A.H.B./IIJ1/
31/1 Table of
Operations

A logical development in the general character of the air operations at this time was the way in which 'light bomber attacks on objectives in the battle area gradually gave way to fighter bombers with the steady deterioration in targets, through dispersal.' This resulted in an alteration of the proportion of fighters of the Western Desert Air Force employed on fighter sweeps and in ground attack by fighter bombers. The number of fighter aircraft engaged on fighter sweeps in the battle area which had risen to a peak of 183 sorties, for this particular period, on 5 July, dropped by approximately half, or 95 sorties, on 6 July. Whereas there was a sudden doubling of the number of ground attacks by fighter bombers from 66 sorties on 5 July to 129 on 6 July. This fighter-bomber effort was directed, in roughly equal proportions, against enemy landing-grounds and close-support targets. It is noticeable that there was an increasing tendency for the fighter-bombers to work up close to the actual battle front, the weight of attack being shifted forward from the enemy support columns, in the rear, on to the actual spearheads of the enemy armour.

Nos. 3 &
450 Squadron
(R.A.A.F.)
O.R.B.s.

The two Australian Kittyhawk Squadrons, Nos. 350 and 3, were kept particularly well-employed on this day. The first raid was an armed 'recce' of L.G.s 20 and 21, to the west of Daba. Eight aircraft of No. 3 Squadron gave top cover to eight of No. 450. They came in north to south over the target, dropping from 7,500 to 2,000 feet when bombs were released, after which two aircraft machine-gunned enemy aircraft from as low as thirty feet. Claims were made of damage to a Me. 110 and Me. 109. The next raid, another armed 'recce', this time by aircraft of Nos. 250 and 112 Squadrons bombed aircraft on L.G. 106, but did not observe the result of the bombing. Two aircraft, identified as Heinkel III, were the targets for the next operation by aircraft of Nos. 450 and 3 Squadrons (R.A.A.F.). They were located on an air strip in the open desert at Map Reference 865283. One was destroyed by a direct hit and the other was most probably damaged.

Nos. 250 and
112 Squadron
O.R.B.s.

No. 6 Squadron
O.R.B.

No. 6 Squadron, the 'Tank-busters', their Hurricane IID aircraft fitted with two 40-m.m cannon or 'S' guns, carried out their first operation since June, when they had achieved spectacular results from low-level attacks on enemy tanks and transport, during the retreat from Gazala. These specialised aircraft could only be used effectively against small, isolated groups of tanks when the risk of encountering 'flak' of high density was reduced. During the early part of the fighting on the El Alamein line, when the enemy Panzer Army was massed for its assaults, the necessary conditions for the use of these aircraft were absent. Unfortunately, in this case, the target for the 'Tank-busters' could not be located. Accompanying Kittybombers of Nos. 250 Squadron and 3 and 450 R.A.A.F. Squadrons attacked dispersed M.T. at Map Reference 870273 to the north of Bab el Qattara. This was in all likelihood a patrol from the 21st Panzer Division known to be operating in this southern sector and which later, very much to the enemy's surprise, was to announce the evacuation of the Bab el Qattara 'box' by the Eighth Army, precisely at a time when enemy morale appeared to be at its lowest ebb. In the



The Hurricane IID "Tankbuster"



Servicing a Kittyhawk fighter

course of this operation, some of the fighter-bombers were forced to jettison their bombs owing to an attack by enemy fighters.

Squadron
O.R.B.s.

The next raid, between 15.45 hours and 16.45 hours, comprising a total of eighteen Kittybombers from Nos. 250, 112 and 450 Squadrons, was to have been directed against the main enemy Panzer formation in the Ruweisat Ridge area noted earlier in the day by Boston pilots. This large concentration of enemy tanks and vehicles was, however, missed and bombs were dropped on the south east tip of another enemy concentration to the west. A separate mission by eight fighter-bombers of No. 3 R.A.A.F. Squadron attacked the same target. It was followed by another raid by eight Kittybombers of No. 3 R.A.A.F. towards 18.00 hours when 'excellent results' and 'much damage done' were reported. The last fighter-bomber raid of the day was carried out under conditions of extremely bad visibility when nineteen Kittybombers of Nos. 112 Squadron, 250 Squadron and 450 R.A.A.F. Squadron returned to bomb the same Panzer formation. Dust haze was reported as high as 6,000 feet. In spite of this the bombs were reported to have landed in the target area with good effect.

No. 601 Squadron
O.R.B.

As has already been noted, the sortie rate for Western Desert Air Force fighters employed on offensive sweeps over the battle area fell to about half of the peak figure reached the previous day. Only one small enemy 'Stuka' force of three Junkers aircraft, escorted by three M.E. 109's was intercepted. Four Spitfires of No. 601 Squadron, on an offensive sweep in the El Daba area engaged this formation with most disappointing results. Two Spitfires were lost for one Ju. 88 claimed as damaged. These were the first casualties sustained by No. 601 Squadron which had only been operational in the Western Desert for less than a week. Until it had obtained battle-experience in the conditions peculiar to the Western Desert, this Squadron's performance in action was considered to be unsatisfactory and they were consequently withdrawn. On 31 July, the Air Officer Commanding-in-Chief wrote to the Vice-Chief of Air Staff as follows:

A.O.C.-in-C.
Correspondence
with V.C.A.S.
Enc. 227 B.

'The allocation of our Spitfires has not been and is not going to be at all easy. I have equipped two of the home Spitfire Squadrons, firstly 145, and now 601, the pilots of which fought in Malta for nearly two months. We have done our best to help them to Desert wisdom and to acclimatise them to the type of fighting here, but the results have been really somewhat disappointing. There is no doubt it takes a very considerable time for a new unit to get acclimatised. There is also no doubt that there are great differences between fighting under air defence conditions and fighting under the catch-as-catch-can conditions which prevail over a land battle. 601 in particular have been very disappointing, so much so that I have withdrawn them to serve on Delta defence until they can be made up to full strength and given tactical training. It is interesting to note that the moment they came back to defence, they began to get kills in the shape of reconnaissance Huns.'

No. 601 Squadron
O.R.B.

It would be most unjust to No. 601 Squadron, which later was to attain a high level of operational efficiency after it rejoined the field fighter force at the time of the battle of Alam el Halfa, towards the latter part of August, not to apportion part of the responsibility for the

Squadron's lack of operational preparedness to the Middle East authorities themselves. Apart from the C.O. and ten other pilots who were posted to Malta provisionally, the Squadron comprising many new arrivals left R.A.F. Station, Digby on 10 April 1942 and did not reach the Middle East until two months later, at the beginning of June 1942. After spending some time in the Middle East Pool they were posted for defence duties to R.A.F. Mariut on 14 June. On 23 June the C.O. and eight pilots arrived from Malta. The Squadron was relieved of their defence duties at R.A.F. Mariut on 26 June and arrived at their new base, L.G. 154, on 30 June when the camp was opened up. The next day, 1 July, the Squadron was operational without any preliminary training or, it seems, any steps being taken to familiarize them with battle conditions in the Western Desert. Admittedly this was a time of crisis when every operational aircraft was being pulled in to the battle, but it is nevertheless not surprising that, training and fighting at the same time, the standard of performance of the Squadron was 'really somewhat disappointing'.

The Importance of the Attacks by Beaufighters on Enemy Transport

It has already been seen how the shortage of transport was one of the main reasons why the Axis air forces had failed to keep pace with the Afrika Korps as it advanced into Egypt. An urgent request for the allocation of fifty lorries from each of the two Panzer Divisions having been flatly refused by them, the demand was whittled down, on 5 July, to twenty trucks. Such was the shortage of M.T., however, in spite of the large numbers that had been captured from the Eighth Army during the retreat - total estimated losses by destruction or capture amounted to 7,500 load carrying and 1500 technical vehicles - that even this modified request was turned down.

'Afrika Korps War Diary for 18.00 hours 6 July 1942: The enquiry whether at least 20 lorries cannot be assigned for the Luftwaffe is answered in the negative by both Divisions. The reasons are the same as already given in the report.'

This shortage of M.T. which was to have such repercussions on the Axis Air Forces and, in turn, on the Panzer Army can be attributed almost wholly - at least, where losses from operational causes are concerned - to action by the Royal Air Force.

'Rommel, C.-in-C. Panzer Army Afrika to Oberkommando der Wehrmacht, 21 July 1942: Estimate of the Situation and of the condition of Panzer Army Afrika. Vehicles: 50 per cent of vehicle losses were replaced by captured material. Owing to lack of spare parts for these and continual enemy air attacks (daily losses average 30 vehicles), increasing shortage of captured vehicles must be expected.'

An operation carried out by two Beaufighters of No. 272 Squadron on 6 July, therefore, produced results quite out of proportion to the number of aircraft concerned.

'Set off from Edku and flew westwards, making a land-fall at Taifa Rocks. Attacked a signals lorry on the dunes and damaged it.... Commenced to strafe eastwards along the road and isolated lorries only seen at first, heading in both directions and no attacks were made on

A.H.B.6
Trans. VII/87

'High Level
Reports and
Directives'
A.H.B.6 Trans.
No. VII/80.
Page 18.

No. 272 Squadron
O.R.B.

them, pending the sighting of bigger game. Eventually came upon two closely-packed convoys of between 10 and 15 lorries each, heading west. Attacked and set on fire a petrol lorry and caused great chaos, lorries colliding and going off the road in all directions. Pilots considered that probably half of the total lorries were destroyed and others damaged. Casualties were also inflicted, although few troops were seen.'

The hazards attending these low-level attacks are exemplified in an attack made later by two Beaufighters of No. 252 Squadron on M.T. along the road between Bu Amud and Fort Cappuzzo. One vehicle was destroyed and two others damaged, but one of the attacking aircraft was hit by light A.A. from a gun on the back of one of the lorries and crashed with the loss of both members of the crew.

The Air Support Control War Diary, 6 July 1942

A.H.B./IIM/
122/80

The Air Support Control War Diary for 6 July 1942, was wholly concerned with the location of the bomblines, about which so many complaints had been received.

'Bomber effort all day on west of enemy posts, allegedly because army bomblines were too secure. In fact, 1 Armoured Division gave target south El Alamein and the target area was defined by 12.00 hours. Fighter bombers attacked in that area all day. It has now been established that general bomblines laid down by higher H.Q. prevents R.A.F. getting close targets and the bomblines are defined for the present as the predicted line of forward troops during next two hours. The R.A.F. must then decide to what degree of accuracy they are prepared to bomb. Landmarks were arranged on ground, round enemy salient, W., X, Y. and Z. by formations 20 yards long. Night landmark was also laid out by N. Z. Division. If this becomes common practice it should be of great assistance in semi-static positions.'

The Afrika Korps War Diary, 6 July

Again, as on the preceding day, there is noticeable an atmosphere of relief, in the entries in the Afrika Korps War Diary for 6 July, that the inaction of the Eighth Army - apart from heavy gunfire - had given the enemy Commander-in-Chief time to regroup his forces and improve their defensive position. There are frequent references to the activity of the Royal Air Force.

A.H.B.6 Trans.
No. VII/87

'Until bombing attacks and heavy gunfire began, the night was passed quietly. The tank situation is improving gradually. In the past few days, as well, our casualties have been far less than the losses inflicted on the enemy.... In the forenoon, nothing of note to report until some intense flying activity and lively gunfire.... The enemy puts out feelers, in the afternoon, with about 15 tanks.... However, no attack has followed yet.... Nothing of note to report up till the approach of darkness, and also until midnight.... In the night, heavy gunfire again and intense flying activity.'

The Duce's Conference, 6 July 1942

Before Von Rintelen and Marshal Cavallero flew to Rome on 6 July, in order to hasten the arrival of supplies and reinforcements to North Africa, the Duce held a conference in his quarters. The main subject under discussion was the

way in which the new tactical situation, owing to what was felt to be the temporary weakness of his forces, had affected the original plans for a swift advance to Suez. The realities of the situation which were governed almost entirely by the weakness of the Afrika Korps' extended lines of communication and the dominance of the Royal Air Force over the Axis Air Forces were conveniently ignored.

The Duce pointed out that the delay of between 10 to 14 days which, according to Rommel's optimistic estimate, was all he required to regroup and reinforce his army meant that 'the situation will have altered to such an extent that the element of surprise will be lost,' and that, 'a quick advance with weak forces to the Suez Canal via Cairo will no longer be possible, as the British will have time to organise the defence of the Canal.' He therefore proposed that the plan of operation of 2 July should be altered and that, instead of the projected advance to Suez, in which the port of Alexandria was merely to be isolated, the capture of Alexandria should be made their immediate objective. There is a serious element of doubt that the original plan for the capture of Suez might miscarry discernable in the Duce's statement that, 'Even if this objective (Suez) is not reached, we will have gained a very important position in Alexandria which will make an impression on the rest of the world.'

The way in which the Duce overawed the senior Commanders who were present at the Conference is evident in the way in which both Marshal Cavallero and Von Rintelen, although they disagreed with the Duce's decision, both kept silent. After the conference, in a private discussion, both Cavallero and Von Rintelen were of the opinion that difficult though it would be, 'the Canal and the area south of Cairo would have to be occupied,' for 'Alexandria alone would be of little use, as it could hardly be exploited as a harbour if the air-fields as far as the Canal Zone were not occupied.' Still more serious was the fact that although the Duce, at the beginning of the Conference, had grandiloquently 'ordered the Italian Air Force to be reinforced and moved forward to be in a position to oppose the R.A.F. whose strength is continually increasing,' Marshal Cavallero and General Fougier told Von Rintelen privately that this 'plan had miscarried owing to the Italian Air Force's lack of fuel and that, owing to other tasks such as convoy escort, the fight against submarines and reconnaissance over the Mediterranean, transport flights had been abandoned.'

In this spiritless conference in which both the German and Italian Commanders chose to conceal the true facts from the Duce was implicit the ultimate failure of the Afrika Korps and their expulsion from the Middle East. Whatever victories had been won by Rommel in a truly spectacular advance, they were denied military significance whilst the Royal Air Force sustained an equally remarkable ascendancy over the combined enemy Air Force and corroded the gilt on every successful land-battle so far gained against the Eighth Army. From now on, it was not to be so much a question of land-battles, but of the relative rate of reinforcement of the opposing forces, in which air power and to a much more limited extent naval power were to decide the fate of armies. It was a struggle which, the pattern having been set in the Mediterranean theatre by 6 July with the Eighth Army stabilised at El Alamein, the British were bound to win. Land battles were merely to set the seal on and finalise the struggle that had already been won in the air.

Thus, the defeat of Rommel at Alam el Halfa which marked Rommel's last desperate throw in Egypt and the Battle of El Alamein, when the Imperial Armies broke through the crust of Rommel's defence, were already the 'writing on the wall' at this meeting of the enemy Commanders. Then, if ever, with a frank appraisal of a situation stripped of the last shred of optimism which Tobruk had induced, a decision might have been arrived at whereby Rommel still stood a chance of victory in the Middle East with a strategic withdrawal to the Egyptian frontier and a return to the original plan Operation 'Hercules', for the invasion of Malta. Instead, the military tradition of assessing success in terms of advance and defeat in terms of retreat proved too strong. The decision to stand at El Alamein, after the failure to break through this defensive position, was the equivalent of restoring to the Eighth Army all that they had lost during the retreat and all that Rommel had thereby gained. Whilst the Eighth Army was still in being, their main bases and supply routes untouched and air superiority on their side, the miles of desert for which his army had fought so hard were an incubus - just as was happening in Russia, where vast territorial gains were beginning to exhaust the enemy even more than the skill and tenacity of the defence.

A Comparison Between the Available Fighter Force in the Middle East Command and the United Kingdom

Personal to
C.A.S. from
Tedder 3/7
Hist. (B)
Crusader
4 (Final)
AMWD Weekly
Statistical
Analysis No. 4

On 3 July 1942, the Air Officer Commanding-in-Chief signalled to the Chief of Air Staff at Air Ministry, 'Have been able to build up S.S. fighter strength in Western Desert Force, which this morning was 209 serviceable.' The strength of serviceable Spitfires was under thirty. Fighter Command had an average daily availability of approximately one thousand single-engined fighter aircraft, with crews, out of a total strength of some thirteen hundred fighter aircraft, of which over eight hundred were Spitfires.

Analysis of the operational sorties flown by Egypt based fighter aircraft between 1 and 6 July gives the following figures:

		July 1	2	3	4	5	6
M.E. Table of Operations A.H.B./IIJ1/ 31/1	Offensive	217	432	563	386	379	371
	Defensive	51	57	61	81	40	44
		268	489	624	467	419	415
	Total:	2682					

It is instructive to compare these figures, after intensive operations lasting five weeks and a withdrawal of some four hundred miles, with the fighter sortie rate for the first six days of Rommel's offensive at Gazala:

		June 26	27	28	29	30	31
Idem	Offensive	124	202	196	230	207	164
	Defensive	143	152	133	120	118	51
		267	354	329	350	325	215
	Total:	1840					

In the United Kingdom, due partly to adverse weather conditions, it was a period of abnormally low operational activity. Between 1 and 6 July, only eight sorties

classified under the heading of offensive operations were flown. As early as February 1942, over the controversial question of the quality of fighter pilots sent overseas compared with those retained in the United Kingdom, the Vice-Chief of Air Staff had written to the Air Officer Commanding-in-Chief, Fighter Command:

WSD/S.87 Quality
of Fighter
Pilots for
Overseas Enc.1a.

'It is most important that the Far East and the Middle East should not be palmed off with their second and third-rate people, at the present time, as the centres of pressure have moved from this country to those places and for the time-being, I suppose, it is not very far from the truth to say that in a great many ways your Command, with its O.T.Us, must be regarded as being the training ground and nursery for fighter pilots who are bearing the brunt of the present fighting and also that of the future... It is essential that we get the right stuff, even if it means pulling back teeth out of your Command which you can ill afford.'

Although this fact that the centre of pressure had moved from Great Britain was thus explicitly stated five months earlier, the situation had nevertheless arisen whereby, at a time of acute crisis in the Middle East, only two squadrons of Spitfires were available for the fighting in North Africa. In this connection, the Naval Commander-in-Chief's forthright statement at the July meeting of the Middle East Defence Committee is pertinent:

A.O.C.-in-C.
Papers of
Defence
Committee.
Part III

'Sir Henry Harwood suggested that further pressure should be brought to bear on the Chiefs of Staff to send out more reinforcements, particularly of aircraft. As he saw it, when a crisis arose, a flood of reinforcements was immediately sent, but these always arrived long after the crisis was over.'

Acrimonious controversy had arisen over the question of the quality of fighter pilots sent to the Middle East, with particular reference to the reinforcement of Malta, some months back. One of the squadrons under dispute was No. 601, which at this time constituted one half of the Western Desert Air Force's Spitfire strength, and which was later withdrawn for defensive duties.

A.O.C. 617
To Air Ministry
from R.A.F.M.E.

'Personal for C.A.S. from Tedder. Following received from Lloyd 25/4. Regret quality of Spitfire pilots from Operations "Calendar" is not up to that of those from previous operations. In 601 Squadron, 7 out of 23 pilots have had no operational experience and further 4 have under 25 hours flying on Spitfires.'

From V.C.A.S. to A.O.C.-in-C. Fighter Command 26/4/'42

'I understand that 601 Squadron have not been operational since October, 1941. They were equipped with Airocobras until March of 1942, at which time they started to get their first Spitfires. The Squadron Commander had, therefore, only fourteen days in which to get the Squadron used to Spitfires, and out of this period he had to allow overseas leave to his pilots. Only eight of his squadron had had, at that time, any operational experience whatsoever and the majority of them had never flown Spitfires....'

The quality of the Spitfire pilots sent to Malta did, subsequently, show a marked improvement and, as has already

been mentioned, No. 601 Squadron later proved their value when brought back into the Air Striking Force before the Battle of Alam El Halfa.

Comparison Between Enemy and R.A.F. Losses 1-6 July 1942

No detailed figures are available for the Italian Air Force losses over this period.

A comparison between the Luftwaffe and R.A.F. operational aircraft losses in North Africa during this period of stabilisation at El Alamein gives the following figures:

G.A.F. Losses Established from Enemy Records

	<u>July</u>	<u>S.E. Fighters</u>	<u>T.E. Fighters</u>	<u>Bombers</u>
A.H.B.6 Fighters	1	-	-	-
	2	-	-	-
	3	1	1	5
	4	2	-	1
	5	3	3	5
	6	1	-	2
		<u>7</u>	<u>4</u>	<u>13</u>
		<u>Total</u>	<u>24 aircraft</u>	

R.A.F. Losses from Enemy Action

	<u>July</u>	<u>S.E. Fighters</u>	<u>T.E. Fighters</u>	<u>Bombers</u>
H.Q.M.E. Table of Operations A.H.B./IIJ1/31/1	1	2	2	-
	2	1	1	-
	3	8	-	-
	4	1	2	2
	5	7	-	-
	6	2	1	1
		<u>21</u>	<u>6</u>	<u>3</u>
		<u>Total</u>	<u>30 aircraft</u>	

G.A.F. Losses from R.A.F. Claims

	<u>July</u>	<u>S.E. Fighters</u>	<u>T.E. Fighters</u>	<u>Bombers</u>
M.E. Int. Sums. Vol. 8.	1	3	1	4
	2	-	-	-
	3	11	1	16
	4	7	1	4
	5	1	2	7
	6	3	-	1
		<u>25</u>	<u>5</u>	<u>32</u>
		<u>Total</u>	<u>62 aircraft</u>	

The twenty-one single-engined fighters which the Western Desert Air Force lost by enemy action comprised ten Hurricanes Marks I and II, seven Kittyhawks and four Spitfires. The seven single-engined fighters lost by the German Air Force were all Me. 109's. The Germans lost thirteen bombers for three bombers lost by the Royal Air Force. The high standard of protection afforded the Bostons and Baltimores is evident in the fact that in the course of over seven hundred light-bomber sorties flown by

the small light-bomber force, which alone equalled the activity of the whole of Bomber Command, in U.K., during this period, not one of these aircraft was lost from enemy action. The disparity in the number of single-engined fighters lost by the German Air Force and the Royal Air Force is clearly related to the fact that whilst the enemy employed their most modern types of aircraft in the desert fighting, by far the greater proportion of the Western Desert Air Force fighter aircraft were comparatively obsolescent. The aggressive policy pursued by the field fighter force compared with the mainly opportunist tactics of the enemy, in which they picked off stragglers, also helped to account for the disproportion in the casualty rate. The enemy fighter force can be said to have failed completely in affording the Afrika Korps protection from bombing and which was undoubtedly their main task during this period.

H.Q.R.A.F.
M.C. Table
of Ops.

Idem

The total number of aircraft of Middle East Command destroyed or damaged (Cat. II) by enemy action or from accidents during the period 1-6 July amounted to one hundred and five aircraft, of which sixty-five were fighters - a high percentage of the available serviceable aircraft. Aircraft reinforcement figures are not available for this limited period, but from 1 to 14 July a total of 60 S.E. fighters arrived, of which two were Spitfires, while during this same period of fourteen days one hundred and fifty-six S.E. fighters were destroyed or damaged (Cat. II) from all causes. It is understandable that the Air Officer Commanding-in-Chief was perturbed at the rate of replacement, and had it not been for the outstanding efforts of Middle East Maintenance Command, air superiority might easily have been transferred to the enemy

A.O.C.-in-C.
Correspondence
with (P.M. and
C.A.S.)

This heavy rate of wastage, particularly in fighter aircraft, and the meagre reinforcement had a marked effect on policy. Faced by a thirty per cent. wastage of fighter aircraft destroyed or seriously damaged, in six days, it is obvious that no great risks could be run. Criticism had been levelled at the air force policy at this time for not employing the low-level fighter-bomber tactics which were later used with such good effect. Under the circumstances, a reluctance to undertake operations involving a still higher aircraft casualty rate can be readily understood, when aircraft were not being replaced, many experienced pilots had been lost and a number of the Kittyhawk squadrons had suffered a one hundred per cent. loss in aircraft during the past four weeks of intensive operations.

Enemy Air Activity

The failure of the Axis Air Forces to protect the Afrika Korps and their lines of communication during this most vital phase, when Rommel was striving to reap the rewards of six weeks' arduous and successful campaigning, is as surprising in its way as was the failure to make the most of the opportunities presented to them during the retreat of the Eighth Army. None of the tasks set the Luftwaffe was fulfilled. At the root of the matter was Rommel's decision - backed by Hitler - to exploit the collapse of the Eighth Army and advance into Egypt with ever-extending lines of communication and in the face of an air force which maintained a high degree of air superiority.

Planning was bad and piecemeal. For instance, the Air Officer Commanding-in-Chief concentrated every available front-line aircraft for use in a tactical role, for the

German Air Force
Activities in
the Mediterran-
ean. 8th Abtei-
lung. A.H.B.6
Trans. VII/II

period of the emergency on land, During these vital six days, however, when the enemy were expected to fling every aircraft into the battle, in order to force a break-through to the east, a major operation for the neutralisation of Malta was undertaken. However successful, this diversion of a considerable proportion of the Axis air strength to what was virtually a strategic target, could have had no immediate impact on the battle then being waged in North Africa and which, in a number of respects, was of crucial importance to the whole subsequent history of the war.

Defence
Committee
Papers

Operations by Units
of Fliegerkorps X
Based on Crete and
Greece. A.H.B.6
Trans.

Planning for the handling of the Luftwaffe against strategic targets was equally bankrupt. The occupation by the enemy of forward landing-grounds at Daba and Fuka had brought a threat of concentrated raids against ports and bases. On Crete, comparable with Malta in importance as a base, was the main Luftwaffe bomber force. The native population of Egypt, on which the British forces in the Middle East depended so largely - the R.A.F. alone employed twenty-six thousand - were notoriously unstable under bombing. Yet no programme for the systematic bombing of these Egyptian bases and ports was undertaken. Hitler ordered the 'immediate and heavy mining of the Suez Canal and harbour'. The mines caused comparatively minor dislocation to the movement of shipping, and were collected with what must have seemed to the enemy a most irritating facility, when the same quantity of H.E. bombs would have wrought tremendous confusion on ports crowded with shipping.

Interview with
General Ritter von
Thoma

According to General von Thoma, it was 'the political gentlemen' (i.e. the Italians) who were responsible for the lost opportunity. This is borne out by the directive issued on 30 June:

General von
Rintelen to
OKW Staff

'With reference to relations with the Egyptian State, the Duce has decided the following: our relations with the population must be friendly, and likewise with the Egyptian authorities, if they prove themselves worthy of it.

This order must be complied with, especially by the Air Force, which must avoid attacking any non-military target in Egypt.'

Nevertheless, the order still does not account for the fact that enemy air attacks on military targets were both light and sporadic. For this there would appear to have been a number of contributory factors, among which the following are the most important. There was the waste of effort entailed in implementing Hitler's instructions for the mining of the Suez Canal; Rommel's insistence that the Luftwaffe should fulfil its traditional German role of providing the army with close-support; the way in which the Panzer Army had outrun their air support; the diversion of air strength to Sicily for the neutralisation of Malta and, finally, the way in which their opponents consistently maintained air superiority and forestalled all attempts by the Luftwaffe to develop an incisive and coherent air policy. Hitler, Mussolini and Rommel all interpreted the way in which the German and Italian Air Forces should be employed quite differently, while the Fliegerfuehrer Afrika was left protesting against the strain being put on his force in trying to fulfil the instructions of his various masters. The result was a weary, frustrated air force, never in a position to develop a firm, constructive policy along sound air lines, and used merely as adjuncts to the Wehrmacht or as a tool in the hands of 'the political gentlemen.'

Summary and ConclusionsThe General Situation, 1 July 1942

On 30 June 1942, advanced elements of the German Panzer Army had begun to reconnoitre the El Alamein positions which ran across the narrow isthmus of land, from Arabs Gulf in the north to the tip of the Qattara Depression in the south and to which the Eighth Army had retreated. By the evening of 1 July, the defended locality of Deir el Shein, one of the four 'boxes' on which the El Alamein line depended for its security had been captured, 'opening a great gap in the Alamein line, as planned'. The last line of defence before the Nile Delta had been breached at a point considerably less than one hundred miles from Alexandria.

The enemy Commander-in-Chief, Field Marshal Erwin Rommel, had chosen well. On the morning of 2 July, his armoured force was massed in a most advantageous position. By an advance along the Ruweisat Ridge, not only would the main Eighth Army defensive position at El Alamein be outflanked, but a hard surface suitable for tanks led in an easterly direction towards his ultimate objectives, Suez and the Red Sea.

The events leading up to this acute crisis in the Middle East were basically simple. 'As you know,' General Auchinleck wrote to the Prime Minister, on 24 June, during the retreat from Gazala, 'we are trying to train an army and use it on the battlefield, at the same time.... Infantry can NOT win battles in the desert so long as the enemy has superiority in armour.' A study prepared by the Foreign Armies (Western) Intelligence Department of the General Staff of the German Army and written in 1942 makes this comment, 'On the whole we may say that all through the war the British forces in the Middle East have always been too weak to make the most of any opportunity. Supply difficulties, or new demands in other theatres, have constantly arisen. The British decision to make the Middle East the centre of operations was, for example, immediately followed by Japan's unexpected entry into the war.'

On 26 May, Rommel had launched Operation 'Theseus' - an operation in which he had been set important but limited objectives. The plan, as originally devised, had been to capture the port of Tobruk, advance as far as the Egyptian frontier, and halt there whilst Operation 'Hercules', for the capture of Malta, took place. Once the threat of this British air and naval base to his lines of communication had been removed, then the second phase of the plan, the invasion of Egypt in the autumn of 1942, would be undertaken.

On 21 June, Tobruk was captured. 'For the loss of one hundred dead we captured thirty thousand prisoners and one hundred tanks,' states a study prepared by 8th Abteilung, the German Air Historical Section. This tremendous success convinced the enemy that, 'the historical moment has come to capture Egypt and must be exploited.' On 23 June, Rommel signalled the Oberkommando Wehrmacht, 'the first objective of the Panzer Army in Africa to defeat the enemy army in the field and take Tobruk has been attained.... Request the Duce to effect the suspension of former limitations on freedom of movement.' This was agreed: the pursuit of the Eighth Army into Egypt, with the occupation of the Delta area and an advance as far as the Suez Canal and the Red Sea, as objectives, was on.

0184/1575/MOI
(Records)

Alexander Despatch
P. 4.

War Cabinet Records,
Hist. (B) (Crusader)
4(Final)

The Middle East
Situation in 1942.
A.H.B.6. Trans.
No. VII/15.

High Level
Reports and
Directives.
A.H.B.6. Trans.
No. VII/80.

Idem.

At this period in the war, midsummer 1942, the Allied position was one of acute crisis. On 21 June, the day Tobruk fell, the Germans had driven a wedge into the Sevastopol defences. By 1 July, when Deir el Shein was captured, this most important Russian port and base in the Crimea had fallen to the enemy. The Americans, who had only been directly involved in the war for under seven months, had not had time to gear their production or mobilise their manpower to anything like the fullest extent. In any case, they were mainly preoccupied with the war in the Far East and, apart from valuable contributions in equipment and a handful of American personnel, had left the Middle East theatre as a British responsibility. At this critical point in the history of the war, the Commonwealth forces stood alone in the Middle East.

In the course of the fighting at Gazala and the long retreat, in which they had covered some 350 miles in twelve days, the Eighth Army had suffered grievous losses. The initial force which had met the enemy onslaught at Gazala had been reduced, within the space of five weeks, by over one half and vast quantities of stores and equipment had fallen to the invading forces. General Corbett assessed the loss as 65,000 men, $3\frac{1}{2}$ million gallons of petrol, 7,500 load-carrying and 1,500 technical vehicles, together with 7,500 tons of supplies. The armoured divisions had suffered particularly heavily. Out of an initial force of 138 Grant tanks - the only tank able to meet the enemy Mark III and Mark IV on anything approaching terms of equality - only approximately a score were left by 4 July. The 1st Armoured Division was virtually the only effective mobile striking force which General Auchinleck had at his disposal. In addition, under the stress of the retreat, the Eighth Army had become disorganised. The divisional formations had largely broken down and had been replaced by improvised battle groups and 'Jock columns'.

Under the circumstances, therefore, it is not surprising that there was general uncertainty that the Eighth Army could be turned at El Alamein. On 28 June, the Minister of State at Cairo wrote to the Prime Minister, 'If it is humanly possible, the enemy will be kept out of the Delta, but I feel that you should appreciate the fact that his reaching the Delta is not an impossibility.... If the worst comes to the worst and this happens, it is Auchinleck's intention, of course, to fight him all the way back to the Delta and in the Delta, preparations to this end are being pushed forward as rapidly as possible.' To which the Prime Minister replied, 'I wonder how Rommel's tanks will get on among the irrigation canals.' By 30 June, owing to the threat from escorted bombers, Admiral Harwood, the Commander-in-Chief Mediterranean, had decided to move the fleet from Alexandria. The Russians, who had been 'watching with some concern developments in the military situation in Egypt' and were perturbed by this new threat to their southern flank, offered 'three Polish Divisions, in order to fill the gaps caused by the recent severe fighting.'

In this period of extreme danger, in which the whole structure of British power to continue waging the war in the Middle East was threatened with collapse, the most reassuring factor was the way in which the Royal Air Force, far from having been weakened by the enemy success on land, seemed to have gained added strength by a retreat on to their main bases and the resultant shortening of their lines of communication. The sortie rate for the field fighter force, which had been 1,845 for the first week of the enemy offensive at

Appreciations and
Notes. AOC/14,
Troopers Signal
CS/1405.

COS (M.E.) 276 24/6

For C.I.G.S. from
C.-in-C. (20292 5/7)

For P.M. from
Minister of
State
(IZ707 28/6)

War Cabinet
Papers.
O.Z. 601 29/6.

Table of Operations
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Report on R.A.F.
Operations in the
Battle for Egypt.

Gazala had still been maintained at 1,884 during the fifth week and rose to 2,615 during the sixth week. The percentage of serviceability to strength, instead of showing a decline, rose from 67 per cent during the first week of the campaign to 75 per cent in the sixth week.

The enemy air forces, on the other hand, weakened by the spring offensive against Malta and the heavy demands made by Rommel during the reduction of Bir Hacheim and Tobruk and against the June convoy, unprepared for operations lasting more than twenty days, when the full weight of enemy air operations was to have been switched to the attack on Malta, their supplies low, transport and aviation spirit particularly short, had been unable to keep pace with the Afrika Korps' rapid advance. In addition, working to a prepared plan, the Western Desert Air Force had retired to landing-grounds stocked with fuel and bombs and cleared up behind them so thoroughly that the advancing enemy air forces were forced to occupy bases denuded of everything which might have facilitated their advance. The Royal Air Force, in fact, far from being a beaten force was intact, with morale particularly high, and secure in the knowledge that, in spite of the disaster which had overtaken the ground forces, it still had the measure of the enemy air forces.

Idem.

For C.I.G.S.
from General
Auchinleck.

'We cannot resume the offensive on land,' the Commander-in-Chief Middle East Forces signalled to the War Office, on 28 June, 'until we have rebuilt our armoured forces to the required strength. Meanwhile, our only offensive weapon is our air striking force, which it is essential to maintain at the maximum possible strength, as it alone enables us to retain any semblance of the initiative.'

The task which now devolved on the air force was pre-eminently tactical in scope. It was to stop Rommel's advance and help the Eighth Army to stabilise their positions at El Alamein, obtaining a pause during which they could reorganise their remaining forces and hold fast for the arrival of strong reinforcements which were already on the way. As during the Battle of Britain, the air force was again to play a primary rôle. Besides giving close-support to the Eighth Army and also protecting them, in turn, from enemy air attack, there was the added responsibility of shielding the bases in Egypt which, owing to the shortage of anti-aircraft guns and the proximity of the enemy's advanced landing-grounds, were now particularly vulnerable to attack. Also, the air war, a long-drawn-out affair, still had to be fought. At once, the Royal Air Force was called upon to wage a defensive and offensive battle, failure in any one aspect of which might lead to military disaster involving all three services in the Middle East.

The enemy, at this time, were supremely optimistic about the outcome of events in the Middle East. The Duce, alone, knowing intimately the problems involved in the Mediterranean, tempered optimism with caution. Even when the Axis forces were flushed with victory, directly after the fall of Tobruk, the Duce stated that, 'difficulties after the collapse of the British Eighth Army lay less in the battle on the ground than in the transport situation at sea.' Rommel, however, saw the struggle in North Africa almost wholly in terms of military success on the field of battle. Outstanding battle honours had been won. The superiority of his Panzer Army in both equipment and technique was so patent and reassuring that the complete defeat of the Eighth Army seemed imminent. On 30 June, he

A.H.B.6 Trans.
VII/80 p. 10.

To OKW Operations Staff
idem p. 12.

informed the Oberkommando Wehrmacht, 'the position in the pass between the Qattara Depression and Arabs Gulf appears to be only weakly consolidated. It cannot be ascertained yet whether the enemy will offer decisive resistance there, but this is considered improbable.' On the same day, 30 June, an announcement was made which had a far-reaching effect on the trend of Axis air strategy. Mussolini, who had arrived at Derna airfield at 20.00 hours the preceding day, in anticipation of a victory march through the streets of Cairo, lost no time in issuing the following order:

'To:- OKW Operations Staff

30 June 1942

Idem.

On 29 June, Comando Supremo issued the following order to G.H.Q. North Africa and C.-in-C. South:

1. With reference to relations with the Egyptian State, the Duce has decided the following: our relations with the population must be friendly, and likewise with the Egyptian authorities, if they prove themselves worthy of it.
2. This order must be complied with, especially by the Air Force, which must avoid attacking any non-military target in Egypt.'

For political reasons, therefore, no doubt with a view to extending Italian influence in Africa and the Middle East, a most powerful weapon for causing disorganisation and collapse in the rear of the Eighth Army, by concentrated air attack, was neglected.

At the beginning of July 1942, therefore, the whole balance of success of the North African campaign appeared to be heavily weighted in favour of the Axis forces. After a long retreat in which they had suffered catastrophic losses a weakened and disorganised Eighth Army had reached the El Alamein defensive position. The enemy held the positional advantage, with air bases in Sicily, Italy, Greece, Crete and along the North African littoral as far east as El Daba from which, by the exercise of air power, they could control almost the whole of the Mediterranean. Implicit in this victorious advance, however, was a weakness paralleled in Russia, where extended lines of communication attenuated the striking power of the invading forces. The Royal Air Force, although involved in the disaster that had overtaken the Eighth Army, still managed to dominate the enemy in the air. It remained the Commander-in-Chief's 'only offensive weapon' with which to counter the enemy's thrusts and exploit the advantage of the Middle East Forces' retreat on to their bases, but which nevertheless, in turn, were gravely threatened by the proximity of the enemy air bases. Whilst protecting the Eighth Army and the Egyptian bases from enemy air attack, maintaining an offensive against the spearhead of the German armour and the front-line troops, in the hope of weakening them still further, after their arduous campaigning in a North African summer, there remained the problem of impeding, as far as possible, the even flow of supplies and reinforcements to the enemy in the field, in order to prevent them from sustaining their offensive.

The force available to the Air Officer Commanding-in-Chief, Middle East Command, in the eastern Mediterranean, comprised three main components: the tactical or field striking force of the Western Desert Air Force's fighters, fighter-bombers and light bombers, the strategical force of medium bombers, supplemented by a small number of heavy

bombers, and a mixed coastal force of aircraft employed on shipping strikes, convoy escort and sea-reconnaissance work. There was also a small force, under A.H.Q. Egypt, for defensive duties. This was broadly the basic structure of tactical, strategic and coastal air forces, not yet strictly defined, which was to play such an important part in later phases of the war.

During this period of crisis in the land battle, the three components, but particularly the tactical and strategical ones, tended to coalesce, and were employed in close-support of the Eighth Army. For example, the medium bombers of No. 205 Group were used almost exclusively, during this time, in night attacks on the enemy supply route along the coast road, in the north, supplemented by raids on enemy laagers in the actual battle area and on their advanced landing grounds. The two Fleet Air Arm Squadrons of Albacores, Nos. 821 and 826, were engaged on 'pathfinder' duties with the Wellingtons, while the two coastal Beaufighter Squadrons, Nos. 252 and 272, were switched to attacks on enemy road convoys and airfields. The small heavy bomber force, which included the U.S.A.A.C. Halpro Detachment, was assigned strategical tasks, but during this particular period met with little success.

The Western Desert Air Force was composed of thirty squadrons of aircraft. Twenty were single-engined fighters, Kittyhawk, Hurricane, Tomahawks and Spitfire, a proportion of which could be employed as fighter-bombers, five light bomber squadrons, Boston, Baltimore and Blenheim, the two Beaufighter Squadrons borrowed from No. 201 Group, two Army Co-operation Squadrons of mixed Hurricane and Tomahawk and various reconnaissance aircraft comprising approximately one Squadron. Although serviceability was relatively high, a number of the squadrons, particularly the Kittyhawks, had been severely depleted in strength, in the course of five weeks of intensive operations. No. 205 Group consisted of seven Squadrons of Wellingtons and a number of heavy bombers, including the detachment of American-manned Liberators. The Naval Co-operation Group, No. 201, was a mixed force of five squadrons of Blenheims, Marylands, Hudsons and Beauforts. The two squadrons of Beaufighters were under the control of A.H.Q. Western Desert. Two squadrons of Albacores of the Fleet Air Arm, on loan from the Navy, were at this time an integral part of the medium bomber force of Wellingtons, for whom they did exceptionally valuable work as 'pathfinders'.

Of the Western Desert Air Force's twenty single-engined fighter squadrons, ten were Hurricanes, six Kittyhawks, one Tomahawk, one mixed Tomahawk and Kittyhawk and two were Spitfires. With the exception of the two Spitfire squadrons, all the single-engined fighters were obsolescent in performance compared with the Me. 109 and even the Macchi 202. Of the two Spitfire Squadrons, one had only become available for offensive operations on 1 July and, owing to a lack of experience of desert fighting requirements, had later to be withdrawn for purely defensive duties. 'I do hope,' the Air Officer Commanding-in-Chief wrote to the Chief of Air Staff, 'it will be possible to give us at least a proportion of our best first line types. Inferiority in performance is an incessant handicap in every way.' And again, to the Vice-Chief of Air Staff, 'I am concerned lest we are left still further down the scale of obsolescence.... Hurricanes, Kittyhawks have done magnificent work, but it is inescapable that they are

Table of
Operations.
A.H.B./IIJ1/31/1
Order of Battle

Chiefs of
Staff Papers
L/AOC/1. From
Commanders-in-
Chief to Chiefs
of Staff.

A.O.C.-in-C.
Correspondence
with V.C.A.S.
Enc. 226A.

relatively obsolescent and there is the prospect that even our Spits may be outclassed.'

A.M.W.D. Weekly
Statistical
Analysis No. 54

Whilst the total number of serviceable Spitfires available for operations in the desert, during this period of crisis, numbered less than thirty, Fighter Command with its fifty-seven operational Spitfire squadrons held over eight hundred. Between 1-6 July, fighter aircraft of Middle East Command (excluding Malta) flew 2682 operational sorties, of which 2249 were offensive in character, and lost thirty single-engined fighter aircraft by enemy action. In the course of the same six days, aircraft of Fighter Command, in U.K., flew a total of 1,460 day and 353 night fighter sorties, of which under sixty were classified as being on offensive operations and suffered no losses of fighter aircraft by enemy action. Bombers of Middle East Command, excluding fighter bombers, flew twice as many operational sorties, during this period, as the whole of Bomber Command.

H.Q. Middle East
Strength Returns

The total strength of operational aircraft available in the Middle East on 1 July 1942 amounted to approximately eleven hundred of which one half were single and twin-engined fighters and the remainder bombers. Of these eleven hundred aircraft some seven hundred and fifty were serviceable.

A.H.B.6/Cor/163

According to enemy records, the total front-line strength of the combined Axis air forces in the Mediterranean at this time comprised some three thousand aircraft of which some fifteen hundred were fighters and one thousand bombers. One of the most serious effects on the war which the R.A.F. and the Royal Navy were waging against the enemy's supply lines was not merely the way in which it starved his land and air forces in North Africa, but the stringent limitations it set on the size of the air force that could be effectively operated in direct support of the Panzer Army. Only one fifth of this considerable force of enemy front-line aircraft, some two hundred and fifty German and three hundred and fifty Italian were concentrated in North Africa. These were supplemented by the main German bomber force of about one hundred and twenty long-range bombers mainly based in Crete. The overall serviceability of this combined Axis air force was between fifty and sixty per cent. The salient fact arises, therefore, that whereas the combined Axis air forces enjoyed a considerable numerical superiority in the Mediterranean theatre as a whole, the size of the force they were able to concentrate in North Africa, in support of their land forces, was disproportionately small. This was offset to some extent by the fact that, as the Air Officer Commanding-in-Chief expressed it, 'One of our major handicaps in all respects is that whereas the Hun sends his most modern types of aircraft and equipment out here, we, for one reason and another, have to do with second-best (sometimes scarcely even second-best).' The enemy also had at their disposal a very considerable fleet of some one hundred and fifty aircraft for transport purposes, a strong and homogeneous force which was to prove invaluable to Rommel in this and later periods of the fighting in North Africa and with which the Royal Air Force, with their Bombays and Lodestars had nothing to compare either in size or in conception for strategical purposes.

Idem

Air Ministry
Miscellaneous
AOC/1 Part. II
Enc. 218b.

A.H.B.6.

Air Support Control
War Diary. Report on
Operations in the
Battle for Egypt, etc.

One, perhaps inevitable, result of the long and speedy retreat was that the organisation for the necessary close co-operation between the army and the air force had been gravely impaired and yet at no time had the Eighth Army's need for air support been more urgent. Fortunately, the

Air Officer Commanding the Western Desert Air Force had evolved a system whereby reports brought back by pilots on their return from operational missions were utilised for target selection. This is not meant to imply that the essential spirit for co-operation between the Eighth Army and the Western Desert Air Force had declined. It was simply that the actual mechanism for co-operation between the two services had broken down under the strain and confusion of a long retreat and in which army units were wholly preoccupied by their immediate problems. The situation was not helped by the fact that the Eighth Army Tactical Headquarters were sited at a considerable distance from the Advanced Air Headquarters of the Western Desert Air Force, with all the attendant difficulties of communication in a desert terrain, when it was imperative for the two Headquarters to work side by side, in a single Battle Headquarters. There is also evidence that an appreciation of the full value and importance of air support was lacking among certain of the Commander-in-Chief's subordinate Commanders.

AAHQWD/11/Air Close
Support Policy.
Part III. Enc. 22c
A.H.B. 11J1/122/7(C)

The position at El Alamein, in what Rommel termed 'the pass between Arabs Gulf and the Qattara Depression', with the enemy's supply route canalized along the coast road and railway, along which were sited his forward landing grounds, together with bases and dumps, and his main forces concentrated along 28 Grid, some ten miles to the south and south west of the El Alamein 'box', fixed the basic pattern of air operations against the enemy during these six vital days. After five weeks of strenuous campaigning in North African midsummer weather and with rapidly lengthening lines of communication, the enemy's forces had been 'strained to the utmost' and were short of supplies.

1 and 1/2 July 1942

On 1 July, the opening battle on the Alamein line began with a full-scale armoured attack by the enemy against Deir el Shein. This fortified position, some ten miles to the south-west of the main El Alamein 'box' and in line with the vital Ruweisat Ridge, had lately been established by General Norrie, the Commander of XXX Corps, to fill the sixteen mile gap between El Alamein and Qaret el Abd which, together with Naqb abu Dweis on the edge of the Qattara Depression formed the four 'boxes' of the El Alamein defensive system. Such was General Auchinleck's weakness in reserves that the key strongpoint of Deir el Shein was held by the 18th Indian Brigade which had only left Iraq some two weeks earlier.

Report of Court
of Enquiry.
Operations in
the Western
Desert 27 May -
2 July 1942.
Vol. II Page 192.

A.H.B.6.

In spite of requests by the Royal Air Force, no demands for air support were made by the army, although there was no doubt as to the sector the enemy would select for their attack. However, air support was undertaken in full measure, in spite of the limitations set on it by dust storms which raged intermittently throughout the day, and one hundred and ninety-three light bomber and fighter bomber and two hundred and twelve fighter sorties were made. The activity by the Western Desert Air Force prompted an entry in the 21st Panzer Division's War Diary, 'the enemy launches a colossal bombing attack.' This was supplemented by the statement in the Afrika Korps War Diary, 'the activity of the enemy Air Force during this day has again been noticeably lively. Many bombing attacks were successful. The enemy is also attacking on into the night with night-bombers. The activity of the Luftwaffe was

War Diary of the
German Afrika Korps
A.H.B.6 Trans.
No. VII/87.

very slight. The supply position with regard to ammunition and fuel is worsening. Replenishment is urgently needed.'

By last light on 1 July, Deir el Shein had been overrun. The El Alamein line had been breached at what was tactically its most vital point. From an appraisal of the situation on the evening of 1 July, there seemed every likelihood that Rommel would bring to a climax, on the following day, the spectacular series of victories begun at Gazala less than a month earlier by exploiting the capture of Deir el Shein and bringing about the complete disintegration of the Eighth Army defensive system at El Alamein.

Throughout the night of 1/2 July, however, a force of nearly one hundred Wellington and Albacore aircraft concentrated almost the whole weight of their attack on the enemy supply route along the coast road, in the north, with what proved to be outstanding success. It was an inspired decision which had the result of disorganizing Rommel's supply organisation - already sufficiently precarious - so that the momentum of his advance was lost. 'In the night,' the Afrika Korps War Diary recorded, 'continuous bombing raids met with success and the supply columns were blown up. There was no improvement in the supply position.' In the 21st Panzer Division War Diary was noted 'Continued bombing attacks during the night, but otherwise no contact with the enemy. The supply columns have been scattered or dispersed.' There can be no doubt that these medium bomber raids, on the night of 1/2 July, combined with the heavy scale of air attack on 2 July were a decisive factor in stopping Rommel at El Alamein at a crucial moment when there was a very real danger of the whole line collapsing, as had happened at Gazala.

2 and 2/3 July 1942.

Nevertheless, on 2 July, the mood of the Axis Commanders in North Africa was one of supreme optimism.. On the strength of the capture of the strongpoint at Deir el Shein, the radio announcement that Alamein had fallen and that the Eighth Army were again in full retreat was made. The Axis plan for the Panzer Army to isolate Alexandria and reach Cairo and the Suez Canal, by way of Wadi el Natrun, was also circulated. It was obvious that Rommel was prepared to stake everything on a resumption of his sweeping advance eastwards. Hitler, convinced that 'the historic moment has come to capture Egypt', ordered the 'immediate and heavy mining of the Suez Canal and harbour' with the intention of isolating the Mediterranean and bottling up the fleet.

At first light on 2 July, the main Panzer force was seen to be located in square 8628 but concentrated chiefly along the lateral axis of 28 northing grid where they were in the most advantageous position for exploiting the break through at Deir el Shein the previous evening. Soon after dawn, light bombers and fighter bombers of the Western Desert Air Force resumed the attacks where the night bombers had left off, choosing as their targets the enemy motorised infantry columns, Panzer formations and their supporting transport. In the first hour of daylight, Bostons, Baltimores and Kittybombers were attacking enemy concentrations at the rate of one a minute, with the intention of halting a further offensive by the Panzer Army. Lorried infantry of the German 90th Light and the Italian Trento Divisions, supported by twenty tanks, launched an attack in the morning, but with nothing like the anticipated power or 'élan'. 'Despite their success against one of our defensive

High Level
Reports and
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Dealing with the
North African
Campaign A.H.B.6
Trans. No. VII/
80.

XIII Corps
War Diary

(84234)119

positions,' Eighth Army reported, 'the enemy has not been able to push on and, in fact, our armoured force reports that the enemy attacks did not show their usual initiative.'

In the course of the afternoon, given a respite from aerial bombardment owing to widespread duststorms, the enemy reorganised their forces and launched another attack. With an improvement in the weather, flying was resumed on the same intense scale as in the morning and again the Eighth Army was able to repulse the enemy attacks. Whereas some fifty to sixty enemy tanks were used in the reduction of Deir el Shein, never more than twenty were employed in the vital battle of 2 July, aimed at gaining possession of the Ruweisat Ridge and outflanking the enemy's main position at El Alamein. This considerable reduction in the striking force of the enemy armour can only be attributed to a shortage of essential supplies, such as fuel and ammunition, and general disorganisation caused by the heavy bombing attacks, as no night engagements between the opposing armies took place. This is borne out by an entry in the Afrika Korps War Diary, part of which has already been quoted.

A.H.B.6 Trans.
No. VII/87.

'In the night (1/2 July) continuous bombing attacks met with success and the supply columns were blown up; there was no improvement in the supply position. An advance is intended, after replenishment of fuel stocks. During the day there were once again heavy air raids. Our own fighter defence was not nearly sufficient. Panzer Army Africa reports that in the coming night, night fighters will be brought into action. The supply situation is again difficult; ammunition is especially short.'

A.H.B./ILJ1/
31/1.

XIII Corps
War Diary.

In spite of the adverse weather conditions on 2 July which stopped almost the whole of the flying activity during five hours over the inland battle area, the Western Desert Air Force flew over two hundred light bomber and fighter bomber and nearly five hundred fighter sorties. With this unusually high measure of fighter protection, General Auchinleck was able to develop the tactical initiative on the afternoon of 2 July and launch an attack with XIII Corps with the intention of, in turn, outflanking Rommel's forces and threatening his lines of communication. After a disastrous retreat, the Eighth Army were showing a remarkable resilience. Supported by the air force they had been enabled not only to concentrate their forces on the Alamein line and repel the enemy attacks, but also to go over to the offensive, on admittedly a limited scale.

XXX Corps Int.
Summary.

During the night 2/3 July, an opportunity was missed for making a concentrated night-bombing attack on the enemy tank laagers, known from reconnaissance reports to be concentrated in a comparatively restricted area inland. By this time the German tank force had declined to some forty serviceable 'runners' and the results of such localised bombing might have been decisive. The Eighth Army Commander, however, was unwilling to run the risk of having his own troops bombed which, under the circumstances, might have been followed by the most disastrous consequences. It is debatable, also, whether night bombing of targets, under the extremely difficult conditions of desert terrain, would have achieved the desired results. Again, therefore, during the night of 2/3 July, the medium bomber force of some one hundred Wellingtons and Albatrosses struck at the enemy supply route in the north, with their advanced landing grounds as secondary targets.

Squadron
O.R.B.s.

In the course of the night, a most significant entry was made in the War Diary of the Afrika Korps:

A.H.B.6 Trans.
No. VII/87.

'In the night, British air activity has again been very intense. The continual raids, by night and day, are seriously hindering the troops; our own fighter defence is not to be seen.'

3 and 3/4 July 1942

Personal to
C.A.S. from
Tedder. WX
5690 3/7.

Unfortunately for the enemy Commander-in-Chief, the battle of 3 July, on which there was so much at stake, was fought in excellent flying weather. In the course of the day's fighting, the Western Desert Air Force flew over nine hundred sorties, of which nearly three hundred were made by the light bombers and fighter bombers, and more than six hundred by the fighters. It was a record for the campaign. The field fighter force, on 3 July, comprised just over two hundred serviceable aircraft, so that on the average there was a sortie rate of three for the whole of the force.

Operations by
Units of
Fliegerfuehrer
Afrika.
A.H.B.6.

Although Rommel called on the Axis Air Forces to make a supreme effort to support the Panzer Army 'owing to the condition of the troops', their fighters were neither able to protect the ground forces from constant bombing nor maintain the pattern of close co-operation between the Stukas and the Panzer formations, on which the latter relied so extensively. In spite of the critical nature of the battle, the combined German and Italian Air Forces were only able to give the Afrika Korps about one quarter of the air support which the Western Desert Air Force was able to give to the Eighth Army. The German Stuka formations paid a particularly high price for their intervention in the battle. They lost twenty-five per cent of their serviceable aircraft known to be operating in the forward areas on this date.

A.H.B.6
Records.

Rommel's mistake in advancing without adequate air support in pursuit of a beaten army whose air force nevertheless maintained an unusually high degree of air superiority over his own was by now alarmingly evident. Weakness in the air was fast nullifying a spectacular series of victories on land. In addition, with the resurgence of Malta as an air and naval base for offensive operations on his flank, he was being forced to rely more and more on reinforcement of both men and supplies by the hopelessly uneconomic and precarious expedient of air and submarine transport.

XIII & XXX
Corps War
Diaries.

The pattern of the fighting on land on 3 July followed the one set on the previous day, with XXX Corps holding fast in the north against the Panzer Army's attempts to thrust eastwards along the Ruweisat Ridge, and XIII Corps continuing their outflanking movement from the south. All the attacks in the Ruweisat Ridge sector, against which Rommel flung every available tank in his Panzer Army, were beaten off, while the New Zealanders of XIII Corps inflicted an important reverse on the Italian Ariete Division' in which they captured some four hundred prisoners and either captured or destroyed the whole of the Ariete's artillery. The day's fighting reveals that Rommel was unwilling to be deflected from his primary objective which was to exploit the capture of Deir el Shein by outflanking the El Alamein 'box' and relied on a combination of Luftwaffe Stukas and the Italians to stop XIII Corps' threat to his rear: neither was successful; the fighters of the Western Desert Air Force decimated the Stukas and the New Zealanders routed the Italians. 'Probably the most successful day over the whole

front since the end of May,' said an Eighth Army communiqué. The Afrika Korps War Diary recorded as its last entry:

A.H.B.6 Trans.
No. VII/87

'Panzer Army Africa order is transmitted; the divisions are to go over to the defensive. The day's objective has not been reached again to-day.... Several fighter-bomber and bomber raids were successful again to-day. The supply situation has become even worse; the most serious shortage is of ammunition.'

Cabinet Offices
Ref. AL 917/8

On 3 July, the following entry was noted in the War Diary of the 21st Panzer Division:

'Very strong activity of the enemy air force during the whole day, with continual bombing attacks on the rearward positions of the Division.'

No. 205 Group
O.R.B.

An unexpected result of XIII Corps' advance in an out-flanking movement towards the north and north-west was to impose severe limitations on the night-bombing programme of 3/4 July. The bombline in the central sector was pushed back as much as twenty miles behind the enemy's forward dispositions in order to avoid the possibility of advanced elements of XIII Corps being bombed. It was also apparent from the briefing that night-bomber crews were not being given anything like a true working picture of what was happening on the ground, with battle areas defined in such a loose way that it could have resulted in an almost complete waste of effort. Fortunately, the medium bombers concentrated their attention on the coastal strip in the north, where targets of high quality were still assured. Bearing in mind the critical shortage of ammunition which Rommel's forces were experiencing in the battle area, the blowing up of an ammunition train in a siding at El Daba was of particular value to the Eighth Army. On the following day enemy batteries were reduced to a mere ten rounds of ammunition. A special operation carried out by twelve Wellingtons against a tank repair depôt at Matruh proved, in the main, disappointing, although a repair shed was blown up and vehicle parks in the neighbourhood were bombed.

4 and 4/5 July 1942

High Level
Reports and
Directives.

At a conference held by Rommel on the morning of 4 July, it was decided that the Panzer Army 'must go over to the defensive in order to ease the difficult supply situation and to allow the non-motorised units to keep up, but this will not cause other attacks to be abandoned.' In his haste to press forward, Rommel had issued an order, on 26 June, 'in order that the German and Italian Air Forces may have motor transport at their disposal, Italian infantry divisions, with the exception of artillery, have been instructed to proceed on foot.'

Idem.

In spite of this grave decision which meant virtually that it was no longer a question of further gains for the enemy forces, but of retaining what they had already won, Rommel could not face the fact that the impetus of his advance had been lost within sight of his goal. Everything for which the Afrika Korps had been fighting was at stake. Soon after dawn on the morning of 4 July, an attack was launched by an enfeebled Panzer Army which, had the situation been fully exploited by the opposing forces, might easily have led to disaster. The offensive was met with strong resistance by Eighth Army tanks and guns with close support afforded by the light bombers and fighter bombers of the Western Desert Air Force which was outstanding not only

M. Table of
Operations.
A.H.B./IIJ1/
31/1

Appendices to
No. 3 S.A.A.F.
Wing O.R.B.

A.H.B.6 Trans.
No. VII/87.

Idem.

A.A.H.Q.W.D.
Close Support
Policy.
A.H.B./IIJ1/
122/7(c)

A.H.B.6 Trans.
No. VII/87.

Nos. 272 & 252
Squadron
O.R.B.s.

for the weight of the attacks but the way in which they followed the principle of concentration. Within five hours, some 90 tons of bombs were dropped on the spearhead of the enemy attack, the 21st and 15th Panzer Divisions and the 90th Light, and on their supporting columns. Unfortunately, these operations on the morning of 4 July were marred by two incidents when Bostons and Baltimores of No. 3 S.A.A.F. Wing bombed 3rd S.A.A.F. Brigade in their positions in the El Alamein 'box'. The following was noted in the Afrika Korps War Diary:

'Considerable flying activity again during the night.... The tank battle in the 15th Panzer Division area is still at a standstill. The division's ammunition situation is still very grave; there are only ten rounds available for each battery.'

By 13.00 hours, the position had become so critical that the whole of the enemy position was in acute danger of crumbling and Rommel himself was on the field of battle trying to retrieve the situation. A combination of fear that with the confused nature of the fighting in the afternoon the Eighth Army might be bombed by their supporting aircraft, as had happened in the morning, a deterioration in the weather conditions inland and a hope that the Afrika Korps might be compelled to retreat, when they would be forced to use the coast road, prompted the decision to switch bombing operations from the centre of the battle activity, inland, to the north. It was a most unfortunate choice which gave the enemy in the field a respite from air attack at a time when further concentrated attacks might easily have brought about the complete collapse of the enemy resistance. Almost wholly hidden from sight of the ground forces, it is most probable that the Eighth Army Commander himself had no adequate conception of the importance to the success of the land operations of the constant hammering the enemy army and their supply lines were receiving from the air. Certainly, among a number of his subordinate Commanders there was a failure to grasp the supreme value of air force operations, at this time, in preventing defeat from developing into disaster. An entry made in the Afrika Korps War Diary, at the end of the day, shows clearly the strain to which the enemy forces had been subjected, by these constant air attacks.

'In spite of considerable enemy attacks the front has been held. The fighting strength of the troops diminishes, however, more and more quickly every day. A withdrawal of units in order to give them a few days' rest is not possible, in the critical situation of the moment.

The enemy is again developing intense activity in the air by day and in the night....

The supply situation, with regard to ammunition, becomes even worse, although some small supplies came through in the course of the afternoon.'

On 4 July, an important success was scored by Beaufighters of Nos. 272 and 252 Squadrons against enemy supply and troop-carrying convoys when some fifty vehicles were either destroyed or damaged. One of the main reasons for the slowness of the Luftwaffe in moving forward in support of the Afrika Korps was an acute shortage of M.T. These, and other raids made by Beaufighters against enemy convoys in daylight, made a contribution to the battle quite disproportionate to the number of aircraft involved.

Table of
Operations.
A.H.B./ILJ/
31/1

A.H.B.6.

XXX Corps
War Diary

A total of 114 light bomber, 63 fighter bomber and 467 fighter sorties were made on 4 July. There were 181 fighter aircraft engaged on offensive sweeps. Although the Stuka formations which repeated the former day's tactics of attacking advanced elements of XIII Corps were broken up, the high proportion of fighter effort involved did not appear to have justified the results. According to enemy records, only one dive-bomber was shot down on 4 July. No doubt this intense activity on offensive sweeps served its purpose and provided the Eighth Army with the protection from hostile air attack which was so essential during this period of their consolidation on the El Alamein line. It was also of invaluable service to General Auchinleck enabling him to move forward the newly arrived 9th Australian Division to reinforce XXX Corps and bolster up what had hitherto been a thinly protected sector, in the El Alamein 'box', and one which Rommel curiously enough never seriously threatened with a frontal attack during a period when it had been comparatively weakly defended.

O.R.B.s.

A.H.B.6
Records

On 4 July, also, the air aspect of the Eighth Army plan 'Exalted' was put into operation. It entailed moving certain fighter squadrons to forward landing grounds in anticipation of the enemy's collapse and withdrawal to the west. There is evidence that these moves tended to dislocate the momentum of the Western Desert Air Force operations at this time. Being more in the nature of intelligent anticipation rather than bad timing, it failed because of the Eighth Army's inability to sustain the offensive and press home the advantages won in the course of the day's fighting, on 4 July. Lastly, on this day, the Fliegerfuhrer Afrika was forced to protest to Rommel that the Luftwaffe were 'stretched to the limit of their capacity in providing escort for bombers, in accordance with the demands of the Panzer Army.'

No. 205 Group
O.R.B.

No. 38 Squadron
O.R.B.

During the night of 4/5 July, the force of Wellingtons and Albacores, some ninety in all, resumed their attacks, concentrating again on the supply route in the north. Weather conditions were perfect and the successes of the previous nights' operations were repeated. The excellent illuminations provided by the Fleet Air Arm Albacores were remarked on with appreciation throughout the Wellington Squadron O.R.B.s. Although the Luftwaffe night-fighters were out seemingly in force their success in limiting the night operations of No. 205 Group was negligible. A special mission was assigned to ten aircraft of No. 38 Squadron to attack especially heavy concentrations of enemy M.T. and troops known to be in the Daba area. The Wellingtons carried one thousand pound bombs which caused considerable destruction. This was augmented when the main force of Wellingtons arrived. There is every probability that these were enemy reinforcements for which Rommel was clamouring and which had been flown over to Tobruk by transport aircraft very recently. The night of 4/5 July was the last of this period in which the whole of the night bomber force, with very minor exceptions, was used in a purely tactical rôle. Afterwards, with the tension on land relaxing, they were diverted in increasing numbers to what may be termed strategic targets, attacks on ports and sea convoys. Enemy records reveal adequately the outstanding value of these night attacks in disrupting the necessary even flow of supplies and reinforcements to the battle area, which completely hamstrung Rommel's efforts to prosecute a vigorous offensive and had a very adverse effect on the morale of his troops.

5 and 5/6 July 1942

XIII Corps
Int. Sum.

C.-in-C.s
Despatch.

During the night, the New Zealanders of XIII Corps scored another success against the Italians. In spite of this increased threat to Rommel's rear which XIII Corps were developing from the south and the marked weakness revealed in the Panzer Army the previous day, 5 July was described by an Eighth Army source as 'a day of little general activity, with both sides given a respite after the strenuous activity of the last two days.' A condition of temporary stalemate had been reached between the opposing armies. Rommel, constrained to shelter his shattered Panzer divisions behind a screen of anti-tank guns, was thankful for the respite afforded and preoccupied with measures for defence. General Auchinleck on the other hand, in spite of having regained the tactical initiative the first time since May and having scored a remarkable series of successes, was unable to pursue his advantage owing to a general weakness in reserves.

From the air point of view, it was obvious that the character of current operations had begun to show a radical change. The intensive bombing programme of the past few days had forced the enemy to adopt dispersal as a protection. Rommel was on the horns of a dilemma. Without an adequate measure of concentration of his armour he could not attack. Having concentrated, his forces were immediately subjected to heavy bombing, against which the Luftwaffe was able to afford little or no protection. It is an outstanding feature of the fighting during this period that out of over seven hundred operational sorties made by the light bombers, equalling more than the whole of those made by Bomber Command, not a single Boston or Baltimore aircraft was shot down, although their formations, in suitable weather, had been working with the precision and regularity of a suburban train service. It was also obvious that, without the threat of a counter offensive by the Eighth Army which would force the enemy to concentrate to meet the attack, the quality of the targets presented to the light bombers would show a progressive decline.

A.H.B.6.
Records.

Mist over the inland areas and a paucity of targets hampered air operations on the morning of 5 July. As an alternative, and pursuing the policy of 'keeping the enemy's heads down', five fighter-bomber and fighter attacks were made against enemy forward landing-grounds in the Daba area when one enemy bomber was claimed as destroyed. From enemy records it appears that these raids were far more successful than was considered at the time. The losses inflicted on enemy aircraft was a record to date and was not to be reached again until Air Vice Marshal Coningham's 'weather blitz' or 'opportunistic attack', some three months later which did so much to dislocate enemy air operations just before the battle of El Alamein.

In the afternoon, weather conditions improved, allowing close support operations to be carried out. An outstanding feature of the day's air activity was the way in which both light bombers and fighter bombers attacked the enemy reinforcements moving south, on Rommel's instructions, to counter XIII Corps advance. On this day, 5 July, the two squadrons of Bostons, Nos. 12 and 24 S.A.A.F., passed the six hundred sortie mark since 1 July, a truly impressive performance for two squadrons and which equalled the total of operational sorties made by the thirty-five squadrons of Bomber Command for the same period.

Table of
Operations.
A.H.B./IIJ1/
31/1.

A.O.C.-in-C.
Correspondence
Part V.

The total of sorties flown by aircraft of the Western Desert Air Force showed a decline on the figures for the preceding day. They comprised 101 light bomber, 55 fighter bomber and 419 fighter sorties.

It had been a matter of considerable concern to the Air Officer Commanding-in-Chief and the Air Officer Commanding Western Desert Air Force that the conservative bomblines set by the army had permitted the enemy's main forces, on occasion, to find sanctuary from air attack, the bomblines having been fixed too far to the west. On 5 July, the policy for fixing the bomblines was altered. Instead of laying down the bomblines for the Royal Air Force, the army were to give the predicted line of their forward troops for the next two hours and the responsibility was laid on the Royal Air Force to use their judgement and work as close in to the forward troops of the Eighth Army as was considered safe.

In a despatch to the Oberkommando Wehrmacht on 5 July, a most revealing appreciation of the situation of the Panzer Army was made.

High Level
Reports and
Directives.

'The enemy on the eastern front of the Panzer Army (XXX Corps) is relatively inactive, but he is attempting to attack the Panzer Army from the south (XIII Corps).... It appears that the plan is to take the Panzer Army in flank and rear. Field Marshal Rommel has therefore decided to relieve the German divisions on the east front by X Army Corps (Italians) and to prepare the German Afrika Korps and the 90th Light Infantry Division behind his right flank for defence against this attempt at encirclement. As soon as the condition of the troops permits, he will go over to the counter-attack, on the southern wing. The German and Italian Air Forces have weakened the enemy groups in the south by several dive-bombing attacks.

Six weeks of fighting and marching in desert terrain and great heat has lowered the fighting strength of the troops who are exhausted and strained to the limit.... Even if the German-Italian Air Force is superior to the British as regards combat performance, the latter possesses great numerical superiority, especially in fighters, and is causing uneasiness and losses among the troops by frequent day and night strafing and bombing attacks.

The German and Italian Air Forces are making every effort to assist the ground troops in their defensive operations but are hindered by lack of vehicles to bring up sufficient supplies....'

The Afrika Korps War Diary noted, on 5 July:

A.H.B.6 Trans.
No. VII/80.

'Operational strengths have dropped sharply during the last few days and no Afrika Korps unit exceeds 50 per cent of its established operational strength.

The Luftwaffe is very active again to-day. To cap everything the Italians scored a success by bombing our own troops....

In order to fill the position where troops are lacking, reinforcements are being flown over from Italy to Tobruk. Transport from there must be effected by troop-carrying vehicles. For this purpose, each division is to supply

25 lorries which will be continuously used in the immediate future by Panzer Army Africa on the Tobruk-El Daba stretch.

Each division is moreover to supply 50 lorries for the Luftwaffe; this consignment will cause considerable hardship as the troop-carrying vehicles are already in large measure employed in bringing up supplies, mines and personnel reinforcements. Individual units are only to a limited extent mobile.... On these grounds Panzer Army Africa is postponing the carrying out of the order until later.'

As has already been mentioned, the night-bomber force had been employed during this period of stabilisation of the Eighth Army at El Alamein, in a purely tactical rôle. Small operations, strategic in scope, had been carried out against enemy sea convoys and their ports of arrival in North Africa by heavy and medium bombers, but for various reasons the results had been disappointing. The planning of the medium-bomber operations for the night of 5/6 July, however, showed that the crisis in the land battle had passed. Out of a force of seventy-seven Wellingtons, eighteen were briefed for an attack against Tobruk, 'with the object of attacking and destroying dock installations, petrol installations and tank repair shops and to restrict the movement of shipping in Tobruk harbour.' Mainly owing to bad visibility, the operation was a failure, but both in size and intention, the raid was a portent of a heightening of the war against the enemy's sea-borne supplies which was to show such remarkable and cumulative results when the battles of Alam el Halfa and El Alamein came to be fought. Bearing in mind the reduction in the numbers of medium bombers available for the bombing of tactical targets, on the night of 5/6 July, the results were good, and numerous fires were started among enemy transport and rolling stock. Pilots remarked, however, that measures for dispersal had been adopted and that rarely more than fifty vehicles were seen in any one place.

6 July 1942

By 6 July the change had come. Reports were received from all sides of wide dispersal and protective measures undertaken by the enemy. Anti-aircraft gunfire was particularly heavy in the battle area. In the morning, while the situation remained confused, the light and fighter bomber operations were directed against enemy landing-grounds in the Daba area. As the position clarified, the light bombers and fighter bombers were switched to close-support targets. The fighter bombers came into their own, owing to the scattered nature of the targets offered, working well forward in their attacks on the forward enemy columns. Other bombing attacks were launched against the enemy reinforcements moving south to counter XIII Corps' advance.

Other than for the fighter bombers, the sortie rate for 6 July showed a slackening of the tempo. Fighter bombers reached the hundred mark, but the light bombers, owing to the paucity of suitable targets, only reached ninety, the first time their sortie rate had fallen below one hundred since the fighting on the El Alamein line had begun. Sorties made by fighter aircraft dropped to three hundred and sixty-five - the most significant decline being in the number of the aircraft employed on offensive sweeps.

From being fluid and mobile, the fighting in North Africa had now begun to coalesce into a battle of fixed positions.

No. 205 Group
O.R.B.

Squadron
O.R.B.s.

H.Q. M.E.
Table of
Operations.
A.H.B./
IIJ1/31/1.

At least for the time-being, the threat to British power in the Middle East had been averted. The first and by far the most critical phase of the fighting on the El Alamein line had been won. 'Throughout the first phase of the battle for Egypt,' General Auchinleck wrote in his Despatch, 'our air forces could not have done more than they did to help sustain the Eighth Army in its struggle. The efforts were continuous by day and night, and the effect on the enemy was tremendous. I am certain that had it not been for their devoted and exceptional efforts, we should not have been able to stop the enemy on the El Alamein position.'

Conclusions

(a) The policy of day-and-night bombing, at a time when the enemy ground troops were strained after their long advance and, with extended lines of communication, were short of certain essential supplies, particularly ammunition and fuel, proved the decisive factor in stopping Rommel at El Alamein.

(b) The concentration of almost the whole of the Air Force in the Middle East in a tactical rôle in support of the Eighth Army prevented Rommel from exploiting the capture of Deir el Shein and was an outstandingly successful feature of the campaign.

(c) Without the exercise of air superiority by the Western Desert Air Force in the battle area, the Eighth Army could not have stabilised its position at El Alamein. With the system of defensive positions at El Alamein breached, there was every likelihood of the defeat of the Eighth Army developing into the complete collapse of British military power in the Middle East.

(d) Had there been a sufficiently large and well-trained heavy-bomber force available in the Middle East, there is every likelihood that the enemy forces could have been sealed off from their sources of supply and reinforcement and forced to surrender in Egypt.

(e) The planning of the disposition of the Spitfire force, with two squadrons in North Africa and eighty in the United Kingdom, was faulty. Even as an example of over-insurance, the lack of balance would seem to be completely disproportionate. The heavy wastage sustained by the field fighter force during this period could have had a most serious effect on morale and may be attributed largely to the fact that, by and large, the Western Desert Air Force were equipped with comparatively obsolescent fighter aircraft.

(f) The high wastage in fighter aircraft, combined with inadequate reinforcement, in turn influenced British air policy in the Middle East. Operations such as the employment of fighter bombers in low-level bombing could not be undertaken.

(g) Disorganisation following the retreat had seriously affected the machinery for co-operation between the Army and the Royal Air Force. Requests for air support were not coming in from the Army's advanced formations. Had the R.A.F. not pursued an independent line and worked out a system of target-selection from air reconnaissance, a most serious decline in the amount and quality of close air support would have resulted.

(h) The bomblines fixed by the Army were often too conservative, resulting in there being a tendency for the enemy forces to find sanctuary from bombing between the bomblines and Eighth Army forward troops. This was influenced by the bombing of the 3rd South African Brigade by aircraft of No. 3 S.A.A.F. Wing and the confused nature of the fighting.

(i) Mainly due to the Army's conservative bomblines, an opportunity for day bombing on a sufficiently concentrated scale against the hard core of the Panzer Army was missed. For similar reasons, the night bombing of enemy laagers in the battle area was never attempted on a scale sufficient to be decisive.

(j) The diversion of air operations from the battle area to the coast road, on the afternoon of 4 July, at a critical moment in the fighting was ill-timed, enabling Rommel to obtain a respite from air attacks in which he was able to rally his forces and organise his defences. Similarly, the advance of 13 Corps to the north-west, however heartening from the Army Commander's point of view, handicapped the night-bombing programme for 3/4 July, setting the bomblines back as much as twenty miles behind the enemy's forward troops in the battle zone.

(k) Dislocation to the momentum of fighter operations was caused by the move forward, on 4 and 5 July, of certain key fighter squadrons, in preparation for a general advance all along the front. Under the circumstances, bearing in mind the acute weakness of the Panzer Army at this time, the risk taken was justified. The Eighth Army, however, were unable to press home their advantage, due to a lack of intelligence on the situation of the Panzer Army and a general weakness in reserves.

(l) The two squadrons of Boston aircraft, Nos. 12 and 24 S.A.A.F., with under fifty serviceable aircraft, which flew over six hundred operational sorties in six days, made a remarkable contribution to the land battle. The two squadrons of Beaufighters, Nos. 272 and 252, by their attacks on enemy M.T. convoys along the coast road, caused a loss of vehicles to the enemy quite out of proportion to the number of aircraft involved in the operations. In spite of the large number of vehicles captured by the enemy at Tobruk, the shortage of M.T. was acute, and was one of the main reasons for the failure of the Axis Air Forces to keep pace with the advancing army.

(m) The enemy Commander's decision to pursue the Eighth Army, after the fall of Tobruk, in face of a dominant enemy air force and in advance of air support for his own Air Forces, was a contributory factor in his failure to reap the rewards of his army's series of spectacular victories. It left both the spearhead of his forces and their supply routes vulnerable to air attack.

(n) The German and Italian Air Forces failed in the main tasks assigned to them in the Commando Supremo's order issued to G.H.Q. North Africa and the Commander-in-Chief, South, on 29 June:

(a) Support of troops fighting on the ground by covering them against enemy air attacks and by attacks against strong enemy concentrations and on retreating troops.

(b) Operations against enemy naval forces; minelaying in Alexandria harbour and in the Suez Canal.

(c) Interruption of movements to bring up enemy reinforcements from further east, by attacks on communications over the Suez Canal.'

It is interesting to note that a systematic policy for the bombing of ports and bases, in order to bring about collapse in the rear of the Eighth Army, was omitted from this air plan.

(o) The employment of the long-range bomber force based on Crete for the mining of the Suez Canal was a signal failure. The renewed attacks on Malta, timed to take place in the midst of a critical land-battle, when all the available air strength was required in Egypt, was ill-conceived. By inference, the strategic deployment of the available force of front-line Axis aircraft in the Mediterranean was faulty, although this was largely governed by logistical difficulties.

(p) Enemy policy for the employment of their Air Forces was confused and hesitant. This is particularly obvious from the way in which enemy air effort was dispersed against a plurality of targets, instead of following the principle of concentration. The failure can be traced to the enemy's traditional system whereby the Air Force was subordinated to the ground forces, of which it was primarily an adjunct, and also to outside interference from the two dictators, one of whom was theorising from a considerable distance.

SECRET

P A R T I I

FROM THE STABILISATION OF THE EIGHTH ARMY AT EL ALAMEIN TO THE
END OF THE BATTLE AT ALAM EL HALFA (7 JULY TO 7 SEPTEMBER 1942).

CHAPTER 3

REINFORCEMENT AND RE-ORGANISATION

By the end of the first week in July 1942 it was obvious that the position of the Eighth Army had strengthened so appreciably that the air force was able to raise its eyes from the ground. Although a number of 'the scrambling and incoherent battles of July' were still to take place with periods of bitter air warfare and intensive operations, the sense of urgency and crisis was, to some extent, relaxed. A balance, however precarious, had been achieved between the rival land forces, and not until the battle of Alam el Halfa, at the end of August, were demands to be made on the air force such as had occurred when the Eighth Army was fighting desperately to stabilise its position at El Alamein.

With this slackening of the tension all round, the Air Officer Commanding-in-Chief was faced by a number of problems which affected vitally the efficiency of the force he controlled. Foremost among these was the depletion of his field fighter force. On 24 May, just before Rommel's offensive at Gazala, the total fighter force of serviceable aircraft available under the category of Egypt, Sudan and the Levant, and which included the whole of the Western Desert Air Force, was 273 Hurricanes, 137 Kittyhawks, 59 Tomahawks, 34 Beaufighters and 16 Spitfires. Operational losses between 24 May and 7 July 1942 amounted to 68 Hurricanes, 85 Kittyhawks, 24 Tomahawks, 17 Beaufighters and 8 Spitfires destroyed or missing. Ignoring replacement aircraft, therefore, out of a total initial force of some 500 serviceable fighter aircraft, six weeks' intensive operations since the enemy offensive at Gazala had accounted for a wastage of over 200 in action. No air force could endure such losses and survive without the backing of a sound maintenance organisation and an assured flow of aircraft reinforcements. The Kittyhawk squadrons, on which had fallen the main burden of bomber escort work, had suffered, in some cases, losses of 100 per cent and were faced by a poor immediate supply. Hurricane squadrons were operating at limits of range against superior aircraft and were strained, whilst Spitfires were at a very low strength.

A.M.W.R. Weekly
Statistical
Analysis B.E./11.

Record of
Operations
A.A.H.Q.W.D.
A.H.B./IIJ1/
122/69(A)

'I am very concerned,' the Air Officer Commanding-in-Chief wrote to the Chief of Air Staff in August 1942, 'at the present situation regarding both Kittyhawks and Spitfires. Despite our endeavours to build up strength during the last two weeks, Kittyhawk Squadrons are still barely 50 per cent in strength. The comparison between promised deliveries and actual deliveries is

May	112	and	56
June	191	and	51
July	100	and	28
	<u>403</u>		<u>135</u>

This wastage in Kittyhawk aircraft was particularly serious and at a rate not envisaged in plans for aircraft reinforcement. The Americans worked on a basis of a fighter aircraft wastage figure of 20 per cent per month and Air Ministry of 50 per cent per month. Whereas operations

A.O.C./35
Encl.20A

A.O.C.11
Western Desert
Operations Pt.4

in the Western Desert had shown that, during periods of maximum intensive effort, the wastage figure was 100 per cent per month and, in the course of normal operations, 66 per cent per month.

J.S.M. Washington
Chiefs of Staff

A sufficiently serious position was further aggravated by the fact that the Portal/Arnold/Towers agreement of 22 June 1942 entailed a drastic revision of the policy for the supply of American aircraft. During the month of June 1942 the President of the United States had expressed his disquiet 'about the situation in the Middle East, anxious about the outcome of the Russian battles and perhaps, above all, disturbed by his inability to find a means of employing the growing forces of the United States in active theatres'. As a result, the system whereby American aircraft were despatched to the Middle East to re-arm existing R.A.F. squadrons was abrogated and the Arnold/Towers/Portal agreement substituted, which followed the principle that 'Every appropriate aircraft built in the U.S.A. should be manned and fought by U.S. crews'.

Anglo/American
Air Collaboration
Pt.2

The Air Officer Commanding-in-Chief was outspoken on this subject of the cancellation of the American Air Agreement which, at a most critical time in the fortunes of the Middle East forces, threatened the even flow of replacement aircraft and the homogeneity of the force under his Command. On 11 July 1942 he wrote to the Vice-Chief of Air Staff tabulating the position:-

My present fighter type situation, excluding Malta, is

Spitfires	2 Squadrons at	50% Strength
Kittyhawks	7 Squadrons at average	50% Strength
Tomahawks	2 Squadrons at	50% Strength - Must be re-armed.

Hurricane I 5 Squadrons - Must be re-armed.

Hurricane II 10 Squadrons

Unarmed Squadrons - NINE

The blunt fact is, he continued, 'that the help one urgently needs now, and during the next three critical months, is aircraft. Aircraft to bring and keep up to strength my existing squadrons, to re-equip squadrons equipped with obsolete aircraft now unfit for battle and to equip squadrons at present without aircraft. The American units would, of course, be valuable when they arrive and have collected their own maintenance personnel and when they have been trained individually and collectively for war under Middle East conditions, but this cannot be for three or four months at very best. The American Agreement was made before our situation became as critical as it is now. Is it not possible, in view of the changed conditions, to reduce or postpone American contribution of squadrons in order to ensure immediate flow of aircraft without which our fighter and bomber effort must inevitably dwindle far below its already inadequate strength'.

A.O.C./62 U.S.
Formations in the
Middle East
Enc.23A.

After an assurance that arrivals of Kittyhawk squadrons would not drop immediately but would follow the estimate of

Idem, Encl. 25A

100 in July, 76 in August, 100 in September, 150 in October 'and thereafter at 50 a month not allowing for possible losses en route', the Vice-Chief of Air Staff stated his reply that it was not the slightest use trying to postpone the arrival of U.S. units and that nothing could be gained 'by an attempt to alter the Air Agreement now'.

A.H.B./IIJ1/54
Report on Visit
to Middle East
by A.O.C.-in-C.
Army Co-op
Command

On the eve of the battle of Alam el Halfa, at the end of August 1942, Air Marshal Barrett was sent on a visit to the Middle East. He reported that the aircraft supply position was still a matter of considerable concern. This most important battle started with some Kittyhawk squadrons being 50 per cent and under of their establishment and, by the conclusion of the battle, some were reduced to four aircraft per squadron. In fact, in the opinion of the A.O.C.-in-C., at the start of the battle of Alam el Halfa, the general position was rather worse than at the beginning of Rommel's offensive in May 1942, both as regards strength of aircraft and in comparison with the German and Italian Air Forces.

There is no doubt that this agreement, well-intentioned as it was, served to dislocate the intricate supply organisation on which the air force in the Middle East relied. Apart from its effect on the steady flow of reinforcement aircraft, it threw up additional problems for the integration of inexperienced American squadrons into a seasoned force. It meant that, in addition to fighting a bitter and precarious battle, trying to re-equip and train a proportion of the squadrons in the face of the pressure of constant operations, the nucleus of an Allied Air Force had to be brought into fighting trim. It was a dangerous, if unavoidable, process which might have had the effect of upsetting the equilibrium of the established and successful Middle East Command. Although rivalries and frictions did become apparent, it is a fact of considerable historical significance that a force with an outstanding sense of identity such as the Western Desert Air Force was able to absorb this new influence in a spirit, not of antipathy but of friendly co-operation.

A.H.B./IIJ1/
122/69(A)
Record of Opera-
tions in the
Western Desert

The system adopted was one of infiltration - the introduction of Section Leaders into squadrons for training and experience, and gradually the entire squadron. It was a process spread, as the Air Officer Commanding-in-Chief had predicted, over a number of months, with a nominal American H.Q. situated at Advance Air Headquarters Western Desert Air Force mainly as students in control of their forces in the field and to watch over American interests. That it was successfully achieved had its effect on the whole future course of Anglo/American co-operation in the field.

The Re-Organisation, Training and Resting of the Western Desert Air Force (Late July and August 1942)

Opportunities for the overhaul of the Middle East air force's structure and the training and resting of the squadrons naturally co-incided with periods of relaxation in the tempo of the land battle. There were two important lulls in the land fighting. One took place after the battle for the stabilisation of the Eighth Army at El Alamein had been won and was particularly marked at the end of July and throughout August. The other, and by far

the most important of these periods of re-organisation, followed the 8th Army victory at Alam el Halfa in early September 1942 and continued until the battle of El Alamein in late October 1942. A subsequent part of the narrative will deal with this more important phase of re-organisation between the two battles.

Unlike the Eighth Army, the air forces in the Middle East were unusually fortunate in maintaining an unbroken continuity of command. For instance, there was nothing comparable with the change of Army Commanders which occurred in mid-August 1942, when General Alexander succeeded General Auchinleck as Commander-in-Chief, Middle East Forces and General Montgomery unexpectedly became G.O.C. Eighth Army after the tragic death of General Gott.⁽¹⁾ Even Field Marshal Rommel's health broke down under the severe strain of conditions of service in North Africa and, while he was reported sick many times, he was actually on sick leave in Germany at the beginning of the battle of El Alamein. This continuity of air command in the Middle East meant that any major re-organisation was not imposed by the introduction of a new personality but was dictated by changed circumstances and a process of logical development within the Command.

Defence of the Delta (July and August 1942)

With Alexandria and the major part of the Delta area within easy range of enemy fighters, some redistribution of the available fighter force was called for. The flexibility with which the limited resources of Middle East Command, both fighter and bomber, were handled is an outstanding feature of this period of the war in the Mediterranean. As an example, No.205 Group's force of medium bombers was repeatedly switched away from strategical to tactical targets and back again as the situation on land seemed to warrant, and fighters of the Western Desert Air Force were diverted from offensive duties in the field to defence of the Delta.

Whilst the battles for the stabilisation of the Eighth Army were in progress, the whole of the fighter squadrons, apart from the night Beaufighter squadrons Nos.46 and 89, were employed in the battle area. As tension relaxed, however, first one Hurricane night-fighter squadron (No.73) and then one Fighter Wing (No.252) of two Hurricane squadrons and one Spitfire squadron, were allocated to Air Headquarters, Egypt for the close protection of Cairo and Alexandria. In addition, No.211 (Fighter) Group held two fighter squadrons at readiness as a main striking force to intercept before an enemy raid reached the Delta. As will be seen, when the activity of the German - Italian Air Forces is analysed, in spite of the proximity of their forward landing grounds and the importance of Crete as an air base, on the Eighth Army flank, no consistent attempt for the bombing of strategic targets in the Delta was ever undertaken.

A.H.B./IIJ1/122/
69(A) Record of
Operations
A.H.Q.W.D.

(1) General Gott's aircraft was shot down on the eve of his new appointment as G.O.C. Eighth Army and this incident will be mentioned later in the narrative.

The Formation of No.240 (Reconnaissance) Wing (14 July 1942)

As the enemy air forces managed to move forward to advanced bases at Fuka and Daba, opposition to tactical reconnaissance aircraft increased considerably. No.208 Squadron, which operated normally either singly or with a 'weaver' and mainly with the obsolescent Hurricane aircraft, found themselves at a grave disadvantage when faced with the superior performance of the German Me.109 and lost 15 pilots, killed or missing, and 34 aircraft destroyed or damaged (27 of them Hurricanes) in three months operations from July to September 1942. The shortage of the most modern types of front-line aircraft in the Middle East was never more acutely experienced than by this squadron, which was exclusively employed on essential Army co-operation work.

No.208 Squadron
O.R.B.

Memorandum on
the Organisation
of the Western
Desert Air Force
Air Cdre.
Elmhirst

Appendix 'D' to
A. A. H. Q. W. D.
Record of Ops.
by Gp.
Capt. Beamish

In mid-July, No.240 (Reconnaissance) Wing was formed in order to co-ordinate all reconnaissance and photographic sorties for the Eighth Army and A.A.H.Q. Western Desert and ensure that results were interpreted promptly and distribution made to the Units concerned. No.240 Wing was given, on 14 July 1942, operational and administrative control of No.60 (S.A.A.F.) Squadron (Photographic Survey Unit) and the Army Air Photographic Unit. The Wing also assumed operational control of No.2 P.R.U. Detachment, administrative control of No.40 (S.A.A.F.) Squadron, No.208 (Army Co-operation) Squadron and R.A.F. components of the Air Support Units. The function of the Strategic and Photographic Reconnaissance Units, which was to keep a close watch on enemy lines of communication and also the location of the enemy air forces, increased in importance as Rommel endeavoured to build up supplies in anticipation of his renewed offensive, towards the end of August 1942.

The Formation of No.7 (S.A.A.F.) Wing (Mid August 1942)

Further specific re-organisation during this period affected the two units employed on anti-tank operations. These were No.6 Squadron, equipped with Hurricane IID aircraft carrying two 40 m.m. 'S' guns, and a Flight of Hurricane I aircraft of No.7 (S.A.A.F.) Squadron adapted to carrying Jeffrey's bombs. The Jeffrey's bombs, of which the Prime Minister had very high hopes, suffered from the weakness of having poor ballistics and were discarded in favour of the Hurricane IID with their cannon.

No.6 Squadron
O.R.B.

Record of
Operations
Gp.Capt.Beamish
A.H.B./IIJ1/
122/69(A)

On 13 August, a directive was issued by Advanced Air Headquarters Western Desert for the formation of No.7 (S.A.A.F.) Wing at Landing Ground 89, located to the south-west of El Amiriya and on the western side of the main Alexandria - Cairo road. Nos.6 Squadron, 7 (S.A.A.F.) Squadron, 274 Squadron and 127 Squadron were allocated to the Wing with the object of providing an anti-tank force. Nos.6 and 7 Squadrons were to provide the tank attack unit Nos.274 and 127 Squadrons the protective cover. However, it was found that the somewhat limited employment for these specialist anti-tank operations did not justify the retention of two squadrons for the escort task. Later, therefore, No.7 (S.A.A.F.) Wing became a full Fighter Wing and the anti-tank squadrons came under the direction of the Fighter Group.

The Re-Organisation of Single Engined Fighter Squadrons and
Certain Maintenance Units (August 1942)

Memorandum on
the Organisa-
tion of the
Western Desert
Air Force Air
Cdre. Elmhirst

After the experience of a number of rapid advances and retreats, the closest attention was given to any proposal which promised increased air force mobility, and in particular to the fighter squadrons. In order to maintain squadrons stripped down as far as possible to a purely operational nucleus, all squadrons had their base landing-ground where extra personnel and aircraft were located and maintenance was carried out. These squadron bases were later merged into wing bases on one landing ground. The wing bases received replacement aircraft and issued them to squadrons, carried out engine changes and provided some flying training facilities for new pilots joining the wing. This obviously led to a certain duplication in both maintenance and training between the wings and squadrons. During July and August 1942, measures for re-organisation were under consideration for the merging of squadrons and wing base parties, each wing retaining its own R.S.U. and training flight. The system was adopted towards the end of August 1942 and resulted not only in a simplification of the existing system but in considerable economy in personnel.

Defensive and Offensive Preparations

Although the fighting during the first week of July 1942 had restored the tactical initiative to General Auchinleck's forces and resulted in their stabilisation on the El Alamein line, the position was not an assured one until after the victory at Alam el Halfa at the end of August. The Eighth Army was still weak in armour and only by the time the strength had been built up with the arrival of fresh troops and equipment could the position be said to be assured. The threat, therefore, of the Axis forces making a break through to the east remained constant throughout this period. It happened that the change in Army Commanders in the middle of August coincided largely with the accretion of fresh strength, while the heightening of the air and naval offensive against the enemy's line of communication was beginning by that time to show spectacular results, although these were not always evident at the time. If, therefore, the new regime was able to give instructions that there would be no withdrawal and that plans of this nature should either be destroyed or ignored, it was mainly because the position by the end of the six weeks following Rommel's initial attack on the El Alamein line had shown such a dramatic change.

The main disposition of the forces under the Command of General Auchinleck, made at the end of June 1942, remained broadly speaking the same when Generals Alexander and Montgomery assumed their Commands in the middle of August. The northern half of the El Alamein defensive position, including the fortifications at El Alamein and extending down to and including the Ruweisat Ridge, was entrusted to XXX Corps, while XIII Corps was in control of the southern half. For the defence of the Delta, X Corps had been withdrawn into reserve to Command the Delta force which was responsible for the defence of Alexandria and the Delta, while H.Q. British Troops in Egypt (B.T.E.) was responsible for Cairo and the Nile Valley. General Alexander had been relieved of all commitments for the defence of the Middle East against the threat of a German advance from the Caucasus by the creation of a separate Command for Persia and Iraq. This enabled him to entrust the defence of the whole of the

C.-in-C. Middle
East Despatch
0184/1575/MOI
(Records)

(84234) 136

Delta area to H.Q., B.T.E. thus making X Corps H.Q. available for the Eighth Army.

A.A.H.Q.W.D.
Operational
Construction
No.7A 22/8/42

In line with the Army, it was essential, as a security measure, for the air force to prepare plans for withdrawal in the event of the enemy breaking through the El Alamein position. These plans are of merely academic interest now. In essence they catered for the detachment of one fighter wing and four squadrons for the defence of Alexandria, with the remainder of the force being withdrawn to the west of Cairo and still further to the east if the situation deteriorated. One problem was the provision of adequate airfield accommodation in the Cairo area, as the local terrain of loose sand did not permit the rapid construction of new airfields. Had the trend of events necessitated operations taking place from these landing-grounds it would have resulted in a considerable reduction of the operational effort.

A.H.B./IIJ1/122/
69(A) Record of
Operations

A.A.H.Q.W.D.
Operational
Instruction
No.8A 16/8/42

Simultaneous with the defensive preparations, offensive ones were drawn up, designed to keep the air force within an effective fighting distance should the enemy be forced to withdraw. As the Eighth Army was committed in the main to a defensive policy, - the July battles having shown the necessity for a period of training and the building up of reserves, - the implementation of this plan seemed unlikely. Nevertheless, in the preparation of these plans, both for advance and retreat, Advanced Air Headquarters Western Desert were following the sound policy of insurance which had proved of such value at the time of the retreat into Egypt from Cyrenaica.

Defence Against Airborne Troops

The extent to which the operations against Crete in May 1941 had wrecked the German airborne forces was not fully appreciated at this time. Nor, indeed, was it realised until after the war. It had certainly done much to save Malta from an attempted airborne invasion and forced the enemy to abandon any plans they might have for subsequent major operations of this nature. The Delta and the Nile Valley were an obvious target for such an attempt and General Student pressed for the use of his force in this way. When intelligence was obtained that both German and Italian parachute troops were in the battle area and that gliders were located at Tobruk, it was inevitable that a parachute scare should start. As it so happened, this was a sign of the enemy's weakness; the parachute troops were to be used solely in an infantry rôle and the gliders as an auxiliary means of rushing urgently-needed reinforcements to North Africa.

As a precaution, defensive preparations were undertaken against this possibility of airborne attacks which, it was thought, would be directed against the vulnerable cluster of landing-grounds sited at Amiriya and further south east along the Alexandria - Cairo road.

Preparedness to
Meet Attacks by
Airborne Troops
A.A.H.Q.W.D./22/
Air 21/8/42. Also
12 A.A. Brigade
O.O. No.32

The capture by the enemy of this nexus of airfields would have had the result of neutralising a very large proportion of the Middle East air effort in a single operation. The formation responsible for the anti-aircraft protection of aerodromes, 12 A.A. Brigade allocated some strong protective detachments, included tanks for the defence of these airfields. In addition, in order to support the one specialised night-fighter Hurricane squadron

(No. 73 Squadron), all Hurricane squadrons were trained and prepared to provide a night fighter force for the local protection of airfields against airborne troops. All A.M.E.S. stations in the area were also ordered to undertake a 24-hour watch.

Other measures designed to keep the air force keyed up to an operational pitch, and which proved so valuable when Rommel again attempted to overrun Egypt, were the weekly conferences held by the Air Officer Commanding the Western Desert Air Force in which all officers commanding formations were given a full appreciation of the situation, the continuance of training and the resting of units as opportunity offered. The tradition was also maintained, originally set by the Air Officer Commanding-in-Chief and the Air Officer Commanding the Western Desert Air Force, of keeping all ranks well-informed on developments in the land and air war and the particular problems affecting the air force. This resulted in an air force with an unusually high sense of esprit de corps and morale.

Airfield Construction by the Royal Engineers

The rapid withdrawal of a whole modern air force to new bases had set the Army authorities responsible for the construction of airfields a most difficult task. Inadequate or faulty airfield facilities could have hamstrung the operational efficiency of the air force and would have increased the accident casualty rate. In spite of difficult terrain, with the eternal problem of dust and problems arising from the employment of unstable native labour and the shortage of suitable machinery, the provision of adequate landing-ground facilities never fell below current operational requirements. The Chief Engineer, Aerodromes, H.Q., Middle East, was responsible for directing the policy as laid down by the Air Officer Commanding-in-Chief and he co-ordinated all activities. All material, transport and labour were supplied from Army resources, as if they were for normal military work.

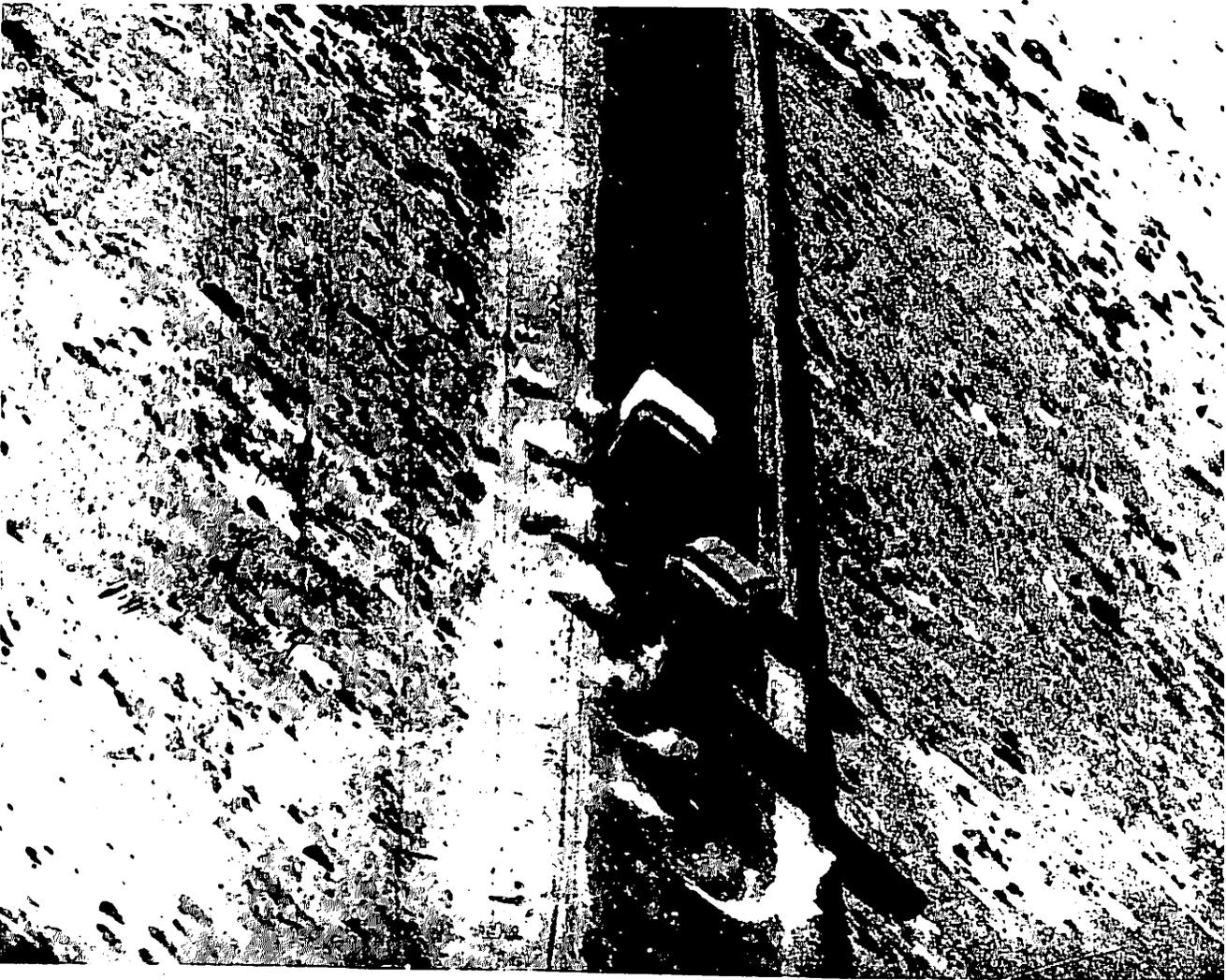
An example of the speed with which these services were rendered was the provision of a satellite landing ground (L.G.173) to the south-west of Alexandria. In July, owing to aircraft being overcrowded on L.G.92, it was decided to construct a satellite approximately one mile to the south. The C.R.E. managed to borrow some auto-patrols from the South Africans and, with the help of eight machines in use, this new landing-ground of approximately 1,500 yards square was completed in two days.

Dust was always a serious menace. During August an ambitious project was started to sink bore-holes on the landing ground in an endeavour to obtain sufficient water to compete with the constant menace of dust. In all, bore-holes were sunk on eight landing-grounds, the capacities varying from 600 - 3,000 gallons per hour being obtained. Ironically enough the value of these bore-holes was never experienced as, by the time they had been sunk and the necessary equipment obtained for distributing the water, the rains had started. Another project for providing bitumenised runways to guard against aircraft being bogged down, if the Alamein line was still being held in the winter months, was also put in hand. Other experiments were undertaken involving the use of waste oil in order to provide a quick dust-free temporary road.

Organisation
of the Western
Desert Air
Force by Air
Cdre. Elmhirst



Dust on a Desert Airfield



Low-level air attack on lorries along the coast road

The sudden and urgent demand for the expansion of landing-ground facilities which arose in July 1942, especially as advanced bases for fighter squadrons, was met mainly by the enlargement of existing aerodrome space. In the Burg el Arab area, Landing Grounds 37, 40 and 172 were extended very considerably and, in the case of Landing Ground 172, a new strip of 1,500 yards by 600 yards was added. A most complex system of aerodromes, some fifteen in all, was developed at Amiriya, to the south-west of Alexandria, and also along the main Alexandria - Cairo road. Further expansion over and above the requirements of the R.A.F. fighters and light bombers arose in August 1942 for two American wings. With the concentration of R.A.F. and Army in the area, dust in the vicinity of the road and particularly to the west was becoming a serious menace. Two sites were, therefore, found to the east of the road and afterwards were called L.G.174 and L.G.175. In the Delta, Bilbeis Landing Ground was found to be breaking up and a new aerodrome was constructed and called Bilbeis East. This also happened at Landing Ground 100 (Wadi Natrun) where a bituminised runway was laid. After this landing-ground had been bombed three or four times the native labour disappeared and work had to be finished by military labour.

A more detailed account of airfield construction during this period would be out of place in this narrative. In all, the remarkable figure of twenty-four million square yards of ground were levelled between 1 July and 31 October 1942 for the use of aircraft, either in the form of new grounds, or in dispersal areas. This work naturally again assumed very considerable importance after the victory at El Alamein and will be dealt with in a later part of the narrative.

Improved Methods for Army Co-operation

The system for close co-operation between the Army and the Royal Air Force which had tended to collapse owing to the confusion of the retreat from Gazala to El Alamein was gradually improved during the later battles of July until, by the middle of August when General Montgomery assumed Command of the Eighth Army, and the Army and the Air Force Advanced Headquarters joined up again, it was operating with an efficiency which was amply demonstrated during the battle of Alam el Halfa. Revision of the policy for fixing the bomb-line was undertaken during the fighting in early July when it was found that the conservative bomb-line set by the Army in order to guard against the risk of having their own troops bombed was affording a measure of sanctuary to the enemy forward troops. The fixing of the bomb-line then became a Royal Air Force responsibility. It was based on information obtained from the Army who gave the predicted position of their forward troops for the next two hours or any necessary amendment. This enabled the air force to attack the enemy forces within much closer range of the Eighth Army's advanced formations.

Air Support
Control War
Diary A.H.B.
IIJ1/122/80

Delays in the transmission of Tac/R reports caused the Air Officer Commanding Western Desert Air Force to introduce a system of broadcasts of selected information with a set which had a range of some 70 - 80 miles. These radio broadcasts achieved a considerable popularity and it became the custom for anybody with a set capable of reception in the forward areas to tune in and listen. The Air Officer Commanding, Western Desert Air Force was always most

insistent that air force units should be kept well-informed on the military situation, thus enabling aircrew particularly to have an intelligent grasp of the way in which their efforts fitted into the overall picture of what was happening on the ground. It also resulted in a high level of spirit of co-operation between the two Services and a realisation by the air-arm of the problems which faced the ground troops.

Air Support
Control War
Diary

Report on Visit
to the Middle
East by Air
Marshal Barratt
A.H.B./IIJ1/54

Afrika Korps
War Diary

The desert, with its general lack of outstanding features and its pervasive dust, raised a number of intractable problems of recognition from ground to air which were never solved to the entire satisfaction of either the Army or the air force. On occasions, as has already been seen, the Royal Air Force bombed Eighth Army units and, conversely, Eighth Army gunners sometimes opened fire on Royal Air Force aircraft. In this they were not unique, for it is on record that both German and Italian bombers attacked, on occasion, their own ground troops.⁽¹⁾

In order to improve recognition from the air, the white St. Andrew's cross on a black background was gradually replaced by the Royal Air Force roundel. Not only was the roundel the accepted means of recognition between aircraft but an alteration of customary markings had become imperative as, after the retreat, the enemy held a very considerable number of British motor vehicles, tanks and armoured cars which were being used with their British markings and camouflage unchanged. In the case of tanks and armoured cars, which were naturally coated very quickly with a thick layer of dust and sand, experiments were made with a kind of venetian blind which, when released, displaced the dust and revealed the roundel.

Other measures to improve air to ground recognition were the use by troops of ground markers - coloured smoke cartridges and smoke candles, the flashing by night of Aldis lamps and the system of landmarks in which petrol tins containing petrol soaked sand were used as beacons. There were acute difficulties inherent in all these measures of ground to air recognition signals, the main ones being bound up with difficulties of supply and the disinclination of the Army to reveal their positions when all their training had been directed towards impressing on them the importance of concealment. For the provision of coloured smoke cartridges reliance had to be made on captured enemy supplies. The use of light markers and lamps were not regarded at all with favour by the Army for the reasons already given. The system of petrol tins containing petrol-soaked sand had the additional disadvantage of requiring someone in constant attendance during the night to refurbish them and shake up the sand, a by no means enviable task in an advanced position in the desert. The system of ground markers which consisted of strips of cloth laid out on the ground proved disappointing as, on very many occasions, aircraft failed to locate the markers.

A.A.H.Q.W.D.
Close Support
Policy Parts II
and III A.H.B./
IIJ1/122/7(c)

A.H.B.6
Translation
VII/87

(1) The Afrika Korps G.H.Q. and the 15th Panzer Division were both bombed by German aircraft on the night of 22/23 July. Phosphorous bombs were used and fragments with German markings discovered next morning. There is also the following exasperated comment in the Afrika Korps War Diary for 7 July, 'To cap everything, the Italians have again scored a success by bombing our own troops'.

As the fluid character of a war of movement gradually gave way to a battle of fixed positions, therefore, an opportunity was presented to the Air Force Commanders to take stock of the new positions and make good, as far as conditions allowed, any structural weaknesses which had been made apparent in the course of the retreat. Furthermore, adjustments were made in the disposition of the force to meet the set of new conditions arising from the proximity of the enemy's advanced landing grounds to the main bases of all three Services in the Middle East.

CHAPTER 4.

THE BATTLES AT TELL EL EISA, TELL EL MAKH KHAD
AND THE RUWEISAT RIDGE

The Tactical Battle Now of Secondary Importance

The main factor governing this period of the fighting in North Africa and, indeed, until the battle of EL Alamein came to be fought, was one of time in relation to reinforcement. After Rommel's failure to exploit the capture of Deir el Shein, on 1 July, he was faced with a problem of extended lines of communication which was to affect his fortunes increasingly as time passed. One expedient after another was tried to shake off the constrictive power of a dominant air force which, spreading its tentacles over the whole theatre of operations, attacked the ports of departure for his Africa bound convoys, the convoys whilst en route, the ports of arrival, coastal craft and road convoys, and finally destroyed his supplies on the very field of battle. It was an insidious cumulative drain on the enemy's resources which, as will be demonstrated later in the narrative, reached a climax at the end of August 1942, at the battle of Alam el Halfa and again at the end of October, at the battle of El Alamein. It was within the limits of the Mediterranean theatre of operations a microcosm of that battle of supplies which the enemy was waging simultaneously (but happily with less success) against the Allies' global lines of communication.

The Afrika Korps and the Eighth Army, locked in a series of particularly complex engagements during July, and calling a halt at the end of the month to further offensive measures until their forces had been built up, saw little or nothing of this aspect of the war in the Mediterranean which was so vitally affecting their destinies. Eventually it was to prove how an army, insulated from such attrition by a powerful air force, could wax in strength and win a brilliant victory after a series of bitter defeats.

Once the battle for the stabilisation of the Eighth Army had been won, in the early days of July 1942, and into which the Air Officer Commanding-in-Chief flung every available aircraft for use in a tactical role, the land battle became virtually of secondary importance from an air point of view. Indeed this was even true militarily. The really significant centre of conflict had swung away from the hub to the periphery. It would swing back again and be finalised - as it were - at the battles of Alam el Halfa and El Alamein, but only to confirm to the enemy Commander-in-Chief that the broader strategic aspect of the war in the Mediterranean had already been irrevocably lost.

These "scrambling and incoherent battles of July" demonstrated amply the fact that once an armoured force has been seriously weakened it tends to dissipate rather than concentrate its strength. This was true not only of both German-Italian Panzer Army and the Eighth Army on land, but also of the enemy air forces. The line held between the Arabs Gulf in the north and the Qattara Depression, some forty miles in length, was too extended for the forces at the disposal of either of the opposing Army Commanders. The result was that the battles waged in the Western Desert during July 1942, after the preliminary phase of stabilisation of the Eighth Army had been won, were

make-shift ones - engagements would be the truer description - in which offensive and counter offensive were launched with bewildering complexity, in the north round the mounds of Tell el Eisa and Tell el Makh Khad, along the Ruweisat Ridge in the centre and in the south around the Qattara 'box' locality and the El Taqua plateau.

Little advantage was gained from these battles on either side, the main result being increasing exhaustion of the battle-weary troops. Certainly they demonstrated, both to Rommel and General Auchinleck, how completely bankrupt the Italians could be as a fighting force under conditions of prolonged strain. These battles also served finally to push the whole system of the British defensive positions, to the south of El Alamein, further to the east. Instead of resting strung between the two natural barriers of the sea and the Qattara Depression, by the end of July the whole defensive system, with the El Alamein 'box' as the hinge, had been pushed ajar like a door, leaving a considerable gap between the Eighth Army left flank and the Qattara Depression. It was this very weakness of the Eighth Army in the south which later dictated Rommel's whole plan for the battle of Alam el Halfa, and which was foreseen by General Auchinleck before he handed over his Command. Fortunately, although the southern end of the El Alamein line could no longer be said to rest on the Qattara Depression, it was based on an area abounding with such intractable physical features which made it only slightly less difficult to negotiate than the Depression itself.

The Eighth Army strong point at Bab El Qattara occupied by 21st Panzer Division 9 July 1942

By 6 July 1942, the initial phase of the Eighth Army's stabilisation had been successfully concluded. A bulge extended eastwards from Deir el Shein along the Ruweisat Ridge, but otherwise the Alamein line - if line it can be called - remained intact. The main XXX Corps position at El Alamein, on the coast, had been considerably strengthened by the arrival of the 9th Australian Division. The wide encircling movement made by XIII Corps from the south which threatened the enemy commander's rear and his lines of communication had caused him to take counter-measures and by 8 July he had concentrated the bulk of his German forces in protection of his southern flank. This caused XIII Corps to give ground slowly until its most westerly elements had been pushed back to the El Alamein - Abu Dweis track which had formerly served the Western Desert Air Force as a most useful bomb-line.

Except for the semi-permanent fortifications around El Alamein the Eighth Army positions were still weak, disconnected and lacking in depth. In addition, there was a serious shortage of troops to hold this extended front some 40 miles in length. General Auchinleck therefore decided not to attempt to hold the prepared positions around Bab el Qattara in the centre and at Naqb Abu Dweis in the extreme south on the edge of the Qattara Depression. 'In the absence of sufficient armoured troops to support them' General Auchinleck states in his Despatch, 'I was not prepared to risk their garrisons being isolated and destroyed'. Bab el Qattara, the most central of the Eighth Army's four main defensive positions between the Qattara Depression and the sea was occupied by the 21st Panzer Division on 9 July.

Hist. (B)
Crusader for
(Final) War
Cabinet Papers.

Despatch by
Gen. Claude J. E.
Auchinleck
C.-in-C, Middle
East Forces
A.H.B./
IIJ1/30

Afrika Korps
War Diary
A.H.B. 6
Transl.No. 780

Rommel, after the series of defeats he had suffered in the course of the fighting during the first week in July, compelled to rush his battle-weary German formations from sector to sector in order to bolster up a crumbling line was tremendously heartened by this evacuation of Bab el Qattara by the Eighth Army. By this date, 9 July 1942, therefore, three out of the four main defensive positions on which the El Alamein line was based had fallen to his troops. Accordingly, and perhaps with justification, he interpreted this abandonment of extremely valuable defensive positions as a pointer towards nothing less than the general withdrawal eastwards of the main Eighth Army. The result was an immediate resurgence of optimism among the Axis Forces accompanied by a conviction that the occupation of the whole of Egypt could not long be delayed.

The engagements at Tell el Eisa in the North and Ruweisat Ridge in the Central Sector (10 to 12 July 1942)

On 10 July Field Marshal Rommel commenced a full scale offensive in the central sector. It began with a drive due east by the 21st Panzer Division from the area of Bab el Qattara, which had been occupied only the day before. Panzer Regiment 5 advanced as far east as Alam Nayil (Map Reference 8827) but the offensive was brought to a halt mainly by the combined efforts of the 5th New Zealand Brigade and the 7th Armoured Brigade.

Hist. (B)
Crusader for
(Final) War
Cabinet Papers

XIII Corps
Int. Summary
No. 162.

Simultaneously, however, with this enemy offensive in the centre, General Auchinleck launched an attack in the north on the XXX Corps front with the 9th Australian Division and the 1st South African Division, with the limited objectives of capturing Tell el Eisa, a low hill ten miles to the north-west of El Alamein railway station and the Tell el Makh Khad, another hill a mile or two to the south-east. This attack caught the enemy, preoccupied as they were with ideas of a general withdrawal of the Eighth Army, quite off their guard. An immediate success was scored by XXX Corps against the Italian troops on this most northerly part of the line. Tell el Eisa was captured, together with 15 guns and over 1,000 prisoners and some score of enemy tanks were destroyed. This attack by XXX Corps entirely dislocated Rommel's offensive in the centre, compelling him to transfer German Infantry to the north to stiffen the Italians. Yet a further success was scored by the 9th Australian Division on the next day, 11 July, when a further 600 prisoners were taken in the same area. In spite of heavy enemy counter-attacks against the Australians in their newly-won positions, they held fast, thus maintaining a salient in the north which extended for some 10 miles in a north-westerly direction from the railway station at El Alamein.

Air activity in the battle area (7 to 12 July)

The High Level of Protection Afforded to the Australians

The surprising feature about the air activity from 7 to 12 July was that the number of sorties flown by fighter aircraft exceeded the figure for the previous six days, from 1 to 6 July, although the general impression obtained is of a sudden relaxation of tension after the initial period of crisis at El Alamein had been successfully surmounted. The figures are:-

1 to 6 July	2683	Sorties	flown	by	fighter	aircraft
7 to 12 July	2726	"	"	"	"	"

This seeming disparity is accounted for by the fact that, although fighter bomber attacks declined from 679 (1 to 6 July) to 512 (7 to 12 July) and bomber escort from 842 to 229, the number of aircraft employed on offensive sweeps during these two periods was almost double, rising from 736 to 1,402.

The field fighter forces were particularly busy during 10 July when 373 sorties were flown on offensive fighter sweeps and on the following day, 11 July, when a total of 302 were flown. During these two days the 9th Australian Division were engaged in their offensive for the capture of Tell el Eisa and Tell el Makh Khad and the greater part of this fighter activity was designed to keep them free from hostile air attack. Nevertheless, this high level of fighter activity is hardly reflected in the casualties inflicted on the enemy bomber force, for according to enemy records only five of their bombers were destroyed throughout a total of six days' fighting. These fighter sweeps, however, designed as they were to screen the ground troops from attack were successful, if not in the destruction of aircraft, then in forcing enemy bombers to jettison their bombs. An example out of some six engagements which took place on 10 July is the large circus of 24 mixed Ju. 87 and 88's escorted by 24 Me. 109's which were encountered by 12 Hurricanes of No. 80 Squadron when on a sweep between El Alamein and Ghazal. When attacked, the bombers jettisoned their bombs over waste ground, whereupon the escorting Me. 109's attacked the Hurricanes destroying two of them. As the bomb load of a Ju. 87 was a maximum of 4,000 lb. and of a Ju. 88 6,400 lb., this single raid with a potential of some 45 tons of high explosive, had it been successfully directed against its target, the 9th Australian Division, might have had a marked effect on the course of the battle.

No. 80 Sqdn.
O.R.B.

The poor quality of targets for light bombers (7 to 12 July)

The Bostons and Baltimores of No. 3 S.A.A.F. Wing, after their outstanding performance during the preceding week, found comparatively little employment during the six days from 7 to 12 July 1942. A combination of wide dispersal which had been forced on the enemy by the constant hammering they had received, the heavy anti-aircraft gunfire and repeated dust storms afforded the light bomber squadrons a period of relative relaxation. Accordingly, advantage was taken of this to rest the crews. On 8 July the following entry was made in No. 3 S.A.A.F. Wing O.R.B. 'A.A.H.Q. have relented on the leave question. The curfew in Cairo and Alexandria has been lifted. 25 per cent of the personnel of all Units are to be allowed to go to town on each of the next four days. Service transport may be used but everybody must be in camp by midnight. The importance of good behaviour is stressed.'

No. 3 Wing
O.R.B.

On 7 July the light bombers suffered their first casualty from fighter attack when a Mo. 202 evading the escort managed to shoot down a Boston aircraft. 'Major Pharoah' the O.R.B. records with a touch of irony 'who led the first raid was shot down by enemy fighters and force landed in the Alamein "box". There was a sign of justice in this. It was Major Pharoah's aircraft which bombed the box.' There is no record of the reception afforded Major Pharoah by his fellow South Africans who had been bombed on six occasions by a total of nearly 100 aircraft of No. 3 S.A.A.F. Wing during the preceding

A.A.H.Q. W.D.
D.I.S. No. 158

week. It is worthy of note that the venturesome Italian pilot was confirmed as having been shot down by the fire from a Boston rear gunner of No. 24 S.A.A.F. Squadron.

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Operations
A.H.B. III/31/4

Employment of the light bombers, therefore, was reduced to a mere two or three raids a day, a proportion of which was directed against enemy landing grounds. Eight Baltimores of No. 223 Squadron carried out a highly successful surprise attack on 11 July against the shipping in the enemy port of Matruh when an enemy ship was destroyed. An account of this raid will be given in a later section of the narrative.

Heightened fighter bomber activity (7 to 12 July 1942)

The slowing of the demands on the light bomber force, due to the general lack of suitable targets, meant that considerable numbers of fighters were released from bomber escort duties. This also coincided with the fact that, with the thinning out of the density of targets in the battle area, the fighter bomber came into its own. On 7 July conditions were excellent for this type of attack and 139 sorties were carried out. Targets were found chiefly in the concentrated areas of the enemy armoured divisions in the central sector to the west of the Ruweisat Ridge where a number of fires were started, including two large oil-burning ones. The ground forces assisted during these raids in the location and identification of targets by laying down ground-strips.

The attacks on enemy landing grounds (8 to 10 July)

An outstandingly successful operation against enemy forward landing-grounds in the Daba area was carried out on 8 July by a total of 42 Kittyhawk bombers comprising eleven from No. 112 Squadron, eleven from No. 250 Squadron, ten from No. 450 Squadron and ten from No. 3 R.A.A.F. Squadron. The attacks were directed against enemy aircraft at the Qatafiya satellite landing ground No. 21 and landing-ground No. 104. Three Me. 109's in circuit over the airfield were shot down and the bombing accounted for another three on the ground. One 500 lb. bomb was dropped among enemy fighters engaged in refuelling. This attack which took place soon after mid-day achieved complete surprise and the raiding aircraft sustained no losses. Reconnaissance reports the following day revealed that there had been a considerable thinning out of the bombers on these forward landing grounds in favour of the more secure rear-ward bases at Fuka and Bagush.

On 10 July, the day the 9th Australian Division launched their offensive in the north, a total of 5 raids involving 70 aircraft were arranged on enemy forward landing grounds with the object of hampering the enemy air effort. The first and last of these raids proved abortive as far as their primary objective was concerned as, owing to attacks by enemy fighters, bomb loads had to be jettisoned.

A useful addition to this series of attacks on enemy landing grounds was made by a column of the 7th Motor Brigade which penetrated behind the enemy lines and fired some 200 rounds among some 40 dispersed enemy aircraft at Fuka, at last light on the night of 7/8 July. A reconnaissance report revealed some 10 wrecked and 5 damaged aircraft on landing-grounds 17 and 18 which were attributed to this

XIII Corps
War Diary

A.A.H.Q.
W.D.
A.H.B./IIJ1/
122/44

shelling, but there is no trace of these losses in German records. It is known, however, that the majority of the Fuka landing-grounds were occupied at this time by Italian aircraft.

Night Bombing in the Battle Area (7 to 12 July 1942)

The diversion of the medium bomber force of No. 205 Group to strategic targets, mainly the port of Tobruk, did not mean that the night bombing in the battle area was wholly neglected. On the nights of 7/8 - 8/9 July, Wellington aircraft were out in strength over the inland battle area, a total of some 50 aircraft being involved. The wide dispersal adopted by the enemy, which had been observed during the daytime, was now most noticeable by night and according to pilots thinned out the quality of the targets appreciably. Fleet Air Arm Albacores of Nos. 821 and 826 Squadrons, with their accumulated experience of operating over the desert by night and of recognising landmarks, worked in close co-operation with the ground forces for the dive-bombing of enemy armour in the battle area. The majority of these raids were carried out in the central sector, although a certain weight of bombs was directed against the supply routes in the North.

The enemy forward supply position certainly improved during this period owing to the diversion of the main Wellington night-bombing programme on to strategic targets. On 11 July, as was noted in the Afrika Korps War Diary, the ammunition supply situation permitted the bombardment of enemy batteries by the 21st Panzer Division for the first time since the El Alamein position had been reached. The next day, however, the following entry was made in the Afrika Korps War Diary 'the shortage of equipment in the supply zone has not even yet been surmounted. On the broad motor-ways there are still difficulties in bringing supplies, which have been requested, promptly to the front'.

Afrika Korps
War Diary
A.H.B.6 Transl.
No. VII/87

Actions at El Alamein and Ruweisat Ridge
(13 to 20 July, 1942)

During the following week from 13 to 20 July some bitter positional fighting took place in all three sectors along the El Alamein line. If it so happened that either side could concentrate enough strength to score a local success, either the necessary reserves were lacking to exploit the favourable position, or else the opposite side had developed the offensive elsewhere and reserves had to be diverted. The enemy re-acted strongly to the capture of Tell el Eisa by the Australians and counter attacked the 26th Australian Infantry Brigade on 12, 13 and 14 July. Tell el Eisa, in reality little more than a large mound, was in an extremely exposed position and proved untenable in daylight. After changing hands three times the hill, which in translation means 'The Hill of Jesus', eventually remained in the enemy possession. In the most southernly sector of the front fighting took place on 13/14 July in which the enemy captured Qaret el Himeimat (map reference 880250). On the night of 14/15 July the 5th Indian Division and the New Zealanders attacked in the central sector in the area of the Ruweisat Ridge. The enemy, as was to be expected, proved most sensitive in this area, where nearly all the decisive fighting of the first week of July had taken place, and launched a full scale armoured attack on the evening of 16 July with what was doubtless the total German Panzer strength of some 40 'runners'. This attack cost the

Hist. (B)
(Crusader) 4
(Final)
Situation
review to
C.I.G.S. from
General Corbett
20/7.

New Zealanders heavy casualties, estimated at some 900 men. On 17 July interest shifted further to the North where the 24th Australian Infantry Brigade had joined the 26th Australian Infantry Brigade. Their attacks southwards advanced as far as Sanyet el Miteiriya, but later they were forced to withdraw. By now some of the worst aspects of purely positional warfare were in evidence. Both Commanders were involved in comparative fruitless struggles in which insignificant, but tactically important features like Tell el Eisa, changed hands a number of times, but with little advantage to either side.

Air Activity over the Battle Area (13 to 20 July 1942)

During the week 13/20 July 1942 was seen some of the most intense fighter activity of this particular period of the campaign. During the five days from 13 to 17 July nearly 2,800 fighter sorties were flown by the Western Desert Air Force in support of the Eighth Army. Ground attack by fighter bombers was particularly persistent and heavy. On 13 July aircraft opposing the enemy attack against the 26th Australian Brigade and Tell el Eisa, and planned by Rommel as a major attack by the 21st Panzer Division against the Southern face of the El Alamein 'box' held by the 3rd South African Brigade, flew a record number of 168 fighter bomber sorties. The day's operations commenced with an attack by 18 Kittybombers of Nos. 250 and 112 Squadrons against enemy bombers on Landing Ground 21 which had been re-occupied in force after the heavy attack of 8 July. A Ju. 88 was claimed as having been destroyed and a number damaged. A diversion against L.G.20 resulted in one Me. 109 being destroyed by a direct hit. Subsequently a total of 16 raids were directed with good effect against the enemy forces making a counter offensive against the Australians in the North.

On 13 July, No. 6 ('Tank-buster') Squadron had their first success of the month when six aircraft on an anti-tank sweep, as a result of a reconnaissance report from a fighter bomber, located a suitable target consisting of isolated enemy tanks to the Southwest of El Alamein. They destroyed four Mark IV and one Mark II tanks and badly damaged one other. One aircraft, which had been hit by flak, crashed on the edge of the South African lines and two other aircraft were damaged. Fighter bombers of No. 112 Squadron located another inviting target consisting of five troop carriers and 10 diesel lorries very badly dispersed to the East of Tell el Eisa and which had undoubtedly been used to rush reinforcements to this part of the front. In a remarkable successful attack all 15 vehicles were destroyed. The last light interception of Italian Cr. 42's in the North resulted in the destruction of five of them by Hurricanes of No. 1 Squadron (S.A.A.F.).

On 14 July, fighter-bomber activity was again intense, reaching a total of some 150 sorties. In the morning, good targets were found in the North among the enemy troops who had been repulsed by XXX Corps on the previous day. As the day wore on, targets tended to shift down the line to the Central and then finally the extreme Southern Sector where, as has already been noted, the enemy had pushed as far as East the Qaret el Himeimat. Isolated enemy columns presented good targets, particularly in the South, where the broken terrain tended towards splintering the attacked force into small detachments. The 40m.m. guns of No. 6 Squadron's Hurricane IID aircraft were again busy when, in

A.H.B./IIM/
31/1 H.Q.
M.E. Table
Operations.

No. 6 Squadron
O.R.B.

No. 6 Squadron
O.R.B.

No. 6 Squadron
O.R.B.

a most successful raid carried out in company with Kittyhawks of Nos. 112 and 250 Squadrons, six tanks, two A.M.C. and 11 M.T. were destroyed or badly damaged. The squadron lost a very experienced pilot in the course of this raid and another aircraft was hit by flak. On this day offensive fighter patrols intercepted two large formations of enemy dive bombers with their fighter escorts, one of which consisted of a mixed force of between 30 and 35 Ju. 88's and 87's escorted by 15 Gr. 42's and some score of Me.109's and Mo. 202's. Hurricanes of Nos. 213 and 33 Squadrons, together with Spitfires of No. 601 Squadron, broke up the formations, claiming one Gr. 42 and one Me. 109 destroyed without loss to themselves.

A.H.B./IIM/
31/1
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On 15 and 16 July the field fighter force was most active in support of the ground troops with fighter bombers maintaining the figure of some 150 sorties on both days. Fighter aircraft were employed on offensive sweeps protecting the ground troops from hostile aircraft. On these two days, for instance, out of a total of 1,200 fighter sorties, practically one half were flown on offensive sweeps.

A.H.B./IIM/
122/44
A.A.H.Q. W.D.
War Diary.

Fighter-bomber action against enemy tanks was a conspicuous feature of the air operations on 15 July when five tanks were destroyed by this form of attack. No. 6 Squadron were again busy. On 15 July in the course of an offensive sweep with Kittyhawks of Nos. 3 R.A.A.F. and 450 Squadrons in the extreme South, two enemy tanks were destroyed, together with 11 motor vehicles. Further casualties were sustained by this squadron when two of their aircraft were damaged by flak, the C.O. being compelled to force land and another of their pilots was wounded. In all, six separate raids were directed specifically against enemy armour on 15 July. Gun positions which were usually not considered a lucrative target were also bombed, according to Army reports, with some success.

No. 6 Squadron
O.R.B.

An entry in the Afrika Korps War Diary for 16 July records how close a fighter-bomber attack on the Afrika Korps Headquarters came to making the enemy Commander-in-Chief, Field Marshal Rommel, a casualty. (1)

'13.20 hours 16 July, the enemy air force is very active again today. A strong fighter bomber attack was made on Corps Battle Headquarters damaging several vehicles including that of the G.O.C. The C.-in-C. had been in this vehicle until the attack commenced. Shortly before mid-day a further attack was made in the Corps Battle Headquarters area!'

At last light on 16 July an innovation was a fighter-bomber patrol by 9 Kittyhawks of No. 3 R.A.A.F. Squadron and eight Kittyhawks of No. 450 Squadron in anticipation of an

(1) After touring the front at 05.00 hours (16 July) and becoming involved in a violent British artillery barrage and an R.A.F. bombing attack, I conferred with the Corps Commanders at the Afrika Korps H.Q. that morning on how to maintain command of the difficult situation. Our deliberations were badly interrupted, for no less than nine bombing raids took place between six in the morning and three in the afternoon in the immediate vicinity of the conference. 'Rommel Papers'

Afrika Korps
Diary.

enemy attack on the North side of the Ruweisat Ridge. It is interesting to note that the enemy gained the impression that their evening attack by the 21st Panzer Division, in order to relieve the Pavia Division in this section, had been expected.

A.A.H.Q. W.D.
Daily
Intelligence
Summary.

Isolation of a sector within the main zone of the battle was attempted with some success the same day, 16 July, when attacks were directed specifically against enemy supply columns moving south towards the central battle area. These soft-skinned vehicles were particularly vulnerable to air attack by fighter bombers and numerous direct hits and fires were reported. The usual fighter patrols were maintained over the battle area and, although, as has already been mentioned, casualties inflicted on enemy aircraft in air combat were disproportionately small, nevertheless numerous dive-bombing raids were made abortive owing to the enemy being compelled to jettison their bombs.

Diary of German
Afrika Korps.
A.H.B.6
Translation
No. 7/87.

From the 17 to 20 July the mixture of bad weather and a slackening of the tension in the land battle, which enabled the enemy to adopt measures for wider dispersals of their M.T. and tanks, meant that fighter-bomber activity declined from 150 to an average of under 60 sorties a day. Various attacks were made on enemy tanks which resulted in the Panzer Army issuing an order on 19 July that tanks were to be 'surrounded by sand bags and stone walls to protect them from damage in air attack'. This was most probably the result of another spectacular success scored by No. 6 Squadron against an isolated detachment of the enemy in the extreme south, a little to the West of Qaret el Himeimat. The target, which had been initially reported by the Army, consisted of seven Mark III tanks, two large guns towed by tracked vehicles, two light A.A. vehicles and troop-carrying trucks. Hits were scored on six of the tanks which the No. 274 Squadron escort picturesquely described as 'three flamers and three smokers', and also one gun trailer and a tracked vehicle were destroyed.

Nos. 6 and 274
Squadron
O.R.B.'S.

Increased Activity of the Light Bombers
(13 to 20 July 1942)

No. 3 S.A.A.F.
Squadron
O.R.B.

What a No. 3 Wing diarist alluded to as a 'resurgence of our air effort' occurred on 14 July for the light bombers, 'but nevertheless' he continued regretfully 'it was a far cry from the concentrations bombed in the early days of the El Alamein battle'. On 14 July there were 88 sorties, on 15 July 65 sorties and on 16 July (when No. 24 Squadron were congratulated on the completion of their one thousandth sortie) the total was 77 sorties. On 16 July, a particularly effective operation, in close support of the ground forces, was carried out against enemy formations attacking XIII Corps troops in the Ruweisat Ridge sector. In all five raids, comprising a total of some 80 light bombers, were launched. Two of the raids in which 30 Bostons and Baltimores took part towards 1000 hours were most successful and were considered by the Army to have played an important part in bringing the enemy attack, in which the main German Panzer strength was involved, to a standstill.

The next three days, 18, 19 and 20 July, were generally speaking quiet for the light bombers. On 19 and 20 July combined fighter and light bomber raids were made on enemy airfields. The raid on Landing Ground 21, which took place on 19 July, was an attack in force in which a total of some

100 aircraft were involved. Landing Ground 21 was the main German Air Base in the Daba area which had received a damaging raid on 8 July. Reports had been received of over 100 badly-dispersed aircraft on the airfield from a No. 601 Squadron reconnaissance, and in the course of the raid some 12 tons of bombs were dropped. The mystery about this and other comparable raids on enemy Landing Grounds is that for the most part there is little or no reflection of them in German records of their losses. For example, on 19 July German aircraft losses were light and only three aircraft were reported as having been destroyed and one damaged. Nevertheless, according to reports by other squadrons accompanying the light bombers on the raid the bombing was considered 'magnificent' and four direct hits were reported, one on a Ju. 52, one on a Ju. 88, one on a Me. 109 and in addition five fires were started. Near Landing Ground 104 four Ju. 52's and one Ju. 87 seen coming into land were, according to reports, attacked and destroyed by Nos. 450 and 250 Squadron aircraft. Subsequently a total of some 40 aircraft were reported as having been damaged by low-level attack by fighters, and pilots were of the opinion that most of the 40 would not fly again. It is perhaps significant, however, whatever the loss of aircraft occasioned to the enemy in the course of these heavy raids, that Stuka activity stopped completely for the next two days and the greater part of the Luftwaffe fighter-bomber force was reported as having been driven as far back as Sidi Haneish to Landing Grounds 12 and 13, some 60 miles to the rear. As it happened, this heavy bombing of enemy advanced Landing Grounds was a most useful preparatory phase for the offensive made by General Auchinleck on 21 July.

Night Bombing in the Battle Zone (13 to 20 July)

The persistent bombing on enemy formations by night in the battle area continued throughout the period 13 to 17 July, and in this case was carried out, in the main, by Albacore aircraft of the Fleet Air Arm still on loan to No. 205 Group and through them to the Western Desert Air Force. Wherever the enemy were known to be building up forces and reserves in the battle area for an attack it was there that the Albatocs concentrated their nightly raids. Targets which were most promising were located in the Northern and Central Sectors. On the night of 19/20 July an attack by 19 Wellingtons, assisted by Albatocs of No. 826 Squadron, attacked enemy aircraft on Landing Ground 18 at Fuka. The Albatocs themselves subsequently bombed, but although a number of fires were started there is no indication of the success of this raid in German records. On the other hand as has already been mentioned, the airfields around Fuka were used for the most part by Italian aircraft.

Enemy Air Activity - Period 7 - 20 July 1942

During this period the enemy used almost the whole of their available air strength on tactical targets leaving what might be termed strategical targets such as ports, bases and lines of communication practically unmolested. No night bombing in the battle area was carried out and the only night attack during the period was made on the night of 20 July on an aerodrome to the South of Amiriya. This comprised some ten Ju. 88 aircraft. Even the German Air Force bomber effort from Crete, apart from sea and air convoy escort work, was devoted to close support of the Panzer Army in Africa to the neglect of all other strategic possibilities.

A.H.B.6.
Records.

Nos. 250 and
450 Squadron
O.R.B.'s.

A.H.B./ILJ1/
122/44(A)
A.A.H.Q. W.D.
Daily
Intelligence
Summary.

Middle East
Table of
Operations
A.H.B./ILJ1/
31/1.

M.E.D.I.S.
Vol. 8.

Nevertheless, the use of the Luftwaffe in their traditional rôle of close support to the Panzer Army was heavy and sustained for the force available and amounted to approximately 1,000 bomber sorties over the whole period. The reliance of the enemy on dive-bombing technique, as opposed to the use of the fighter bomber, is made evident by the fact that out of a total of some 1,000 bomber sorties less than 10 per cent was made by fighter bombers. The heavy R.A.F. attacks, already mentioned, on the Daba Landing Grounds caused a temporary evacuation of these bases in favour of airfields located further to the West. They also caused the Stuka effort to stop abruptly for two days on 20 and 21 July.

Enemy fighter activity noted in the battle area comprised a total of some 1,500 German and 250 Italian fighter sorties, of which approximately one half were employed on escort duties to help the bombers, and the balance on offensive sweep and troop protection patrols.

The Enemy Commander-in-Chief's
Situation Report dated 21 July 1942

High level
Reports and
Directives
dealing with the
North African
Campaign 1942
A.H.B.6 Transl.
No. VII/80

After what Rommel termed 'the continuous eight-week campaign against the best troops of the British Empire' he composed a lengthy despatch to the O.K.W. Operations Staff with the title, 'Estimate of the Situation and of the Condition of Panzer Army, Africa, on 21 July 1942'. It is a most interesting document historically as it is virtually an apologia to the German High Command for the fact that, instead of completing the invasion of Egypt and the destruction of the Eighth Army, his forces were still on the defensive when a mere 70 miles from Alexandria.

The enemy Commander-in-Chief's main preoccupation was with the condition of his troops and the fact that 'the enemy has been increasingly reinforced while our forces could not be strengthened appreciably'. Mainly owing to the fighting since 10 July in the course of which casualties inflicted by the Eighth Army on Italian Units amounted to approximately four divisions, the Italians, in Rommel's opinion, no longer existed, apart from their artillery, as a fighting force. What is more, his German Units had been reduced to a 30 per cent strength in men and a remarkably low figure of 15 per cent in tanks. The mobility of the divisions had been severely reduced owing to their heavy vehicle losses and the increased employment of vehicles for supply purposes. What Rommel described as 'the tense situation' had been eased by mixing German and Italian Units, but to his mind the danger still existed of an enemy break-through on a broad front in those sectors held by the Italians.

Rommel alluded, to the advantages which had accrued to the Eighth Army owing to their proximity to their bases and the great ammunition dumps 'from which can be drawn unlimited quantities of supplies'. That this positional advantage in supplies was purely of his own contriving is ignored. In his estimation it seemed unlikely that, with the forces available, the Eighth Army would undertake a large-scale offensive with far reaching objectives, but would continue the 'recent tactics of attacking with limited objectives to break up isolated frontal sectors especially those held by the Italians'.

'The enemy air force is numerically far superior to our own', he wrote, 'it has, by continued day and night operations, caused considerable losses among our troops, lowered the morale of Italian troops, delayed and, at times, cut off supply'. He foresaw other developments which amounted to a shrewd prophecy for the future employment of the Royal Air Force in the Middle East. 'The activity of the powerful enemy air force will extend not only to attacking supply installations of the Army, shipping vital for supply and the ground organisation of our air force, but in addition troops at the front will be attacked in undiminishing strength by night and day. The enemy,' he continued 'benefits by having well-built airfields which are situated directly behind the front. The bulk of all enemy air forces in Egypt have been united. It is, therefore, necessary to reinforce our air force extensively to protect the troops and their supplies and, above all, to enable us to make effective attacks on large enemy convoys in the Suez Canal as well as on railway traffic to the front'.

The enormous total of 50 per cent of Axis vehicle losses had been made good, so he asserted, from captured material. Against this was balanced the heavy daily losses from the continual air attacks amounting to an average of 30 vehicles a day, and also a lack of spare parts for the captured vehicles. The supply situation was tense owing to the air and naval attacks, and the formation of supply bases in the areas of operations had not met with success owing to the heavy shipping losses, the two ships Brook and Sturla being specifically mentioned. (1)

Ammunition supplies which had been perilously low during the first week of July had improved considerably, while weapons had been replaced between 50 - 60 per cent by fresh allocations and the use of captured supplies. There were 45 tanks with the troops and in four weeks another 100 would be ready for action. Fuel supplies were adequate during the lull in operations but the enemy Commander-in-Chief stressed the fact that they would be insufficient to ensure extensive operations. In a list of requests contained in this report he asked for an improvement in the allocation of shipping space compared with the Italian Armed Force which, he added tartly, was necessary as the brunt of the fighting was borne by German Units, and for an improvement in the standard of replacements as 'some of the men had only received training with the rifle'. Finally, his operational plan was, he stated, to be a defensive one and continuing to be based on the Alamein-Qattara position, until the strength of his forces had been built up sufficiently for him to 'continue operations in the direction of Alexandria or Cairo'. Rommel had hopes that the political situation might necessitate a withdrawal of British Forces from Egypt. This was, no doubt, an allusion to the possibility of the summer offensive in Russia causing a diversion of British Forces. 'If this contingency does not arise', he concluded, 'the British Army in the field must be destroyed by a series of attacks, if occasion arises, before the break through to Alexandria

(1) Both these German ships, the Brook and Sturla, were sunk by aircraft. An account of the operations is contained in the following chapter 'The Strategic Air Offensive Against Rommel's Lines of Communication - July and August 1942'.

and Cairo.' The destruction of the Eighth Army on the field of battle would be a consummation of all Rommel's hopes and in which, in spite of his many successes, he had always failed.

The Action in the Central Sector (Ruweisat Ridge) and in the North (Tell el Eisa) - 21 to 28 July 1942.

C.-in-C.'s
Despatch.

Hist. (B)
(Crusader)
4 (Final) Prime
Minister to
General Corbett
(OZ.711 12/7)

After the series of attacks directed mainly against the Italians and in the course of which they had suffered the loss of approximately four divisions. General Auchinleck thought the time had come, now that the Germans had extended their line and dispersed their reserves, to hit back at the centre. He hoped thereby to cut the enemy's forces in half, sever their communications and perhaps roll up the northern part of their line. In this decision he was, no doubt, influenced not only by secret intelligence on the difficulties with which Rommel was faced, but also by a strongly-worded signal from the Prime Minister who was obviously extremely impatient to see the armoured reinforcements which had lately arrived in Egypt in active employment at the front. (1)

C.-in-C. Middle
East to the War
Office
(OS./1398 17/7)

Seen in their correct perspective - not relative to what the strength of the German Forces had been but compared with what the strength of the Eighth Army was at the time the weakness of the Axis Panzer Army was not nearly as serious as was supposed. In addition, as General Auchinleck himself informed the Prime Minister on 17 July, the 8th Armoured Division, which included the 23rd Armoured Brigade, lacked training in desert conditions and, being armed with Valentine tanks, with their two-pounder guns, was 'unsuitable for independent action in very open country against German armour'. Nevertheless, an offensive with far-reaching objectives, was launched on 21 July in the course of which these inexperienced armoured reinforcements with their Valentine tanks carrying only the two-pounder gun were pitted against elements of the 21st Panzer Division, perhaps the most seasoned Panzer division in the whole of the German Army at that date, and thereby sustained heavy casualties.

Hist. (B)
(Crusader)
4 (Final)
CST/86

The offensive started off promisingly. It was launched on the evening of 21 July in the central sector with the 161st Indian Infantry Brigade and the 5th and 6th New Zealand Infantry Brigades advancing westwards along the Ruweisat Ridge in the direction of the Eighth Army's former defensive position at Deir el Shein. (2) At the same time, supporting and diversionary attacks were made on either flank. The attack was preceded by heavy and sustained aerial bombardment, in the course of which 22 Wellingtons

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- (1) '..... I wish to know what use it is proposed to make of the 8th Armoured Division with 350 tanks mostly Valentines which type has done so well against the Germans on the Russian front. Here is a regular trained British armoured division of 15,000 men comprising 2 armoured brigades complete in every detail. When is it going to the front?.....'
 - (2) 'During the night of 21/22 July, a new enemy attack inflicted further heavy losses. The Panzer Army described the situation as extremely critical. There was a danger, it was stated, of the entire front giving way under further heavy enemy pressure. On the same day, a report from the Panzer Army clearly revealed the effects of the non-stop fighting and heavy casualties. As a measure of defence against the intense activity of the Royal Air Force, which was operating with equal effect against both the ground troops and the rearward lines of communication, the Panzer Army asked for strong reinforcement of its own air forces in Egypt. But Luftflotte 2 was already operating to the limit of its strength in support of the ground fighting, and even beyond the limit of what was good for the Mediterranean war in general.' Weichold.

and 21 Albacores attacked enemy concentrations in this vital sector. In the Afrika Korps War Diary a note was made on the night of 21 July that 'continuous heavy bombing attacks are being carried out. Enemy air activity tonight exceeds anything hitherto experienced. Telephone communications are frequently broken and there is no contact with the divisions. In fact, it was not until the early hours of 22 July that contact between the divisions and the Afrika Korps H.Q. could be re-established, and owing to the confused situation, the 21st Panzer Division counter attack had to be withheld until dawn. (1)

The fighting on land, it will be noted, had already begun to conform to the pattern imposed in a struggle to restore a war of movement from a battle of fixed positions. This was the problem Rommel was to face at Alam el Halfa, at the end of August, and Generals Alexander and Montgomery at El Alamein, in which, instead of using tanks to open a way for infantry, the reverse procedure became necessary and infantry had to be employed to open a way through the minefields for tanks.

The attack on the night of 21/22 July, preceded by this heavy air bombardment, was carried out under an artillery barrage. The initial advance in the centre went well, the infantry gaining most of their objectives by dawn, when the New Zealanders then proceeded to open up gaps in the enemy minefields for the passage of the tanks. An enemy counter-attack (the one contemplated the previous night by the 21st Panzer Division but postponed owing to the heavy night raids) overran the 6th New Zealand Infantry Brigade at a time when they were on the move, capturing many prisoners. An additional misfortune was that a battalion of the 161st Indian Infantry Brigade, which had entered Deir el Shein was counter attacked and practically destroyed. The 23rd Armoured Brigade recently arrived in Egypt and equipped with Valentines then passed through the gaps in the minefields. Later on this armoured thrust lost momentum and cohesion. Panzer Regiment 5 counter attacked and, with their superior armament, were able to pick off the Valentines at a safe range from the two-pounders. By the evening of 22 July, the enemy claimed the destruction of 104 tanks. (2) The 23rd Armoured Brigade themselves reported some 70 Valentine casualties. In the north the 9th Australian and 1st South African Divisions' attack against Tell el Eisa and Tell el Makh Khad and, in the south, an attack launched by the 69th Infantry Brigade against the Taqa Plateau were at

C.-in-C. to War
Office 26659

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- (1) The night of 21/22 July a further 30 Wellingtons and 8 Halifax aircraft took part in what, owing to ten-tenths cloud, proved to be abortive mining and bombing operations against Tobruk. Had these aircraft been available for a concentrated attack in the battle area, an even greater measure of disorganisation might have resulted.
- (2) 'But our losses were also not negligible, especially in view of our low man-power. Something more than three weak infantry battalions had been lost and, although the armour had come through without any serious casualties, we were still very worried and regarded the prospect of further British attacks with considerable disquiet. But the British apparently thought better of it and were probably suffering equal exhaustion.' 'The Rommel Papers'.

first successful and then failed in the face of strong enemy counter attacks.

Air Action in Support of the Eighth Army Offensive
22 and 23 July 1942

Air Support
Control War
Diary

A carefully pre-arranged air programme for the Eighth Army's offensive on 22 July was worked out between Eighth Army Tac. H.Q. and the W.D.A.F. After the intensive and most successful night-bombing attacks by Wellingtons and Albacores on the preceding night and which was concentrated mainly in the central sector, it was planned for full air support to be given from first light the next day by fighter aircraft of No. 211 Group and the light bombers of No. 3 S.A.A.F. Wing. All targets were to be engaged as close in as was compatible with safety. The importance of Army formations sending in frequent location statements, especially if the attack went through successfully and a fast-moving battle ensued, was stressed. Army formations were also reminded that, without such information, it would be difficult for the Royal Air Force to keep an accurate and up to date bomb-line, with the consequent danger of troops being attacked by friendly aircraft.

A.A.H.Q. W.D.
Int. Sum.
No. 170 and
IIM/C.3/1 No. 3
Wing S.A.A.F.
O.R.B.

This Army/Air Plan, which had begun so promisingly with the overnight bombing in the battle area, was partly dislocated in the morning - particularly for the light bombers - by widespread cloud over the landing grounds and the battle area which delayed the commencement of really intensive operations until about 10.30 hours. Another reduction in the intensity of the day's bombing programme occurred soon after midday when intelligence was obtained that the enemy would most probably carry out strong air attacks on the Amiriya Landing Ground. This meant that the fighters of No. 233 Wing, normally available for bombing escort duties, were withdrawn for local aerodrome defence for a time.

Air Support
Control War
Diary

The light bombers found target conditions much more to their liking on 22 July than had been the case for some time past. Six escorted raids, involving a total of 86 bombers of Nos. 12 and 24 S.A.A.F. and 55 and 223 Squadrons, were carried out against enemy concentrations where they were counter-attacking the South Africans to the south west of Tell el Eisa and in the course of which some 19 direct hits on M.T. and armoured cars were claimed. During the day, fighter bombers carried out 127 sorties but, for the most part, mist and dust made observation of results difficult. A number of successful attacks were carried out in the southern sector on enemy gun emplacements and tanks which were impeding the Eighth Army advance and with what the Army asserted were satisfactory results. In the course of these raids, intense light and heavy anti-aircraft gun fire was encountered. Altogether enemy opposition to these air attacks was strenuous and five fighter bombers and four fighters were lost. Air Support Control complained that no clear policy for employing the full weight of bombing attack in one place was available and that, as often as not, air support was withdrawn from one sector to another before any considerable effects could be achieved.

No. 70 Squadron
O.R.B.

During the night 22/23 July a total of 24 Wellingtons of Nos. 37 and 70 Squadrons and 16 Albacores of Nos. 821 and 826 Squadrons attacked dispersed enemy M.T. in the battle area, mainly in the Ruweisat Ridge sector. The

target area was illuminated by Albacores, but the enemy M.T. was well dispersed. In spite of this, all aircraft were reported to have found targets to bomb. No particularly outstanding results were claimed, but direct hits were scored on three petrol bowzers and several fires were started.

In the course of the night 22/23 July, the following entries were made in the Afrika Korps War Diary:-

'Enemy air activity continues through the night. Continuous night attacks are being carried out again, some with phosphorous bombs. G.H.Q. itself is attacked but only superficial damage is caused to vehicles.....'

Afrika Korps
War Diary
A.H.B.6 Transl.
No. VII/87

'In the morning fragments of German bombs were found at G.H.Q. and in the 15th Panzer Division Sector. On investigation it appeared that German night bombers were in action and attacking their own troops.'

'As British aircraft fly very low, ground defences will also operate at night.'

Reduced Air Activity 23/26 July 1942

In the course of 23 July the Eighth Army offensive gradually petered out, and from 23-26 July close-support air operations were on a progressively reduced scale. Fighter sorties, which were 361 on 23 July, dropped to 291 on 24 July, to 205 on 25 July and to the extremely low total of 54 on 26 July. Besides the slackening in tempo of the land battle, the low serviceability in the fighter squadrons and a spell of extremely bad weather also helped to bring about this decline in air activity.

H.Q.M.E. Table
of Operations
A.H.B./IIJ1/
31/1

Heavy Raids Renewed Against Enemy Landing-Grounds in the Daba Area (23 and 24 July 1942)

Whilst the lull in the land fighting continued, with the Eighth Army confining themselves mainly to patrols and the enemy enlarging their minefields and generally improving their defences, the opportunity was taken by the Western Desert Air Force to make good some of the inroads on aircraft serviceability caused by the gruelling activity of the past eight weeks. It was also possible to divert attention from the battlefield to the advanced enemy landing-grounds at Daba.

After the attack on Landing Ground 21 on 19 July, in which 100 W.D.A.F. aircraft had been involved, the bulk of the enemy Stuka force had been moved back to bases in the Fuka area. There had also been a sharp drop in enemy air activity. By 22 July, however, when the Eighth Army renewed their offensive, the enemy were able to put up a number of Stuka attacks and an increase in the activity of their fighter aircraft was noted. Reconnaissance showed that, although Landing Ground 21, at Qotafiya, had become more or less deserted, the numbers had increased at Landing Grounds 20 and 104 due west from Daba, a few miles along the coast road. It was, therefore, decided to launch further air attacks in an attempt to make the Daba landing grounds untenable by the enemy. Between 21.40 hours and 02.00 hours on the night of 23/24 July, a series of raids was directed against these two landing grounds. Bostons of Nos. 24 S.A.A.F., Wellingtons of Nos. 40 and 162 Squadrons

A.A.H.Q. W.D.
Daily Int. Sum.

and Albacores of Nos. 821 and 826 Squadrons - making a total of some 40 light and medium bombers - took part. In the course of these raids a total of over 500 bombs was dropped and numerous fires on and around the landing-grounds were reported. An Albacore and a Boston were lost on these raids, both comparatively rare occurrences. As part of a set programme to put these advanced enemy landing grounds temporarily out of action, a return to the same targets was made at ten o'clock the next morning, 24 July, when a heavy raid involving a total of some 100 light and fighter bombers was carried out. According to claims registered at the time, three enemy aircraft were shot down over the target before bombing started and at least five aircraft were set on fire. A Kittyhawk and a Boston aircraft were missing from the raid and two Tomahawks escorting the bombers were shot down. (1)

Operation 'Manhood' 26 July 1942

XIII Corps
Operation
Order No. 143

On the night of 26 July, the Eighth Army Operation, 'Manhood', was put into effect. It was to be General Auchinleck's last offensive in the Western Desert. The enemy, who had their main strength concentrated in the northern and central sectors, were known to have suffered considerable casualties and losses to equipment in the recent fighting. The Tell el Eisa salient in the north had given the Eighth Army a certain positional advantage which the Commander-in-Chief decided to exploit. The plan was for XXX Corps, which had been strengthened by the addition of the 69th Infantry Brigade - withdrawn from the south to attack the enemy positions to the south of Tell el Eisa and then, if successful, pass the armoured force through the gap to attack the enemy in the rear and roll up his positions from the north. Again the problem was to restore a war of movement from a battle of well-fortified positions. In order to carry this out it was essential for infantry to attack first with the object of opening up lanes in the enemy minefields through which the armour could pass.

No. 205 Group
O.R.B.

No. 40 Squadron
O.R.B.

After a day of violent dust storms on 26 July, which brought air activity almost to a standstill, the weather improved in the evening permitting 26 Wellingtons of Nos. 40, 104, 162 and 148 Squadrons together with 5 Albacores of No. 81 Squadron and 8 of No. 826 Squadron to operate against enemy concentrations in the northern and central sectors. The wind velocity was still high thus tending to make the flares less effective than usual. The enemy had also made excellent use of the natural cover provided by the broken terrain, hiding their tanks and motor transport in wadis. This minimised the effect of the night raids and, for the most part, results appear to have been disappointing.

During the same night, General Ramsden launched his attack. The 9th Australian Division secured their objective, Sanyet el Miteiriya, to the south of Tell el Eisa by dawn 27 July, capturing 100 Germans. The German reaction, however, was soon apparent. After a dive-bombing attack on artillery positions, a counter attack by tanks of the

A.H.B.6 Figures

(1) The enemy give no breakdown for battle casualties. The number of enemy aircraft destroyed on 23 and 24 July numbered 14. It is reasonable to assume that by far the greater proportion of these aircraft were destroyed as a result of the night and day bombing of the Daba landing grounds.

XXX Corps
War Diary

Hist. (B)
(Crusader)
4 (Final).
Tac. 8th Army
Cositrep 108

15th Panzer Division was made on the Miteiriya Ridge and the position was retaken, together with a considerable number of prisoners. Difficulties encountered by the 1st South African Brigade in the lifting of mines delayed the advance of the 2nd Armoured Brigade in support of the 69th Infantry Brigade and also the creation of a strong anti-tank screen on the southern flank which was an essential part of the plan. About noon the enemy counter-attacked strongly from the south and south-west and finally caused such a confused situation by infiltrating behind the forward troops that the Corps Commander decided to discontinue the operation and rally the 69th Infantry Brigade to the east of the minefield.

Air Operations in Support of the Eighth Army Offensive
26 July 1942

On the morning of the offensive, air activity by the Western Desert Air Force was unspectacular. Targets for both the light bombers and the fighter bombers were poor. For once the initiative seems to have passed to the Luftwaffe. A surprise low-flying attack by 6 Me. 109's on Landing Ground 172 to the south of Burg el Arab not only caused the loss of 4 Hurricanes of No. 213 Squadron shot down very shortly after being airborne, but caused dislocation to the bombing programme, as aircraft which were to have been used for escort work to the light bombers were suddenly diverted to the forward protection of the forward landing grounds. (1)

No. 213 Squadron
O.R.B.

Calls for air support by the Army were made in the afternoon in which assistance was given, and according to Eighth Army sources was of great help in the withdrawal of the 69th Infantry Brigade from their advanced positions and in giving protection to the 1st Armoured Division. Between 14.00 hours and 0200 hours five interception patrols comprising 64 fighters and the same number of bombing raids, which involved a further 108 aircraft, were carried out in the Deir el Dhib area slightly to the south-west of Sanyet el Miteiriya. These fighters covered the withdrawing troops from enemy dive-bombing, while the light bombers and fighter bombers heavily bombed concentrations of tanks and troop carriers, thus preventing the enemy from carrying out any large-scale attack. Although air conditions were such that they precluded accurate observation of the results of the bombing, the Eighth Army affirmed that it had been excellent and transmitted their tanks for the help given. In the course of the day the enemy lost ten dive bombers and two damaged which is indicative of the excellent scale of protection afforded the ground troops in their difficulties.

5th Army Air
Support Control
War Diary.

No. 3 Wing
O.R.B.

The Eighth Army on the Defensive

On 30 July General Auchinleck held a conference with his Corps Commanders at which it was 'reluctantly concluded that further efforts to break the enemy front or turn his southern flank were not feasible owing to the Eighth Army's

- (1) This was the first daylight raid on R.A.F. landing grounds since 26 May. Landing Ground 172, recently enlarged, had only been occupied by No. 213 Squadron for two days. As a result of this raid the squadron vacated the airfield, a wise decision as the airfield was again dive-bombed by the enemy.

C.-in-C. M.E.
to the War
Office

lack of resources and the effective way in which the enemy had consolidated their position'. In the opinion of General Auchinleck, any opportunity to resume the offensive was unlikely to arise before mid-September. The policy to be adopted, therefore, was comparable to the one which Field Marshal Rommel had been forced to choose. The Eighth Army was to go over to the defensive for the time being when troops would be rested, re-formed and trained, and during which period the whole area from El Alamein, Burg el Arab and the ground to the south could be consolidated.

These two failures on 24 and 27 July to break through the enemy line must have seemed costly and in a sense futile at the time. It is now known, however, that the enemy forces were being subjected to an almost intolerable strain. Combined with the constant air attacks by night and day these battles (or engagements) of late July had reduced the Italian components of the Axis forces in North Africa to a condition in which Rommel could no longer count on them as a fighting force. After the disastrous retreat from Gazala, it is indeed an astonishing fact that the Eighth Army, protected as it was and helped by the R.A.F., could turn at bay at El Alamein and inflict a series of reverses on the enemy in which (apart from dead and wounded) 47 German officers and 1,118 men and 335 Italian officers and 6,905 men were taken prisoner. (1) That these hopes, which extended throughout the last three weeks of July, that the Eighth Army would be able to turn the tables on the enemy by driving them from Egypt were never fulfilled is not surprising. Perhaps, indeed, it is fortunate that these battles did end in stalemate and not, as might so easily have happened, in the negative kind of victory in which Rommel would have been forced to retreat to other defensive positions to the west and thereby robbing the Eighth Army of their unique advantage in the enemy's extended lines of communication.

High Level
Reports and
Directives
A.H.B. 6
Translation
No. VII/80.

General Auchinleck's Appreciation of the Situation
27 July, 1942

On 27 July 1942 General Auchinleck gave an appreciation of the situation as 'Commander-in-Chief, Middle East Forces commanding the Eighth Army at El Alamein' to the Middle East Defence Committee as at 27 July 1942. It was a brilliant assessment of the situation in North Africa and could even be said to be prophetic, for it forecast the battle of Alam el Halfa, both from the point of view of the location and date of Rommel's attack, and the British dispositions which were later employed in his defeat.

A.H.B./IIJ1/30
Appendix 75
'Appreciation of the
situation in the
Western Desert El
Alamein 14.45 hours
27 July, 1942.

'Broadly speaking', he said, 'though all our forces have been through hard times their morale is high. German morale is probably a little lower and Italian morale not more than 50 per cent. In view of the known inefficiency of the Italian forces an offensive action taken by the Axis forces in August would have to be 80 per cent German.'

- (1) 'Although the British losses in this Alamein fighting had been higher than ours, yet the price to Auchinleck had not been excessive, for the one thing that had mattered to him was to halt our advance, and that, unfortunately, he had done.' 'The Rommel Papers.'

The Eighth Army has some 60 Grant tanks now and will receive another 60 Grant tanks early in August, but there will be no more coming until September. The deduction is that it is necessary to husband our armour carefully in view of the fact that during August the enemy may build up to between 150 and 200 German tanks.

None of the formations in the Eighth Army is now sufficiently well trained for offensive operations. The Army badly needs either reinforcement of well-trained formations, or a quiet period in which to train.

At present we have such air superiority that, while our troops are relatively free from molestation, the enemy is continually attacked by night and day. Our land forces are considerably heartened by this and a large measure of tactical freedom and security accrues from it. Unless the enemy is strongly reinforced and our air forces are correspondingly reduced this superiority will assist our offensive or defensive and gravely impede the enemy. Air superiority is a very considerable, if somewhat undefinable, asset.

Had the enemy available resources, Italy and Germany are far nearer to El Alamein than is anywhere in the United Nations. The enemy should therefore be able to reinforce quicker than we. On the other hand, apart from distant Benghazi, he has only two serviceable sea ports, Tobruk and much less useful Matruh. He may also make use of the railway to a limited extent. He is faced with long road hauls and a sea passage vulnerable to air and submarine attack. This affects the building up of reserves for an offensive. We are nearer our bases and our limitation is the rate that men and material can reach Egypt from overseas. His limitation is the rate at which it can reach his troops when it arrives. This indicates the necessity of blocking Tobruk and Matruh and attacking his road and rail transport and his shipping.

The operations of Eighth Army are linked to the fate of Russia. Should the Axis penetrate the Caucasus, the Eighth Army might be reduced to the lowest margin to provide reinforcements for the new front. Moreover, a considerable Axis success in Russia would release air and land forces and equipment for the reinforcement of the Western Desert.

The enemy must resume the offensive without delay, but he is unlikely to be able to do so before mid-August and even then no real margin of superiority except in A.F.V.'s is apparent. He will certainly try to attack before the end of August and, as Eighth Army defences gain strength and depth, he will be more than ever tempted to avoid them and seek success in manoeuvre. This may well land him into serious difficulties in the soft desert.

Alternatively he may have to adopt the strategical defensive because our forces are too strong and too well placed for attack. If he does, he may either stand his ground or withdraw to an intermediate position covering Matruh, which will eventually be to our advantage for he will still be in striking distance when we are again

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fit to attack. If he goes back to the Egyptian frontier it is questionable whether he should not be left undisturbed.....

We have to be prepared to fight a modern defensive battle in the area El Alamein - Hamman. The troops detailed for this must be trained and exercised so as to get the maximum value from the ground and the prepared positions.

Eighth Army may have to meet an enemy sortie developing into manoeuvre by a southern flank from his firm front on the general line Bab el Qattara - Taqa Plateau. You must therefore organise and train a strong mobile wing based on 7th Armoured Division comprising a divisional artillery, 7th Motor Brigade, 4th Light Armoured Brigade and possibly extra Crusader Units. This mobile wing must be well trained in harassing defensive technique.

Eventually we will have to re-new the offensive and this will probably mean a break through the enemy positions about El Alamein. The newly arrived Infantry Divisions and the Armoured Divisions must be trained for this and for pursuit.

Summary

The enemy now holds in sufficient strength for his purpose a front from which he cannot be dislodged by manoeuvre or any attack the Eighth Army can at present deliver. We are strongly posted for a defensive battle. The enemy is attempting to build up his strength and re-new his attack on Egypt. The Eighth Army requires re-equipment and training before it will be fit for offensive operations. During August it is unlikely that either ourselves or the enemy will be strongly reinforced on land; a successful offensive by either side is therefore unlikely. Provided the land and air situation does not change, Eighth Army can be reinforced about mid-September by two Armoured Divisions and two Infantry Divisions. This may give us a superiority sufficient to justify a direct attack on what may be, by then, a strongly organised front. Alternatively we may develop a threat to the enemy's rear via Siwa. The immediate need is to re-organise present forces with Eighth Army and to arrange a front so as to provide an Army reserve. The longer term policy is train the newly arrived divisions for the counter offensive which it is hoped might begin in the latter part of September.

The Position on Land, August 1942

From the end of July - virtually when General Auchinleck launched his last offensive on 26 July - until 31 August, when Rommel made his last throw in Egypt, contact between the opposing ground forces was confined to patrolling and exchanges of artillery fire. Both sides were preoccupied with measures for extending their positions and in preparing for further operations. The 44th Division, which had just arrived from the United Kingdom, was training in desert warfare outside Cairo, but could not be ready before the end of August. The 8th Armoured Division, which had suffered severe losses, mainly from inexperience, in the fighting around the Ruweisat Ridge on 22 July, was

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being rearmed with American medium tanks. The 10th Armoured Division was still training and equipping and was unlikely to be ready for action before mid-September.

During July, in addition to the strenuous fighting, General Auchinleck had devoted all available resources to constructing defences in order to give depth to the El Alamein position. The three ridges in the northern sector (the one nearest the coast, the Ruweisat Ridge and the Alam El Halfa Ridge) were developed as the basic structure to the Eighth Army's defensive zone. On these ridges, within artillery range of each other, had been built a series of strong points designed to deny the essential observation points to the enemy and to take garrisons of two battalions and a regiment of 25-pounder guns. These defences were in being when General Montgomery assumed command of the Eighth Army in mid-August, and formed the key-stone of the battle which was first of all known as the Battle of Alamein and later was renamed the Battle of Alam El Halfa. Extensive minefields were also laid in the south, from which direction General Auchinleck anticipated that the German-Italian drive would commence and which, as it will be seen, helped very materially in putting Rommel's time table for the battle out of gear.

Change of Army Commanders, Mid-August 1942

On 8 August 1942 General Sir Harold Alexander, who had arrived in Cairo by air the same day, was given a private interview with the Prime Minister and General Brooke, Chief of the Imperial General Staff, who had stopped at Cairo on their return from Moscow. General Alexander was notified that he was to succeed General Sir Claud Auchinleck as Commander-in-Chief, Middle East Forces. At a subsequent interview on 10 August, General Alexander was given a directive by the Prime Minister.

1. Your prime and main duty will be to take or destroy at the earliest opportunity the German-Italian Army commanded by Field Marshal Rommel together with all its supplies and establishments in Egypt and Libya.

2. You will discharge or cause to be discharged such other duties as pertain to your command without prejudice to the task described in para. 1 which must be considered paramount in His Majesty's interests.

As Commander-in-Chief, General Alexander was relieved of his responsibility for defending the northern frontier of the Middle East block against the threat from the German armies in the Caucasus by the creation of a separate command to be known as the Persia and Iraq Force.

General Gott, previous General Officer Commanding XIII Corps, who had been in every battle in the desert, was appointed to succeed General Auchinleck as G.O.C. Eighth Army. Unhappily, the aircraft in which he was travelling from Burg el Arab to Cairo was shot down on the eve of his

appointment and General Gott was killed. (1) General Gott was replaced by General Sir B. L. Montgomery who arrived in Egypt on the 12 August. The two new appointments were promulgated on 15 August 1942 at a time, as General Alexander generously pointed out, 'when the balance of power had at last swung favourably to our side'. No comparable changes took place in the R.A.F. commands.

Air Operations in the Western Desert, August 1942.

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The lull in ground operations throughout August, and which lasted until Rommel launched his attack on the night of 30/31 August, was reflected in a slackening of R.A.F. activity over the battle area. Fighter sorties in Egypt and the Western Desert which had risen to the massive total of 12,000 sorties during July showed a sharp decline to some 6,000 in August. Nevertheless, bearing in mind the fact that land operations were static during August and that the whole fighter force was badly in need of a period of rest and refitting after the intense operational activity which had lasted since May 26, a daily average of approximately 200 fighter sorties, although half the previous month's total, was still high.

With no operations by the Eighth Army to force concentration on the enemy ground forces, the targets for the light bombers tended to be thin. The static conditions in the land fighting also enabled the enemy to provide an increasingly high level of anti-aircraft protection, as attacking aircraft could have the gunners' individual attention. Both tanks and the formidable 88-m.m. guns helped to make the volume of A.A. gunfire extremely lethal. If this restricted the employment of the light bombers in daylight over the battle area, fighter bombers became increasingly active and, apart from interference from the weather, no day passed without enemy M.T. concentrations were sought out and attacked. Careful planning and co-ordination of these raids, which often involved as many as 100 aircraft, is noticeable - a contrast to the piecemeal methods which were employed all too often during the hurly burly of the days of crisis in the Western Desert. There is, indeed, almost leisurely precision to be detected in these raids which, although of no very great consequence individually, proved invaluable tactical exercises whose worth was to be amply demonstrated at Alam el Halfa. In fact it may be said that, once the period of crisis at Alamein had been successfully surmounted, Rommel provided

- (1) General Gott was a passenger in the daily routine Bombay aircraft which left Burg el Arab at approximately 16.50 hours on 7 August 1942. He had not asked for a special aeroplane and A.H.Q. Western Desert did not know he was travelling. The aircraft had a full load of 14 passengers and 6 crew. The majority of the passengers were sitting wounded. The aircraft was returning to Khanka via Wadi Natrun, flying at 500 ft. when it was attacked by two Me. 109's. The first burst hit the aircraft but the pilot was able to make a landing. However, the aircraft was again attacked, burst into flames and exploded. Three members of the crew and a nursing orderly were thrown out of the nose of the aircraft and only one passenger was able to escape from the rear compartment, all of the remainder, including two of the crew, being burnt.

H.Q. R.A.F.
Middle East
Air Ministry
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the opposing air force with an invaluable opportunity for practising new techniques, particularly of Army co-operation, and, because of the weakness of the enemy air force, at comparatively slight cost to themselves.

Among the multiplicity of targets in the battle area during August, a number of the attacks were directed specifically against tented camps including enemy headquarters. The bombing and low-level machine gunning of these enemy headquarters were quite a feature of the air activity during this period. There is no evidence available, however, from enemy sources that these daylight attacks met with any notable success. Night bombing appears quite unexpectedly to have been far more successful from this point of view, but only when the main battle had been engaged at the end of the month.

On 2 August an interesting operation took place against an isolated enemy reconce unit which had been detected by an aerial reconnaissance at Ras el Qattara (76231) on the edge of the depression, about 70 miles due south of Mersa Matruh. The reconce unit, which comprised between 30 and 40 vehicles including tanks and armoured cars, was attacked first by aircraft of No. 450 R.A.A.F. Squadron and then No. 250 Squadron. Owing to the long distance involved, aircraft refuelled at the Advanced Landing Ground No. 172 in the Burg el Arab area. After bombing, the target was machine-gunned with very good results, twenty-two of the unit's M.T. being destroyed or damaged and a petrol dump fired. On 4 August, another outstandingly successful operation took place when, following the receipt of a Tac/R report, a force of between one and two thousand enemy M.T. concentrating in the southern sector was attacked by light bombers and fighter bombers, over a period of five hours, until the concentration was forced to disperse.

Reduction in Strength of Light Bombers on Forward Landing Grounds

During this static phase, whilst only limited targets were available in the battle area and owing to the possibility of enemy air attacks on advanced landing-grounds, it was considered advisable to reduce the strength of Bostons and Baltimores on forward landing-grounds to 12 and 6 aircraft respectively. The remaining aircraft of No. 3 S.A.A.F. Wing, were held at base airfields to undertake training. These aircraft were, nevertheless, available to be moved to more advanced landing-grounds as required. Owing to this paucity of targets in the battle area, the light bombers, in between attacks on specific Army targets, were employed on night-bombing operations. For the most part these raids were primarily strategic in scope and directed against the enemy's lines of communication. The Baltimore aircraft were not employed on these night operations as the curved windscreen caused distortion and affected night landings.

Day and Night attacks Against Enemy Landing-Grounds

The whole policy throughout the month of August for the employment of the air force was influenced by the knowledge that Rommel would be forced - some time within the month and governed mainly by the full moon period beginning about the 25th. - to launch an offensive. Apart from the strategic offensive against the enemy's supply lines, which is dealt with separately, policy dictated that the enemy air

No. 450
R.A.A.F. and
250 Squadron
O.R.B's.

A.A.H.Q., Inst.
No. A.180

No. 3 S.A.A.F.
Wing App.
No. B.11

Record of
Operations
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force should be progressively weakened by raids on his landing-grounds. As far as possible the policy of 'round-the-clock' bombing was pursued, attacks by medium bombers during the hours of darkness being supplemented the next morning by combined light-bomber and fighter-bomber attacks. One of the most successful of these sustained attacks against the enemy's forward landing grounds during August began on the night of 8/9th when a raid against the landing ground at Qotafiya (L.G.s 20 and 104) was made by a combined force of 23 Wellingtons and 7 Albacores. These night raids were followed up by early morning attacks by Bostons, Baltimores and Kittybombers which, together with escorts, numbered approximately 80 aircraft. Specific claims of aircraft destroyed and damaged amounted to two. However, as far as can be established from enemy records, the total of German aircraft actually destroyed or damaged was 10. A raid by a mixed force of 24 Boston and Baltimore aircraft on Fuka South Landing Ground on 14 August gave photographic confirmation of at least five direct hits on aircraft. This was an Italian-occupied landing ground and from the enemy sources available it is not possible to establish detailed figures.

A.H.B.6 Figures
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At the beginning of the moon period, when it was anticipated that the enemy would be launching an offensive, raids against the enemy's forward landing-grounds were intensified. They were directed mainly against the advanced landing-grounds in the Qotafiya - Daba area where the enemy's main force of German fighters and dive bombers was located. The policy behind this series of attacks was to put the enemy air offensive out of step in as much as the German Panzers, in an offensive, relied so much on the dive-bombing technique to help them through the hard outer crust of defences. Although the Luftwaffe losses do not rise appreciably after the attacks of 8/9 and 9 August until 31 August, when the Battle of Alam el Halfa was in progress, there is no doubt that these systematic day and night attacks on the enemy landing grounds, in the days preceding the battle, caused serious disorganisation to the Luftwaffe which had been doing its best to build up strength in readiness for the offensive. The combination of wide dispersal and blast-proof shelters helped to save the Luftwaffe what might otherwise have been crippling losses from these attacks on their forward airfields.

Night Bombing in the Battle Area

'With the waxing of the moon, the night activity of the enemy became more lively', says an entry in the German Afrika Korps War Diary for 22 August, '(full moon on 26 August)..... night bombing raids again for the first time. 100 bombs dropped on 15 Panzer Division and the Qattara positions'. Again on 23 August, 'During the night continuous bombing raids made from 22.00 hours to 01.00 hours on 15 Panzer Division area, Brigade Ramcke and Corps Battle Headquarters (about 450 bombs dropped)!'.

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Translation
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Thus began again the system of night-and-day bombing in the battle area which had proved so effective during the period of stabilisation at El Alamein. Between the night of 19/20 August until 29/30 August, 278 medium-bomber attacks were made on enemy M.T. concentrations, tanks, tents and trenches, in the course of which some 400 tons of bombs were dropped. Although this was but a fraction

No. 205 Group
O.R.B.

of the effort expended against Tobruk⁽¹⁾ it had a most important bearing on the battle, for these night attacks by medium bombers over the battle area may be regarded again as in the nature of a rehearsal under active service conditions for the climax at Alam el Halfa when the medium bombers, making double sorties and concentrating almost the whole weight of their attack on the battlefield, caused such heavy losses to the enemy armour and motor transport.

Enemy Air Activity, Month of August 1942

Until Rommel launched his offensive at the end of August, the enemy were mainly preoccupied with building up aircraft serviceability for the battle, providing escort for Axis supplies, both by sea and air, and preventing attempts to pass the August convoy through to Malta. Practically no bombing of strategic targets in the Delta took place, so that the Eighth Army, throughout the month, was able to build up its strength and reorganise under its new Commander almost entirely free from molestation. The eastbound Malta convoy was repeatedly attacked by German and Italian bombers, dive bombers and torpedo carrying aircraft.⁽²⁾ In the course of these attacks the Luftwaffe alone lost a total of some 14 aircraft destroyed and 5 damaged, while the Italians lost 26. Enemy intelligence on the convoy was excellent, dating as it did from the time the convoy first assembled off Scotland, and practically the whole of the available long-range bomber force in the Mediterranean was concentrated in Sicily in anticipation of the convoy, the majority being moved from Crete and then back again after the conclusion of the operation.

German Air Force preparations for the battle at the end of the month were extensive, they involved, in addition to the building up of serviceability, the bringing in of fighter reinforcements from Russia. From this it is apparent that the enemy were beginning to appreciate the growing significance of the North African Front as the German offensive in south Russia which was progressing so well was of pre-eminent importance in the enemy's strategic plan. Apart from the extensive escort work forced on the enemy, owing to the increasing threat to their lines of communication and the burst of activity towards the middle of the month against the Malta Convoy, the enemy's air policy was to build up and conserve strength throughout August, so that by the time the battle was engaged - and for the rival air forces their air offensive preceded the land battle by more than a week - the Axis powers had concentrated in North Africa, Crete and Greece and, partly at the expense of the Russian front, the strongest force they had ever possessed in the Mediterranean theatre.

Axis Air
Operations
N. Africa and
Mediterranean
D.D.I.3. A.H.B./
IIJ1/63

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- (1) Over 1,600 Wellington sorties were flown against Tobruk in August 1942.
(2) An account of Operation 'Pedestal' is given in the next chapter.

CHAPTER 5

THE STRATEGIC AIR OFFENSIVE AGAINST

ROMMEL'S LINES OF COMMUNICATION (JULY AND AUGUST 1942)

One of the most potent factors in bringing the enemy to a halt at El Alamein had been the disorganisation fatigue and shortage of supplies consequent on the R.A.F. policy of day-and-night bombing. Since the enemy Commander-in-Chief decided to halt offensive operations and go over to the defensive, on 4 July, it was obvious that his gambling on a quick dash to Suez had been lost. Thereafter he was faced with a dilemma, either to retreat back to the Egyptian frontier and await the outcome of Operation Hercules against Malta, or else to stand on the Alamein line. That Rommel chose the second alternative is sufficient indication that, however high his merits, as a tactician, he lacked vision. A decision to hold the line so far to the east, with such lengthy and insecure lines of communication, was a major blunder of generalship and one for which he was soon to pay with a major defeat of his Panzer Army on the field of battle.

As early as 22 June, the day after the fall of Tobruk, O.K.W. were notified that a diversion of air forces from Africa to Sicily, in order to increase attacks on Malta, was considered necessary and 'in addition all shipping movement west of Malta will be temporarily suspended and the eastern route more extensively used'. This did not deter Rommel, nevertheless, from making his request the next day that the order limiting his advance to the Egyptian frontier should be suspended. The Duce, on 24 June, stated that, 'Difficulties after the collapse of the Eighth Army lay less in the battle on the ground than in the transport situation at sea' and that, 'Owing to Malta's active revival, supply of the Panzer Army in Africa once more entered a critical stage'. Until Malta could be neutralised again by air, as had happened in the Spring of 1942, it was found necessary to abandon the western supply route to North Africa.

High Level
Reports and
Directives
A.H.B.6 Transl.
VII/80.

General von
Rintelen to
Army General
Staff 26 June.

On 26 June, a conference took place between General Cavallero and Field Marshal Rommel in which Field Marshal Kesselring, among others, participated. Rommel's plans for the advance on Suez were propounded. Withdrawal seems to have been out of the question, as, by that time, the Axis Commanders were already too deeply committed to the Egyptian adventure.

'The situation of the British Eighth Army demands that successes gained so far be exploited as far as possible. In spite of this,' the despatch adds, 'it must be taken into consideration that the supply problem offers difficulties. The air base of Malta has resumed offensive operations. The Tripoli route must be temporarily abandoned and the route to harbours in Cyrenaica is also endangered. It is planned to neutralise Malta again, employing formations to be transferred from Africa. This, however, requires time during which a critical period cannot be avoided. In the meantime everything possible will be done to:-

- (a) Send some convoys to Benghazi and, if possible, some vessels to Tobruk (special consideration will be given to materials in short supply);

- (b) Increase air transport;
- (c) Use U-Boats for supply, especially for the transportation of fuel.

In this situation supplies already in Africa must be relied upon. A swift advance must be made in order to allow the enemy no time to regroup but close co-operation between air and ground forces must be assured. It must be taken into consideration that the enemy is retreating to his bases and the focal point of his air forces'.

By the time, however, the necessary administrative and other arrangements had been made for the renewed attack on Malta, which began at the commencement of July and continued until the middle of the month, the Panzer Army had been brought to a halt at Alamein. (1)

On 11 July, the British Chief of the Air Staff signalled to the Air Officer Commanding-in-Chief, Middle East, impressing on him,

'The vital importance of denying to the enemy the ports of Benghazi and Tobruk. Since it is more difficult to stop enemy convoys crossing the Mediterranean than it was nine months ago, we must make a more determined effort to close the terminal points in North Africa. This calls for sustained and heavy bombing of these targets - possibly by day as well as night - on the greatest scale of which your forces are capable. You are the best judge of what losses you can accept to achieve this end. We fully recognise the importance of the targets close behind the enemy's battle front, but you must make fullest use of your resources in long range and medium bombers to destroy the facilities at Benghazi and Tobruk'.

No reminder of the importance of strategic bombing was needed by the Air Officer Commanding-in-Chief and it is understandable if there could be detected a touch of asperity in his reply,

'Enemy supplies are my main pre-occupation and am taking every possible step to interrupt both at sea and in port. You will have noted that during and since arrival of convoys whole heavy bomber and practically whole of medium bomber effort has been directed against Benghazi and Tobruk. Between 18 and 24 June there were 100 effective Wellington night sorties and 31 Liberator sorties against Benghazi. This timed to coincide with arrival and unloading of ships. Our final crack at Benghazi before it went out of range of Wellingtons was 60 Wellingtons and

(1) As has already been seen, this switch of Luftflotte 2's effort from the field of battle to another attempt to neutralise Malta at a time when the requirements of the enemy ground forces were pre-eminent was an important factor in the enemy's failure to break through at El Alamein. It diverted the enemy's major air effort from the field of battle, robbing the Panzer Army of the close support and protection from the air force upon which they relied for the synchronisation of their attacks

17 Liberator complete sorties in one 24 hours. You will realise that for present Wellingtons and Fortresses cannot now reach Benghazi with effective load. Between 4 and 11 July there have been 44 Liberator day sorties against Benghazi. Between 22nd June and 11 July there have been 268 Wellington, 55 Liberator and 2 Fortress sorties completed against Tobruk. This period includes most critical days of the retreat, when Wellington attacks on columns contributed in no small measure to bringing enemy to standstill.

2. On 10th and 11th the Wellingtons, despite the supreme efforts they have put out during moon period, completed 58 and 76 sorties against Tobruk. For weeks the scale of Wellington effort has been far beyond any sustained by home Wellington squadrons.

3. I do not consider it possible to speak in terms of closing Benghazi with the heavy bomber force I have or am likely to have available. I would have thought that European experience suggests impracticability of closing a port even with forces many times greater than ever can be available in the Middle East. Twice in the past year we have blown up ammunition ships in Benghazi but this has not closed the port.

4. I have directed and will continue to direct maximum heavy and medium bomber forces against enemy supplies of which Benghazi, Tobruk and, to a lesser extent Matruh, are the focal points. I do not consider it wise entirely to neglect night attack on enemy concentrations and columns in battle area since all evidence goes to emphasise value of 24 hour bombing in reducing enemy resistance and will to fight'.

Correspondence
with P.M., S.
of S., C.A.S.
A.O.C. Pt.V
(AOC/26)

Rommel's Growing Realisation of His Supply Difficulties

In his, 'Estimate of the Situation of the Condition of Panzer Army Africa', made on 21 July 1942, Rommel mentioned the air force attacks on the Army's supply installations and shipping vital for supply.

'The supply situation', he said, 'is tense, owing to continual and partially successful attacks by enemy air and naval forces on German supplies at Tobruk and Matruh. A quick relief is hardly possible owing to the distance from supply bases (Benghazi and Tripoli). Formation of the supply bases in the area of operations has not yet met with success owing to shipping losses (Brook and Sturla). Relief depends on the continuous arrival and unloading of coastal and Italian vessels, on the employment of more barges, on the arrival of locomotives and on using the railway.....'

High Level
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As a general estimate, Field Marshal Rommel considered that the continuous supply to troops in the Alamein position had been ensured.

'Supply in advance for an offensive, however, depends on seaborne supplies to Tobruk and an increased coastal supply to Tobruk.'

The complexity and interdependence of Rommel's supply system is revealed in the statement that, 'Relief depends on the continuous arrival and unloading of coastal and Italian vessels, on the employment of more barges, on the arrival of locomotives and on using the railway'.

Yet this was but one aspect of the enemy Commander-in-Chief's problem, for, as has already been seen owing to his extended lines of communication, reliance had increasingly to be made on airborne sources of supply. The net cast by the strategic force, therefore, had to be flung as far as possible, wide enough and yet be fine enough to take in ships and installations in the enemy ports of embarkation in Europe and arrival in North Africa, the shipping while en route, coastal and rail traffic down to attacks on transport aircraft. It graded down from long distance purely strategic assault on targets by Liberators through attacks on convoys to Beaufighter sorties against individual coastal craft and trains. In all these attacks success could not be assessed merely in terms of the actual target. As a single example, if a cargo was sunk in transit this was by no means the whole loss. One of the Axis Powers' fleet of limited and irreplaceable ships had been lost, possibly with its crew, and echoes would be set up the whole length of a delicately adjusted supply system.

The German Air Transport Fleet in the Mediterranean

Air transport was wisely regarded as a routine and integral part of the supply organisation of the German Air Force. As pressure on the enemy's seaborne supplies increased until both west and east routes to North Africa were considered unsafe, the employment of the German fleet of transport aircraft for the reinforcement and supply of the Army in the field became of increasing importance. In fact, without the use of this very considerable G.A.F. Air Transport Service available to rush supplies of fuel and personnel to the field of battle, the enemy Commander-in-Chief would have been forced to evacuate his advanced position. It is estimated that Rommel's requirements absorbed between one fifth and one quarter of the whole of the available German air transport fleet, besides involving, as happened later, the misuse of bomber aircraft and submarines for transport purposes.

Owing to the difficulties of both road and rail communications through the Balkans, only a very limited transport of personnel and supplies was possible by that route. The main route for supplies to the German forces in North Africa was via Italy. This fact, together with the limitations in range of the Ju.52 aircraft to 500 miles, and the need to avoid refuelling in North Africa, led to the adoption of a system of air lift following the route Italy - Greece - Crete and Cyrenaica. Supplies were brought to Tobruk and thence by feeder lines eastwards. At critical moments the air lift was the enemy's only reliable source of supply for his Army in the field. The German Italian Panzer Army, by holding its advanced position after the failure to break through at Alamein in early July, had placed themselves in the position of a beleaguered garrison, knowing full well that the kind of temporary expedient provided by air transport could not sustain the complex and bulky requirements of a modern mechanised Army, especially in fuel.

Enemy Shipping Losses, Month of July 1942

During July 1942 the enemy lost a total of some 20,000 tons of shipping from the Mediterranean, almost the whole of which was sunk on the main North African convoy routes or at their ports of arrival. Of this total all but 3,000 tons were sunk by air action. Details of

these losses taken from Lloyd's List of Enemy Shipping Sunk or Lost in the Mediterranean are as follows:-

Date	Name	Flag	Position	How Sunk	Remarks
<u>July</u>					
7	<u>Maria Louisa</u>	Italian	Benghazi	By Air Raid 185 tons	
10/11	<u>Max Berendt</u>	German	Tobruk	Do. 766 tons	Subsequently salvaged and used by Allies
11	<u>Brook</u>	German	Mersa Matruh	Do. 1225 tons	Eventually raised and beached
11	<u>Stinibaldo</u>	Italian	Tobruk	Do. 79 tons	
12	<u>Adda</u>	Italian	Off Monte Santo (Sardinia)	By Navy 792 tons	By submarine 4 survivors
12	<u>Sturla</u>	German	Off Mersa Matruh	By Aircraft 1397 tons	
19	<u>Citto di Agrigento</u>	Italian	Mersa Matruh	By Navy 2480 tons	Also attacked by aircraft
20	<u>Ica</u>	Italian	Off Dalmation Coast	Scuttled 253 tons	
Lloyd's List of Enemy Merchant Shipping Losses in Mediterranean from June 1940 to May 1943					
24	<u>Vettor Pisani</u>	Italian	Between Argostoli & Areware Was sunk 3805 N & 2012 E	By Aircraft 6339 tons	
26	<u>Marco Polo</u>	Italian	Tobruk	By Air Raid 28 tons	
27	<u>Maria Gabriella</u>	Italian	"	Do. 266 tons	
28	<u>Paris Merica</u>	Italian	"	Do. 374 tons	
30	<u>Delos</u>	German	"	Do. 2589 tons	English Admiralty List gives 13th

(1)

The sinking of the Max Berendt in Tobruk Harbour took place on the night of 10/11 July as a result of the heaviest raid to which the port had so far been subjected and which involved some 56 Wellington aircraft of Nos. 37, 40, 70, 104, 108, 148 and 12 Squadrons. Aircraft claimed a direct hit on a ship in the harbour and she was later seen to be on fire. This claim, however, was merely registered as a 'probable'.

No. 205 Group
O.R.B.

Allusion to the loss of the Brook and Sturla and the importance to these two ships was made by Rommel in his despatch of 21 July to O.K.W. (1) The Brook, a German

A.M.W.R. Weekly
Statistical
Analysis V.E.11

- (1) The list omits naval losses, small craft such as 'F' Boats, Siebel Ferries, barges and lighters used for coastal work and also any but the most serious damage to ships. It is interesting to note that the R.A.F. claimed only 4,500 tons of shipping as definitely sunk.
- (2) 'Formation of supply bases in the area of operations has not yet met with success owing to shipping losses Brook and Sturla.

No.223 Squadron
O.R.B.

ship of some 1200 tons was sunk in the course of a brilliant unescorted daylight raid by 8 Baltimores of No.223 Squadron which took place on the afternoon of 11 July 1942. The raid, led by Squadron Leader Joel carried out what has been described as magnificent precision bombing from 18,000 ft. They claimed a possible direct hit on a medium-sized ship and three large fires on the jetty. As the fire caused by the bombing obtained a firm hold on the ship it became visible in the air from over 100 miles, and a reconnaissance report showed that the Brook had burnt out and foundered. The Sturla, another German ship of some 1400 tons, was located off Matruh by Swordfish 'Y' of No.815 Squadron on 12 July. After executing a dive bombing attack on the vessel, which succeeded in seriously damaging and disabling the ship, the crew ended by pelting it with Mills bombs. The ship was later sunk by a British destroyer.

Table "E"
H.Q. M.E. Table
of Operations
A.H.B. IILJ/31/1

On the morning of 24 July, six Malta-based Beauforts, escorted by nine Beaufighters of No.239 Squadron, attacked the 6,300 ton Italian ship, the Vettor Pisani, escorted by two destroyers and two 'E' Boats, when she was off Cephalonia. Five torpedoes were released, one of which struck the vessel, which has heavily laden with deck cargo, causing two explosions followed by a fire. The vessel, which was towed towards Argostoli, was later confirmed by photographic reconnaissance as having been completely burnt out.

R.A.F. M.E. Int.
Sum. Vol.VIII
and Malta
O.R.B.

Owing to the confusion about the date on which the 2,500 ton Delos was sunk, it is impossible to be certain about the circumstances of the ship's loss. It seems most likely that the ship was sunk in the course of a night raid on Tobruk by a total of 74 aircraft comprising 68 Wellingtons of Nos.38, 37, 70, 104, 108 and 40 Squadrons and 6 Halifaxes of No.249 Wing (No.10 Squadron Detachment).⁽¹⁾ The Halifax aircraft dropped their 1,000 lb. bombs through haze and were unable to assess the results. A Wellington aircraft of No.40 Squadron claimed a direct hit on a ship close to the south shore from a height of 9,000 ft. which may well have been the 2,500 ton Delos.⁽²⁾

No.205 Group
O.R.B.

A number of enlightening facts emerge from a study of enemy shipping losses for this period. During July 1942, approximately 1200 night bomber sorties were made against the port of Tobruk in the course of which 28 aircraft were lost and some 4,000 tons of enemy shipping sunk. Other sorties against shipping, mainly by daylight and in the open sea, numbered some 230, of which fifteen per cent of the aircraft were lost and a total of some 9,000 tons of shipping were sunk. It would appear, therefore, that as far as the actual shipping destroyed was concerned the results of the intensive night raids directed against Tobruk were disappointing. Day raids against specific

No.10 Squadron
O.R.B.

- (1) This was the first operation carried out by these Halifax aircraft of No.10 Squadron in the Middle East where they had been sent as an 'essay in strategic mobility'.
- (2) The 205 Group Operation Order for this night's bombing programme lists, among the 12 vessels in Tobruk Harbour at this time, one motor vessel of the unusual measurements of between 'four to five thousand feet' in length.

targets gave far higher results but, as was to be expected, for a higher ratio of losses in aircraft.

M.E.W.I.S.
Vol. VIII

That these nightly attacks directed primarily against enemy shipping in Tobruk were not realising hopeful results became apparent from an analysis of photographs made at the end of July 1942. These photographs were merely able to confirm the sinking of 'one coaster, one tug, three schooners, six caiques and one other vessel which appeared to be a small tug'. As has been seen, this assessment was, in point of fact, an underestimate of the enemy shipping destroyed in the course of these nightly raids. It also ignored damage to shore and port installations which included the gutting of a 4,000 ton petrol storage tank on the night of 17 July, which must have been a very serious loss indeed to the enemy. Nevertheless, the sum total of the expenditure of effort against Tobruk did appear to have given most disappointing results and the Air Officer Commanding-in-Chief was constrained to write to the A.O.C. No.205 Group in early August 'I hope that the photographic interpretation people's analysis results at Tobruk did not get too wide a circulation, as I feel they might be quite wrongly discouraging. We know perfectly well that the camera does lie in so far as it does not tell the whole truth. As regards Tobruk, you will of course have seen from other sources that much damage and interference has been done there of which the camera tells nothing.'

A.O.C./207

Rommel to O.K.W.
21 July.
A.H.B.6 Trans.
No. VII/80

Undoubtedly the damage to dumps and port-installations - apart from the disorganisation - caused by the nightly 'milk-run, of No.205 Group aircraft over Tobruk was considerable. Rommel had admitted as much by the third week in July to O.K.W. But results revealed that night-bombing against Tobruk, where anti-aircraft defences, in particular, reached a high density, was in a measure wasteful in effort, aircraft and crews. These nightly attacks against Tobruk achieved largely a negative effect: they deterred the enemy from using the port to anything like its full capacity. Shipping had to be routed further to the west, to Benghazi, thus placing a heavy strain on coastwise shipping and road transport. It also compelled the enemy to extend the hopelessly uneconomic use of air and submarine transport.

H.Q.Middle
East Table of
Operations.

The raids against Benghazi by R.A.F.-manned Liberators of No. 159 Squadron and the U.S.A.A.F. - the port was now out of range of the Wellingtons if they were to carry an economic bomb-load - taught a similar lesson. Apart from damage to port installations, the destruction of stores and dumps and the general disorganisation caused by these heavy-bomber attacks, of which there were 70 during July, the actual loss caused to shipping in Benghazi harbour was slight and amounted to the sinking of only one ship of under 200 tons.

The August Convoy to Malta (Operation 'Pedestal').

Malta. O.R.B.

The failure of Operations 'Harpoon' and 'Vigorous' to pass supplies through to Malta, in June 1942, when only two merchant vessels out of 17 arrived, together with the enemy's renewed air offensive against Malta, in early July 1942, meant that reserves of aviation spirit on the

island had reached a most dangerously low level.⁽¹⁾ Towards the end of July the position had become so critical that the A.O.C.-in-C., Middle East, at a Defence Committee Meeting on 29 July, asked whether the Committee thought it advisable to continue the existing policy by which the air striking force in Malta was called upon to attack vital enemy convoys. Admiral Sir Henry Harwood, C.-in-C. Mediterranean thought that 'Malta's fate was entirely dependent on the August convoy. If that failed to get through nothing would enable a convoy to get through in September.' He thought, therefore, 'that the present policy of striking as hard as possible against the enemy supply lines should be continued and that we should risk all on the arrival of the August convoy.'

Papers of
Middle East
Defence
Committee
Part 3.

H.Q. R.A.F. Med.
O.R.B.

The need for the conservation of aviation fuel meant that shipping strikes from Malta were limited only to what was considered to be most important targets. In spite of this, however, the value of Malta in the pattern of the strategic war in the Mediterranean was such that out of a total of some 40,000 tons of enemy shipping sunk or severely damaged by aircraft during the critical months of July and August 1942, 29,000 tons, or almost three quarters, may be directly attributed to shipping strikes made by Malta-based aircraft: this was achieved in spite of the fact that such a high proportion of the whole of the Middle East's bomber effort was being expended in attacks against Tobruk and Benghazi. The very sharp rise in the toll which the Navy was able to take of enemy merchant shipping in the Mediterranean during August was also directly due to the continued availability of Malta as a submarine base.⁽²⁾

H.Q. M.E.
Table of Oper-
ations. A.H.B.
IIJ1/31/1 and
Lloyds Shipping
List.

Seen in its correct perspective operation 'Pedestal', to raise what was virtually the siege of Malta, was of major significance to the whole course of the war in the Middle East. On it depended the fact whether or not it would be possible to continue the strategic war in the Mediterranean. For although Malta would not necessarily have been forced into actual surrender, at least for several months, its aircraft would have been compelled to abandon any kind of offensive policy against enemy convoys in North Africa. The enemy forces in North Africa would thus have been able, as had happened during the spring of the year, to obtain a largely uninterrupted supply of stores and reinforcements.

AOC/206
Co-operation
with the Royal
Navy.
Encls. 96 and
97A.

In mid-July, reinforcements of Spitfires had been flown to Malta from the aircraft carrier Eagle (Operation 'Pinpoint') and again on 19 July, making a total of 60 fighter aircraft. This had enabled the new Air Officer Commanding, Air Vice-Marshal K.B. Park, to change the fighter policy to one of 'forward interception' whereby fighters were sent north of the Island to meet incoming raiders and attack head on before they reached Malta. Additional reinforcements sent to Malta specifically for operation 'Pedestal' from both the United Kingdom and the Middle East amounted to over 100 aircraft.⁽³⁾

H.Q. R.A.F. Med.
O.R.B.

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- (1) Malta's Spitfires alone flew 1,700 sorties during July, 1942.
 - (2) At the request of the Middle East Defence Committee seven additional submarines were sent in early August from Alexandria to operate against enemy convoys to Cyrenaica.
 - (3) This included a further 37 Spitfires flown off the aircraft carrier 'Furious' (Operation 'Bellows') on 11 August, the day after the convoy had left Gibraltar.

A.H.B.6 and
R.A.F. M.E.
Weekly Int.
Summary.

The enemy countered by making a considerable reposition of his Air Force in the Mediterranean, shifting almost the whole of his long-range bomber force from Crete to Sicily with the help of transport aircraft consisting not merely of Ju. 52's but D.F.S. 230 gliders. Large concentrations of torpedo-carrying aircraft also appeared at airfields in Sardinia and Pantelleria. (1) A further most serious threat to the convoy was the presence of a powerful Italian Naval Force which was within easy striking distance for interception at a time when the convoy would be negotiating the most difficult part of the route through the Sicilian Narrows. (2) An exceptionally large number of sorties was flown to ports such as Taranto and Palermo, both of which were covered nine times during a period of only four days, with the result that the location of the whole of the Italian Fleet was plotted and all major moves of enemy Air Force Units known.

Operation 'Pedestal' consisted of 12 British and two U.S. merchant ships, escorted by a considerable task force of naval vessels comprising, among other craft, the three Fleet aircraft carriers H.M.S. Indomitable, Eagle and Victorious. The convoy left the Clyde early in August and passed through the Straits of Gibraltar on the night of 10/11 August. Sighting reports on the morning of 11 August showed that the convoy had been located and was being shadowed by German reconnaissance aircraft. That day, 11 August, Operation 'Bellows' was launched in which the aircraft carrier Furious began flying off Spitfires to Malta. This operation was interrupted by the sinking of the aircraft carrier Eagle, on the afternoon of the same day, by four torpedo hits from U-boats. Meanwhile, to reduce the enemy's air offensive against the convoy, attacks by Beaufighters, Wellingtons and Liberators were directed against enemy airfields in Sicily, Sardinia and Pantelleria.

H.Q. R.A.F.
Med. O.R.B.

At dusk on the 11th the first enemy attack was made on the convoy by a force of some 36 Ju. 88's and He. 110's (the latter being torpedo-carrying aircraft) while Italian bombers made what the Malta O.R.B. termed 'a demonstration on the horizon.' There were no casualties among the ships of the convoy from these preliminary attacks and the ships' gunners claimed four enemy bombers shot down. From 9.30 the next morning, 12 August, the convoy was under heavy and some times concerted attack by dive bombers, torpedo carrying aircraft and E-boats. In addition another extremely serious threat to the convoy had arisen when an enemy naval force consisting of four cruisers and supporting destroyers began to move south round the north west to Sicily as if to attack. This was fortunately discouraged by a bombing attack by two reconnaissance Wellingtons, which also illuminated the vessels, and messages sent 'en clair' summoning imaginary Liberators. Nevertheless, the concentrated enemy attacks to destroy the convoy piecemeal before it could reach Malta were sufficiently serious.

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- (1) 'On the Axis side some 540 aircraft were assembled in Sardinia and Sicily to attack the convoy. Of these, 150 bombers and 50 fighters were German and 130 bombers and 150 fighters Italian. Of the bombers, about 100 were torpedo-carrying, mostly belonging to the Italian Air Force.' Weichold.
- (2) During early August photographic reconnaissance from Malta was devoted almost entirely to the location of enemy forces which might be used against the convoy.

Med. Convoy 1942
Admiralty
Battle Summary
No. 292

At noon on the same day, 12 August, some 70 enemy torpedo and bomber aircraft heavily escorted by fighters, made another concerted attack. The German bombers scored the one success of this raid when the 7,500 ton Deucalion was damaged. (1) Submarines, which had been dogging the convoy waiting for another favourable opportunity to attack after the sinking of the Eagle, were deterred by the destroyers' depth charges. An Italian submarine was brought to the surface in this way and rammed and sunk. By 1835 hours, 12 August (D.3) the convoy's aerial ordeal began in earnest when it was located north of Bizerta and still some 300 miles from Malta. A powerful force estimated at approximately 100 aircraft comprising Ju. 87 and Ju. 88 bombers, S.79 torpedo aircraft, escorted by fighters, made a well-timed attack. The destroyer Foresight (2) was hit and disabled by a torpedo and the aircraft carrier Indomitable received three hits from bombs and her flight deck was put out of action, so that her fighters had to return to the Victorious. At the conclusion of this attack, Force 'Z' including the battleships Nelson and Rodney, the remaining aircraft carriers, and by far the greater proportion of naval escort, turned back leaving Force 'X' to take the convoy through the Sicilian Narrows and so on to Malta.

WSD/S9 Report on
Operation
'Pedestal'

The convoy was now bereft of any fighter protection other than what Malta could provide in the way of Beaufighters, owing mainly to such factors as the limited airfield accommodation at Malta, the shortage of aviation spirit and the emphasis made by Admiralty planners on a strong force of Beauforts to counter any threat from enemy surface vessels, this Beaufighter force was inadequate for the aerial protection of the convoy. There were only 27 serviceable Beaufighters at Malta (excluding night fighters) of which six were located at this time for convoy protection, 15 were standing by for Beaufort escort against the Italian Fleet and 7 were engaged in a raid against enemy aircraft on Pantelleria.

This hiatus, with the aircraft carriers withdrawn to the west and the aerial protection of the convoy devolving on an inadequate and scattered Beaufighter force, was chosen by the enemy to launch a brilliantly-planned and executed attack. The convoy was in the process of changing formation from four into two columns at the entrance to the Skerki Channel, when the Nigeria, a cruiser carrying the Flag of Rear Admiral Burrough, the Cairo an anti-aircraft ship, and the 10,000 ton U.S. Tanker Ohio were all damaged by either mines or torpedoes. The Nigeria turned back for Gibraltar and the Cairo had to be sunk. As will be seen this was to have particularly unfortunate repercussions as the Nigeria and the Cairo were the only two ships fitted with V.H.F. and so able to direct the Beaufighters and the Spitfires.

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- (1) The destroyer Bramham was detached to accompany Deucalion along the inshore route along the Tunisian coast. At 1940 hours, after an attack by torpedo carrying aircraft, the Deucalion caught fire and blew up.
 - (2) The Foresight was taken in tow by the Tartar but later the crippled ship was sunk by her escort, owing to the constant threat from enemy aircraft and submarines.

No. 252 Squadron
O.R.B.

In the meantime, as pre-arranged, six Beaufighters of No. 252 Squadron had arrived over the convoy to act as a patrol until dusk. No enemy aircraft were seen and, as the Beaufighters were fired on by the convoy and in any case were at such a disadvantage without the fighter-directing ships, the leader decided to withdraw a quarter of an hour before the end of the patrol. Whilst the convoy was confused and 'scrummed up', as a Naval Liaison Officer put it, and in the growing dusk, about 20 Ju. 88's attacked. The 12,500 ton Empire Hope was hit with a bomb and had to be sunk; the 7,500 ton Clan Ferguson was hit by a torpedo and blew up and the 13,000 ton Brisbane Star, after having been hit with a torpedo, eventually managed to struggle on to Malta.

The main convoy passed Cape Bon at midnight. Soon afterwards E-boats attacked and torpedoed the cruiser Manchester at 0120 hours on 13 August. During the night other E-boat attacks accounted for the 12,500 ton Wairango, the 8,000 ton U.S. Almeria Sykes, the 8,500 ton Santa Elisa and most probably the 9,000 ton Glenorchy. This would appear to have been the work of less than 12 E-Boats of which only one was sunk.

At dawn the next morning, 13 August, Beaufighters and long-range Spitfires were patrolling over the convoy according to plan. (1) At 08.00 hours 12 Ju. 88's made a shallow dive-bombing attack in which the 13,000 ton Waimarama was hit and blew up. In the course of another raid at 09.25 hours, the patrolling aircraft brought down a German bomber and a Spitfire was shot down - possibly by the ships' fire. The task of protection assigned to the Beaufighters and Spitfires was again largely negated by the fact that, owing to the loss of the two fighter-directing ships, they were 'constantly being fired at by all ships'.

Report on
'Operation
Pedestal'
WSD/S.9

In the course of a raid at 10.50 hours, by Junkers aircraft, further damage was done to the tanker Ohio, the Rochester Castle was set on fire and the S.S. Dorset was disabled. The last attack to which the main convoy was subjected took place at 11.25 hours on 13 August by five S.79 aircraft, but without achieving any result.

The short-range Spitfires took over the protection of the main convoy when it was within some 70-80 miles of Malta. This additional fighter protection again experienced great difficulty, owing to the fact that none of the naval vessels was able to give fighter direction, while the merchant vessels failed to give out any 'Help' signals. A further complication experienced by both short and long range Spitfires was that the enemy raiders were coming in too low to register on the R.D.F. system.

- (1) At dawn the convoy should have been 110-150 miles from Malta when the four No. 248 Squadron Beaufighters which were to escort the convoy from dawn to within 100 miles of Malta were to have been augmented by long-range Spitfires should the distance be not more than 150 miles. At dawn, however, the convoy was still 170 miles from Malta. Owing to the urgency of the situation it was decided to send out Spitfires along with the Beaufighters for this distance.

By 14.30 hours an escort force from Malta joined the main convoy and took charge of the three remaining merchant ships, the Port Chalmers, the Melbourne Star and the Rochester Castle - the latter having been damaged and set on fire some six hours earlier. These three ships, totalling 27,500 tons, arrived safely in Grand Harbour two hours later. At 16.00 hours Force 'X', with 2 cruisers and 5 destroyers, turned about for the return journey to Gibraltar.

Of the three remaining merchant ships, the Dorset, Brisbane Star and Ohio, all disabled from previous attacks, the Dorset was sunk after repeated attacks by German bombers at 19.00 hours on the 13 August. The Brisbane Star, after further adventures in the Gulf of Hammamet and under the protection of an escort of Beaufighters which shot down the attacking enemy bomber, eventually reached Grand Harbour on the afternoon of 14 August. The ordeal to which the Ohio was subjected, the most vital of all the remaining merchant ships with her cargo of oil - was even more protracted, and it was not until the morning of 15 August that the invaluable tanker reached Malta.

C.O.S. (M.E.)
280

One of the Admiralty's main preoccupations had been to prevent any part of the Italian Navy from operating against the convoy, as had happened during Operation 'Harpoon' in June. For this reason, in the planning of Operation 'Pedestal', it was decided to concentrate the maximum number of torpedo-bomber aircraft on Malta. During the vital four days from 11 to 14 August, when the convoy was negotiating the most difficult part of the journey, a force of 15 Beauforts was standing by on Malta from dawn to dusk in readiness for such an eventuality.

WSD/S.9
Report on
Operation
'Pedestal'

Out of a convoy of 14 ships 9 had been sunk, 4 by aircraft, the others being torpedoed by 'E' boats or 'U' boats or sunk by mines. The escorting force had lost an aircraft carrier, a cruiser, an anti-aircraft ship and a destroyer sunk, together with a carrier and two cruisers damaged. With the exception of the Indomitable and Foresight, all warship casualties were caused either by 'E' boats or 'U' boats. According to the contemporary estimate, the enemy employed a force of 150 bombers and 80 torpedo aircraft against the convoy. This was in addition to 'U' boats, 'E' boats, mines and the Italian naval force which failed to make contact.

The cost of Operation Pedestal was very high indeed, as was to be expected with a convoy of such vital consequence to the future of the Axis forces in the Mediterranean being run for days on end within easy reach of enemy land-based aircraft. It is indeed surprising, that 5 ships, including the tanker Ohio, battled their way through to port. The moment chosen for the combined onslaught on the convoy and when the heaviest losses were incurred, was when Force 'Z' with its aircraft carriers had turned to the westward, the convoy was still out of range of all but a handful of Malta Beaufighters. Had the Italian naval force shown more tenacity it would have lighted on Force 'X' at a time when it was at its most confused and shortly after having suffered heavy losses. The result could easily have been the complete annihilation of the remainder of the convoy.

H.Q. Med. O.R.B.

From the time Malta-based fighters took over the convoy escort until all ships were in harbour, i.e. 32 hours of daylight, 407 sorties were flown, 25 by Beaufighters, 97 by long-range Spitfires and 292 by

short-range Spitfires. One Beaufighter and 4 Spitfires were lost and claims were made of 14 enemy aircraft shot down by Malta-based fighters. A remarkable fact is that, after the 5 merchant ships had reached Malta, no determined attempt to bomb the ships whilst they were being unloaded was made. Now if ever, was the opportunity for the complete destruction of the balance of the convoy and on which Rommel's power to be able to continue effectively to prosecute the war in North Africa really depended. It would appear that by this time the enemy air force was too weak to make the attempt and, in any case, the force had to be conserved for Rommel's offensive at that time planned for 26 August.

Whatever their losses in this operation, there is evidence that this intensive period of activity reduced the serviceability and strength of Luftflotte X to an extent where the Luftwaffe were no longer in a position to provide effective escort to their own convoys. To this failure, therefore, must be attributed not only the fact that Malta-based Beauforts and Beaufighters were able to operate so effectively against enemy convoys later in the month, but also that the enemy were unable to provide their own vital convoys with adequate air escort. An interesting comment on Operation 'Pedestal from the enemy view-point was made by Vice-Admiral Weichold, who was German C.-in-C. Mediterranean at this time.

'Units of the Malta convoy which had broken through were effectively attacked off Cape Bon by the German Italian Air Forces on 13 August. To the continental observer the British losses seemed to represent a big victory for the Axis and they were accordingly exploited for propagandist purposes. But, in reality, the facts were quite different since, in spite of all these successes, the Air Force had not been able to prevent a British force, among which were probably 5 merchant vessels, from reaching Valetta. Thereby the enemy had gained the strategic end of his operation, in spite of what it may have cost him. Thanks to these supplies, Malta was rendered capable of fighting for several weeks or, at a pinch, for several months. The main issue, the danger of air attack on the supply route to North Africa which was later to be smashed from Malta, remained. To achieve this objective, no price was too high, and, from this point of view the British operation, in spite of all the losses, was not the defeat it was made out to be by German public opinion, but a strategic failure of the first order on the part of the Axis, the repercussions of which one day would be felt.'

Essay by Vice-Admiral Weichold. A.H.B.6. Folder No. X 175

Rommel's Optimistic Situation Report of Mid-August

Mainly due to Malta's acute shortage of petrol and the great efforts made by the enemy to break the blockade of the Panzer Army in Africa by the extensive use of air transport, the enemy Commander was able to report, by 15 August, a remarkable improvement in the supply position, compared with his pessimistic report of 25 July. Within three weeks, the German forces' strength in troops had risen by 45 per cent, in tanks by 35 per cent, in artillery, anti-tank artillery and heavy flak by approximately 20 per cent. Comparable improvements had also taken place in the position of the Italian forces.

'The tank and artillery situations are especially favourable,' Rommel wrote to OKW in his 'Estimate of the Situation and of the State of the Panzer Army Afrika on 15 August 1942.' Regarding the air situation he added, somewhat enigmatically, 'According to the opinion of Fliegerfuehrer Afrika the air situation can be maintained in the event of early attack, provided there is sufficient fuel available in North Africa.'

'High Level
Reports and
Directives
Dealing with the
North African
Campaign, 1942.'
A.H.B.6 Trans.
No. VII/80

The point was stressed that the equipment of troops with weapons and supplies, which included fuel, depended mainly on the transport of goods already loaded up in Italy. This would provide enough fuel to enable them to conduct operations for about ten days, give them by 25 August a 20 per cent superiority in tanks over the British, a superiority of some 50 per cent in heavy artillery while other arms would be of equal strength. He saw 'the possibility of a quick break through on the south flank where only relatively weak enemy forces are disposed and extensive mining and fortifications have not been confirmed.' This favourable situation would alter considerably to the advantage of the Eighth Army, in September, as a result of the strong reinforcements which were already on their way to the Middle East.

As a result of this appraisal of the situation, Rommel submitted to OKW the suggestion that '26 August is worth considering as a favourable time to attack. Taking into account the general situation, only an offensive carried out at this time appears to show promise of success, whereas postponement (for not less than four weeks owing to the necessity of the full moon) would seriously prejudice the prospects of a successful attack.'

Two demands were formulated by Rommel. One was the immediate transportation to Tobruk or Benghazi of the stores already loaded on board ship in Italy. The other was a guarantee of further continual seaborne supply of ammunition and fuel to ports in Cyrenaica, especially before and during the operation. He had already noted, in his remarks on the air situation how 'During the last few weeks the activity of the powerful, numerically superior Air Force (had been) concentrated mainly on the supply installations of the Army, vital supply shipping and the ground organisation of our Air Force.' What he did not know - or at least, what he did not take sufficiently into his calculations - was the significant change that would take place in the security of his supply lines with the arrival at Malta of the surviving ships of Operation 'Pedestal', and especially the tanker Ohio. For, two days after the despatch of this optimistic report, began the first of the successful August shipping strikes by the Royal Air Force and which aided by the Royal Navy by the end of the month, had sunk over 28,000 tons of shipping, mainly tankers, bound for Cyrenaican ports.

Later on, Rommel gave in retrospect his views on the supply crisis which preceded the Battle of Alam el Halfa.

'After the temporary cessation of our attack on the Alamein line and the successful repulse of the enemy's counter-attack, a calm set in over the front. Both sides sought to use the breathing space to refit their forces and bring up fresh troops. Once again we were in a race to reorganise....

The Rommel Papers

Already, at the end of July-beginning of August, the 50th British and 1st South African Divisions were back at the front, almost entirely replenished. Soon afterwards the 10th Indian Division was also battleworthy again, after reorganisation with units from other formations.⁽¹⁾ Several large convoys had arrived in Suez during July and air reconnaissance had reported the arrival of several hundred thousand tons of shipping.

Thus a strenuous effort was going to be necessary in the field of supply if we were to keep pace with the steadily growing strength of the Eighth Army. But it was in this very question of supply that a serious crisis was upon us. The causes of this crisis and its effects were as follows:

Since the end of July, the R.A.F. had shifted the main weight of its activity to our lines of communication between the African ports and the front, where they were shooting up our transport columns and sinking one barge and coastal vessel after the other. No ship lying in the harbours at Bardia and Mersa Matruh, and frequently even Tobruk, was safe from the attention of the British bombers. Our Luftwaffe had its hands full at the front where British air power was also steadily increasing, and could only supply very meagre forces for the protection of the coast road and coastal waters. Thus, at the beginning of August, the R.A.F. sank three coastal vessels in Bardia harbour on one day alone. The coastal waters were also being harassed by British naval forces.⁽²⁾

In the absence of Italian escort destroyers, the bulk of our supply ships were having to run into Benghazi or Tobruk, a fact which made very heavy demands on our road transport. To make matters worse, Tobruk was heavily attacked by British bombers on the 8th. of August, and its capacity reduced by 20 per cent through the destruction of its principal wharf. This hit us very hard.

During the early part of August, the supplies we received barely covered daily requirements. Replenishment was hardly to be thought of and a build-up out of the question. The vehicle situation was particularly worrying; the bad state of the roads and the continual heavy demands we were having to make on our transport were resulting in a steady 35 per cent of our vehicle strength being in for repair. As some 85 per cent or so of our transport still consisted of vehicles of British or American manufacture, for which we had no great stocks of spares, it is easy to imagine the difficulties our repair shops were having to contend with.⁽³⁾

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- (1) Enemy intelligence was very confused over the 10th Indian Division which at this time was in the Delta and was not part of the Eighth Army.
 - (2) It is a surprising fact that Rommel tends to underplay or ignore the infinitely more significant shipping losses sustained at sea.
 - (3) The enemy usually assessed this figure as 50 per cent.

The raid on Bardia which seems to have made a considerable impression on Rommel was carried out by five Albacores of No. 826 Squadron Fleet Air Arm on 2 August. They claimed a direct hit on the jetty and on a lighter drawn up alongside, with near-misses on lighters in the harbour and others which were drawn up on the beach. No particular significance was attached by No. 205 Group to the raid on Tobruk on the night of 8 August which, according to Rommel, reduced the port's capacity by 20 per cent. This was only one of the nightly Wellington and Halifax raids on what was known as 'the milk run' to Tobruk, with the object as stated in the No. 205 Group briefing, 'Our nightly bombing of Tobruk continues to embarrass and harass the enemy in his attempts to off-load shipping. Continuous lack of sleep and the nervous strain imposed by nightly bombing attacks are impairing his daily efficiency. The enemy must be given no respite.' The raid was carried out by 28 Wellingtons of Nos. 37, 40, 70, 104, 108, 148 and 162 Squadrons and one Halifax of No. 10 Squadron. Observation of the results of the raid was made extremely difficult owing to low cloud. Claims were made of four small fires on the north side of the harbour and a fire near the main jetty.

No. 205 Group
O.R.B. and
Middle East
Int. Sums.

During August, some 1,400 sorties by Wellingtons, Halifaxes and Liberators were carried out against Tobruk. Generally speaking, visibility for the raids was poor. Nevertheless the results of the August raids were much more encouraging than had been the case during July. Photographs showed a merchant vessel and a tanker either sunk or seriously damaged, together with seven caiques, four schooners, three barges, one 'F' boat, one large and one small tug and two other small craft. In a particularly destructive raid on 30 August by 25 Wellingtons, 7 Halifaxes and 17 Liberators on Tobruk, the important tank workshops there were burnt out and extensive damage was done to shipping and dock installations.

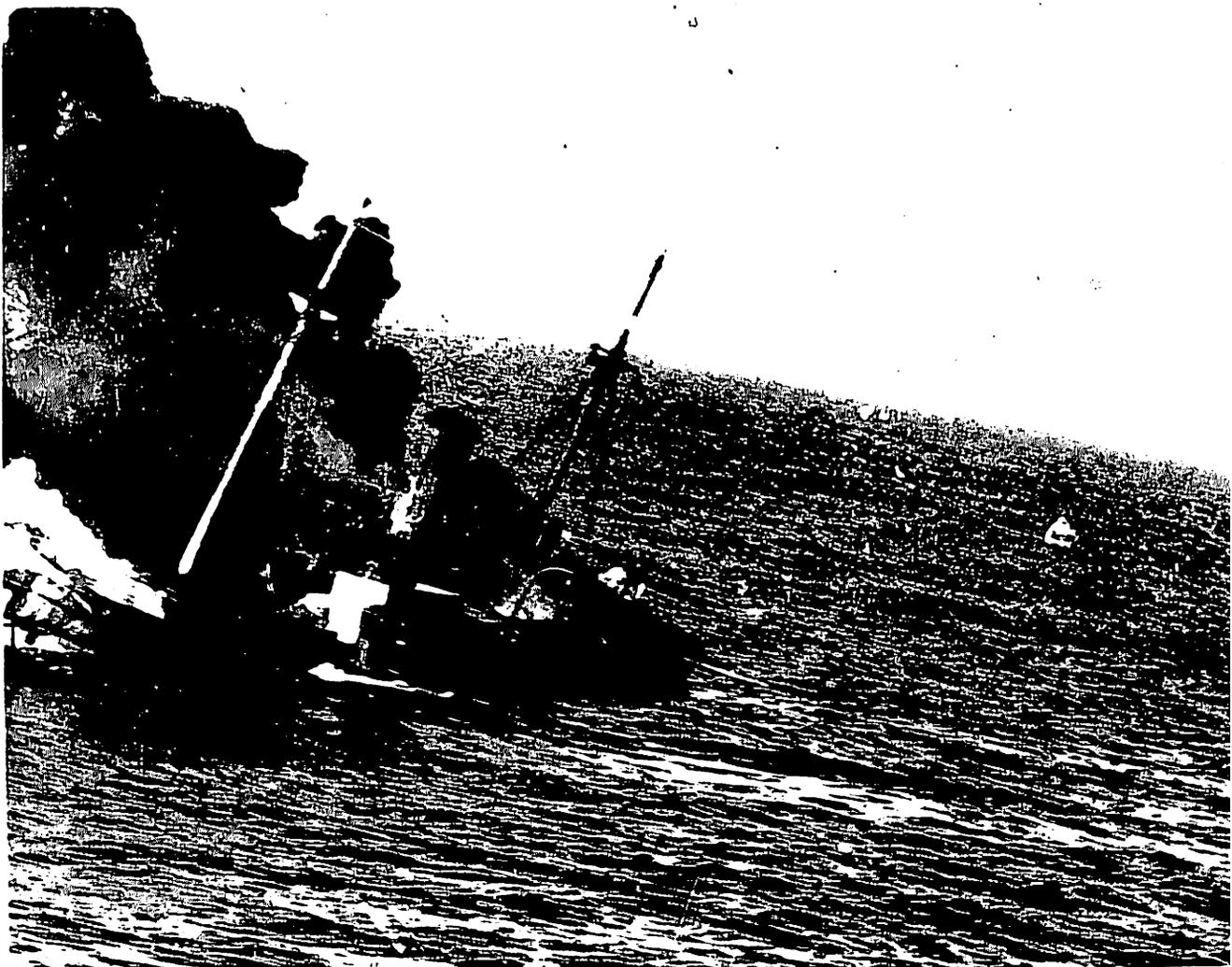
Enemy Shipping Losses - August 1942

During August 1942, a total of some 65,000 tons of enemy shipping was sunk in the Mediterranean of which approximately 40,000 tons was sunk by the Navy, mainly by submarine, 20,000 tons by aircraft (excluding the 8,000 ton Rosalina Pilo which was shared by the Navy and the R.A.F.) and 5,000 tons by mine. A further 15,000 tons of enemy shipping were listed as damaged, honours being divided equally between the Royal Navy and the Royal Air Force. The total enemy tonnage sunk in the Mediterranean during the months of July and August 1942 was divided almost equally between the R.A.F. and the Navy. This was true, also, of the total tonnage sunk in the Mediterranean during the war. In this particular period of the war in the Mediterranean, however, the shipping sunk by the Navy was mainly in the area of the Balearics and off the south coast of France and had no connection with the African Campaign.

Lloyd's List
of Shipping



Night raid on the port of Tobruk.



Axis cargo vessel ablaze after an attack by the R.A.F.

The list of enemy shipping sunk in the Mediterranean by aircraft during August 1942 is as follows:-

<u>Name</u>	<u>Date</u> <u>August</u>	<u>Position</u>	<u>How Sunk</u>	<u>Tonnage</u>
<u>Rosalind Pilo</u>	17	50 miles 190° from Pantellaria	By aircraft and submarine attack.	8326
<u>Pozarica</u>	21	12 miles north of Paxos	Damaged by aircraft	7800
<u>Istria</u>	27/28	40 miles 50° from Ras el Tin	By aircraft	5416
<u>Dielpi</u>	27	33 38 North, 21 23 East	By aircraft	1527
<u>San Andrea</u>	30	39 49 North 18 15 East	By aircraft	5077

It was not until 17 August that the Royal Air Force scored their first success against enemy shipping. Towards the end of the month, however, the pace was heightened and as will be seen the sinkings by the R.A.F. were a prime factor in the enemy's failure at Alam el Halfa.

Lloyd's List of
enemy shipping
losses.
H.Q. R.A.F.
Med. ORB.

A.H.Q.
M.E. Table of
Ops.
A.H.B./IIJ1/
31/1.

A.M.W.R.
Weekly Statis-
tical Analysis
A.H.B./VE/11.

H.Q.R.A.F.
Med. Operations
Record Book and
Lloyd's List.

The first outstandingly successful strike against enemy merchant shipping in August was made by Malta-based aircraft against the 8326 ton Italian motor vessel Rosalind Pilo at 14.00 hours on 17 August. She was some 35 miles off Lampedusa Island convoyed by two destroyers and patrolled by four Ju. 88's and two enemy fighters, when she was attacked by a force of six Beauforts of No. 86 Squadron, escorted by five Beaufighters of No. 252 and 235 squadrons (two of them carrying bombs) and four long-range Spitfires of No. 126 squadron. Two torpedo hits by the Beauforts and a hit by a 250lb. bomb from a Beaufighter were scored on the motor vessel which was left stationary, pouring white smoke and down by the stern. Two of the Beauforts and two Beaufighters were damaged, while claims were made of one Ju.88 and one enemy fighter probably destroyed. That night, the crippled Rosalind Pilo was sunk by a British submarine by the light of flares dropped by a Wellington aircraft from Malta.

On 21 August, Malta-based aircraft scored another important success in an action which led to the loss of Italian tanker Pozarica. The first attack took place on 20 August when 12 Beauforts of No. 39 Squadron, escorted by ten Beaufighters of No. 227 Squadron (six of which were carrying bombs), attacked a convoy comprising five destroyers, the Italian tanker Pozarica and one small motor vessel which were being escorted by one Cant. Z501 and six single-engine fighters four miles off Cape Stilo. This attack was a failure, although a small pilot vessel was sunk and one Macchi 200 and the Cant. Z.501 were damaged. On the afternoon of 21 August, the Pozarica was again attacked, this time by nine Beauforts of No. 39 Squadron, escorted by eight Beaufighters of No. 248 Squadron and five Beaufighters, which carried bombs, of No. 227 Squadron; when she was 12 miles off Paxos, one of the Ionian Islands off the west coast of Greece. Three Torpedo hits were scored on the tanker and one bomb hit a destroyer. Reconnaissance later showed the tanker to be stationary

A.M.W.R.
Weekly Statistical
Analysis No. 45.

with oil flowing from both sides. Claims were made of five enemy aircraft shot down, all Italian, for the loss of two Beauforts. The Pozarica was later beached in Saiada Bay, Corfu, where she was again attacked by Malta-based Wellingtons of No. 69 Squadron which managed to set fire to the surrounding petrol and oil. Although the Pozarica was only listed as damaged her valuable cargo of petrol, destined for the fighting in North Africa, was lost.

Lloyd's Register
of Enemy
Shipping losses
in the Med.

Towards the end of the month, when Rommel's full-scale offensive against the Eighth Army was imminent, a desperate attempt was made to route last-minute supplies - mainly of fuel and ammunition - across to North Africa. It was during this period that the Royal Air Force took their heaviest toll. Between the 27 and 30 August, Malta and Egypt-based aircraft sunk three ships totalling some 12,000 tons, all of them carrying vital cargoes of fuel and ammunition, the loss of which probably did more to decide the failure of the Axis Panzer Army at Alam El Halfa than any other single factor.

At 16.45 hours on 27 August the Dielpi, an Italian ship of 1527 tons, was sunk by an attack by British aircraft. She was due to reach Benghazi on 28 August and was carrying urgently-needed fuel to the Panzer Army. Although only 73 miles off Ras Aamer and less than 100 miles off the Port of Derna, it is strikingly indicative of the enemy weakness in the air that a ship carrying such a valuable freight and so close to enemy air bases should have been provided with no stronger an air escort than a Cant. Z 1007 and a Ju. 88. To some extent, however, this must have been due to mismanagement of the available force as Ju. 88s were carrying out an extensive series of raids on W.D.A.F. landing-grounds during this period.⁽¹⁾

H.Q. R.A.F.
Med' O.R.B.

The attacking force, based on Malta, consisted of eight Beauforts of No. 39 Squadron and nine Beaufighters of No. 227 Squadron, five of which were carrying bombs. The Beaufighters first attacked the convoy, consisting of the Dielpi and her escort the Italian destroyer Cascino, by dropping seven 250 lb. G.P. bombs and scoring a hit on the stern of the Dielpi. They also raked the merchant ship and the destroyer with machine-gun and cannon fire from deck level. The destroyer was left smoking from the stern. The Beauforts, led by Flying Officer K.R. Grant, then dropped their torpedoes from sixty feet, scoring three hits on the Dielpi which blew up and was left ablaze and sinking, with her decks awash and back broken. The escorting Cant was shot down by the Beaufighters and the Ju. 88 was damaged. One Beaufort and two Beaufighters were damaged during this operation, but the crews were unhurt.

H.Q. Middle
East Table of
Operations and
Nos. 39 and
227 Squadron
O.R.B.s.

The success of the operation may be gauged by the fact that this Malta-based striking force made a round trip of over 800 miles over the sea, pinpointed such a small and elusive target as a convoy of two ships and, in spite of the escort and the fact that they were in an area normally controlled by enemy land-based aircraft, was able to sink the ship, damage the escorting destroyer and shoot down one of her escorting aircraft.

A.H.B.6.

(1) According to enemy records, their serviceability was extremely low at this time.

A.H.B.6.

The Istria of 5416 tons, with a cargo of fuel and ammunition, sailed from Suda Bay, Crete, for Tobruk, in lieu of the Abruzzi which had been delayed. On the night of 27/28 August, seven Wellington aircraft of No. 38 Squadron, based on Shandur and operating under No. 201 Group, received a sighting report from an A.S.V. aircraft of a tanker in convoy off the Cyrenaican coast, some 40 miles off Ras el Tin. She was escorted by three destroyers, but there were no night-fighters. The first aircraft to arrive on the scene was Wellington 'T' piloted by Flight Lieutenant Foulis. He attacked at 00.35 hours, releasing both torpedoes on one run, the first at 700 yards and the second at 400 yards. 'Two hits were seen,' the O.R.B. records, 'the first amidships and the second at the stern, two orange flashes and columns of water 150 feet high being the result. On circling the area, smoke was seen which rapidly enveloped the tanker. After ten minutes the smoke cleared and nothing remained except a large patch of oil.' (1)

No. 38 Squadron
O.R.B.

Undoubtedly the severest blow to Rommel's hopes of being able to launch a successful offensive occurred on 30 August, the eve of the attack, when the San Andrea, an Italian tanker of 5,077 tons, was sunk by Malta-based aircraft. 'There were neither sufficient forces nor adequate stores for a major offensive of this kind,' says Vice-Admiral Weichold, the German Admiral in Rome at the time. 'On 30th August, a tanker with a very valuable cargo of 2,285 tons of fuel for the Panzer Army had been sunk at sea. On 2nd September, Field Marshal Rommel felt compelled to carry out his decision of 31st August and order the operation to cease.' The San Andrea was southbound from Taranto, in convoy with one destroyer, seven Macchi 202's, a CZ 501 and a Ju. 88 when she was attacked ten miles off Ugento in the 'heel' of Italy by eight Beauforts of No. 39 Squadron and eight Beaufighters of No. 227 Squadron, four of which were carrying bombs. The plan was for the Beaufighters to create a diversion by attacking with their bombs and cannon and at the same time protecting the Beauforts against the enemy air escort. The Beaufighters attacked first, scoring near misses with their bombs on the tanker and raking the destroyer with their cannon and machine-gun fire. The Beauforts then dropped four torpedoes, scoring one direct hit amidships and one probable hit. The San Andrea immediately blew up, sending debris high into the air. In spite of the strong escort, the striking force of R.A.F. aircraft was not prevented from getting through. A number of combats took place in the course of which a Macchi was shot down, the Ju. 88 probably destroyed and a CZ 501 damaged. During this highly successful operation, three Beaufighters and one Beaufort were damaged, but there were no injuries to personnel.

Axis Naval
Policy and
Operations in
the Mediterranean
R.242Nos. 39 and 227
Squadrons
O.R.B.sH.Q. R.A.F.
Mediterranean.

Action Against Enemy Transport Aircraft.

The air-lift of urgently-needed supplies, on which Rommel was forced to rely to such a very large extent whilst Axis shipping was suffering very heavy losses, could not be effectively countered at this stage in the campaign. Travelling direct from Crete to Tobruk at a cruising speed of 140 miles an hour and timing their arrival and departure

(1) A third ship in this convoy the Manfredo Campieri (5463 tons) was sunk by submarine.

Nos. 252 and
272 Squadrons
O.R.B.s.

for dusk and dawn, these Ju. 52⁽¹⁾ aircraft constituted an elusive target. The two long-range twin-engined Beaufighter Squadrons, Nos. 252 and 272, on loan to the Western Desert Air Force from No. 201 Group, were 'maids of all work' during this period, performing naval escort duties, air sea rescue and long-distance strikes against enemy M.T. convoys along the coast road. Only rarely did they manage to intercept enemy transport aircraft and then they were never strong enough to inflict severe casualties. Wellington and Liberator attacks against the Ju. 52 bases on Crete also caused losses and probably some disorganisation of the transport service, but it was not until towards the end of the campaign, in April 1943, that the Western Desert Air Force was able to destroy the enemy air transport fleet in the Mediterranean. A list of the transport aircraft destroyed or damaged in the Mediterranean area between July and August 1942 is as follows:-

<u>Date</u>	<u>Totally Destroyed</u>	<u>Damaged</u>	<u>Type</u>	<u>Location</u>	<u>Comments</u>
11 July	-	2	Ju.52	Tobruk	Crash landing after combat.
11 July	1	-	"	Derna	-
19 July	1	-	"	Comiso	Crash landing after combat.
24 July	3	-	"	Heraklion	Bombing raid on airfield.
25 July	2	-	"	"	" "
2 August	1	-	"	North Africa	-
2 August	2	-	D.F.S. 230 (Gliders)	Tobruk	Over airfield.
14 August	2	-	Ju.52	Sollum Bay	-
15 August	1	-	Ju.52	Pantelleria	-
21 August	1	-	Ju.52	Athens	-
23 August	1	-	Ju.52	North Africa	-
23 August	1	-	SM.82	Derna	-

Although undramatic these losses were cumulative and represented a steady drain on the enemy's air transport fleet.⁽²⁾ The losses on 11 July were the result of another interception of some 30 Ju.52's, carrying troop reinforcements from Crete to North Africa, by Beaufighters of Nos. 252 and 272 Squadrons which were on patrol 60 miles north of Tobruk. A number of the Beaufighters were damaged by return fire from Tommy Guns fired through the windows of the Ju. 52's. The destruction of the Ju. 52's at Heraklion, Crete on 25 July, was caused by a night raid on various targets in Crete by 12 Wellingtons of No. 70 Squadron and seven of No. 37 Squadron. No claims were made. In the course of a bombing raid the following night by 29 Wellingtons of Nos. 148 and 108 Squadrons, a report was made of 'six fires

-
- (1) The Ju. 52 had a maximum speed of 170 miles an hour and cruised at approximately 140 m.p.h. The range with a maximum fuel load was 1100 miles and the load in the region of 5,000 lb.
- (2) Actually 15 per cent of the total serviceable transport aircraft destroyed or damaged.

Advance Air H.Q. including two very large ones which might have been
Western Desert aircraft on Heraklion landing ground.
Daily
Intelligence
Summary.

The single Ju.52 destroyed at Pantelleria on 14 August was one of the fleet employed by the enemy in the strategic move of Crete and Greece based German bombers to the Mediterranean Central Basin for use against Operation 'Pedestal'. This is yet another aspect of the value to the enemy of transport aircraft in the Mediterranean without which their attacks against the Malta-bound convoy would have been gravely hampered.

The War Against Enemy Coastal Shipping

The successes scored so spectacularly against vessels of a sufficiently large tonnage to be included in the Lloyds' Register have their counterpart in numerous minor but often outstandingly gallant air actions against the enemy's coastwise shipping. Forced to route much of his tonnage on a westerly course to Benghazi, the enemy was driven more and more to the expedient of carrying it along the coastal waters in lighters, barges and 'F' boats. The extremely high value placed on this traffic is indicated by the protection usually afforded by 'flak' ships through which the attacking aircraft mainly Beaufighters and Hudsons - had to fly in order to score effectively.

Apart from native caiques and schooners, the most common craft used for transport purposes along this section of the North African coast was the German landing craft or 'F' boat. These were some 160 feet in length by 20 feet in breadth and had a draught of $3\frac{1}{2}$ feet. Powered by diesel engines, their speed was about 8 knots. Their value lay mainly in the fact that the carrying capacity of a single 'F' boat was approximately that of a convoy of 100 three-ton trucks. They were armed with one 7.5 c.m. gun mounted fore and aft of the bridge and two machine guns. In addition they usually were escorted - such was the value not only of their cargo but of the craft itself - with one or more 'flak' ships and also aircraft. Another type of German landing craft, the Siebel Ferries, was also being used at Benghazi, Tobruk and Matruh, primarily for discharging ships. Their construction consisted of twin pontoon sectional hulls, 16 feet apart, and transportable in pieces by train. The pontoons were joined by girders. The length of the Siebel Ferry was approximately 80 feet and its breadth 50 feet. The capacity of these ferries was very high indeed as they could carry over 250 troops and, when used as 'flak' ships, three 88-m.m. A.A. guns, two 2-c.m. A.A. machine guns and one 4-metre base stereoscopic range finder and predictor.

The various tactics employed against this important coastal traffic are a good example of the flexibility with which the air force in the Middle East was being handled. For the greater part of July 1942 the important task of interfering with the movement of this enemy coastwise shipping devolved on the two experienced Beaufighter squadrons Nos.252 and 272(1). When it was found that the armament of the Beaufighters was not adequate for the task, for in many cases fire from the 20-m.m. cannon ricocheted

R.A.F.
M.E.W.I.S.
25 August 1942.

No. 252
Squadron
O.R.B.

(1) The Malta Convoy (Operation 'Pedestal') drew off the greater part of the strength of these Beaufighter squadrons in early August.

off the hulls and decks of the 'F' boats, trial was made with Hudson aircraft of No.459 Squadron. (1)

No. 459 Squadron
O.R.B.

Escorted by Beaufighters, 4 Hudsons of No. 459 Squadron, armed with depth charges, made a daylight attack on 2 barges on 28 July. One Hudson was shot down by anti-aircraft gun fire and another badly damaged for one 'F' boat beached. This was obviously too expensive. Unescorted Hudsons then carried out a series of dawn attacks with 100 lb. anti-submarine bombs. The results of the new tactics were most encouraging. Whereas the Beaufighters destroyed 5 out of 21 'F' boats attacked, the Hudsons, with their superior hitting power, destroyed 16 out of 19. No. 459 Squadron, however, lost 4 aircraft and their crews, during these operations.

Disappointing as the results of the number of the Beaufighter attacks against enemy shipping were to the crews employed in them, their importance in the overall picture of the war being waged against the enemy's lines of communication was very considerable. Not only shipping but enemy transport aircraft en route from Crete to Tobruk were attacked by Beaufighters of Nos.252 and 272 Squadrons together with enemy road convoys. In addition, both squadrons took part in operations involving the August Convoy to Malta; No. 272 Squadron was moved on detachment to Cyprus on 8 August for a dummy convoy which was being run to draw off the enemy from the real convoy coming from the west and, from No.252 Squadron, the C.O. together with the greater part of the squadron's strength were detached to Malta at about the same date.

Nos. 252 and
272 Squadrons
O.R.B.s.

M.E.W.I.S.
Vol.VIII

Action against this coastal traffic was not limited to Hudsons and Beaufighters. As has been seen the nightly bombing of Tobruk took its toll of enemy shipping used for this purpose. Also a very successful operation was carried out by a combined force of Beaufighters and Bisleys on 15 August against a large convoy of some 14 'F' boats on their way to Mersa Matruh. The Bisleys of No. 15 S.A.A.F. Squadron claimed three 'F' boats sunk. The Fleet Air Arm Albacores also carried out attacks against this vital stage in the enemy's supply line by dive-bombing shipping in Matruh Harbour, while Swordfish aircraft helped on their nightly patrols in the Matruh area and westward along the coast.

-
- (1) An entry in No. 459 Squadron O.R.B. for August 1942 under the heading, 'Review of the Month' is of interest as it reveals the extent to which the strategic implications of the battle of communications which the R.A.F. was waging against Rommel was realised by personnel of the squadrons involved in the struggle. The position on the front had not materially altered during the month and there was only patrol activity with a few sharp skirmishes happening occasionally. It seemed that 'F' boats and barges were not now moving down the coast with supplies from Tobruk, but the enemy was endeavouring to run frequent convoys across from the west end of Crete to Tobruk as far as possible under cover of darkness. There was no doubt that the enemy was greatly in need of reinforcements and supplies, particularly petrol, and it was indeed vital that every effort should be directed to prevent these supplies from reaching their destination. Accordingly the target for the activities of this and other squadrons operating from I.G.226 became these convoys.

CHAPTER 6

THE BATTLE OF ALAM EL HALFA (31 AUGUST TO 6 SEPTEMBER 1942).

The Enemy Plan

A.H.B.6 Trans.
No. VII/80.

On 15 August Field Marshal Rommel outlined his plan to OKW to attack and destroy the British Army in the field in the area of El Alamein, and to the south, in an offensive to be launched along the whole front, on 26 August. A frontal attack with limited objectives was to hold down the enemy in the northern sector. In the south the main Panzer forces had the task of breaking through the Eighth Army defences and, by thrusting forwards up to the coast, of encircling and destroying the main Eighth Army forces located between the main defensive positions, at El Alamein, and the Ruweisat Ridge.

A directive issued two days later by Comando Supremo was more explicit and set the enemy Commander-in-Chief three main tasks:-

- (a) to hold the existing front from the Qattara Depression at all costs
- (b) to defeat the Eighth Army to the west of the Delta.
- (c) to capture Alexandria, Cairo and the Suez Canal.

War Diary of
Panzer Armée
Afrika,

Rommel planned that his main striking force should concentrate close behind their own minefields in the south, between 252 and 268 grids, and cross them at 22.00 hours on the night of 30/31 August, in the following order, from south to north:-

- Reconnaissance Group
- Afrika Korps (15th and 21st Panzer Divisions)
- Italian XX Corps (Littorio and Ariete Armd. and Trieste Motorised Divs.)
- 90th German Light Division
- Battle Group of X Corps (2 battalions of Ramckes Brigade
3 of Folgore and 2 of Brescia)

Meanwhile, the remainder of the front was to be held by XXI Corps and part of X Corps.

High Level
Reports and
Directives.
A.H.B.6,

Surprise was, according to Rommel, 'an essential provision for the success of the operation.' It was also an essential part of the plan that this enemy force should cross the British minefields rapidly, by moonlight, and be in a position by five o'clock the next morning to advance northwards to the sea and so complete the encirclement of the Eighth Army. While the main striking force was breaking through the southern sector of the Eighth Army front, diversionary raids would be carried out 'in order to simulate an attack on a broad front' and to obtain prisoners.

The Axis Air Plan.

The role assigned by Rommel to the Axis Air Forces, in the overall plan was:-

Panzer Armée
Afrika War
Diary.

- (a) To maintain continuous air protection, with the main effort over the southern area, on 29 August to prevent the Eighth Army from observing the assembly areas.

(b) To attack the coast road between El Alamein and Burg el Arab, from 22.00 hours 30 August.

(c) To maintain continuous fighter cover over the striking force from dawn 31 August with Italian fighters protecting XX Corps.

(d) To attack enemy troops on the front of the Afrika Korps and XX Corps, on 31 August.

(e) To maintain protection over convoys in harbour.

Tactical Surprise Impossible Owing to W.D.A.F. Air Superiority.

The enemy Commander's plan for what was later to be known as the Battle of Alam el Halfa (originally it was termed the 'Battle of El Alamein' and El Alamein the 'Battle of Egypt') held nothing novel about it. It was the familiar 'right hook to the coast' which Rommel had exploited on a number of other occasions and, indeed, one he had been trying in a modified form, throughout July, in his attacks on the Ruweisat Ridge. In addition, not only the basic pattern of the attack, but the time and place had already been deduced by General Auchinleck, as early as 27 July.

Appreciations
and Notes -
Situation
Reviews. AOC/14.

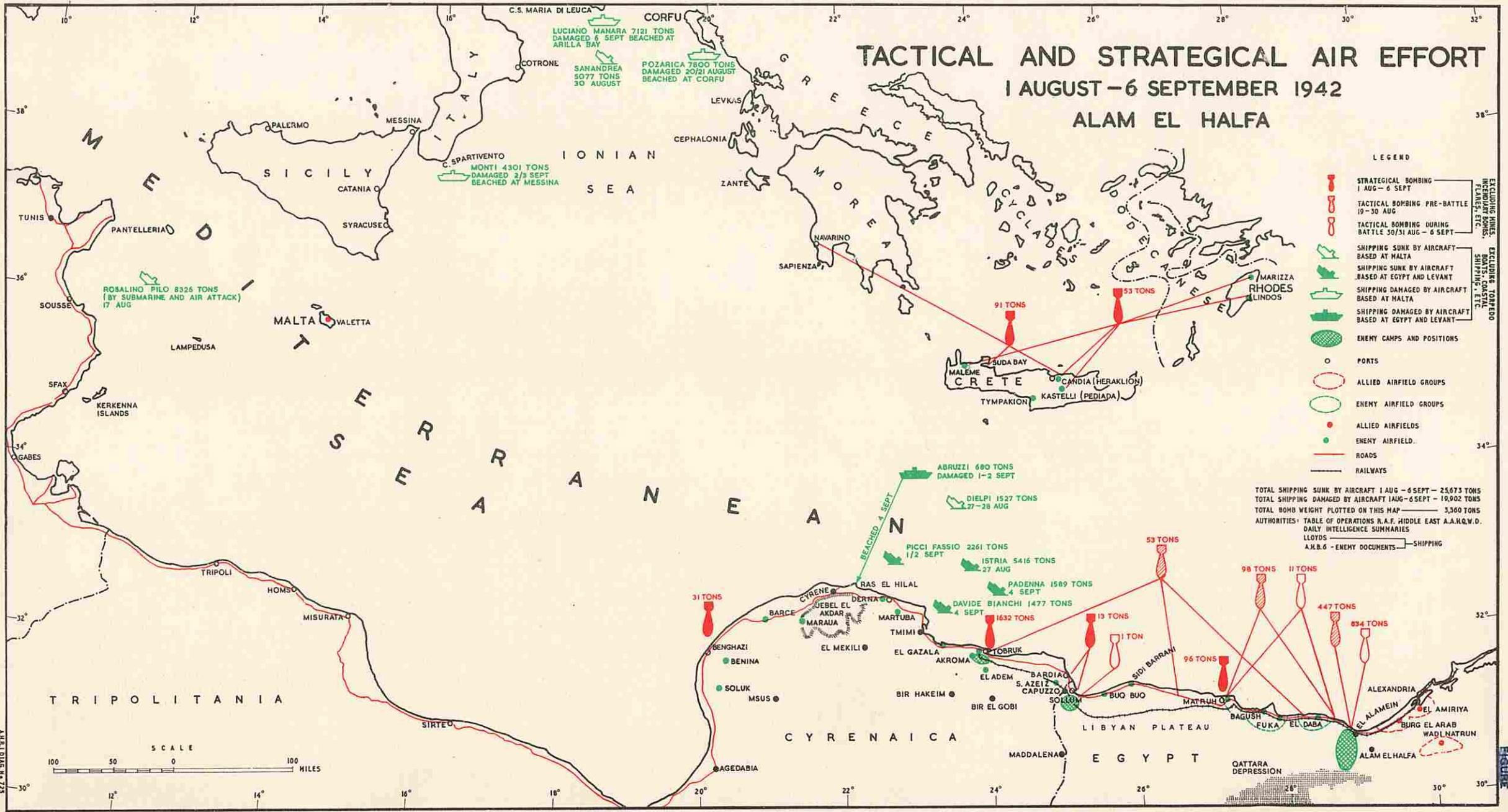
The time of the offensive was governed by the phases of the moon (for obvious tactical reasons major land operation in the Western Desert were timed to coincide with the moon period) and the place by the relative weakness of the Eighth Army in the South.⁽¹⁾ There were a number of additional pointers to the attack which had not been overlooked by a Commander as seasoned and experienced in desert warfare as the Air Officer Commanding the Western Desert Air Force. Throughout August there had been noticeable the enemy's reluctance to use his Stuka force which, taken together with intelligence reports of air reinforcements from as far afield as Russia, provided ample evidence of the enemy's determination to build up both strength and serviceability for a planned offensive. The enemy showed a particular sensitivity to any attempts at reconnaissance in the south, although, with his opponents enjoying a full measure of local air superiority, any attempt to deny aerial reconnaissance was doomed from the start. A shift of strength, particularly of armour, from the northern to the southern sector, across open desert terrain, could not fail to be detected and, as the main Eighth Army strength was concentrated in the centre and the north, redeployment could only be interpreted as an indication on the part of the enemy Army Commander to go over to the offensive.

No.208 Squadron
O.R.B.

It is not surprising, therefore, to find a measure of intelligent anticipation of Rommel's attack noticeable in many Squadron War Diaries for August. In an Operation Order signed by Air Vice-Marshal Coningham, on 21 August 1942, on the subject of the possibility of attacks by airborne troops occurs the following opening paragraph:-

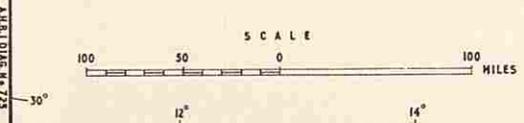
(1) Rommel to O.K.W. 15/8: 'Strong enemy air superiority compels the Army to regroup before the offensive. The first phase of the attacks to be carried out during moonlight nights.'

TACTICAL AND STRATEGICAL AIR EFFORT 1 AUGUST - 6 SEPTEMBER 1942 ALAM EL HALFA



- LEGEND**
- 🔥 STRATEGICAL BOMBING 1 AUG - 6 SEPT
 - 🔥 TACTICAL BOMBING PRE-BATTLE 19 - 30 AUG
 - 🔥 TACTICAL BOMBING DURING BATTLE 30/31 AUG - 6 SEPT
 - 🚢 SHIPPING SUNK BY AIRCRAFT BASED AT HALTA
 - 🚢 SHIPPING SUNK BY AIRCRAFT BASED AT EGYPT AND LEVANT
 - 🚢 SHIPPING DAMAGED BY AIRCRAFT BASED AT HALTA
 - 🚢 SHIPPING DAMAGED BY AIRCRAFT BASED AT EGYPT AND LEVANT
 - 🏕️ ENEMY CAMPS AND POSITIONS
 - PORTS
 - ⬭ ALLIED AIRFIELD GROUPS
 - ⬭ ENEMY AIRFIELD GROUPS
 - ALLIED AIRFIELDS
 - ENEMY AIRFIELD
 - ROADS
 - RAILWAYS

TOTAL SHIPPING SUNK BY AIRCRAFT 1 AUG - 6 SEPT - 25,673 TONS
 TOTAL SHIPPING DAMAGED BY AIRCRAFT 1 AUG - 6 SEPT - 19,902 TONS
 TOTAL BOMB WEIGHT PLOTTED ON THIS MAP - 3,360 TONS
 AUTHORITIES: TABLE OF OPERATIONS R.A.F. MIDDLE EAST A.A.H.Q.W.D.
 DAILY INTELLIGENCE SUMMARIES
 LLOYD'S
 A.H.B.6 - ENEMY DOCUMENTS - SHIPPING



A. A. H. Q. W. D.
22/Air.

' The enemy has now had time to re-organise and obtain reinforcements on a scale which he may well consider to be adequate for a resumption of the offensive. He usually launches his offensive to coincide with the full moon, so we must be fully prepared in all respects by not later than the coming full moon period. '

The Combined British Army and Air Force Plan

On 19 August General Alexander issued the following directive to General Montgomery:-

' 1. Your prime and immediate task is to prepare for offensive action against the German/Italian forces with a view to destroying them at the earliest possible moment.

2. Whilst preparing this attack, you must hold your present positions and on no account allow the enemy to penetrate east of them. '

C.-in C.-Med.
Despatch.

This decision was made known to all the forces under the Commander-in-Chief, Middle East Command, and there is no doubt that morale improved as a consequence of this firm statement of policy that there was to be no withdrawal. Co-operation between the Army and Air Force was also improved when, on 16 August, General Montgomery moved the Main Eighth Army Headquarters to a position alongside Advanced Air Headquarters Western Desert, at Burg el Arab.

Cabinet Office
Narrative.

The keystone to the Eighth Army Defence Plan was the Alam el Halfa Ridge which had already been developed by General Auchinleck. On this firm base the defence was organised and the situation pivoted on this feature. In essence the Eighth Army plan was designed to force the enemy to fight on ground, not only selected and prepared by the defenders, but dominated by their artillery and at the mercy of their air forces. It was also hoped that the technical superiority of the German tanks would be largely offset when they found themselves forced to attack well-dug-in British arms adequately supported by anti-tank and field artillery.

Report of
Operations in
the Western
Desert
A.H.B./IIJ1/
122/69(A).

Cabinet Office
Narrative.

The broad policy for the employment on the field of battle of the Air Force, as laid down by the Air Officer Commanding Western Desert Air Force, was one of continual bombing by day and by night in the southern sector. This was a logical extension of the general air policy of giving the enemy ground forces no rest which had been followed with outstanding success since the beginning of the moon period with the day-and-night bombing of enemy concentrations in the battle area. Furthermore, there was the unbroken campaign waged against the enemy's lines of communication which followed the classic principle of isolation of the battlefield, and the ceaseless fight for air superiority, with all that it entailed in the way of the bombing of airfields and the flying of offensive sweeps over the battle area. The disposition of the Eighth Army forces at this time reading from right to left (north to south), was:-

A.H.B./IIJ1/
122/69(A).

XXX Corps	{ 9th Australian Division 1st South African Division 5th Indian Division 23rd Armoured Brigade (In Corps Reserve)
XIII Corps	{ 2nd New Zealand Division 7th Armoured Division

This was basically the same disposition of the Eighth Army made by General Auchinleck, in the early days of the stabilisation of the Eighth Army, on the Alamein position, in July.

The divisions of XXX Corps and the Second New Zealand Division of XIII Corps were entrenched in a system of strong 'boxes' (defended localities) defended by minefields. These minefields had been in process of extension and improvement, so as to give a continuous belt from the sea to the southern boundary of the New Zealand Division position. Southwards from 2nd New Zealand Division there was no organised position other than a continuous minefield stretching as far south as Qaret el Himeimat (880250) which was watched by mobile columns of 7th Motor Brigade and 4th Light Armoured Brigade. Southwards, from Himeimat to the edge of the Qattara Depression, armoured car patrols kept constant observation and here the surface was so broken as to limit the movement of any considerable force.(1)

Cabinet Office
Narrative.

Essentially the British plan was for the Eighth Army to hold as strongly as possible the area between the sea and the Ruweisat Ridge and to threaten from the flank any enemy advance south of the Ridge from a strongly defended prepared position on the Alam el Halfa Ridge. With the arrival of important reinforcements in the Middle East, combined with the fact that General Alexander had been relieved of his responsibilities for the north eastern front, it had become possible to reinforce the troops in the desert.(2) The 44th Division Headquarters, with the 131st and 133rd Brigades, had been sent on 15 August to Alam el Halfa Ridge, and these were later strengthened by the greater part of the 10th Armoured Division (8th and 22nd Armoured Brigades). 'With the arrival of these reinforcements', says the C.-in-C. Middle East Forces, in his Despatch, 'there were ranged on Alam el Halfa Ridge, threatening the flank of an enemy advance of the southern sector, some 16 medium, 240 field and 200 anti-tank guns, all under Corps command, besides the guns of nearly 400 tanks and over 100 anti-tank guns manned by infantry. The minefields and wire entanglements had been largely extended and the position was a very strong one'.

C.-in-C.'s
Despatch
0184/1575/M.O.I.
(Records).

Idem.

- (1) Rommel's intelligence was badly at fault over this question of the extent of the British minefields in the south. On 15 August he wrote to O.K.W. 'In the area 30-50 kilometres south of Alamein the enemy has as yet constructed no strong fortification or large minefields. The 7th Armoured Division is covering this area'. In fact, as he was to find, there was an extensive system comprising three minefields.
- (2) At a private interview of the Prime Minister and General Brooke, C.I.G.S. on 8 August the C.-in-C. Middle East Forces was informed that his commitments were to be reduced by the creation of a separate Command to be known as the Persia and Iraq Force which would be responsible for defending the northern frontier of the Middle East block against the threat from the German armies in the Caucasus.

Comparative Air Strengths

Axis Air Ops.
D.D.I.3 Intelli-
gence Reports
A.H.B./IIJ1/63.

Fliedonkor
A.H.B.6 Figures
Derived from
Enemy Records,

The handling of the enemy air forces throughout August provided a good indication, not only of the imminence of an enemy offensive in North Africa, but of the increasing importance which the Axis High Command were placing on the Mediterranean theatre as a whole. Following the Axis air operation against the August Convoy to Malta (Operation 'Pedestal'), there was a swift redeployment of the main components of the Axis Air Forces from the central to the eastern basin of the Mediterranean.(1) The defence of Sicily and the continuance of further attacks against Malta were left as an almost wholly Italian responsibility. A strategic switch of enemy fighters to the Mediterranean from the Russian front is a further indication of the effort the enemy was making to build up strength and the importance placed by the enemy High Command on the coming battle in North Africa. Furthermore, in order to conserve the existing air force and improve serviceability the German Air Force fighters only averaged 40-60 sorties a day throughout August and the dive-bomber force, with the exception of Operation 'Pedestal', had carried out no operations since the first week in the month. ~~Luftflotte X's~~ strategic force of long-range bombers, based on Crete, was raised to the remarkable total of 229 aircraft.(2) The fleet of 178 transport aircraft, Ju. 52's, operating from Crete, was also far superior to the handful of assorted aircraft at the disposal of Middle East Command at this time.

Comparison of Strengths, Western Desert, 31 August 1942(3)

	<u>German</u>	<u>Italian</u>	<u>Total Axis</u>	<u>British</u>
Fighters	148	400	548	467*
Reconnaissance	32	-	32	-
Bombers	11	60	71	178 ¹
Dive-bombers	107	-	107	-
	298	460	758	645 ¹

*Includes two reconnaissance squadrons (32 aircraft) equipped with fighter type aircraft.

¹Includes 98 light bombers, and an estimated total of 80 medium bombers employed to attack targets in the battle area.

²Comparison excludes 25 Italian coastal aircraft, and two British F.A.A. Squadrons (these probably under strength).

Sources: German A.H.B.6: Italian D.D.E.3: British H.Q. M.E. Table of Ops.A.H.B.IIJ1/31/1.

- (1) Rommel's anxiety to have the Air Force at his disposal for his offensive (the original plan envisaged attack on 26 August) may have been the reason why the attacks were never pressed home against the surviving merchant ships which finally reached Malta and whose safe arrival made such a complete change in the whole strategic balance in the Mediterranean.
- (2) This figure compares very favourably indeed with Middle East Command's medium bomber strength of approximately 140 aircraft, the use of which in night bombing was such an important factor in the success of the Eighth Army at Alam el Halfa. The Ju.88 was superior to the Wellington in speed and bomb load but inferior in effective range.
- (3) A full battle strength of the western Desert Air Force at the time of the battle of Alam el Halfa is at Appendix 5 together with a comparison of strengths between the total Axis and British Air Forces in the Mediterranean in front line operational aircraft on 31 August 1942.

High level
Reports A.H.B.6
Trans. No.VII/80.

Both in the Western Desert and in the Mediterranean as a whole the Axis powers disposed of what was, numerically at least, a much stronger force of front line operational aircraft. Rommel's frequent complaint that the Axis Air Forces suffered from a numerical inferiority - particularly in fighters - is without foundation. Essentially what he meant was that there were too many Italians and too few Germans.

In spite of a numerical inferiority, the Western Desert Air Force had reached a high level of operational efficiency. The maximum forces had been concentrated for the battle and control was facilitated by excellent telephone communications. All Units which had been withdrawn for the defence of the Delta were again in the field. The greater part of the force had been rested and time found for training after the strenuous weeks following the retreat from Gazala. Squadrons were all strong in pilots who had made a special point of familiarising themselves with the operational terrain.

On the equipment side the Kittyhawk Squadrons, some of which had suffered 100 per cent casualties in aircraft during the recent fighting, were low in strength and the prospect of the immediate supply was poor. This caused particular concern owing to the possible limitations of suitable bomber escort aircraft. The number of Spitfires in the desert had increased but the three squadrons (Nos.92, 145 and 601) were still well below strength. The Hurricane squadrons were strong. The light bomber force was in favourable position with the Boston squadrons strong in aircraft and crews and the Baltimore squadrons were building up, while American B.25 squadrons were now beginning to arrive and were available as reinforcements. The one Blenheim squadron (No.14 Squadron) which remained had been withdrawn for re-equipment.

Supplies for a maximum effort had been established at all landing grounds. Air Support Control had a full disposition of tentacles to cover the battle area with rear links to all fighter and bomber wings.

'Morale', wrote Group Captain Beamish, S.A.S.O., W.D.A.F., 'was very high throughout the force. The whole of the Air Force was in a high state of efficiency and prepared to operate at maximum intensity for a considerable period the battle could not open under better conditions'.

Record of Ops.
in the Western
Desert A.H.B./
IIJ1/122/69(A)

The Enemy Fuel Situation

The strategic war carried out against the enemy's lines of communication was meeting with an astonishingly high measure of success. By 19 August when Rommel held a conference of his Corps Commanders to discuss preparations for an offensive it was revealed that, of the two German Panzer Divisions, 15th Panzer Division held approximately 10 per cent and 21st Panzer Division 20 per cent. of the amount of fuel considered necessary for the attack. Air transport had also shown its inherent shortcomings as a

D.A.K. War Diary

means of supply and reinforcements, for the Parachute Brigade Ramcke which had arrived in North Africa by air was almost entirely without vehicles.(1)

Panzer Army
Africa
War Diary.

As has already been seen, Rommel planned his offensive for the beginning of the full moon period on 26 August but, owing to the lack of fuel, this had to be postponed.(2) As late as 27 August the enemy Commander-in-Chief was still unable to determine the actual day of the attack owing to the shortage of fuel. Two days later, on 29 August, Rommel told the German Liaison Officer at Rome that, owing to the fact that promised deliveries of fuel and ammunition had failed to arrive, he was unable to undertake the objectives mentioned in the directive of 17 August, and that he could only undertake to attack with the limited object of defeating the Eighth Army at El Alamein.

D.A.K.
War Diary.

Even a day or two before the commencement of the offensive and whilst the final movement of the enemy armour to their assembly areas was taking place, the Panzer Divisions had only 2.5 units of fuel (one unit equals petrol for 100 kilometres) when their fuel requirement was in the region of 10 units. Rommel, therefore, was prepared to launch this major offensive, on which the whole of the Axis fortunes in North Africa were balanced, with little more than one fifth of his Panzer Army's fuel requirements and, as it so happened, no assured supply, although ships carrying adequate supplies were on the way and these were not sunk until later.

The Pre-Battle Air Offensive.

Squadron
O.R.B.'s and
A.A.H.Q.W.D.
Daily Int.
Summaries.

It is not possible to assign an exact date to the British air offensive for Alam el Halfa, but the policy pursued by the A.O.C. W.D.A.F. of day-and-night attacks on the enemy formations from the beginning of the moon period makes a convenient deadline. The daylight bombing of small isolated groups of between 50 and 75 enemy vehicles located in the southern sector began as early as 19 August. These were probably advance reconnaissance detachments(3) which served to draw the attention of an alert intelligence to that sector. On 22 August No.208 (Army Co-op') Squadron noted in their O.R.B., 'the enemy tends to be moving troops and M.T. to the southern sector' and by the

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- (1) There had also been a sharp drop in the general serviceability of the German transport aircraft squadrons due to the abnormal demands made on them during August for the move of the Ju.88's from Crete to Sicily and then back again.
 - (2) 'On the British side, we had to expect that a large convoy of well over 100,000 tons, laden with a cargo of the very latest weapons and war material for the Eighth Army, would arrive in Suez at the beginning of September. The Panzer Army was therefore insistent on launching its offensive before that date. Because of the general shortage of supplies, planning had to be limited to striking a blow at the Eighth Army in the Alamein line and taking possession of the territory around Alexandria and Cairo. But the date of the attack had to be postponed again and again, for it depended on the arrival of large quantities of petrol and ammunition, without which an offensive was impossible.' 'The Rommel Papers.'
 - (3) This likelihood appears to have been overlooked by Rommel who was usually too wise to provide his opponents with such useful intelligence. That these were in fact reconnaissance groups preparatory to the main offensive is indicated by the following extracts from the D.A.K. War Diary: 17th August 'a supplementary order issued to the Corps contained further instructions for the planned offensive, especially for reconnoitring routes and terrain.'

No.208 Squadron
O.R.B.

24th - six days before the opening of the offensive - 'the enemy is still moving his forces into the southern sector. The Air Force is giving them little peace as they are constantly being subjected to heavy bombing attacks.'

From 19 August all major redeployment of the enemy armour and transport towards the south was duly plotted by W.D.A.F. reconnaissance aircraft, in spite of the strenuous attempts made by enemy fighters to prohibit all aerial reconnaissance in this sector. When opposition to single recce' aircraft became too formidable, a 'weaver' was added, then an escort of fighters, and finally armed reconnaissance by strong forces of Kittyhawks, escorted by Spitfires. The enemy's determined efforts to prevent reconnaissance in the south again merely served to draw particular attention to this sector of the front.

H.Q.M.E.
Table of Ops.
A.H.B./IIJ1/
31/1.

Between 22 August to 30 August, the eve of the offensive, over 500 day and night bombing attacks were made against enemy forces in the southern sector, in the course of which some 450 tons of H.E. were dropped. For over a week before Rommel's offensive, therefore, the spearhead of the enemy striking force, which was to bear the main weight of the attack, was subjected to night-and-day bombing in which approximately one third of the available strategic bomber force was directed against tactical targets in the battle area, together with daytime fighter-bomber and machine-gunning attacks. The light-bomber force of Bostons and Baltimores, now strengthened by a squadron of U.S.A.A.F. Mitchells, denied suitable targets in the battle area owing to dispersal, attacked the enemy lines of communication along the coast road. Enemy landing-grounds, especially the forward ones from which the dive bombers and their supporting fighters would operate, were also subjected to night-and-day attacks. G.H.Q. Panzer Army Africa reported to Commando Supreme on 3 September:

A.A.H.Q. W.D.
War Diary A.H.B./
IIJ1/122/1.

D.A.K. War
Diary.

'The continual heavy air attacks by day and night before the commencement of the operation caused considerable material and personnel losses to units. These attacks have also had effect on the morale of the German and Italian troops. In particular, owing to the lack of night fighters, troops could not be covered during the 7-8 hour night attacks.'

Formation of the Enemy's Battle Line.

High Level
Reports and
Directions
A.H.B.6 Trans.

'Strong enemy air superiority compels the Army to regroup before the offensive.' This statement by Rommel on 17 August is borne out by the way in which his panzers were moved south, into their assembly areas by night in four groups beginning on 25 August. The last stages in the enemy moves into their battle positions were reported by aerial intelligence on 30 August. A morning reconnaissance by a strong force of 17 Kittyhawks of Nos.3 and 450 R.A.A.F. and 112 Squadrons, covered by 9 Spitfires of No.92 Squadron—one of the strongest air reconnaissance forces seen in the Western Desert reported 3,000 M.T. at 845251, a little to the east of the Eighth Army's old strongpoint of Naqb abu Dweis and almost on the lip of the Qattara Depression. This build-up in the south was confirmed by another recce' sweep of 18 Kittyhawks of Nos.112, 250 and 3 (R.A.A.F.) Squadrons, with 6 Spitfires of No.145 Squadron acting as top-cover, which observed that there were large numbers of M.T. and some twenty tanks on the edge of the Qattara Depression and to the southwest of the Qattara 'box'.

A.A.H.Q. W.D.
Daily Int.
Summary and
O.R.B.S.

O.R.B.s.

The last tactical reconnaissance of the day (30 August) reported three groups of four hundred M.T. in an area 8527 - 8628 - 8525(1). This minor air operation was unique of its kind, as it involved a single aircraft of No.208 Squadron, on reconnaissance, being covered by a total of 31 fighter aircraft, of which 19 were Spitfires and 12 Hurricanes. Three of the Hurricanes were shot down, with the loss of two pilots, by an attacking force of six Me.109's which in turn lost two aircraft to the Spitfires.(2)

Air Support
Control War
Diary.

By this time - the reconnaissance took place at last light - it was too late for a day-bomber attack to be mounted, but the medium bomber force allocated for night-bombing of the battle area was specifically directed against this target. It was a case of military opportunism which was to bear the most fruitful results.

The Attack Begins: Ground and Air Operations Night
30/31 August

At 22.00 hours on 30 August, a full-scale offensive with far-reaching objectives was launched against the Eighth Army by the German-Italian Panzer Army. The following was logged in the D.A.K. War Diary at zero hour, the night of the offensive:

A.H.B.6 Trans.

'22.00 The German Afrika Korps, after a rest period of about three weeks, commenced to attack. The fighting power of the Korps has considerably increased during this time. Morale is good and there is confidence in victory. The tank regiments are going into action with altogether 237 tanks.'

Cabinet Office
Narrative.

The minefield gaps on the 7th Armoured Division front were shelled, and at 00.41 hours, 31 August, the 7th Armoured Division sent out the codeword 'Gamebirds' which brought all troops to a state of readiness.

D.A.K. War
Diary.

Parties of the enemy reached the first British minefields at various points between 268 and 255 grids from about 01.00 hours where they began to lift mines to clear a way for the tanks. 'The advance of the German Afrika Korps', the DAK diarist recorded, 'has been watched since 01.00 hours by enemy night reconnaissance aircraft. The last units of the (Panzer) Divisions have already been attacked by a few night bombers which had apparently noticed the start of the offensive.' A later report, at 02.30 hours, said that heavy air raids on the Afrika Korps had developed with the main effort directed against the 21st Panzer Division.

These so-called 'night reconnaissance aircraft' were most probably Fleet Air Arm Albatrosses which, arriving early

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- (1) An alternative report derived from the O.R.B. gives the figure as a concentration of fifteen hundred M.T. in groups of five hundred in area 852271 - 860265 - 853254 - 850260.
 - (2) No.208 Squadron suffered heavy casualties during the month of August. They lost 21 aircraft destroyed or badly damaged with 7 pilots killed or missing. Fourteen of these aircraft were the obsolescent Hurricane Marks I and II.

over the target-area in the southern sector indicated by the last light Tac/R., were pursuing their familiar 'pathfinding' technique of flare-dropping and dive-bombing preparatory to the main attack by No.205 Group Wellingtons. A total of 31 night-bomber sorties were made against the enemy, in the initial stages of their offensive in the course of which 38 tons of H.E. and incendiary bombs were dropped. All the aircraft reported hits and bursts among large concentrations of motor transport and tanks, causing fires. On the return of the first aircraft at 0.200 hours, the news had come through that the enemy was advancing in four columns and, appreciating the importance of the target, No.826 F.A.A. Squadron mounted second sorties with five aircraft.(1)

H.Q. R.A.F.
M.E. Table of
Operations
A.H.B./IIJ1/31
/1.

No. 2 A.A.S.C.
War Diary.

No.104 Squadron
O.R.B.

That night, two Wellingtons of No.104 Squadron, searching for targets of opportunity in the battle area, located and bombed a tented camp of which two were seen to have been destroyed. Unknown to the attacking aircraft, they had scored a direct hit on the German Afrika Korps Headquarters.

'03.50 hrs 31/8.

D.A.K. War
Diary.

the Commanding General and several officers were wounded by a serious direct hit at Corps Battle Headquarters. General Nehring, slightly wounded, is seeking the main dressing station. Lt. von Burgdorff and Civilian Specialist Schmidt have been seriously wounded. They succumbed later to their injuries. Until further notice the Chief of the General Staff, Staff Colonel Bayerlein, will take over the command of the Corps; General von Vaerst, Commander of 15 Panzer Division, who may have to deputise for the Commanding General, has been advised and requested to come to Corps Headquarters.

This was not the end of the misfortunes attending the initial stages of the advance. Twenty minutes later it was reported that the Commander of 21st Panzer Division, Major General von Bismarck, had been killed when advancing with the foremost battalion of his Division.

A.A.H.Q.W.D.
War Diary.

Between 03.00 and 03.20 hours Albacores reported that up to 3500 M.T. were situated in three columns between 870258 and 877255, the vehicles being dispersed near the minefield but very concentrated further back. At 04.00 hours the following message was passed from Main Eighth Army H.Q. to the Duty Officer at H.Q. Middle East:

Main 8th Army
War Diary.

'Enemy columns approaching the minefield south of the New Zealand Division position. This together with Tac/R at last light and other indications lead us to suppose that the enemy is making a major move.'

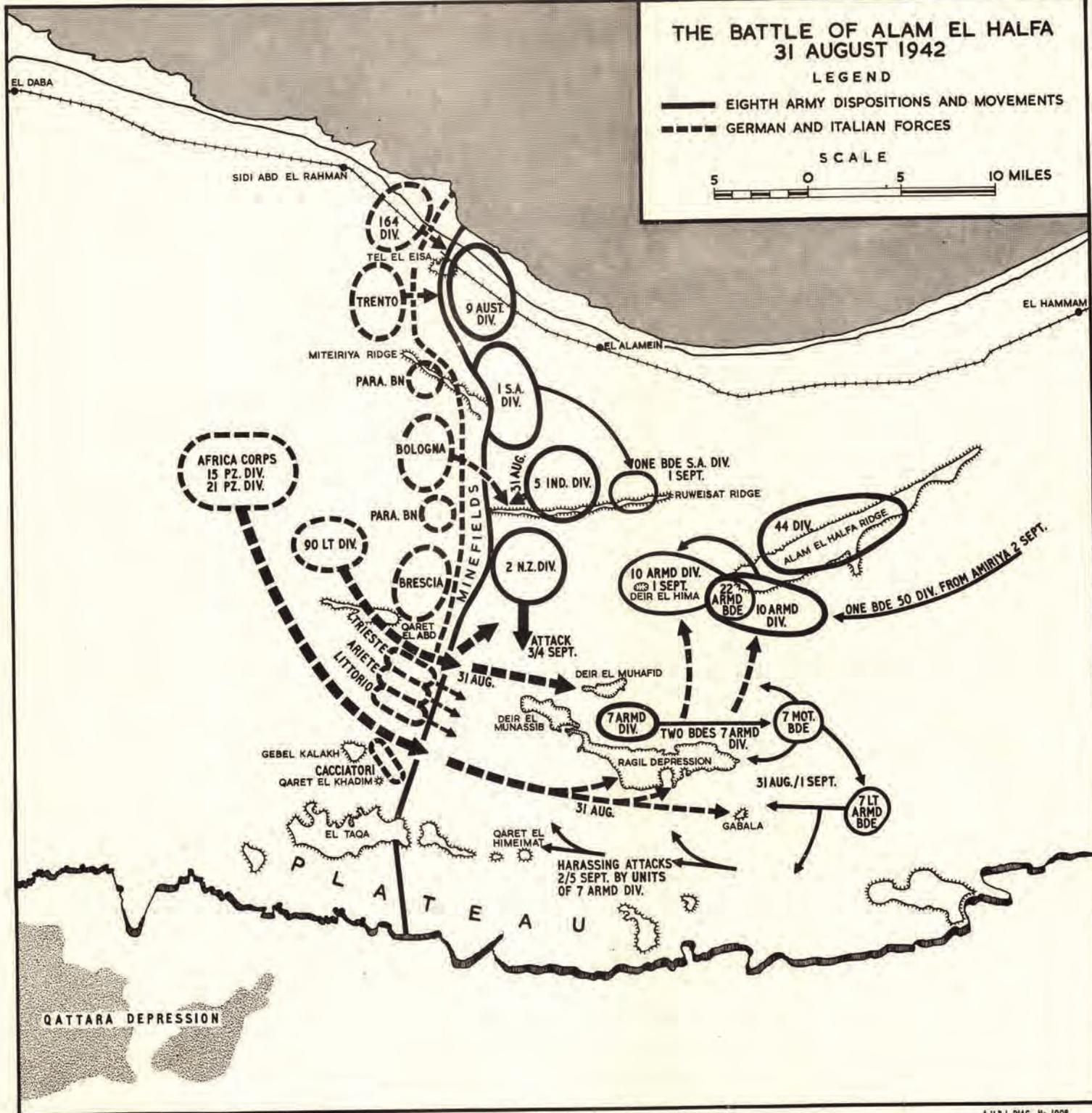
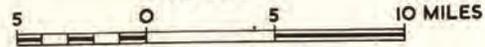
(1) Rommel's own account of the opening stages of the battle states that 'Before long, relay bombing attacks by the R.A.F. began on the area occupied by our attacking force. With parachute flares turning night into day, large formations of aircraft unloosed sticks of H.E. bombs among my troops.'

THE BATTLE OF ALAM EL HALFA 31 AUGUST 1942

LEGEND

-  EIGHTH ARMY DISPOSITIONS AND MOVEMENTS
-  GERMAN AND ITALIAN FORCES

SCALE



In addition to this major thrust in the south, two other diversionary attacks were made. In the northern sector 164th and Trento Divisions attacked the 9th Australian Division, and in the centre a German Parachute Battalion and the Bologna Division attacked the 5th Indian Division on the Ruweisat Ridge. From the air point of view these attacks - they were essentially nothing more than raids - were of little importance. As was intended, they caused the Eighth Army Commander to speculate for a while on the exact location of the main thrust, but they did not cause any divergence from the Army-Air plan of concentrating the full weight of air attack in the south.

General
Alexander's
Despatch.

Cabinet Office
Narrative.

Cabinet Office
Narrative.

The attacks on the British minefields in the southern sector met with varying success but at no time did it appear possible that the enemy would be able to keep to the timetable laid down. In addition to being heavily attacked by night bombers, they were enfiladed by fire from the 2nd New Zealand Division and harassed frontally and from the south by 7th Armoured Division, whilst the minefields were found to be much more extensive than enemy intelligence had led Rommel to suppose. The 90th Light Division experienced particular difficulty in piercing the British minefields. Although it was planned that by 01.00 hours 31 August they should be some ten miles to the east of the British minefields and in a position to execute an outflanking turn to the coast, it was not until 01.38 hours that they reached the first British minefield. The task of piercing the minefields, never a simple one, was complicated by the fact that the light of the full moon - sometimes further illuminated by aircraft flares - assisted the defence considerably. This attack by infantry of the 90th Light Division on the first British minefield at about 875264, for instance, was completely wrecked by small arms fire by two companies of the 2nd King's Royal Rifle Corps and Bren gun fire and, in fact, no further attempts were made to penetrate the minefield on the front held by this regiment. The enemy were scarcely more fortunate in the area held by the 2nd Rifle Brigade Group. At about 01.30 hours, eighteen enemy tanks with infantry in M.T. reached the first British minefield about 876263. By covering the infantry with fire from their tanks they were able to pierce the minefield, but were counter attacked by carriers and driven back, with heavy casualties.

Gradually, however, as the night progressed, the enemy forced their way through the initial minefield defences. The extent and depth of the system of minefields in the south came as a complete surprise to the enemy, and it was not until 09.35 hours that enemy armour was near the third minefield and up to as late as 10.00 hours on 31 August there was no penetration of this third minefield. Soon afterwards, however, strong tank columns were through into the open and were moving eastwards between Gaballa and the Ragil Depression, forcing the 7th Armoured Division, which had been instructed to avoid becoming pinned to the ground, to fall back.

Rommel's Decision to Modify his Original Plan, Morning
31 August

Rommel Papers.

By early morning 31 August, it was obvious to the enemy Commander-in-Chief that 'the element of surprise on which the whole plan finally rested' had been lost. His motorised forces had failed to make their quick break through in the south - a failure to which the last light Tac/R and the

D.A.K. War
Diary.

bombing attacks throughout the night had contributed very considerably. At 08.00 hours, Rommel put in an appearance at the Afrika Korps Headquarters. A decision whether or not to break off the battle depended largely on how things stood with the Afrika Korps. The Chief of the General Staff, Bayerlein, who had taken over command of the Afrika Korps after the disastrous air attack of the preceding night, explained that the night's advance had been made difficult 'by many mines both scattered and thickly sown in hitherto unknown minefields, by bombing raids and artillery fire. The planned surprise of penetrating by dawn the enemy's flank and rear and then pushing northwards had not been achieved. The following possibilities present themselves for the continuance of the operations:-

- (a) Carrying on according to plan.
- (b) Going over to the defensive in the present positions, utilising the British minefields.
- (c) Retiring to the initial positions.
- (d) Continuing the attack, not as planned by an extensive advance towards the East, but by immediately thrusting towards the north-east.'

D.A.K. War
Diary.

Rommel had already decided to go over to the defensive for the time-being. On the strength of the new Commanding General of the Afrika Korps' appreciation of the situation (it would appear that Bayerlein was ignorant of the third line of British minefields) Rommel gave orders to continue the attack in the changed direction, towards the north-east, instead of the 'extensive advance towards the East.' This decision was a momentous one, for it brought the thrust of the main enemy striking force into a position for which the British defensive plan was best prepared, and where it would be met by the strongly-defended position at Alam el Halfa.

Field Marshal
Montgomery:
'El Alamein to
the Sangro.'

The Enemy Air Forces' Failure to Support their Ground Forces'
Attack Night 30/31 August

A.A.H.Q. W.D.
Daily Int.
Summaries
A.H.B./IIJ1/122/
1(B).

Enemy air operations on the night 30/31 August were limited to a raid by some fifteen aircraft, believed to be Ju.88's from Crete, on landing-grounds at Amiriya. The sum total of the damage was two parked aircraft destroyed. Hurricanes of No.73 Squadron, carrying out interception patrols, shot down two of the raiding aircraft. A much greater enemy air effort than this for the opening night of Rommel's offensive might have been expected, especially from the very considerable force of long-range bombers based on Crete. The task set the Axis Air Forces in the overall plan which was to 'attack the coast road between El Alamein and Burg el Arab from 22.00 hrs 30 August' was not even attempted. No night fighters were up to protect the tremendous concentrations of vehicles gathered in the vicinity of the minefields from attack. No night bombers were in action against equally inviting targets presented by the Eighth Army in the Alam el Halfa area.

Strategical Bombing by Aircraft of No.205 Group, Night
30/31 August.

Attacks against strategical targets during the night of 30/31 August by aircraft of No.205 Group - in this case concentrated against shipping and port installations at Tobruk - was on an impressive scale. A total of

No.205 Group
O.R.B. A.H.B./
IIM/B.205/1(A).

25 Wellingtons of Nos.40, 108 and 148 Squadrons, 7 Halifaxes of Nos.10 and 76 Squadrons, 11 Liberators of the 1st Provisional Bombardment Group of the U.S.A.A.F. and 6 Liberators of No.159 Squadron attacked Tobruk between 01.50 and 03.40 hours. The target was greatly obscured by cloud, and a tanker which was thought to be off-loading, having run the gauntlet across the Mediterranean, was unfortunately missed.(1) Large fires were, however, started in the dock-area and around the jetties, and bursts on ships some distance off Tobruk were claimed by Wellingtons. It was remarked that the A.A. gunfire was considerably less than usual, which inferred that a part at least of the port's A.A. protection had been diverted to assist the ground troops at the battlefront.

Air Policy for the Battle.

A. A. H. Q. W. D.
Record of Ops.
A. H. B./IJJ1/122/
69(A).

As has already been indicated, the plan for the air offensive against the enemy advance was simply to maintain bombing by night and day at the maximum effort for as long as targets were available. In addition, it was decided that, during the day, the light bombers should operate a shuttle service, formations being of a strength of as near eighteen aircraft as possible in order to economise the fighter effort which was likely to be strained to the utmost owing to the shortage of Kittyhawks. A number of the Kittyhawk Squadrons had suffered up to 100% loss of aircraft in the recent fighting which had not yet been made good.

Light Bomber Programme 31 August Curtailed by Dust-storms.

A. A. H. Q. W. D.
War Diary and
Eighth Army War
Diary.

No.223 Squadron
O.R.B.

By 05.00 hours on 31 August, A.A.H.Q.W.D. had already agreed with No.211 Group and No.3 S.A.A.F. Wing the first-light policy for the light-bombers which was to concentrate attacks on what was anticipated as a series of spectacular targets along the line of 15 and 21 Panzer Divisions' advance, between 250 and 260 Grids. It was obvious, even as early as this, that the attacks on the Northern and Central Sectors of the line were diversionary in intent. Soon after first light - the bombers were airborne before 07.00 hours - a total of 28 Kittyhawks, Tomahawks and Spitfires escorted the first light-bombing raid of the day when 18 Baltimores of No.223 Squadron attacked enemy M.T. at 870260, to the south of Deir el Munassib. The A.A. gunfire was perhaps the most intense and accurate ever encountered in the battle-area and, although the light bombers attacked from over 9,000 feet. one bomber was shot down and eight others were holed. In this raid 11 tons of H.E. were dropped and results were considered to be good.

A. A. H. Q. W. D.
War Diary
A. H. B./IJJ1/
122/1.

Already, by 08.00 hours, rising dust on landing-grounds had begun to disorganise the carefully prepared programme of day bombing. At 07.40 hours, 17 Baltimores of No.55 Squadron took off, but dust prevented the escorting fighters from making their rendezvous and the Baltimores were recalled. The next raid consisted of 15 Bostons of No.24 S.A.A.F. and 3 Mitchells of the 12th Bombardment Group, escorted by 24 Kittyhawks, with 7 Spitfires providing high cover. They were directed to attack enemy concentrations

(1) The Gualdi carrying 800 tons of fuel for the Panzer Army moved on 30 August. This was all the petrol they were to receive - some 10 per cent of requirements - throughout the battle.

consisting of two enemy columns at 880260 and 881255. No targets were seen in this location, but a large concentration of M.T. including tank-carriers was located at 875255 at a spot already reported by the Baltimores. Bombing was excellent and photographs showed seven direct hits together with 24 near-misses. Intense A.A. gunfire holed another three aircraft.

In spite of the news brought back by the returning bombers of the excellent targets to be found in the southern part of the battlefield all along the line of the Panzer Army's advance, rising dust clamped down steadily on operations. At 11.15 hours fourteen Baltimores took off, but were eventually recalled as the fighter escort was unable to take off from their landing-grounds. Never had the Panzers, which were concentrating to the east of the mine-field near the Ragil Depression, presented such inviting targets, but the bomber force was compelled impotently to stand by. In case the duststorms should continue, alternative landing grounds were chosen at Mariut, from which a force of Bostons could operate. Nevertheless, limited as they were, these raids would appear to have made a distinct impression on the enemy. 'During the morning,' the D.A.K. Diarist recorded, 'the German Afrika Korps was frequently attacked by bomber formations of from 12 to 18 aircraft. Results of our own fighter and anti-aircraft defence are not known.'

No.3 (S.A.A.F.)
O.R.B. Wing.

D.A.K. War
Diary.

A.A.H.Q.W.D.
O.R.B.

At 17.35 hours No.211 Group advised that landing grounds were clearing, and that they would endeavour to carry out one operation. At 18.43 hours, despite the extremely poor visibility which still prevailed owing to the dust and haze, 18 Bostons of No.24 S.A.A.F. with two Mitchells of the U.S.A.A.F. made a further attack on enemy concentrations at 884254. Owing to the poor visibility, only the edge of a well-dispersed enemy concentration was attacked. Three direct hits and five near-misses on M.T., one near-miss on a heavy tank and one very large fire and four small fires were started. Curiously enough on this raid no enemy gunfire was encountered.

On 31 August a total of 55 light bomber sorties was made in the course of which 34 tons of bombs were dropped or about one third of the planned programme. 'There for the time being,' wrote the 3 Wing diarist, 'our effort ended. Ingenious Rommel had chosen his weather well. The worst dust storm for many weeks swept the desert landing grounds. Our aircraft were impotent. It was a disappointing finale to high hopes, but we eagerly await the morrow.'

No.3 S.A.A.F.
Wing O.R.B. and
Opsums.

Message from the Air Officer Commanding-in-Chief.

The same day, 31 August, the following message was circulated to all squadrons from the Air Officer Commanding-in-Chief:

'The Battle of Egypt has begun. This is a vital battle - perhaps the most vital battle of the war. The Commander-in-Chief of the Army has called upon our troops to stand fast and destroy the enemy at all costs. It is for us to support the Army to the utmost limit of our ability. During the last battle your effort in the air and on the ground, in the Squadrons and in the Workshops, were magnificent and decisive. So once again I confidently call on every officer and man, whatever his job, to put forth a supreme effort.'

Everyone must do his utmost and more than his utmost. In the last battle, the enemy was stopped when he thought victory certain. This time he can and must be finally crushed.'

Ground Activity 31 August

It has already been seen how the delay in getting his striking force through the British minefields in the south, during the night of 30/31 August caused Rommel to make a drastic modification to his original plan. Instead of a wide sweep towards the east, with the object of outflanking the whole of the Eighth Army positions at El Alamein, including the Alam el Halfa Ridge, this shortened drive to the north-east would bring him up against the Eighth Army's prepared and strongly-defended positions at Alam el Halfa. An indication of the importance of air power in this battle is that, with a respite from sustained bombing, the enemy offensive began to develop considerable impetus, for the first time since the operation had started.

The modified plan adopted by Rommel was for the Afrika Korps to attack with the 15th Panzer Division on the right (to the south) and the 21st Panzer Division on the left, in the direction of Hill 132 (Alam el Halfa). The attack was launched at 13.00 hours and at 14.30 hours it was reported that the onslaught was gaining ground well and that a weak enemy was withdrawing towards the north-east and north. By soon after 15.00 hours the first objectives, Deir Daayis and Deir el Tarfa had been reached by the foremost elements to the south-west of the Alam el Halfa Ridge. At 15.30 hours, a report was received by Eighth Army Main H.Q. that both the enemy Panzer Divisions were heading north and north-east across the soft going of Deir el Agram not more than five miles due south of Hill 132, the Eighth Army's chief defensive position in this area.(1) This brought them towards the selected and prepared battle positions of 22nd Armoured Brigade which had been waiting all day for action, their tanks mainly in hull-down positions. In the ensuing engagement 22nd Armoured Brigade inflicted heavy losses on the enemy and themselves sustained casualties involving 16 Grant and one Crusader tanks. The enemy force was noted to be entirely German including many Mark III and a number of Mark IV special tanks.

D.A.K. War
Diary.

Eighth Army
War Diary.

Cabinet Office
Narrative.

Nevertheless, the 15th Panzer Division made good progress and, by 18.30 hours, was engaged in making an encircling attack from the east and south east on Hill 132. Forty minutes later the division was able to report that it had reached the ridge with its armoured elements and was forming its tanks in hedge-hog position on the slopes. On the left, 21st Panzer Division had not gone forward so

D.A.K. War
Diary.

C.-in-C.'s
Despatch
0184 (1595/
M.O.1
(Records).

- (1) One of the deception measures practised on the enemy appears to have had unexpectedly successful results. An armoured car was purposely sacrificed containing a tea-stained map on which was marked a belt of good going extending up to the crest of Alam el Halfa and which, in point of fact, was an area of very bad going. The enemy chose this very route and, as Rommel mentioned in one of his reports, used up three times as much petrol as had been anticipated. Von Thoma also confirmed that this ruse had been effective.

Cabinet Office
Narrative.

quickly. At dusk Panzer Regiment 5 was engaged in a fierce struggle in this area and was forced to withdraw. At 1830 hours, 21st Panzer Division ceased advancing and formed a hedge-hog position in the area north of Deir el Tarfa. As darkness fell, observers from 22nd Armoured Brigade saw the majority of German tanks withdraw to harbour about 437880 due south of Hill 132, but six remained stationary all night, close to 1 Regiment, Royal Horse Artillery's Waggon Line and only about 1,000 yards from Headquarters 22nd Armoured Brigade. This would appear to have been the maximum advance made by enemy tanks in the course of the battle. The enemy assessment of the position on the evening of 31 August was as follows:-

D.A.K. War Diary.

'The attack during the afternoon has gone well although, of course, owing to the ever increasing resistance, it was not possible to capture Hill 132 completely.'

At 22.16 hours that evening, the Panzer Armée Afrika sent a report to O.K.H. -

'1. The Assault Group of the Panzer Armée Afrika held back mobile enemy forces (7 British Armoured Division) in an easterly and north easterly direction at the same time overcoming further numerous deep minefields and obstacles. By evening the line Menequir el Taiyara (28 kilometres south east El Alamein) was occupied. Reconnaissance Forces are covering the eastern flank in the area east of Deir el Ragil....

2. According to Air Recce. no major movement on the road Cairo - Alexandria - El Alamein and on tracks leading from Cairo westwards.

3. The Luftwaffe supported the advance of the Panzer Armée by several Stuka attacks on enemy concentrations of fighting vehicles and on positions.

4. General of Army Troops Nehring Commanding German Afrika Korps wounded. Major General von Bismarck Commanding 21 Panzer Division killed.'

Cabinet Office
Narrative.

Enemy Air Activity 31 August

During 31 August enemy air activity, as was to be expected with the enemy intention to carry out a full scale offensive, was on a much increased scale. Dive-bomber sorties rose from nil on 30 August to 70 on 31 August, while single-engined fighters made some 240 sorties as against 45 on the preceding day. It would appear that enemy forward landing-grounds escaped the worst of the dust storms on 31 August and were able to operate with comparative freedom. There were six raids by dive-bombers, numerous fighter sweeps and a number of fighter attacks including one by Italian C.R.42s. Ground reports supply the following details of bombing:-

Axis Air
Operations
D.D.I.(3)
A.H.B./IIJ1/63.

A.A.H.Q.W.D.
Daily Int.
Summaries A.H.B./
IIJ1/122/1.

1336 hours at Map Reference 4290
1820 hours at Map Reference 4288
1935 hours at Map Reference 884290

The enemy dive-bombers which had been driven back to Sidi Haneish from their forward landing-grounds by the heavy bombing attacks early in the month were brought back to Daba for the offensive. It was from these advanced landing-

grounds that the four Stuka attacks were launched, though according to Eighth Army sources they did not achieve any very great results.

Western Desert Air Force fighters on escort duties to the bombers encountered no enemy aircraft and, owing to the moderate amount of bombing activity, put up only 100 sorties. Despite the adverse weather conditions Spitfires and Hurricanes which operated from alternative landing-grounds in the Alexandria area which were not so badly affected by the dust, carried out over 100 sorties in the course of which there were nine encounters with the enemy. Towards midday 12 Hurricanes of No.213 Squadron intercepted a very strong force of some 40 Stukas escorted by 15 Me.109's at 865285, well behind the enemy lines, and forced the dive-bombers to jettison their bomb load. Ground forces later confirmed that three Ju.87's had been shot down. On this occasion the escorting Me.109's did not come down to engage the Hurricanes. In the southern sector at much the same time another Stuka raid was intercepted by 23 Hurricanes with less fortunate results as two Hurricanes were shot down and one damaged without loss to the enemy. A last light Stuka raid was intercepted by 12 Hurricanes of No.80 Squadron, one pilot was chased back to base by three Me.109's but managed to land safely. Many of the pilots complained of cannon stoppages due to sand. Two adventurous Hurricanes, on a dawn reconnaissance to the west of the bomb-line, machine gunned enemy aircraft on Landing Ground 20 and claimed five Me.109's damaged. The enemy lost 10 aircraft.

Squadron O.R.B.s.

No.80 Squadron
O.R.B.

Operations by Twin-Engined Fighters

To the rear of the battle area R.A.F. activity was necessarily limited. Apart from the heavy night bombing raids on Tobruk and the escapade by the two Hurricanes on reconnaissance, Beaufighters of Nos. 252 and 272 Squadrons carried out two attacks on enemy traffic on the coast road. At 15.55 hours four Beaufighters of No.252 Squadron machine-gunned traffic from 15 miles west of Matruh to 15 miles east of Sidi Barrani. One lorry was destroyed, other lorries damaged and a number of casualties were caused among troops. Three Beaufighters also operating along the coast road found little traffic but had the good fortune to intercept and destroy two Ju.52's and damage two others. They also claimed damage to seven vehicles on the road

Middle East Ops.
Sums. and
Squadron O.R.B.s.

Air Operations Night of 31 August to 1 September

The timely intervention of the weather, on the afternoon of 31 August, which had so favoured Rommel by closing down the W.D.A.F. bomber landing grounds and, as General Alexander remarked, 'robbed us of a fine opportunity of disrupting the enemy's plan at the outset', only gave the enemy a temporary respite from bombing. Weather was good for the night-bombing programme with only a slight ground haze. The total bomber effort amounted to 109 medium-bomber sorties of which 69 were directed against targets in the actual fighting zone and the balance against the enemy advanced landing-grounds. Some twenty Wellingtons of Nos.108 and 148 Squadrons made double sorties over the battle area where 89 tons of bombs were dropped.

General
Alexander's
Despatch.

H.Q.M.E. Table
of Operations
A.H.B./IIJ1/
31/1.

A.A.H.Q.W.D.
War Diary.

At 22.45 hours, the pathfinding Albacores reported to A.A.H.Q.W.D., through No.821 Squadron, that they were 'unable to locate targets'. Within half an hour, however,

another report came through that excellent targets had been located at 888263, to the south west of Deir el Tarfa. When the first wave of Wellingtons arrived over the target area, they found it well-illuminated by flares dropped by the Albacores. A vivid account of the night's operations is contained in No. 148 Squadron O.R.B.

'Fifteen aircraft were detailed to take off. Squadron maintenance crews deserve the highest praise for magnificent work in getting so high a serviceability in such trying conditions. Owing to uncertainty of battle in Western Desert news received Squadron to be packed ready to move in an hour's notice. Fifteen aircraft took off on first sortie. Target - M.T. concentrations in the Battle area. Crews impressed upon at briefing the vital urgency of to-night's operations and the need for accurate bombing. Great keenness shown by all. Target well illuminated by Albacores when aircraft arrived and much M.T. observed moving South. Many fires caused and direct hits claimed by all crews. Very little opposition encountered and no night fighters seen. This augers well for second sortie when aircraft will be operating in moonlight. All aircraft returned safely and preparations were hurriedly made to enable the second sortie to be carried out with the least possible delay. Armourers deserve great praise for the second sortie in which each aircraft carried 14 x 250 lb. G.P. All aircraft were in the air again 45 minutes after landing from 1st sortie. 14 aircraft took off on second sortie to bomb huge concentrations of M.T. Crews firmly resolved that this time operation would be one Axis forces would never forget. When aircraft arrived over target fires were still burning from first sortie. Aircraft 'K' observed one big concentration of hundreds of vehicles. Four sticks scored direct hits and five well-laden trucks were seen blazing. A few black objects (presumably personnel) seen running about among trucks and rear gunner took advantage of this excellent opportunity to fire 1,000 rounds. Fires and a black pall of smoke observed all over the target area when crews prepared to leave. Twenty-six different fires started and explosions seen all over area. Flying debris filled the air and crews reported great havoc caused.'

Reports from crews returning from the first sortie mentioned that large concentrations of M.T. were located and effectively attacked, starting twelve fires accompanied by a number of violent explosions. A particularly large fire was started on a tented encampment surrounded by M.T. Opposition was negligible. Aircraft on the second sortie found 'masses of M.T.' and the majority of them were able to claim direct hits. On leaving the area, they reported that at least thirty fires were raging. According to enemy reports, there were heavy night-bombing raids all along the front, while the Reconnaissance Unit covering the eastern flank of the Afrika Korps suffered particularly heavy casualties. The Reconnaissance Unit's own account of the night-bombing attacks is of exceptional interest.

No. 205 Group
O.R.B. Appendices.

3rd. Reconnaissance Unit

Unit Battle H.Q.
3 September 1942.

Report on the Bombing Attack on the Unit carried
out during the Night of 31 August/1 September 1942

At about 18.30 hours on 31 August, the unit received an Army signal ordering it to move directly south-east of Deir el Ragil to provide rear and flank cover for the Afrika Korps' withdrawal to Alam el Halfa. The unit, together with 33rd Reconnaissance Unit and subordinate elements of 612th A.A. Battalion and of the Italian Nizza Reconnaissance Unit reached the specified area towards 19.45 hours and, after brief instructions were issued, the occupation of the defence zones was completed at about 20.30 hours.

War Diary of
Panzer Army Africa
Appendices.
A.H.B.6 Trans. No.
VII/108.

After much air activity in east-west and west-east directions, about 8 parachute flares were dropped over the defence area shortly before 21.30 hours, followed immediately by 6 - 10 bombs, most of which fell among 33rd Reconnaissance Unit (baggage) transport, setting a full tanker lorry on fire. There were 5 - 8 enemy aircraft over the unit from the very first, and this number was maintained throughout the whole of the operation. After the fuel tanker lorry was set on fire, the first enemy aircraft formation was reinforced by a second wave which also dropped flares immediately, so that for a time the defence area was lit up as bright as day by as many as fifteen flares. Attempts to move the vehicles out of the effective area of the flares failed, as any movement, even by individual soldiers, was immediately prevented by a low-level bombing attack. All the aircraft dropped their bombs singly on identified targets - practically no sticks were dropped - each aircraft thus making about eight attacks. The first and second waves concentrated on vehicles in the outer circuit and these were also shot up. After this attack, there were 18 vehicles on fire as a result of direct hits. A third wave, which arrived as the second wave was moving off, circled round the formation at 1 to 2 km dropping very bright magnesium flares. These burnt for approximately 20 minutes and were apparently intended to serve as a guide for following aircraft. In contrast to their predecessors, only one aircraft in the following waves dropped flares, circling over the unit so that there was always a ring of flares burning, the number varying between six and ten.

A very mixed variety of aircraft was observed dropping bombs. Most of these were twin-engined aircraft, but there was also a type of fighter bomber and obsolete biplanes. Four-engined aircraft were rarely seen.

Like the aircraft, the number of bombs dropped varied between four to twelve, the last two waves dropping mainly large numbers of fragmentation bombs. These highly-explosive missiles were fitted with an instantaneous fuze and did not make the slightest crater on the ground. Splinters from bombs falling up to five metres from armoured cars went straight through armoured plating.

The bombing attack lasted from 21.30 to 03.45 hours with a short respite from 02.00 to 02.15 hours.

Sgd. EVERETH
Captain and Unit Commander.

Rommel's own account is contained in the Rommel Papers and gives a graphic account of the devastation wrought by the night-bombers.

After nightfall, our forces became the target for heavy R.A.F. attacks, mainly on the reconnaissance group, but also - though less severe - on other units. With one aircraft flying in circles and dropping a continuous succession of flares, bombs from the other machines, some of which dived low for the attack, crashed down among the flare-lit vehicles of the reconnaissance units. All movement was instantly pinned down by low-flying attacks. Soon many of our vehicles were alight and burning furiously. The reconnaissance group suffered heavy casualties.

Other raids carried out during the night 31 August to 1 September by aircraft of Middle East Command included a bombing attack on the port of Tobruk by a force of ten Liberators, and attacks on the enemy's forward L.G.s by sixteen Wellingtons and sixteen Liberators of the U.S.A.A.F. The attack on Tobruk was made mainly with the intention of destroying the Gualdi, which was still in port, but 8/10s cloud severely hampered the bombers and no results of the raid were seen. The Wellingtons attacked L.G.s 13, 20, 101 and 104 and defences and communications in the Daba area. An explosion was caused near the railway and a camp at Daba was bombed, but the results of the attack on the airfield cannot be assessed. It is doubtful if a diversion of so much of the Wellington night-bombing effort from the field of battle, where targets of such high density were being encountered, was justified. The Liberators which bombed L.G.s 13, 101 and 104 claimed to have caused many fires among dispersed aircraft.

By contrast enemy night attacks on 31 August were negligible. About twelve enemy aircraft - again most probably Ju.88's from Crete, attacked landing-grounds around Mareopolis with H.E., incendiary bombs and spikes. This resulted in damage to one parked aircraft, some tents were destroyed and there were three casualties to personnel. Another aircraft carried out low-level machine-gunning attacks in the vicinity of Alexandria and was damaged by a night-fighter of No.86 Squadron.

Ground Operations Night 31 August

Whilst the enemy's night leaguers were being attacked by No.205 Group's medium bombers, they were also being subjected to heavy fire from XIII Corps artillery. At the same time, 2nd New Zealand Division sent out parties to prevent the 90th Light Division from digging in. In the northern sector, the 9th Australian Division of XXX Corps launched Operation 'Bulimba' with the intention of forming a gap for a raiding party to go through after daybreak. There was considerable artillery fire to support this operation which, however, was a failure, as the enemy counter-attacked before dawn and closed the gap. The Australians managed nevertheless to take over 140 prisoners and killed about the same number of Germans for the loss of 15 killed and 120 wounded.

Cabinet Office
Narrative.

Panzer Attack on Alam el Halfa Ridge Resumed Morning
1 September

Main Eighth
Army H.Q.
War Diary.

Cabinet Office
Narrative and
General
Alexander's
Despatch.

At first light 1 September, the main enemy armoured strength was still seen to be located to the south of 22nd Armoured Brigade. It was considered that the enemy was likely to resume his attacks on 22nd Armoured Brigade, on the west end of Alam el Halfa, and then try to move on to the vital Ruweisat Ridge which, in this way, would have been outflanked. Now that it was clear to the Eighth Army Commander that the enemy plan was indeed to make a short hook rather than a wide sweeping encirclement to the east, he considered it possible to strengthen the Alam el Halfa position still further. Three armoured Brigades (23rd, 22nd and 8th) of 10th Armoured Division were concentrated between the 44th Division and the New Zealand Division, but a force of enemy tanks was between 22nd Armoured Brigade and 8th Armoured Brigade, preventing them from linking up. The 1st South African Brigade was also moved from the El Alamein position, under XXX Corps, to reinforce the east end of the Ruweisat Ridge.

D.A.K. War
Diary

At dawn, units of 15th Panzer Division, which had been deployed for defence during the night, resumed the attack on Hill 132. After the initial frontal attack on 22nd Armoured Brigade had been repelled, the Division tried each flank in turn. At 08.40 hours the enemy reported a counter-attack by 100 tanks - probably 8th Armoured Brigade trying to link up with 22nd Armoured Brigade - on their tanks which were still in hull-down positions on the south east slopes of Hill 132. This counter-attack was halted and, as the Germans were not absolutely sure which parts of Hill 132 were in German hands and which in British, they requested a cancellation of a Stuka attack which had already been arranged. By 11.00 hours, however, the position had clarified, and dive-bombers attacked the British tanks, but without noticeable effect.

To the west end of the Alam el Halfa Ridge, on the 21st Panzer Division front in the neighbourhood of Hill 102 and to the west of it, the position was relatively quiet. At 11.10 hours the Division was reported as being under artillery harassing fire of varying strength from the north and the north west from armoured cars.

Cabinet Office
Narrative and
D.A.K. War Diary.

By midday, the position on the 10th Armoured Division front had stabilised. The enemy had made a serious attempt to dislodge 22nd Armoured Brigade but had failed. On the other hand, they had prevented 8th Armoured Brigade's attempts to make contact with 22nd Armoured Brigade and had inflicted considerable loss. By this time a very serious crisis in the enemy fuel situation had become apparent. It was announced to the Afrika Korps that the fuel situation did not permit a resumption of the offensive and that the Army intended to wait to replenish supply stocks in the area held, before advancing.

The Enemy Tanks Break off the Attack on Alam el Halfa Owing
to Shortage of Fuel - Afternoon of 1 September

As the afternoon wore on, there was no improvement in the fuel situation. Orders were given to 15th Panzer Division to break off the attack on Hill 132 and prepare to move into the Deir el Agram area. The change in plan was made 'chiefly because of the fact that the supply situation cannot be expected to improve, a resumption of the offensive

thus being out of the question.' As the enemy withdrew, the opportunity was presented to 8th Armoured Brigade of rejoining 22nd Armoured Brigade. This move was no doubt facilitated by the intense artillery activity of 44th Division, which from its position on the ridge, was presented with numerous targets of opportunity.

Light Bomber Operations, 1 September

Whilst the spearhead of the enemy armoured forces was trying to batter its way on to Alam el Halfa Ridge and had actually managed to instal panzer elements on its flanks, a few miles away, to the south-west, their reserves and vital supply echelons were being subjected to intensive bombing attacks by Bostons, Baltimores and Mitchells. Light bomber operations on 1 September amounted to 125 sorties - more than twice the previous day's number - of which all but fourteen were directed against this great pool of enemy vehicles and armour lying in the open desert in the Munassib - Daayis - Ragil area, where 55 tons of bombs were dropped in the morning and a further 21 tons in the evening. The first of the light bomber raids took off shortly after 07.00 hours and the last aircraft landed at 19.00 hours, the No.3 Wing S.A.A.F. diarist recorded, 'These formations of the German Afrika Korps, between them, are again offering targets such as rarely come the way of the most fortunate bomb-aimers.' (1)

The anti-aircraft gunfire encountered by the light-bombers, in the course of these raids on 1 September, was of a density and accuracy never before met with in the Desert and 3 aircraft were shot down and many others were holed. Heavy A.A. gunfire from the dual-purpose 88-m.m. gun was especially strong which meant that the Eighth Army was being relieved, to some extent, from the pressure of these formidable weapons. In the evening, when the day's results were reviewed, discussion took place on the best method of avoiding the enemy's anti-aircraft gunfire. It was considered that the enemy heavy A.A. was more effective between nine and ten thousand feet and the light A.A. up to six thousand feet. The A.O.C. W.D.A.F., Air Vice-Marshal Coningham, therefore ordered that bombing must not take place from above eight thousand feet. It was also decided to do a five-mile gentle dive on to the target and to follow No.12 Squadron practice of stepping up Nos.2 and 3 sub-flights up (or down) in order to make a quick turn after bombing.

In addition to the intensive bombing of the enemy concentrations in the southern sector, where a selection of superb targets was found and great havoc was caused, a number of sorties - fourteen in all - were directed against the enemy in the northern sector. These were in close support of the Australians who were withdrawing after their unsuccessful Operation 'Bulimba'. The dust-storms of the previous day had not altogether subsided, and poor visibility, in the case of these raids in the northern sector, prevented accurate observation of results.

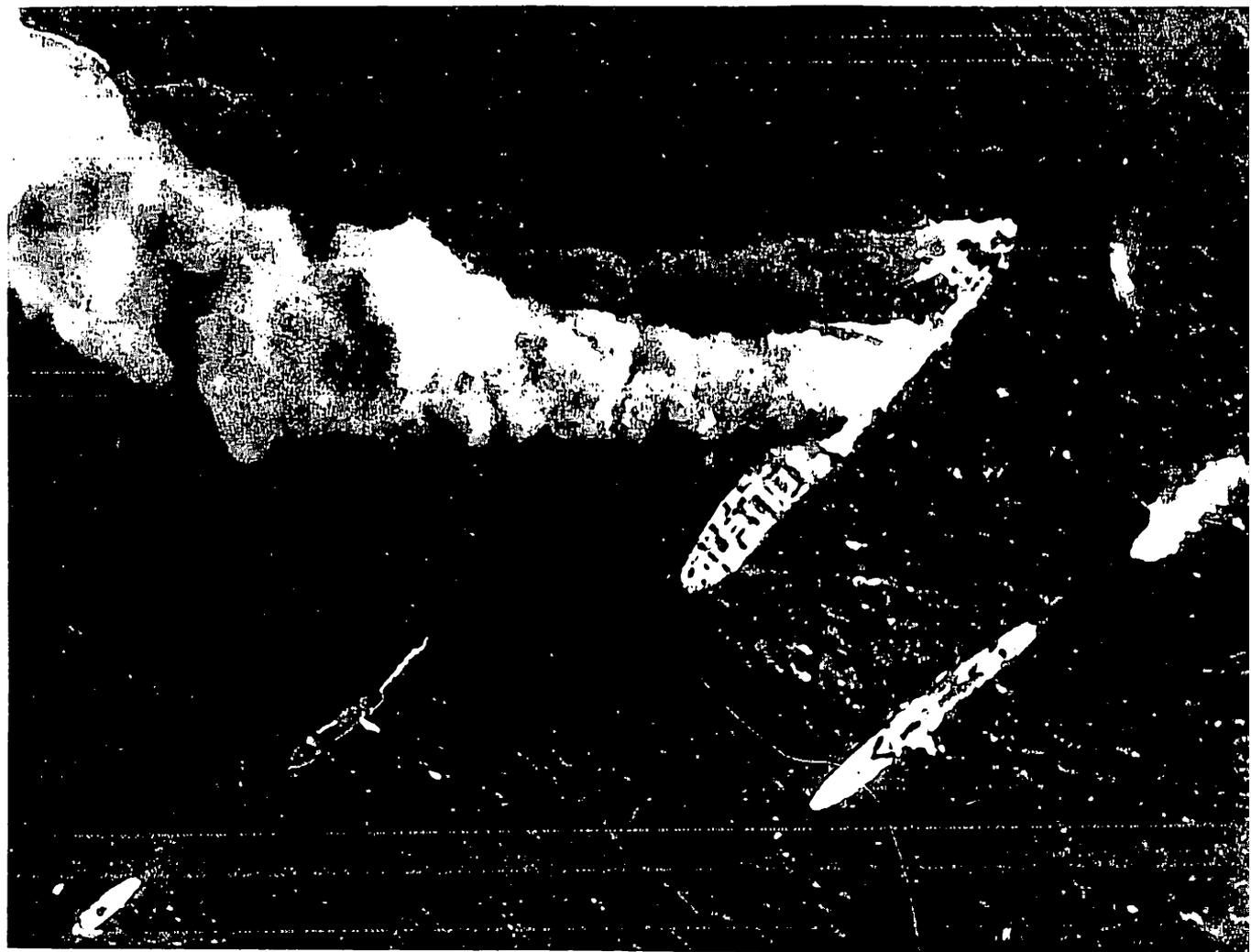
(1) 'The Afrika Korps continued to be assailed throughout the day (1 September) by heavy R.A.F. bomber attacks. In the bare and coverless country, with the bomb-bursts frequently intensified by rock splinters, we suffered severe casualties. Seven officers were killed from the Afrika Korps' staff alone.' 'The Rommel Papers.'

H.Q.M.E. Table
of Operations.
A.H.B./IIJ1/
31/1.

No.3 Wing O.R.B.



Bostons bomb a concentration of enemy vehicles



Axis supply vessel in the Mediterranean hit in bows
and amidships by R.A.F. aircraft

Operation 'Bulimba'

As has already been mentioned, the diversionary raid carried out by the 9th Australian Division, on the XXX Corps front, was a failure. After an encouraging start it finally petered out although the Australians inflicted a disproportionate number of casualties on the enemy. This operation which was diversionary in intent and comparable with those carried out by the enemy, at the beginning of their offensive, in the northern and central sectors, is of interest from the air point of view owing to its threat to the principle of concentration of bombing on the southern sector which had been pursued so successfully hitherto. It would appear from an exchange of messages logged by A.A.H.Q. W.D. that even at this stage the urgent need for this full concentration of air strength over the vital target in the Ragil area was still not wholly appreciated.

A.A.H.Q.W.D.
O.R.B. A.H.B./
IIJ1/122/1.

At 07.40 hours a request was received by Air Support Control, at Western Desert Air H.Q., for fighter cover for the Australians to be provided in twenty minutes' time, at 871296, to the south of Tel el Eisa, when the Australians were to begin their withdrawal. This message was received too late for the sweep to be out in time. At 11.30 hours another message was received from Army Headquarters stating that "'Bulimba" party returning' and making the truly astonishing request for the provision of 'three hours continuous air cover'. A reply was despatched, 'Cannot accept this commitment "in toto" but Group (No.211 Fighter Group) will keep special watch that area.'

Had A.A.H.Q.W.D. acceded to this request, it would have dislocated the whole of the air operations for the day, using fighters as an 'air umbrella' when they were urgently required, on escort duties for bombers, at a vital moment in the battle, in the main target area. As it was, this minor operation diverted some twelve per cent of the bomber effort from the main battle area.

Enemy Air Activity, 1 September, the Decline of the Stuka Force

Already, by the second day of Rommel's offensive, there were unmistakable signs that the enemy Stuka force, on which the Panzers so largely relied for their 'blitzkrieg' tactics, was beginning to crack under the strain of intensive operations, the bombing of their forward landing-grounds, and the constant threat from W.D.A.F. fighter aircraft against which their own technically superior aircraft - the M.E.109's - seemed powerless to protect them. Not only were the dive-bombers being forced to jettison their bombs, sometimes on their own troops, but under this harassing pressure had begun to bomb level. This meant that the use of this aircraft in a specialist rôle had been largely abandoned, owing to its vulnerability to determined fighter and ground defence, and all attempt at accuracy of aim had been lost.

A.A.H.Q.W.D.
Daily Int.Sums.
and D.D.I.(3).

It would appear from Eighth Army Reports that these Stuka raids, on 1 September, did very little actual damage, although the size of the formations comprising as many as forty dive-bombers in a single raid which carried a maximum of over 67 tons of H.E., could have been devastatingly destructive. More than one half of the Stuka raids, involving a total of approximately one hundred aircraft, were intercepted on this day. As an example, the Army Commander was visiting XIII Corps H.Q. to give verbal orders

Cabinet Office
Narrative.

concerning regrouping, when they were bombed by a formation, including the escort, of 75-plus aircraft. This probably involved something like one quarter of the serviceable dive-bomber force, yet, as a result, Eighth Army reported a single truck burnt out and no other damage. This raid was intercepted by a strong formation of five Kittyhawks of No.450 R.A.A.F. Squadron, six of No.3 R.A.A.F. Squadron, four of No.250 Squadron, six of No.112 Squadron together with 10 Spitfires of No.601 and nine of No.92 Squadron. Claims were made of four Ju.87 and two Me.109's destroyed, without loss. In addition to the dive-bomber raids there were two made by Me.109's used as fighter bombers. It is significant that neither of these raids was intercepted.

H.Q.M.E.
Table of
Operations.

Opsums.

A.H.B.6.

British fighters made approximately 170 sorties on bomber escort duties and 190 on offensive sweeps. Enemy fighters intercepted and attacked three British light-bomber formations during the day. They were engaged by the fighter escorts which suffered a loss of five Kittyhawks and one Tomahawk destroyed for one Me.109 shot down. There were no light bomber casualties from enemy action by fighters. Throughout the battle not a single enemy fighter succeeded in piercing the protective screen of fighters employed by the light bombers. Fifteen British fighters were lost in the course of the fighting on 1 September and three light bombers (one Boston, one Baltimore and one Mitchell) all shot down by A.A. gunfire. The enemy lost seven fighters.

Beaufighter Successes Against Enemy Lines of Supply,
1 September

A.A.H.Q.W.D.
Int. Sums and
Squadron O.R.B.s.

During the day, Beaufighters again carried out successful attacks on the enemy lines of supply to the rear of the battle zone. A total of twelve sorties were made by aircraft of Nos.252 and 272 Squadrons in the course of which they lost two aircraft. They destroyed nine trucks, including two 10-ton petrol tankers, and damaged fifty of a large road convoy moving east near Gambut. At Sidi Barrani five 25-pounder guns were also effectively attacked. The loss of the two 10-ton petrol lorries may possibly have had its effects on the course of the battle: it was on such individual exploits that the fortunes of war in the Desert often turned, as will be seen later when the account of the shipping strikes is given.

First Operation by Hurricane Aircraft Carrying 'Jeffrey's
Bombs, 1 September

A.A.H.Q.W.D.
Daily Int. Sums.

Record of Ops.
A.H.B./IJI/
122/69(A).

A number of allusions were made, in the course of correspondence with the Prime Minister, to 'puff-balls'. These were small experimental bombs, with poor ballistics (which proved to be their main failing) and of which great results were anticipated. In the morning three of these 'special' aircraft of No.7 Squadron, together with three of No.6 ('Tankbuster') Squadron, escorted by twelve of No.127 Squadron, searched for suitable targets in the El Ragil area. The Hurricanes of No.6 Squadron found no targets, but No.7 Squadron scored a direct hit on an eight-wheeled armoured car which was reported to have disintegrated. As has already been mentioned, the 'Jeffrey's' bombs suffered from the weakness of having poor ballistics. It required a direct hit for effect, while also demanding a high standard of bomb-aiming at a steady rate of glide to a low height. In course of time, the Hurricane Flight with 'Jeffrey's' bombs with No.7 S.A.A.F. Squadron was scrapped, and the Squadron was re-equipped with Hurricane II D's.

Enemy Report of 1 September on Shortage of Fuel and Effects of Day-and-Night Bombing

On the night of 1 September, at approximately 23.00 hours, Field-Marshal Rommel sent a message to O.K.H. in which the day's events were summarised. The Eighth Army dispositions, he said, were relatively unchanged. On the main sector there had been no battle activity. In the north, there had been the attack in the early hours of the morning by the 9th Australian Division supported by some thirty tanks. After a temporary break through to the south of Tel el Eisa the situation had been re-established.

High Level
Reports and
Directives.
A.H.B.6 Trans.

Air reconnaissance reported no major movements on the road Cairo-Alexandria-El Alamein, but in the harbour of Suez there was an increase of 100,000 tons of shipping. It was assumed from this that the convoy expected at the beginning of September had arrived.(1)

'The Panzer Army,' he continued, 'in the course of 1 September has been organised for defence in the line gained temporarily because the POL promised for 1 September has not arrived. The steamer Sanandrea has not arrived and the Abruzzi is still at sea.'

The five thousand ton tanker, the Sanandrea had been sunk by Malta-based Beauforts on the day the offensive was launched. The Abruzzi, another tanker of 680 tons, due to arrive at Tobruk on 1 September, was so badly damaged that very night that she had to be beached three days later.

Rommel then alluded in very strong terms to the effect of the day-and-night bombing was having on his offensive:

'Heaviest enemy air attacks - day and night continuously - have caused considerable losses in personnel and material. These have not been without effect on the morale of the troops; especially the night attacks are proving costly, in the course of which the enemy airmen are able to make use of ground conflagrations before dropping their bombs. In this connection, the absence of German-trained night-fighters is especially and unpleasantly noticeable. Four enemy aircraft shot down by ground defence. Our own Luftwaffe again inflicted considerable losses during the day on enemy formations by continuous Stuka and Jabo attacks and shot down 25 enemy aircraft.'

The figures of aircraft shot down are an over-estimate. Three bombers were shot down by ground defences and seventeen fighters in combat.

Further reference to the light-bomber activity on 1 September was contained in the Afrika Korps War Diary for that date:-

'The enemy air forces carried out extremely widespread and successful operations throughout the day.'

(1) It was mainly the knowledge that this convoy was on the way which had prompted Rommel's offensive at the end of August. It was his last chance before the balance of power in the Mediterranean swung heavily against him.

The German Afrika Korps was attacked at least seven times by bomber formations of twelve or more aircraft. The Luftwaffe and anti-aircraft could not prevent these attacks. Seven enemy aircraft were shot down in the German Afrika Korps zone. Losses, especially of vehicles, were considerable. Command became difficult at times owing to the loss of several signals vehicles of the Corps Signal Detachment, and frequent interruptions in telephone communications.'

Increased Weight of Night-bombing Programme 1/2 September

By mid-day on 1 September, plans for the night-bombing programme were well-advanced. It was to be the strongest force so far concentrated for night-bombing in the battle area and was approximately half as strong again as on the preceding night. There was included a warning from No.205 Group for the Albatrosses that, between 02.00 and 02.30 hours, Wellingtons would be dropping heavy-calibre 4,000 lb. bombs. The Albatrosses, which had evolved their own low-level, dive-bombing technique, were told not to operate below 6,000 feet during that period. Later in the day, Air Support Control arranged a complex system of ground guiding lights which were to be visible between 20.30 hours 1 September to 05.30 hours 2 September.

Eighth Army
War Diary and
A.A.H.Q.W.D.
O.R.B.

Between 22.30 hours and 05.55 hours, a total of ninety medium bombers (64 Wellingtons and 26 Albatrosses) attacked targets in the battle area, flying in two main waves in the course of which 105 tons of H.E. and 3 tons of bombs of other types were dropped. Of the six Wellington Squadrons involved in the night's operations, Nos.37 and 70 were detailed to make double sorties, but owing to an enemy raid near the refuelling point, (L.G.224), only 11 out of 19 aircraft managed to make a second sortie.

No.205 Group
O.R.B.

The first wave of Wellingtons from Nos.37, 70, 104 and 108 Squadrons, led by Albatrosses, attacked between 22.30 and 02.25 hours. Fires were started over a wide area. At least twelve exploding fires and from ten to fifteen small fires were reported, of which a number were petrol. The most spectacular result came from an explosion which rocked aircraft at 4,000 feet. This developed into a violent fire which was reported as exploding and blazing until the last of the aircraft had left the area. A number of machines came down to 800 feet and machine-gunned badly-dispersed M.T. One 4,000 lb. bomb was dropped in the centre of a concentration of enemy vehicles, but it was not possible to assess its effect owing to the clouds of dust and sand thrown up. Tanks, some dozen in number, were also attacked.

Squadron
O.R.B.s.

When the second wave of Wellingtons attacked between 02.50 and 05.55 hours crews reported that fires started by the first wave were still blazing. Some of the Wellingtons operated from as low as 200 feet. During these raids many more direct hits, fires and explosions were caused. Albatrosses, giving a general report on the night's operations spoke of 'the great fires and the destruction that had been left in the wake of the night-bombers.'

Enemy Report on Night Raids as 'an Effective Battle Technique'

During the night 1/2 September there were two entries in the Afrika Korps War Diary referring to the efficacy of the night bombing. The first, made at 21.00 hours, said

that 'over 100 night-bombers, operating in waves, attacked the German Afrika Korps area. Major Bloch and Lt. Hentschel were killed in the raid.' The second entry, made on the morning of 2 September, went into greater detail:

D.A.K. War
Diary.

'The enemy bombing attacks which started yesterday evening, were continued until dawn. Lt. Weber O2 (Staff Captain "Q") was killed during these raids. These enemy raids, intensified night after night, are an effective battle technique. It is estimated that 200 enemy aircraft were operational during the night 1/2 September and that about 1,600 bombs were dropped.... The casualties and loss of equipment occasioned by these attacks urgently necessitate an improvement in day and night defences.'

Something of the psychological effect of these night raids may be gauged from the fact that the enemy estimate was double the number of night bombers actually employed in these operations.

Successful Strategic Air Operations Night 1/2 Sept.:
Loss of Picci Fascio and Abruzzi.

Strategic air operations which, up to now, had governed so largely the timing and even the pattern of the Battle of Alam el Halfa, reached a climax on the night 1/2 September by the sinking of the eagerly-awaited supply ship, the Picci Fascio (2,800 tons) with 1,100 tons of fuel and damage to the Abruzzi which resulted in her being beached on the North African coast.

No.201 Group
O.R.B.

A.H.B.6.

H.Q.M.E.
Table of
Operations
A.H.B./IIJ1/
31/1.

Although Tobruk, Candia and Heraklion were among the targets for the bombers of No.205 Group, by far the most important air action was that of torpedo-carrying Wellingtons of No.201 Naval Co-operation Group and of one aircraft in particular, Wellington 'L' of No.38 Squadron. On the morning of 1 September, two Marylands of No.203 Squadron were despatched from Gianaclis to search for an enemy convoy in an area to the south-west of Crete. At 12.57 hours, on 1 September, four Southbound vessels, together with an escorting destroyer were located with strong air escort which made close observation impossible. According to enemy reports this convoy was considered to be of vital importance and a special escort of four Ju.88's and twenty AR 196 was arranged. That evening, at 20.20 hours, three Liberators of the 98th U.S.A.A.F. Heavy Bombardment Group bombed an enemy convoy midway between Crete and Derna and claimed to have hit and sunk a 3,000-ton motor vessel and scored two near-misses against a tanker. There is no confirmation from enemy records of a ship of this size being sunk in this location, but internal evidence points to the fact that in this attack the tanker Abruzzi was so badly damaged that eventually she had to be beached one hundred miles to the west of Tobruk.

Two hours later, at 22.30 hours, two ASV Wellingtons of No.221 Squadron and a striking force of seven torpedo Wellingtons of No.38 Squadron took off to relocate the convoy. The story is best told in the words of No.38 Squadron war diary:-

No.38 Squadron
O.R.E.

'Shortly after crossing the coast on the way out Sgt. Stenner in A/C "P" decided to return to L.G.226 due to Engine trouble. The remaining A/C received a sighting report from ASV A/C (1 destroyer and 1 tanker

position 33 degrees 17' N 22 degrees 40' E course 150 degrees speed eight knots), and immediately set course to intercept. Homing assistance was received and was good.

Several A/C saw a tanker or motorvessel and two destroyers at various times, but due to 7/10 to 8/10 cloud in the area were unable to get into position for attack. Only one A/C (Capt. Sgt. Buchanan) was able to attack.(1) Buchanan saw a motor vessel of 2,500 tons escorted by two destroyers and attacked the motor vessel with one torpedo, into the moon. The rear gunner saw the torpedo hit amidships; a fountain of sparks mast high followed by black smoke which turned grey and obscured the ship was seen. This hit was confirmed by two other aircraft.'

With the sinking of the Picci Fascio and the damaging of the Abruzzi went Rommel's last chance of being able to sustain his offensive.

This was not the whole of the strategic bombing of the enemy's lines of communication on the night of 1/2 September. A force of heavy bombers consisting of nine Halifax aircraft of Nos.10 and 76 Squadrons and six Liberators of No.159 Squadron attacked the port of Tobruk. Three aircraft claimed to have started large fires in the jetty area and a large explosion was reported in the vicinity of the port's fuel installations. Shipping in the ports of Candia and Heraklion was attacked by five Liberators of the U.S.A.A.F. when a direct hit was claimed on one ship and volumes of smoke were seen rising from the jetty.

No.205 Group
O.R.B. and
Opsums.

Rommel's Decision to Withdraw Morning 2 September

By dawn on the morning of 2 September the enemy Commander-in-Chief was faced with the bitter realisation that he must abandon his bid to capture the Delta and thrust through to Suez. The Battle of Alam el Halfa - truly the 'Battle for Egypt' - with all that it entailed of Axis hopes for hegemony over the Middle East and control of the second largest fuel producing area in the world had been lost. There still remained several days of fighting, with XIII Corps trying to close the minefield gap behind the enemy and Rommel making an equally stubborn withdrawal towards the west, and some of the R.A.F.'s most telling and destructive raids were still to take place. Nevertheless, by early morning on 2 September, the Battle of Alam el Halfa, as an offensive operation planned and executed by the enemy had virtually ended.

At 07.50 hours the Chief of the General Staff was ordered to the enemy Advanced Battle Headquarters. When he arrived he was given the following orders which are quoted verbatim from the Afrika Korps War Diary:

(1) Opposite 'Capt. Sgt. Buchanan' is annotated in pencil 'Cumming'. The members of the crew were Sgt. Buchanan, Sgt. Sanders, P/O Piggott, Sgt. McKay and Sgt. Cumming. The Aircraft No. was L. HF 912.

D.A.K. War
Diary.

'(1) Enemy air superiority and the supply shortage, particularly of fuel - the enemy has succeeded in sinking a number of ships recently - have forced us to break off the offensive.(1)

(2) The Army will fall back to the west in stages. A stand will be made at the minefields north of Qaret el Himeimat....'

At 12.30 hours detailed orders were given to the Divisions for the withdrawal

The Ground Situation - 2 September

Record of
Operations
A.H.Q.W.D.
A.H.B./IIJ1/
122/69(A).

Field Marshal
Montgomery:
'El Alamein to
the Sangro.'

Cabinet Office
Narrative.

At first light, the main enemy armoured concentrations were still seen to be massed to the south of 22nd Armoured Brigade positions on Alam el Halfa Ridge. There they remained throughout 2 September, as if awaiting a British counter attack and protected by a screen of anti tank guns. With the ground battle static the task of sustaining the offensive devolved on the R.A.F. 'In effect,' said the report by Group Captain Beamish, S.A.S.O. W.D.A.F., 'the guns and armour of the Army made a ring and the air gave the punch inside the ring.' It is difficult to know why, having once made up his mind to withdraw, the enemy Commander-in-Chief remained for so long presenting a magnificent series of targets to the day and night bombers and the Eighth Army Artillery. The Eighth Army Commander was of the opinion that this was deliberate in order to entice, as had so often happened in the desert, the tanks on to anti-tank guns. 'They were plainly disconcerted,' he said, 'by their failure to draw our armour from its prepared positions.' The enemy were determined to salvage as many unserviceable vehicles as possible, but in order to do so it would seem illogical to entail even greater damage to M.T. The real reason would seem to be that this itself was a complicated and difficult operation, with many attendant dangers, which took time. Kesselring attributed the slowness of this operation solely to the day-and-night bombing.

The British plan was not to have the Eighth Army armour drawn on to the enemy's guns, but to take advantage of the lull in order to regroup, moving the two Infantry Divisions further west, in order to close the minefield gap. If this were successful, the enemy should be so weakened that an immediate advance might be possible, and at 11.00 hours the Commander Eighth Army issued orders to H.Q. X Corps 'to be prepared to take command of all reserves available and push through to Daba.'

(1) 'From 23.00 hours onwards, right into the morning of the 2 September, we were again attacked by relays of aircraft dropping bombs of all sizes. Once again they came crashing round my command post. A vehicle was set alight not ten yards from my slit trench. After that night I decided to call off the attack and retire by stages to the line El Taqua-Bab el Quattara. My reasons were the serious air situation and the disastrous state of our supplies. Our offensive no longer had any hope of success, partly because we had no petrol and insufficient fighter cover and partly because the battle had now reached a stage where material strength along would decide the issue.' 'The Rommel Papers.'

In the evening, however, after visits to the two Corps, the Army Commander decided that, though the German Panzer Army was nearly encircled, he would not rush in. He therefore gave XIII Corps - on whom almost the whole weight of the enemy offensive had so far fallen - two main tasks:-

- (a) To shoot up, harry and destroy enemy M.T.
- (b) Gradually and methodically to close the gap between 2nd New Zealand Division locality and Qaret el Himeimat, working south from 2nd New Zealand Division positions. At the same time mobile forces were to work northwards from Himeimat.

This plan, known as Operation 'Beresford', was timed for the night of 3/4 September.

The Light-Bombers Set up a New Record on 2 September

Throughout 2 September, the enemy continued to present 'magnificent M.T. and armoured concentrations' as targets for the light bombers which flew 176 sorties (including nine sorties by U.S.A.A.F. Mitchells), thus breaking the Wing's previous record of 155 sorties made on 3 July, at the time of the stabilisation at El Alamein. The earliest raids were directed against those targets recently attacked by the medium bombers during the night, but in the morning and again during the afternoon they were switched to other good concentrations, at the request of the 7th Armoured Division(1). This Division afterwards sent congratulations to the Wing on the 'picture of accurate destruction within the enemy lines which it had been their good fortune to watch.'

All the attacks during the day were directed against the enemy's concentrations in the Deir el Agram area to which the enemy columns had been withdrawn at first light or to the south west, towards Ragil. A total of 112 tons of H.E. were dropped in the course of these raids and great havoc was caused.(2) A plan to attack the enemy's tank and armoured car screen with 'tankbusters' was cancelled after lengthy discussion between the Army and the R.A.F.,

(1) 'Next morning (2 September) after disposing of a few command matters, I drove through the area occupied by the Afrika Korps. Between ten and twelve o'clock we were bombed no less than six times by British aircraft. On one occasion I only had time to throw myself into a slit trench before the bombs fell. A spade lying on the soil beside the trench was pierced clean through by an 8-in. splinter and the red-hot metal fragments fell beside me in the trench. Swarms of low-flying fighter-bombers were coming back to the attack again and again and my troops suffered tremendous casualties. Vast numbers of vehicles stood burning in the desert.' 'The Rommel Papers.'

(2) 'In the afternoon, I shifted my command post, and, in view of the bad supply situation, again considered whether to break off the battle.

The non-stop attacks of the British bomber formations continued the whole day through. The British artillery was also very active and fired vast quantities of ammunition - about ten shells were answering every one of ours. The movement of major formations and the establishment of timed march schedules now seemed to be ruled out. Our badly outnumbered fighters hurled themselves again and again towards the British bomber squadrons, but rarely succeeded in penetrating to their targets, for they were intercepted every time and engaged in combat by the tremendously strong fighter escorts of the "Party Rally" bomber squadrons. There was no instance, during the battle of Alam el Halfa, of enemy fighters managing to pierce the protective screen of R.A.F. fighters. The losses sustained by the bomber formations (three bombers were shot down and a high percentage holed) were from the enemy's heavy and accurate A.A. gunfire. In his allusion to the "Party Rally" bomber formations, Rommel is, of course, referring to the perfect formation flying of the S.A.A.F. and R.A.F. light-bomber squadrons. Thus these bomber formations, flying almost undisturbed, were able to area-bomb our tanks with immense salvos of bombs no less than twelve times on that one day alone.' 'The Rommel Papers'.

No.3 Wing
O.R.B.

No.2 A.A.S.C.
War Diary.

No.3 Wing O.R.B.

No.2 A.A.S.C.

the target being considered unsuitable. However, later in the day, three anti-tank Hurricanes of No.6 Squadron made an attack on motor transport in the extreme south near Qaret el Himeimat damaging one armoured car and one troop lorry.

Intensive Fighter Activity 2 September.

A.A.H.Q.W.D.
O.R.B. A.H.B./
IIJ/122/1.

A very high level of fighter activity was maintained on 2 September and approximately 600 fighter sorties were made of which some 240 were on bomber escort duty and the same number on offensive sweeps. Enemy fighter sweeps were much in evidence and attacking Hurricanes and Spitfires claimed two Me.109's and one Mc 202, but lost three Spitfires, one Kittyhawk, four Hurricanes and two Tomahawks. On the other hand, the enemy fighters which made spirited but vain attempts to intercept the light bombers lost six Me.109's.

Stukas carried out three attacks, each by approximately fifteen bombers escorted by Me.109's but on two of the raids they bombed level and did not press home their attacks. Eighth Army sources gave the following details:-

<u>Time</u>	<u>Place</u>	<u>No. of A/C</u>	<u>Details</u>
07.20	425887	4 Me.109	bombed from 10,000 ft.
12.45	428882	6 Ju. 87	
14.00	450906	5 E/A	6 bombs in sea 3 on beach

A most successful interception of Stukas occurred in the afternoon when 12 Hurricanes of No.274 Squadron, 12 of No.127 Squadron with 8 Spitfires of No.145 Squadron acting as high cover forced 14 Ju.87's to jettison their bombs over their own lines. The Hurricanes shot down six of the Stukas for the loss of one aircraft forced-landed. The Spitfires did not engage. It is estimated that the enemy carried out a total of some 300 sorties on 2 September. A feature of their fighter operations was that they flew on a number of occasions at well over 30,000 feet. Ten Spitfires carrying out a cover sweep early in the day S.E. of Alamein at 25,000 feet were attacked in this way and two of them (both of No.92 Squadron) were shot down for the loss of 1 Me.109.

Rommel's Situation Report of 2 September to Oberkommando des Heeres.

High Level
Reports and
Directives
A.H.B.6 Trans.
No.VII/80.

At 22.30 hours on 2 September, Field-Marshal Rommel sent his report to O.K.H. which told the disastrous failure of his last offensive in Egypt. On that day the tide that had carried the Panzer Army into Egypt had begun to ebb. It was the nearest they were ever to get to the Delta. The gamble begun after the fall of Tobruk had been finally lost, not merely in the dust and heat of the Ragil Depression and on the flanks of Alam el Halfa, but in the Mediterranean.

During the last few days losses at sea had amounted to 2,352 tons of fuel and 350 tons of ammunition. Out of the 5,000 tons of fuel reported from Comando Supremo between 3 August and 3 September 2,600 tons had already been sunk. There were prospects of a further 1,500 tons arriving from Italy 'but', he added gloomily, 'the date of arrival is not known. Apart from the inadequate supply situation for the operation,' he continued, 'there are also the following reasons which compel the suspension of the attack:-

(a) The operational plan provided that during the moonlit night of 31 August, advanced units of Motorised Group 30 should take the area about 40 - 50 km. east of the jumping-off position, advancing from the line El Taqa - Qaret el Abd through an area which, according to reconnaissance reports is only weakly held and partially mined, and then form up at dawn on 31 August for a thrust in a northerly direction. Owing to numerous hitherto unknown minefields and defences which extended for several kilometres in places, the advance was delayed to such an extent that the first objectives could be taken only with small forces on the evening of 31 August. The element of surprise - an essential provision for the success of the operation - was therefore lost.

(b) As already stated in the daily report of 1 September the continual heavy enemy air attacks by day and night before the commencement of the operation caused considerable material and personnel losses to units. These attacks have also had effect on the morale of the German and Italian troops. In particular, owing to the lack of night fighters, troops could not be covered during the 7 - 8 hour night attacks. Supply is being further interrupted by systematic harassing attacks by the enemy Air Force on supply columns, railways and coastal shipping.

These conditions are forcing the Panzer Army to halt the offensive. The Army will therefore fall back under enemy pressure to their jumping off positions, unless the supply and air situation undergo a fundamental change.

In the night from 1/2 September and on 2 September, further numerous heavy enemy air attacks with bombing and strafing took place. Several attacks each with 20-30 aircraft have already been made during the morning.

Valuable additional information on this phase of the air operations is provided by Lt. General Burchardt, Commander of the 19th Flak Division in a report sent by him to General Gause, Chief of Staff of the Panzer Army, on 2 September.

After carrying out only reconnaissance over the Army area during the night of the attack (30/31 August), air attacks in strength on columns on the move north-east of the minefields commenced early on 31 August(1) These attacks, generally carried out by close formations of 20 to 30 multiple-engined bombers with fighter escort at 2-3,000 metres, intensified considerably when the assault force turned north and when the advance stopped and finally were carried out every 1-2 hours. Operations ceased when sand storms blew up.

(1) General Burchardt is mistaken in saying that only reconnaissance was carried out by No. 205 Group bombers during the night 30/31 August. This was the night when the Afrika Korps H.Q. was bombed.

Altogether there were seven of these attacks on 1 September, and on 2 September six were carried out before the C.-in-C.'s Headquarters moved back at 15.00 hours.

War Diary of
Panzer Army Afrika
Appendices. A.H.B.
6 Trans. No.
VII/108.

The Afrika Korps batteries employed for A.A. defence (eventually five) constantly improved their aim and by 15.00 hours on 2 September had shot down 5 multiple-engined bombers and 2 escorting fighters from the attacking formations. As a result of this, the initially close enemy formations dispersed slightly and operated at higher altitudes. However, Panzer Army casualties increased with every attack and losses of men and material became more grievous.

German fighters were frequently observed covering ground forces and also at other times. However, according to reports, air battles between fighters and twin-engined aircraft took place only to a limited extent.

The night attacks of 31 August/1 September, and particularly those of 1/2 September, were even more effective and damaging than the daylight operations. Whereas about 100 aircraft were operational from 01.30-02.40 hours on the first night, continuous and exceptionally heavy bombing attacks were carried out over the whole of the Afrika Korps area from 00.00-04.10 hours on the second night. It was estimated that in all 2-300 aircraft were operational (according to London radio, 500 sorties were carried out.)

Panzer Army losses continue to increase. At times, A.A. guns could not go into action owing to the absence of searchlights and radar installations. Night fighters apparently did not operate at all. Under these conditions, continued and constantly increasing losses to Panzer Army and its associated formations had to be expected.

This situation and other reasons led to the Panzer Army decision to break off the operation.

Bombing of the Enemy Reaches a Climax Night 2/3 September

The bombing in the battle area on the night of 2/3 September reached a peak of destructiveness when a total of 73 Wellington and eight Albacore sorties was flown. Six Wellingtons from No.108 Squadron, seven from No.148 Squadron and nine from No.40 Squadron made double sorties. The weight of bombs dropped totalled 112 tons, with bombs being dropped at an average of one every 40 seconds. Two of the bombs weighed 4,000 lb.

The best enemy concentrations were located in the eastern end of the Ragil Depression. Crews reported 'a very great number of fires' started among M.T. and tanks and direct hits were scored on petrol bowlers. One very considerable explosion was reported to have rocked aircraft at 6,000 feet. The returning crews were jubilant over the success of their raids and referred to the night's operations as the most successful they had ever carried out.

In the evening (2 September), says Rommel in 'The Rommel Papers', I conferred with F/M Kesselring and gave him a detailed account of the effect of the

British air attacks, in particular of their 'bomb-carpets' in an area covered with tanks, guns and vehicles. He promised to do all he could to help us. But that night again (2-3 September), the Afrika Korps, part of the Italian armoured divisions and the 90th Light Divisions were once more subjected to non-stop pounding by powerful British bomber formations. A steady succession of parachute flares kept the whole of the desert bathed in a brilliant light. Magnesium incendiaries, impossible to extinguish, lay flaring on the ground, lighting up the whole neighbourhood. Meanwhile vast quantities of H.E. and fragmentation bombs, even some land-mines, dropped into the territory occupied by my troops. Many of the 88-mm guns, which had previously scored an occasional hit, were now picked out by the British, attacked from a great height and destroyed. Hundreds of our vehicles were destroyed or damaged.

Still more evidence of the destructive power and the general disorganisation caused by these night raids is contained in the D.A.K. War Diary:-

During the night, the enemy carried out even heavier air operations than on previous nights. The number of bombs dropped was estimated at 2,400 and the number of aircraft operational as 300. Attacks were concentrated on transport, artillery and anti-aircraft and considerable damage was caused. Some Units which were particularly heavily hit found most of their vehicles unserviceable in the morning.

D.A.K. War
Diary.

Something of the general effect of these heavy night raids on the morale of the enemy troops may be adduced from the extent to which the enemy over-estimated both the number of aircraft employed in the raids and the bombs dropped. In point of fact the night bombers flew less than 100 sorties and the bombs dropped numbered approximately one thousand.

H.Q.M.E. Table
of Operations.

Other attacks made during the night were directed against Tobruk and the forward landing-grounds. At the former target, which was visited by 4 Liberators of the 98th Heavy Bombardment Group, low cloud prevented the observation of results. A few fires were started on Landing Grounds 20 and 104 which, after having been illuminated by Albatrosses were bombed by a force of 16 B.25's of the 12th Medium Bombardment Group.

No. 205 Group
Intelligence
Report.

Enemy Air Operations, Night 2/3 September

Enemy air operations on the night of 2/3 September consisted of three enemy aircraft in the vicinity of Burg el Arab and Landing Ground 90. As no bombs were reported it was probably merely a night photographic reconnaissance. Later that night a single aircraft bombed and machine-gunned the road to the east of Burg el Arab but without result.

A.A.H.Q.W.D.
Daily Intelligence
Summary.

Enemy Withdrawal Westwards, 3 September

At first light on 3 September it was reported that the enemy were withdrawing to the south and south-west, and by 08.30 hours XIII Corps reported that there were no enemy to the north of 873 Grid or east of 432 Grid. The Army Commander was still not wholly decided in his mind whether

Cabinet Office
Narrative.

this was the start of a real retreat or just a ruse to entice the Eighth Army armour into battle, so XIII Corps were permitted to follow up only cautiously, with armoured cars. The 7th Armoured Division accordingly moved westward to the area between Gaballa and Himeimat to operate against the south flank of the retiring columns, and the Army Commander called on the R.A.F. for heavy air attacks to be carried out on the retreating enemy. Dawn patrols sent out by 22nd Armoured Brigade observed many fires raging in the enemy lines as a result of the night bombing and artillery fire.

'The enemy', says the D.A.K. War Diary, 'followed the D.A.K. fairly cautiously throughout the day. Small Reconnaissance Groups pushed forward at some places but were driven back. 21st Panzer Division knocked out 4 tanks in these actions. The enemy Air Force was very active again.

D.A.K. War Diary.

German aircraft bombed enemy Units to the north of the German Army Groups from 20.00 hours but according to observers these attacks were in no way comparable with enemy night operations.'

General
Alexander's
Despatch.

These enemy night attacks, the first and only ones of their kind carried out in the battle area, were directed against the New Zealanders. At 22.00 hours, Operation 'Beresford' was launched the Second New Zealand Division with the 132nd Brigade of 44th Division under command attacking south westwards to close the gap in the minefield. They were opposed by the German 90th Light Division to the west and the Trieste to the east. The attack was only partially successful.

The Light Bombers Break All Records - 3 September

Again, for the second day running, it was the Air Force which really sustained the offensive. Following the outstanding success of the night operations the light bombers broke all records in both the number of sorties flown and the weight of bombs dropped.

'Sortie and bomb load records again went by the board today. Our effort has surprised even ourselves. We almost wanted to cheer when we knew that we had succeeded, spread over 11 raids, in sending out 200 sorties. The bombs dropped totalled 43 x 500 lb. and 993 x 250 lb., a total of 1,036 bombs weighing 269,750 lb, representing one bomb every 48 seconds and a weight of 6 lb H.E. per second. By lunch time came the exciting news that the enemy's huge but battered columns were moving westwards. Every ounce of the Squadron's energy was put into sending out as many aircraft as possible with full loads to give Jerry no respite.

No. 3 Wing S.A.A.F.
O.R.B.

Each night too, he has been pounded unceasingly by the Wellingtons which at times started so many fires we were told that they could not be counted. Now that Rommel's men were on the run it was our job to give him all we had while daylight lasted. We knew at the end of the day that we had achieved our object but with more aircraft we could have done even better. As it is, despite high serviceability, the Wing Operations Staff has had no easy task juggling with Squadron 'Balbos' in

order to meet the requirements of sending out not less than 18 bombers on each raid and there have been times when it was not possible to keep to this total'.

These raids combined with the medium bomber raids on the night 2/3 September reached a total weight of over 227 tons of H.E. or one bomb every 44 seconds throughout the 24 hour period.

Beginning with the previous night's targets and altering the bomb line in accordance with requests from 7th Armoured Division, all the light bomber attacks were once more directed against the main enemy concentrations now gradually withdrawing from Ragil south and west between Munassib and Himeimat. The efficacy of these raids may best be judged by reports from the Eighth Army of the 'wide-spread milling of M.T.' on the approach of the bomber formations. With the low strength in Kittyhawk squadrons it had been the policy to economise with escorting aircraft by keeping the light bomber 'shuttle service' to a normal strength of 18 aircraft. Such was the pressure on No.3 Wing that, in spite of high serviceability, this number could not always be mustered. In one raid, however, 21 bombers were put into the air - a maximum achieved by No.3 Wing. This was made possible by the inclusion of aircraft of the U.S.A.A.F. 12th Bombardment Group. A special feature of these raids was the high standard of co-operation attained with Air Support Control. For instance, at 11.00 hours A.S.C. sent news of a good target of 1500 M.T. fairly well dispersed at 892255 - 892252 - 888252, with the heaviest concentration at the east end, and indicated that the bomb line would be specially modified for an immediate air attack. Twelve Bostons and six Mitchells, the largest number of American aircraft yet to go out on a light bomber raid, took part in the attack which was considered to be extremely successful. A United States air gunner was wounded by A.A. gun fire when his aircraft was hit in the turret.

The excellent results from scientific 'pattern' bombing were also specifically mentioned. The employment of this method of bombing was one of the chief reasons why the destructive effect of the bombing was so considerable. Other reasons were the complete familiarity of the crews with the operational terrain and the well-practised precision of their aiming. Enemy concentrations were still able to put up extremely accurate and intense anti-aircraft gunfire. Enemy fighters were also extremely active and dog-fights were frequently reported between the escorts and attacking enemy formations of Me.109's and Me.202's.

On this, the fourth day of the battle, the Western Desert Air Force excelled itself by reaching a peak figure of 578 fighter sorties. Taking the whole 24 hour period and including the medium bomber effort of the night of 2/3 September, the record breaking 200 light bomber sorties and the high total of fighter sorties, this was easily the most intense and successful phase of Air Force activity of the campaign to date. As will be seen, it was to be followed by still further successes scored against vital enemy shipping.

No.6 Squadron's 'tankbusters' scored their first victory during the battle against enemy armour on 3 September at Map Reference 890249, in the Himeimat area, when a suitable isolated target of twelve tanks was reported in this part

No.2 A.A.S.C.
War Diary.

A.A.H.Q.W.D.
War Diary.

No.3 Wing S.A.A.F.
O.R.B. and
A.A.H.Q.W.D.
Daily Int.Sums.

H.Q.M.E. Table of
Operations A.H.B./
IIJ1/31/1

Air Support
Control War
Diary and No.
6 Squadron O.R.B.

of the southern sector. Six aircraft were brought up to readiness within six minutes of the target being reported by Air Support Control, but it was not until nearly an hour later than the target had been identified and attacked. The score was three Mark III tanks together with two other unidentified tanks, an 8-wheeled armoured car and a lorry destroyed or damaged. Later in the day three more aircraft were sent against a target in the southern sector which could not be located. However an armoured car and a lorry full of German troops were successfully attacked.

A.A.H.Q.W.D.
Daily Int.Sums.

For the first time during the battle, conditions on 3 September began to favour the use of fighter bombers. Apart from the fact that the fighter squadrons had been employed to the maximum capacity in providing escort for the light bombers, and on fighter sweeps, the battle had so far been conspicuous for the lack of suitable targets offered to the fighter bombers. The fire-power of the concentrations of enemy armour in the open desert, mainly in conditions of good visibility, was most lethal, while the W.D.A.F.'s comparatively low strength in fighter aircraft prohibited the risk of heavy losses from low-level bombing attacks such as had been sustained at the beginning of the Gazala offensive. In the course of one of these fighter-bomber attacks against enemy A.F.V.s near the Gebel Kalakh, three of the escorting Hurricanes were shot down by Me.109's.

H.Q.R.A.F.M.E.
Table of Opera-
tions and A.A.H.Q.
W.D. War Diary,

Altogether, fighter escorts to the light bombers flying 274 sorties, staved off six attacks by enemy fighters. They claimed two Me.109's destroyed for the loss of four Kittyhawks and one Tomahawk. In sweeps over the battle area which totalled 250 sorties W.D.A.F. fighters engaged strong formations of Me.109's and Mc.202's, claiming one Me.109 destroyed and probably five more and one Mc.202 for the loss of two Spitfires and two Hurricanes. The total R.A.F. claims for the day were three Me.109's and one Mc.202 destroyed for the loss of 11 aircraft. German records show one S.E. fighter and five bombers destroyed.

The air programme ordered by Kesselring for 3 September, in order to counter the havoc wrought by the W.D.A.F. on the Panzer Army during the first three days of the battle, was probably the most ambitious and comprehensive - at least on paper - that had been seen in the Mediterranean theatre.

Order for 3 September 1942

In face of overwhelming enemy air superiority, Panzer Army will make a gradual fighting withdrawal to the start-line, leaving rearguards behind the British minefields. In view of intensive enemy air activity by day and night, this movement will take several days.

As his main task for 3 September, Fliegerfuehrer Afrika was ordered to provide Panzer Army with dawn-to-dusk cover against enemy low and high-level aircraft. In co-operation with Settore Est (Cyrenaica) complete fighter cover will be maintained throughout the day (sandstorm periods excepted) over Panzer Army in such strength that bomber attacks can at least be driven off.

I hold all airmen responsible (this order will be read to fighter pilots) for the protection of their sorely pressed comrades of the Panzer Army. The primary objective must be to shoot down enemy bombers or fighter-bombers, and then to drive off fighters or at least bomber formations.

The plan for the employment of fighters will be submitted in writing. I will make special mention of this point to V Squadra Area.

At the same time fighter-bombers will open their effective operations with a dawn attack on enemy airfields - more detailed instructions for this will be issued by the Fliegerfuehrer - and then attack enemy batteries operating against Panzer Army or other ground targets if no artillery can be found.

In the event of a surprise attack on the Panzer Army by tanks, a dive-bomber formation at maximum strength will be sent in immediately.

Reconnaissance must provide a complete picture of movements in front of and on the flank of the Panzer Army and, in particular, identify transfers in the enemy rear area.

The battle Group instructed to move to Qasaba West by 08.00 hours to-day's orders did not arrive until 15.00 hours.

Panzer Army requested in particular that the damaging effect of enemy night bombing attacks be matched by similar German attacks on enemy divisions.

I therefore order that during the night 3/4 September, commencing at dusk and terminating at dawn, a continuous attack in strength be made on the 10th Indian Division (sic) area and on the formation adjoining it to the north. For this purpose all aircrews and aircraft suitable for night operations in the entire Luftflotte, irrespective of their day-light activity, with the provision that aircrews on operations during the day carry out one sortie, while other crews or formations fly two sorties.

For this operation, the remaining formations of II Fliegerkorps will transfer to airfields at Athens; aircraft suitable for night operations of Kommando Herling, the Fliegerfuehrer and Me.110's of X Fliegerkorps will move to Qasaba West.

The damaging effect on German and Italian troops achieved by the British by the extensive employment of flares, incendiaries and tracer composition must also be attained in the massed raid on the two divisions. The formations themselves will bring the initial supplies of these bombs into the operational zone; further supplies will be made ready. So far as new flares are available these will be employed and, in addition to SD bombs, extensive use will be made of incendiaries. The employment of single flame bombs would also be suitable for this purpose.

Panzer Army War
Diary Appendices.
A.H.B. Trans. No.
VII/108.

Special Luftgau Headquarters Africa will arrange ground organisation in co-operation with Fliegerfuehrer Africa in accordance with special instructions which will be issued to-day. The special order for the operation will be issued to officers commanding formations, independent formation leaders of their deputies of all formations concerned at Antonius 4 Battle H.Q. on 3 September. However, only one officer will be sent from each Geschwader. The following will also be present; the General Staff officers of the Fliegerfuehrer and the Special Luftgau Headquarters and the Chief of Staff or 1a of X Fliegerkorps.

During the night the Korps, etc. will organise the operation so that aircraft to be used for covering activities the next day are employed early enough on 3 September to allow them adequate rest before the exhausting escort operations are carried out. Senior officers will personally ensure that this is done.

A similar mass operation against R.A.F. bases used by night bombers has been planned for the night of 5/6 September.

Officers of the fighter and bomber Geschwader will report to Panzer Army by day and night respectively for information about enemy ground activity and will plan operations by their formations accordingly.

The Corps and Fliegerfuehrer will report the estimated number of aircraft available immediately.

Sgd. KESSELRING
Antonius 4, 1a.

In spite of the G.-in-C. South's attempt to organise the whole of the Luftwaffe's resources in the Mediterranean for a devastating retaliation against the Eighth Army and the Western Desert Air Force, the eventual result of so much planning must have been a complete anti-climax. On 3 September, for instance, the W.D.A.F. reported, 'enemy air effort was reduced and confined almost entirely to fighters operating over the forward area in small sections during the morning and in larger groups during the afternoon; Me.109's and Me.202's were employed on these operations. No Stuka or Ju.88 attacks were reported during daylight hours.' The bombing of the New Zealanders during the night 3/4 September by Ju.88's had little or no effect on ground operations and casualties totalled one killed and one wounded. During the night 5/6 September when 'a mass operation against R.A.F. bases used by night-bombers' was planned no enemy air activity whatsoever was reported.

Message from G. O. C. Eighth Army to the A. O. C., W.D.A.F.

On 3 September, the following message was sent to the Air Officer Commanding the Western Desert Air Force by the Eighth Army Commander:

'At this stage of the battle I should like to express to you, your staff and the squadrons under your command the appreciation of myself and the whole of the Eighth Army at the splendid co-operation that the Royal Air Force has provided during the present operations which began on 31 August.

We know quite well that the results so far attained could not have been achieved unless the R.A.F. had put forth so great and so sustained an effort; this effort was produced and carried out with determination and it is still being carried out.

It is quite clear to me that such magnificent co-operation can produce only one result - a victorious end to the campaign in North Africa.

Let our motto be:- "United we stand, divided we fall" and let nothing divide us.'

Medium Bomber Operation Night 3/4 September

Owing to the definite signs of withdrawal which had been reported by the Army, H.Q. W.D.A.F. requested No.205 Group to arrange 'the maximum Wellington effort' for the night of 3/4 September. A similar request was passed on to the Albacore Squadrons Nos.821 and 826 to provide the 'maximum illuminations'. It was anticipated that there would be no good concentrations after the night of 3/4 September. By 14.00 hours on 3 September, the full programme of bombing and illuminations had been arranged.

A.A.H.Q.W.D.
War Diary.

By this time the medium-bomber squadrons were beginning to feel the strain of intensive operations and the maximum number of sorties that Nos.37, 40, 70, 104 and 148 Squadrons together with the F.A.A. Squadrons Nos.821 and 826 could put up was 71, with seven Wellingtons of Nos.37 and 70 Squadrons carrying out a second sortie. The enemy estimated that the night-bomber effort was considerably smaller than on the previous night, although in point of fact the only difference numerically was nine sorties. It would appear that the two factors chiefly responsible for the diminished success of the raids was that the enemy M.T. was far more widely dispersed than previously, and weather closed down with 8/10 cloud at 1,500 feet during the second sortie. Nevertheless, Albacores reported that the Wellingtons had had excellent results, and fires were still burning at 05.00 hours when the last aircraft turned for home. About 24 fires were claimed as a result of direct hits.

No.205 Group
O.R.B.

D.A.K. War
Diary.

Night Raid on Tobruk by Heavy Bombers - 3/4 September

Nine-tenths cloud at 3/4,000 feet obscured the target-area when a strong force of heavy bombers comprising 12 Halifaxes of Nos. 10 and 76 Squadrons and 7 Liberators of No.159 Squadron attacked Tobruk between 02.24 and 03.23 hours, from 8,000 to 14,500 feet. The primary target, a tanker which had been reported as unloading at No.1 Jetty, was missed.

No.205 Group
O.R.B.

The Sinking of the Enemy Tankers Davide Bianchi and Padenna - 3/4 September

Another outstandingly successful blow against Rommel's lines of communication was scored on the night of 3/4 September when two more tankers, the Davide Bianchi of 1,500 tons and the Padenna of 1,600 tons were sunk when within fifty miles of Tobruk, their destination. Any hopes Rommel may have nursed of an improvement of the supply situation enabling him to resume the offensive were dashed by the loss of these two tankers.

Lloyds
Shipping
Register.

No.201 Group
O.R.B.

At 15.00 hours on 3 September a Maryland of No.203 Squadron located a southbound convoy, comprising three merchant ships and four destroyers, to the south-west of Crete. It is now known that owing to the great value of this convoy instructions had been given by the enemy that it was to be escorted continuously by nine Ju.88's together with Italian fighters 'in as great strength as possible.' A force of eight Beaufighters which had been despatched to attack the convoy escort to cover the torpedo attack managed to locate the convoy and shot down one escorting aircraft.

A.H.B.6.

No.201 Group
O.R.B.

That night, a special striking force of three A.S.V. Wellingtons and two A.S.V. Liberators of No.221 Squadron and six torpedo and two bomber Wellingtons of No.38 Squadron set out to relocate the convoy.

No.38 Squadron
O.R.B.

'The crews,' says the No.38 Squadron O.R.B., 'were briefed to attack a convoy of 3 MVs and escort and to ignore sighting reports of any smaller convoys. F/S Brigg A/C 'Y' developed engine trouble after three hours and he was forced to return to base. The remaining A/C received a sighting report from Special Wellington at 01.50 hours - 1 MV and 1 DR - this was ignored as ordered.(1) A second sighting report was received at 02.00 hours - this concerned the main convoy and so all aircraft set course to intercept.

At 02.30 hours Sgt. Jones sighted 3 MVs and 1 DR in position 32 degrees 50' N 23 degrees 50' E. Twenty minutes later he attacked a three-island type MV of about 4,000 tons, releasing torpedoes at 800 and 600 yards. After passing over the ship and when the A/C was about 3/4 mile away, there was a terrific explosion and the ship split in two. On circling, the bows and stern were seen to be sticking out of the water about 100 yards apart. Other A/C confirmed this and also saw another ship burning - afterwards it was learned that a submarine was responsible for the second ship. The remaining 6 A/C did not attack and returned to base with their loads.'

A.H.B.6.

Enemy reports confirm the sinking of these two ships, the Davide Bianchi and the Padenna. After being guided to the target by a Wellington of No. 221 Squadron the Padenna was sunk by H.M.S. Thrasher. Seven Hudsons which had been despatched to strike at dawn found only two ships blazing and hospital ships picking up survivors. One of the escorting destroyers was found and probably sunk in a series of low-level bombing attacks. The third ship, the Sportivo, managed to elude the search and eventually arrived safely in Tobruk.

Whilst the Battle of Alam el Halfa was actually in progress, therefore, four out of five ships carrying fuel and other urgently-needed supplies to the Panzer Army were either sunk or so damaged that the cargo could not be made available in the forward area in time to effect an improvement

(1) Most probably the Sportivo which appears to have parted company with the main convoy and eventually arrived safely at Tobruk. She was carrying 400 tons of fuel.

in the enemy position. According to enemy reports another ship, the Monti, which sailed from Naples on 1 September and was carrying Army and G.A.F. ammunition to North Africa, was damaged by aerial torpedo off Punto Stilo at approximately 22.00 hours on 2 September. She was later towed to Messina and beached.

A.H.B.6 Records.

Operation 'Beresford' - Attack by XIII Corps on Night
3/4 September to Close Gap in British Minefields

During the night of 3/4 September the British Army Commander put in operation the prepared plan Operation 'Beresford', the object of which was 'gradually and methodically to close the gap between 2nd New Zealand Division locality and Qaret el Himeimat, working southwards from 2nd New Zealand Division position. At the same time mobile forces (7th Armoured Division) were to work northwards from Himeimat.'

It seems likely that the security for this operation was faulty, for at 22.00 hours the enemy launched heavy Stuka attacks using search lights and Verey lights to guide the attacking aircraft, and these attacks continued without respite until dawn.(1) This would appear to be the most ambitious night operation of its kind ever launched by the enemy in the Desert, but according to Eighth Army sources the net result was merely one killed and one wounded. Although no doubt there was a certain amount of disorganisation as a result of this dive bombing, there is no evidence that it had any appreciable effect on Operation 'Beresford'.(2)

A.A.H.Q.W.D.
War Diary.

The initial attacks by the New Zealanders went satisfactorily. By dawn both 5th and 6th New Zealand Brigades had reached their objectives on 264 and 266 Grids respectively, but 132nd Brigade were held up in the centre. They had the misfortune to have a number of their transport vehicles, including one containing mines, hit by enemy shell fire. The area was soon brightly illuminated by the burning transport and detonating mines, and the enemy machine

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- (1) Enemy records give the time for the commencement of these dive-bombing attacks as 20.00 hours.
- (2) The enemy reference to this attack is of considerable interest as it points to the air raids being in the nature of reprisals. 'Enemy air attacks by day and night lowered morale, caused considerable losses, and ceased only after a concentrated attack by our aircraft on the 10th Indian and New Zealand Divisions.' It did so happen that the R.A.F. bombing in the battle area showed a sharp decline after the night of 3/4 September when these Stuka raids on XIII Corps took place, but this was wholly coincidental. The chief reasons were a general lack of suitable targets and the fall in serviceability owing to the strenuous efforts of the past few days and heavy casualties among the fighters. Later, on 11 September, when Rommel called for reinforcement of the Luftwaffe he did so in the following terms. 'Reinforcement of the Luftwaffe, which is faced with great superiority at present, is absolutely essential. This reinforcement must consist mainly of fighters, but must also include bombers so that heavy reprisal attacks may be carried out.'

High Level Reports
and Directives
A.H.B.6. Trans.
No. VII/80.

Cabinet Office
Narrative.

gun and mortar fire caught the forward companies as they were approaching their objectives. The Brigade Headquarters was also heavily shelled as a result of these vehicle fires. According to Eighth Army reports the confusion was increased to some extent not only by enemy smoke but also by flares dropped by the Royal Air Force in the course of their night bombing.

The enemy reference to the attack contained in the Afrika Korps War Diary was as follows:-

D.A.K. War Diary.

'21st Panzer Division reported by telephone that fighting was in progress west of 21st Panzer Division Battle Headquarters on the northern edge of Deir el Munassib, but the situation did not appear to be dangerous. In spite of this the German Afrika Korps sent a Liaison Officer to 90th Light Division at 09.30 hours to clarify the situation.'

Renewed Dust Storms Hamper Air Activity - 4 September

No. 3 S.A.A.F.
Wing O.R.B.

On 4 September the weather closed in with severe dust storms which limited air operations to the morning while the enemy, intent on withdrawing their forces as intact as possible to the west, and no longer forced by pressure from the Eighth Army to concentrate, adopted very wide measures for dispersal. The light bombers were able to carry out only 72 sorties - less than one half of the previous day's total - in the course of which 36 tons of H.E. were dropped. These sorties comprised four raids, and all were launched in support of the New Zealanders in order to assist them against an enemy counter-attack in the Munassib area.

Cabinet Office
Narrative.

From all sides reports were received of the enemy's withdrawal westward. Dawn patrols were pushed forward by 10 Armoured Division and by as early as 07.30 hours 22nd Armoured Brigade were able to report that Deir el Tarfa and Deir el Daayis were clear of the enemy. By soon after 08.00 hours the Derbyshire Yeomanry reported that its patrols had reached the western end of Deir el Ragil.

No. 3 S.A.A.F.
O.R.B.

The first Boston rendezvous was at 07.55 hours when 15 Bostons of No. 24 S.A.A.F. Squadron, together with three Mitchells of 82nd U.S. Squadron attacked 1500 M.T. dispersed in groups of two to three hundred vehicles to the southeast of Munassib. Good bombing produced several direct hits and near misses. This was in the area where the enemy were already forming up for counter-attacks against the New Zealanders. At 09.30 hours, Air Support Control received a call for air support from the New Zealanders again to be directed against the enemy who were forming up for another attack at Munassib. It was immediately agreed by Main H.Q. Eighth Army to put the next raid, consisting of six Baltimores of No. 55 Squadron and twelve of No. 223 Squadron, which was ready to take off, on to Munassib. Further arrangements were made, at the same time, for No. 6 Squadron to attack an isolated target consisting of three tanks and an armoured car, in the extreme south. When the Baltimores reached the target, they found 1,000 well-dispersed M.T. at 885266, which included three to four hundred M.T. at approximately 887258. As a result of this raid, four fires, two of them very large, three direct hits and several near misses were observed. Anti-aircraft gun fire was intense and accurate and quite half of the Baltimores taking part in the raid were held. Crews reported a further westerly trend of enemy vehicles.

Eighth Army War
Diary.

The next raid, at 11.25 hours, consisting of 12 Bostons of No.12 Squadron and 6 Mitchells of Nos.82, 83 Squadrons and the 434th U.S. Squadron gave further support to the New Zealanders. One explosion, several fires and direct hits were caused among M.T. and a bomb fell among a group of 25 tanks. The same area in the vicinity of Deir el Munassib, where the enemy were forming up for an attack against the New Zealanders, was the target for the next raid when 15 Bostons of No.24 Squadron and three Mitchells of the 82nd U.S. Squadron scored a number of direct hits against enemy M.T.

At 12.20 hours the enemy delivered a strong counter-attack against the New Zealanders from the south east - there had already been one from the west - which was repulsed. It is probable that these four raids carried out by the light bombers were of assistance to the New Zealanders in helping them to repulse these attacks at a critical phase of the operation. The enemy comment on the raids is that they were not so effective as operations on previous days owing to the rugged nature of the terrain to the southeast of Deir el Munassib.

D.A.K. War Diary.

The attack on the small enemy formation in the south was undertaken by six special Hurricanes of No.7 (S.A.A.F.) Squadron carrying 'Jeffrey's' bombs. They scored two direct hits on tanks and an armoured car. Unfortunately, although an armoured car had been designated as part of the target, the one they hit was British. It was pointed out by Air Support Control that these isolated parties of tanks were hardly a safe target, as they usually constituted a tank screen in close proximity to British troops.

No.2 A.A.S.C.
War Diary.

'Due to dust' the No.3 (S.A.A.F.) Wing O.R.B. records 'Bostons and B.25's returning from the fourth raid landed at Idku and at 17.50 hours were ordered to take off for a final smack at Jerry. Bad visibility and the knowledge that bandits were about induced Fighter Control, however, to recall the formation which again landed at Idku.'

No.3 S.A.A.F.
Wing O.R.B.

By the end of the day, 4 September, the enemy had retired to the line not far east of the point from which he had started and was digging himself in. It was also decided that the New Zealanders should be withdrawn during the night of 4/5 September and concentrated within the original perimeter. By last light on 4 September, therefore, the battle of Alam el Halfa was virtually over, although the aftermath was to leave its mark on air operations for the next couple of days.(1)

Enemy Air Operations - 4 September

Compared with the previous day, enemy air activity was on a slightly increased scale. Several Stuka attacks were made and these were all directed against the New Zealanders. One formation of Ju.87's was estimated as comprising 25 aircraft. A single unidentified aircraft - probably Italian - dropped a number of fragmentation bombs from 10,000 feet on an unoccupied house two miles to the east of Amiriya. In

(1) 'No operations. The battle over and a rest well earned'. No.70 Squadron O.R.B.

A.A. H.Q. W.D.
Daily Int. Sums.
and M.E.W.I.S.

the course of sweeps over the battle area amounting to 193 sorties, fighters engaged a formation of 21 Me.109's and Mc.202's. One Me. was claimed as destroyed, but the enemy recorded no losses.

Enemy Report of 4 September

The German Afrika Korps reported on the day's activity in the following terms:-

'Enemy follow-up operations have to-day become more energetic. Infantry, tanks and armoured cars from the north, south and east are feeling their way forward towards the German Afrika Korps lines, followed by heavy artillery bombardments from the north and east

D.A.K. War Diary.

The occurrence, casualty and equipment loss report returned to-day, covering the period 30 August - 3 September stated that, amongst other things, 64 enemy tanks had been destroyed. The heavy losses sustained amounted to 38 officers and 533 men; 145 vehicles and 9 guns were completely destroyed. The high rate of losses in men and equipment was due mainly to enemy air attacks.'

The Panzer Army report referred mainly to the fuel situation:

'Bombing attacks by night and day fewer than those of previous days.... On 4 September a steamer with 400 tons of petrol, oil and lubricants arrived. (The Sportivo). During the period 2 - 4 September three ships with a total of 500 tons of ammunition and 1,200 tons of petrol, oil and lubricants have been sunk or damaged by torpedo aircraft. The fuel situation continues to be extremely tense. Reserves in Africa on the evening 4 September will only permit of the supply at the current rates for about seven days.'

Night Bombing of Enemy Concentrations in Munassib Area - 4/5 September

No. 205 Group
O.R.B.

No. 2
A.A.S.C.
War Diary.

No. 143 Squadron
O.R.B.

Although only 39 tons of H.E. were dropped, including 6 x 4,000 lb., by a total of 23 aircraft, the night bombing of enemy concentrations in the Munassib area, to the south of the New Zealand Division positions was directed against what was considered to be the best target the medium bombers had yet had. A massed concentration of enemy transport was located closely packed in a wadi. By the time the bombing had been completed numerous fires were raging. One aircraft alone claimed five large fires and twelve small ones. This aircraft had burst a tyre on take-off, but the captain still decided to carry on with the operation and make a belly landing on soft sand. By the light of a flare, the port tyre was seen to be hanging in ribbons, but the aircraft was brought in successfully. Another aircraft started an explosion which was so violent that the blast was felt at nearly 4,000 feet. Only two Wellington Squadrons operated, Nos. 108 and 143. The illumination provided by the Albatrosses was good and the lights laid out by the Army in the form of letters were useful.

Enemy Night-bombing Activity 4/5 September

That same night, about nine enemy aircraft, operating at about 17,000 feet over the Mariut - Burg el Arab area, probably briefed to attack the important system of landing-grounds there, were intercepted by night fighters of No.46 Squadron. All the aircraft jettisoned their bombs in Lake Mariut when attacked. The Beaufighters shot down three aircraft. Two of them were Cant Z 1007's which crashed into the sea, and the third a Ju.88 which crashed near LG.154, the crew being captured.

A Depleted W.D.A.F. Fighter Force on the Defensive, 5 September

On 5 September a drastic change of air policy took place. By this time, after a period of intensive operations, the strength of the fighter squadrons had dropped to such an extent that most of the Kittyhawk squadrons were below 50 per cent in aircraft. A choice had to be made between using the fighters as escort to the light bombers, or else on offensive sweeps. Since the enemy had begun to put up very strong fighter patrols, the Eighth Army were not planning to follow up the retreating enemy, and targets for the light bombers had become poor, owing to dispersal, it was decided to switch the fighters from escort duties to the task of carrying out fighter sweeps. This decision was reached despite representations from the army that some measure of harassing attack should be maintained, in order to give the retreating enemy no rest when he was on the move.

Light-bomber operations were accordingly reduced, and only 18 sorties were flown on 5 September. They were carried out by six Baltimores of No.55 Squadron and 12 of No.223 which, at 11.00 hours attacked a concentration of one thousand M.T. and 46 tanks at 881263 - 879257, in the Deir el Munassib area. Results were two fires, one of which was very large, an explosion and six direct hits. 'To-day,' says the No.3 S.A.A.F. wing O.R.B., 'we know that Jerry has gone back almost to where he came from, in his abortive attempt to break through our lines, and that he is endeavouring to dig himself in in his new positions. Only one Army target came our way to-day, a concentration of 1,000 M.T. and 46 tanks which were attacked by 18 Baltimores with very good results.'

Early morning cloud and then bad weather which stirred the dust on the landing-grounds added to this impression of a general relaxation of tension. Enemy fighters and fighter bombers were active throughout the day, operating generally in small sections, although formations of 10 to 15 Me.109's were frequently reported. Two attacks by fighter bombers were made on the Burg el Arab - Amiriya area when H.E. bombs were dropped from a high level without causing any damage. At 11.40 hours a Stuka attack by five Ju.87's with an escort of 13 Me.109's was made on British forces in the Deir el Daayis area and two further bombing attacks were made against the New Zealanders. The R.A.F. fighter opposition, now that they had been relieved from bomber escort duties, was strong enough to force the enemy up and they bombed level from a height of nearly two miles.

Spitfires, Hurricanes and Kittyhawks carrying out sweeps over the battle area engaged two formations of Me.109's and Mc.202's, damaging five Me.109's for the loss of five fighters shot down and three damaged. No.145 Squadron

A.A.H.Q.W.D.
Daily Int.
Sums.

No.2 A.A.S.C.
War Diary.

H.Q.M.E. Table
of Operations.
A.H.B./IIJ1/31/1.

No.3 S.A.A.F.
Wing O.R.B.

A.A.H.Q.W.D.
War Diary

No.145 Squadron
O.R.B.

sustained severe casualties on this day with the loss of ⁷ three damaged, their heaviest (three Spitfires shot down and) losses being sustained when six of them intercepted a Stuka raid and were in turn attacked by 12 Me.109's. Hurricane IID operations were abortive owing to interference from enemy fighters. The enemy recorded two S.E. fighters destroyed and one Ju.87 damaged.

A.H.B.6.

The Enemy Commander-in-Chief's Conference 5 September

The enemy Commander-in-Chief held a conference early on the morning of 5 September. The main points discussed were that owing to a 'quiet night on the Afrika Korps front the Divisions were able to retire to fresh positions undisturbed by the enemy' and the organisation of a new line of defensive positions. It was decided to set up a new defence line in the south making use of the British system of minefields which still remained in their hands. It was agreed that the main task for the next few days was to improve and enlarge these minefields. 'The day passed on the whole without incident,' reads the final entry for 5 September in the D.A.K. War Diary. 'Enemy air activity has fallen off markedly. Only one raid in which bombs were dropped.'

D.A.K. War
Diary.

Marshal Cavallero's Comments on the Battle of Alam el Halfa -
5 September

On 5 September, General von Rintelen sent a despatch to the Army General Staff Operations Division in which he summed up a conversation he had had with Marshal Cavallero on the subject of the Axis Forces' failure at Alam el Halfa. According to the Marshal, the decision to discontinue the attack had been due mainly to tactical reasons, 'especially enemy air superiority and big enemy minefields which prevented the initial objectives being reached in the time planned.' At the time the decision was taken to discontinue the attack, he asserted, the supply position was not nearly as unfavourable as it became later on 'since numerous vessels with fuel were on the way, the majority of which were not sunk until later.'

High Level
Reports and
Directives.
A.H.B.6 Trans.
No. VII/80.

According to Cavallero, one of the gravest results of the defeat was that the hope of pushing the R.A.F. air bases further to the east and so decreasing the air threat to their shipping had not been fulfilled. 'The Alamein position must be held at all costs,' he said, 'as in the event of an advance by the Royal Air Force to the west, transport into the harbours of Cyrenaica and especially Tobruk would be absolutely impracticable. In order to improve the sea transport situation so that supplies may be brought across and the Panzer Army maintained at battle strength, Malta must be neutralised again, since the elimination of the enemy Air Force in Egypt can no longer be expected. The Malta problem is so urgent to-day that the Duce has requested F/M Kesselring to come to a conference in Rome to discuss stronger action against Malta and reinforced air cover for shipping movements.'

Air Operations by No.205 Group Night 5/6 September

It is a significant fact that, on the night of 5/6 September, no night-bombing operations were carried out in the battle area against tactical targets. The medium-bomber force of No.205 Group reverted to their normal use against strategic targets. Twenty Wellingtons

of Nos. 37 and 70 Squadrons and nine Liberators of No. 159 Squadron attacked shipping and port installations at Tobruk, starting a number of fires. One Wellington was lost. In a raid by eight Halifax aircraft against Heraklion Aerodrome, used as a base for the enemy transport fleet, two were shot down. A.A. gunfire was intense and enemy nightfighters were very active. A number of small fires were started, but aircraft did not observe results more closely as evasive action had to be taken. Another raid was carried out against Heraklion harbour by twelve Liberators of the 98th Heavy Bombardment Group where several hits were started among the docks and warehouses, starting fires.

So ended the Battle of Alam el Halfa, at least for the medium bombers, whose concentrated attacks beginning as far back as the beginning of the moon period, on 22 August, had done so much to break the enemy offensive.

Ground and Air Operations 6 September

By 6 September, the beaten enemy were consolidating on their new positions in the south, making use of and extending the captured British minefields. Only small parties of the enemy rearguard were still operating to the east of the old British minefield. Rommel visited the Afrika Korps H.Q. in the morning and set forth his plans for the future:

'The German Afrika Korps will be moved back behind the line of defensive positions. German and Italian units will be intermingled as much as possible. Units will be trained and replenished. The southern sector of the defence line will be consolidated. Replacements, vehicles and supply goods will be brought up.... Owing to the difficult fuel situation orders for the strictest economy in this sphere had to be issued.'

Although it was not until the next day that the Eighth Army Commander decided to call off the battle, as a military operation it had ended on 6 September. He decided to leave the enemy in possession of the area of the old British first and second minefields to the south from Deir el Munassib. To the Army Commander who was already preparing for El Alamein 'there were definite advantages in keeping the enemy down in the south.'⁽¹⁾ Now, thrown on to the defensive after his failure, it was for Rommel to await an attack by the Eighth Army, at a time and place to be chosen by them. Since the offensive at Gazala on 26 May, one of the most dramatic reversals of military history had taken place and which can be traced back, step by step, to Rommel's decision on 21 June to invade Egypt in advance of air support and in the face of an enemy who were not only retreating on to their bases, but whose air force enjoyed air superiority.

On 6 September the policy was to avoid any air commitments and as on the previous day bombing was called off in favour of fighter sweeps in an attempt to reduce enemy

(1) According to General Horrocks this was arranged by General Montgomery in order to give the enemy a vantage point from which to observe the Eighth Army's deceptive measures for the Battle of El Alamein.

No. 205 Group
and Squadron
O.R.B.s.

Cabinet Office
Narrative.

D.A.K. War
Diary.

Cabinet Office
Narrative.

No. 2 A.A.S.C.
War Diary.

A.A.H.Q.W.D.
Daily Int.
Sums.

D.A.K. War
Diary.

fighter activity. A plan was under consideration by XIII Corps for an attack by 4th Light Armoured Brigade on Qaret el Himeimat, but owing to this Air Force policy there was no air support likely, and it was decided not to proceed. As it happened, this air policy was amply justified by events. Enemy fighters were very active and carried out sweeps in formations of from 12 to 15 aircraft.

During the morning of 6 September Hurricanes on an armed reconnaissance in the central sector were attacked by 10 Me.109's. As a result, eight Hurricanes were shot down, five of No.7 S.A.A.F., two of No.127 Squadron and one of No.274 Squadron. In the same sector, in the afternoon, 12 Tomahawks of No.5 Squadron, 8 Kittyhawks of No.260 Squadron and 4 of No.66 Squadron met a force of 15 plus Stukas escorted by 15 Me.109's and attacked. In the course of the engagement the R.A.F. lost four fighters shot down and two damaged and claimed three Ju.87's destroyed.

Comparative British and Axis Air Losses - Battle of Alam el Halfa.

Figures for the British and Axis air losses 31 August, to 6 September are as shown on page 208.

The Royal Air Force lost approximately 10 per cent of the initial force of front-line aircraft with which it started the battle, and some 11 per cent of the original field fighter force was destroyed. The loss of bombers was negligible, by comparison, and it is a singular fact that no enemy fighter succeeded in piercing the fighter screen defending the light bombers.

H.Q.M.E. Table
of Operations
A.H.B./IIJ1/
31/1 and A.H.B.6.

The Western Desert Air Force lost approximately two fighter aircraft for every one of the enemy's shot down (53: 27); this figure includes reconnaissance aircraft. On the other hand, the enemy lost almost three times as many bombers (20: 7). Bearing in mind the comparatively small number of bomber sorties carried out by the Axis Air Forces, in the course of the battle, these figures throw a sharp light on the inability of the enemy fighters to protect their bombers - and, incidentally, their ground troops - in spite of the technical superiority of their aircraft. The Luftwaffe losses were very high compared with the Italian and for every Italian aircraft shot down, there were ten German.

A comparison of the Royal Air Force claims for the number of enemy aircraft destroyed with the figure revealed by scrutiny of enemy records by no means bears out the criticism, frequently levelled at the R.A.F., that they grossly over-estimated their claims. No account has been taken of damaged aircraft, as the systems for calculating damage to aircraft were not comparable.

	<u>Fighters</u>	<u>Bombers</u>	<u>Total</u>
R.A.F. Claims:	31	26	57
Enemy Records:	27	20	47

Enemy Views on the Defeat of the Axis Panzer Army at Alam el Halfa.

On 7 September, the enemy Army and Naval High Command in the Mediterranean gave their views on the serious

BRITISH AND AXIS AIR LOSSES AT ALAM EL HALFA 31 AUGUST - 6 SEPTEMBER 1942

BRITISH					GERMAN				
Date	Fighters Destr., Damgd.	Light Bombers Destr., Damgd.	Medium Bombers Destr., Damgd.	Totals Destr., Damgd.	Fighters Destr., Damgd.	Stukas Destr., Damgd.	Bombers Destr., Damgd.	Recce Destr., Damgd.	Totals Destr., Damgd.
Aug. 31	3 7	2 2	2 1	7 10	6 (1) 1	4 3	3 1	- -	13 5
Sept. 1	15 7	3 3	- -	18 10	7 -	- -	- -	- 1	7 1
2	7 4	- 4	- -	7 8	3 (1) -	1 3	4 -	1 1	9 4
3	11 3	- 3	- -	11 6	1 (1) -	- -	5 (1) 1	- -	6 1
4	- 3	- -	- -	- 3	- -	- -	- -	- -	- -
5	5 3	- -	- -	5 3	2 -	- 1	- -	- -	2 1
6	12 2	- -	- -	12 2	3 -	1 -	1 -	1 -	6 -
TOTALS	53 29	5 12	2 1	60 42	22 (3) 1	6 7	13 (1) 2	2 2	43(4) 12
<u>R.A.F. Claims.</u> Total R.A.F. claims for the battle period were:					29 (2) 56(4)	13 13	10 (3) 4	- -	52(5) 73(4)

Figures in brackets indicate Italian losses and R.A.F. claims against Italian aircraft. Although the loss figures are taken from Italian Air Ministry records, it is not certain that they are comprehensive.

implications which resulted from the defeat of the Panzer Army in North Africa. Field Marshal Kesselring, after conferring with the Duce and Marshal Cavallero, made this statement:

'Right at the beginning of the Panzer Army offensive, it was clear that the first objective could not be reached owing to big British minefields and the deep sandy terrain.(1) Fuel consumption was trebled owing to this. The attack was halted at 07.00 hours on 31 August and then continued, but an advance to the coast could no longer be made. Enemy air attacks by day and night lowered morale, caused considerable losses, and ceased only after a concentrated attack by our aircraft on the 10th Indian and New Zealand Divisions....

The Alamein position must be held at all costs, as it is the most favourable defensive position in the eastern part of North Africa. The intention that the offensive will be resumed as soon as the supply and strength situation permits must be adhered to. The front in Egypt increases in importance for the entire conduct of the war in connection with pressure on the Middle East from the Caucasus. The British and Americans will reinforce further in the Middle East and set up their second front here. A large scale British offensive does not appear to be imminent at present. Owing to strong defence, enemy air bases in the Nile Delta can be eliminated only by occupation of this area, but air attacks against airfields in Syria and Palestine seem to be promising.

High Level Reports
and Directives
Dealing with the
North African
Campaign, 1942.
A.H.B.6 Trans.
No. VII/80.

Next to Alamein, Malta is the second British centre of strength in the Mediterranean. An attack aimed at the occupation of Malta is not possible before next summer owing to weather conditions. The neutralisation of Malta is therefore the only means to maintain adequate transport movements to North Africa. C.-in-C. South declared that, besides strong Italian co-operation, considerable reinforcement of his fighter forces was necessary in order to eliminate enemy fighter operations and enable further attacks on enemy airfields. Malta must be continually held down, so that shipping losses could be reduced to an endurable degree.

The Duce declared that the battle in the Mediterranean area consisted of two parts - the battle at sea and the battle on land. The battle at sea had been lost, so that the subsequent battle on Egyptian soil could not be carried through....'

(1) This would appear to bear out the story, contained in the C.-in-C.'s Despatch, of an act of deception which led to the enemy armour being 'bogged down' in deep sand in this area. The Eighth Army purposely sacrificed an armoured car, at the beginning of the battle, in which was contained a tea-stained map showing a belt of good going extending up to the crest of Alam el Halfa. From General von Thoma it was learned that the ruse had been effective. The enemy had intended to outflank the ridge to the north-east, but had altered his plan on the basis of false information.

A further message was sent, on 7 September, from the Deputy Chief of the German Naval Command in Italy to the Chief of Naval Staff, Operations Division:

'There is no doubt that, towards the end, continuation of the offensive in North Africa collapsed because of inadequate supply services. The fear that this would happen has unfortunately been realised.

After the offensive had been broken off, it depends on the supply question whether the Panzer Army will be capable of holding their own, even on the defensive, in face of the ever-increasing enemy.... The supply problem must therefore be solved at all costs, even if we can increase defences against submarines, we have no means at our disposal at present to meet the far superior abilities of the R.A.F. in night operations at sea. This last danger has grown to such an extent that it must lead to a catastrophe if no relief is found. I see to-day more clearly than ever before that there can only be one possibility and that is by strategic offensive. The R.A.F. in the Mediterranean, i.e. in Malta, must be eliminated. Fresh operations must be launched immediately in this area.... The decreasing number of vessels is so threatening that no possibility must be left untried....

Any reference to enemy comment on the Battle of Alam el Halfa would be incomplete without Rommel's own views which, significantly enough, he gave under the title of 'The Third Dimension'.

'Our offensive had failed because:

- (a) contrary to our reconnaissance reports, the British positions in the south had been constructed in great strength.
- (b) non-stop and very heavy air attacks by the R.A.F., whose command of the air had been virtually complete, had pinned down my army to the ground and rendered any smooth deployment or any advance by time schedule completely impossible.
- (c) the petrol, which was an essential condition for the fulfilment of our plan, had not arrived. Some of the ships which Cavallero had promised had been sunk, some delayed and others not even dispatched. In addition, Kesselring had unfortunately been unable to keep his promise to fly over 500 tons a day to the front in an emergency.

Our casualties had been very severe, caused mainly by the bombing and low-flying attacks of the R.A.F. They totalled, German and Italian together, 570 dead, 1,800 wounded and 570 prisoners - in all, nearly 3,000 men. On the material side, the main feature was our vehicle losses, which totalled 50 tanks, 15 field guns and 35 anti-tank guns, and 400 lorries.

According to formation reports, we had taken 350 prisoners and knocked out or captured 150 British tanks and

armoured cars. We had also destroyed 10 field guns and 20 heavy anti-tank guns.(1)

We had learnt one important lesson during this operation, a lesson which was to effect all subsequent planning and, in fact, our entire future conduct of the war. This was that the possibilities of ground action, operational and tactical, become very limited if one's adversary commands the air with a powerful air force and can fly mass raids by heavy bomber formations unconcerned for their own safety.

This battle was known to the troops for ever after as the 'Six-day Race' - from the fact that it had lasted six days from the opening of the offensive until our retreat to our new positions.

British ground forces, as has been shown, had hardly put in an appearance during the offensive. Montgomery had attempted no large-scale attack to retake the southern part of his line; and would probably have failed if he had. He had relied instead on the effect of his enormously powerful artillery and air force. Added to this, our lines of communication had been subjected to continual harassing attacks by the 7th Armoured Division. There is no doubt that the British Commander's handling of this action had been absolutely right and well suited to the occasion, for it had enabled him to inflict very heavy damage on us in relation to his own losses, and to retain the striking power of his own force.

According to our estimate, some 1,300 tons of bombs had been dropped on the area occupied by my army's assault force during the six days of the battle. Although this was not very great compared with the quantity that was to be showered on us during the Alamein battle, it was far greater than anything that had so far been known during the African campaign.

'In any case, two points were already clear:-

(a) the paralysing effect which air activity on such a scale had on motorised forces; above all, the serious damage which had been caused to our units by area bombing.

(b) The British bid to secure complete command of the air and to exercise it to the full.

We were in no doubt that the forthcoming increase in British strength - the 100,000-ton convoy expected for the beginning of September had already arrived in Suez - would apply equally to their air force. From this we concluded that the R.A.F. would employ many times more aircraft against us in the coming battle than in the one just fought. This being so, we had to expect the following results:

The enemy would fight the battle of attrition from the air. His bombs would be particularly effective against motorised forces standing without cover in the open desert; their vehicles, tanks and guns, whether on the march, in assembly areas, or in the attack itself, would offer a

(1) The Eighth Army losses were 1,640 killed wounded and missing, 68 tanks, 18 anti-tank guns but no field guns.

wonderful target for bombers and low-flying aircraft. The enemy would be in a position to batter our forces so severely as to render them in time virtually unfit for action, and this without appreciable expenditure of his own strength.

From the command point of view he would gain the following advantages:-

- (a) Through his total command of the air, he alone would have access to complete and unbroken reconnaissance reports.
- (b) He would be able to operate more freely and boldly, since, if an emergency arose, he would be able, by use of his airpower, to break up the approach march and assembly and indeed every operation of his opponent, or alternatively delay them until he himself had had time to take effective counter measures.
- (c) As a general rule, any slowing down of one's own operations tends to increase the speed of the enemy's. Since speed is one of the most important factors in motorised warfare, it is easy to see what effect this would have.

Moreover, whoever enjoys command of the air is in a position to inflict such heavy damage on the opponent's supply columns that serious shortages must soon make themselves felt. By maintaining a constant watch on the roads leading to the front he can put a complete stop to daylight supply traffic and force his enemy to drive only by night, thus causing him to lose irreplaceable time. But an assured flow of supplies is essential; without it the army becomes immobilised and incapable of action.

All this provided us with inescapable conclusions. What we really needed was parity, or at least something approaching parity, in the air. This would have required a vast reinforcement of Kesselring's air force, especially in pursuit and fighter planes, but above all, would have needed the addition of a number of heavy bomber squadrons.

A balance of power in the air would have made the old rules of warfare valid again, although, of course, with certain tactical restrictions imposed by the intense aerial activity on both sides.

Anyone who had to fight, even with the most modern weapons, against an enemy in complete command of the air, fights like a savage against modern European troops, under the same handicaps and with the same chances of success. And since there was no foreseeable hope, with the German Luftwaffe so severely stretched in other theatres, of Kesselring receiving aircraft reinforcements in any way comparable with those flowing to the British, we had to face the likelihood of the R.A.F. shortly gaining absolute air supremacy.

We therefore had to try to put our defence against the forthcoming British attack into such a form that British air superiority would have the least effect. For the first and most serious danger which now threatened us was from the air. This being so, we could no longer rest our defence on the motorised forces used in a mobile rôle, since these forces were too vulnerable to air attack. We had instead

to try to resist the enemy in field positions which had to be constructed for defence against the most modern weapons of war.

We had to accept the fact that, by using his air-power, the enemy would be able to delay our operations at will, both in the daytime and - using parachute flares - at night. For no man can be expected to stay in his vehicle and drive on under enemy air attack. Our experience in the 'Six-day Race' had shown us that any sort of time-schedule was now so much waste-paper. This meant that our positions had henceforth to be constructed strongly enough to enable them to be held by their local garrisons independently and over a long period, without even the support of operational reserves, until reinforcements - however much delayed by the R.A.F. - could arrive.

The fact of British air superiority threw to the winds all the tactical rules which we had hitherto applied with such success. There was no real answer to the enemy's air superiority, except a powerful air force of our own. In every battle to come, the strength of the Anglo-American air force was to be the deciding factor.'

Summary

The enemy Commander-in-Chief's original plan envisaged an offensive by the Axis Forces on 26 August in the course of which the British army in the field would be destroyed at Alamein, leaving the road open for full occupation of Egypt and advance as far as the Suez Canal and the Red Sea. The launching of the offensive was prompted largely by the fact that in September Allied reinforcements and supplies would arrive in the Middle East which would alter the balance of power in the Mediterranean in favour of the Eighth Army. According to Rommel, surprise was an essential provision for the success of the operation. It was also an essential part of the plan that the main enemy striking force should cross the British minefields rapidly by moonlight.

In preparation for the offensive, the enemy air forces had been rested - apart from the action against the August convoy - in order to build up its strength. Fighters had been flown from the Russian front in order to make the biggest concentration of enemy air strength hitherto known in the Mediterranean. In the pre-battle line-up, the Axis Air Forces were stronger numerically, but they suffered from the grave disadvantage that only approximately two-fifths of the force, and on which a disproportionate amount of the fighting would inevitably fall, was German. The British were back on their Middle East bases whilst the enemy, with their extended lines of communication, were compelled to dissipate their strength. The enemy Air Forces had thus been driven into accepting a defensive role and employing operational aircraft on the transportation and safeguarding of essential supplies. For their part, the Western Desert Air Force had reached a high level of operational efficiency. The greater part of the Force had been rested and time found for training. Pilots were familiar with the operational terrain and the maximum possible force had been concentrated for action in the battle area. These measures included switching squadrons from the defence of Egypt to more aggressive tasks with the field fighter force and employing the greater part of No.205 Group's strategic bomber force on the night-bombing of tactical targets in the desert. Army-Air co-operation was

good and had been considerably improved when the Eighth Army Commander moved his Headquarters alongside the Western Desert Air Headquarters, at Burg el Arab.

The Army plan, of which the strong defensive position on the Alam el Halfa Ridge was the keystone, was to force the enemy to fight on ground selected and prepared by the defenders. The air policy was an extension of the one pursued during the pre-battle 'softening-up' period - to give the enemy forces no rest by day and night and to concentrate the full weight of the bombing in the south where it was anticipated the enemy Commander would launch his main attack.

As a result of the Air Officer Commanding-in-Chief's long-term policy to isolate the Axis forces in the fields from their sources of supply and reinforcement in Europe by attacks against the enemy lines of communication, Rommel was faced with the task of launching a major offensive with only twenty per cent of the necessary fuel requirements. Last minute efforts to rush fuel supplies across the Mediterranean had been of no avail: in the fourteen days preceding the offensive five ships comprising over 28,000 tons of shipping had been sunk or severely damaged and all of them carrying urgently-needed supplies for the Panzer Army. For the continued success of this operation, on which so much was at stake, the enemy Commander relied either on the arrival of tankers which were already at sea when the battle opened, or on a wind-fall of captured supplies, such as had happened at Tobruk.

The W.D.A.F. air offensive ante-dated Rommel's attack by at least nine days. This pre-battle day-and-night bombing of the enemy forces as they moved south to their assembly areas, supplemented by attacks on advanced landing-grounds and lines of communication, began with the opening of the moon period and in the course of which approximately 446 tons of H.E. were dropped on the enemy, before a single round was fired in the land battle. Rommel attributed his failure in large measure to the success of this pre-battle 'softening-up' in which his forces suffered not only serious losses to personnel and equipment, but a general loss of morale. In addition to this, the sick-rate was heavy owing to food shortages and Rommel himself was ill at the time of the offensive. In spite of strenuous attempts by the enemy air forces to prevent reconnaissance in the south, particularly in the last few days before the attack, they failed, and the steady build-up of the enemy forces in that sector was closely observed, mainly by the reconnaissance aircraft of No.208 Squadron. At times, to defeat these attempts by the enemy to deny reconnaissance in the south, a single reconnaissance aircraft was protected by an escort of over thirty fighters.

At the very onset of the battle, the unusually high degree of local air superiority enjoyed by the W.D.A.F. robbed the enemy Commander of any possibility of achieving tactical surprise. It also meant that his main striking force was weakened by constant day and night bombardments. The success of a last light tactical reconnaissance, on 30 August, enabled an invaluable act of military opportunism to take place. A night raid by thirty-one medium bombers carrying 38 tons of bombs was directed against the main enemy panzer columns as they rolled forward to the attack. Realising the significance of the target, the medium bombers, where possible, made second sorties against the enemy.

These air attacks, the unexpected strength of the minefield system in the south, and the stubbornness of the Eighth Army defence, augmented by enfilading fire from XIII Corps artillery from the north, delayed the enemy advance very considerably. Another fruitful cause of disorganisation to the enemy offensive, right at its inception, was a direct hit by a Wellington on the Headquarters of the German Afrika Korps, when their Commanding General General Nehring was wounded and other members of his staff killed. Shortly afterwards Eighth Army mortar fire killed General von Bismarck, the Commanding General of the 21st Panzer Division. The attack had opened most inauspiciously.

By dawn the next morning, (31 August) such had been the initial difficulties, the enemy Commander-in-Chief had decided to go over to the defensive. However, after a conference with his Corps Commanders, he decided to continue the attack, but with the important difference that, instead of the ambitious project of an advance towards the east, the plan was modified in favour of a short hook to the coast. This was the form of attack by the enemy for which the Eighth Army defence was best prepared, for it meant that the strongly-fortified position at Alam el Halfa ran athwart the enemy's main line of advance. From this decision evolved the salient feature of the battle of Alam el Halfa, for while the whole of the Eighth Army's heavy armour was committed to the static defence of this vital ridge, practically the whole burden of offensive operations against the enemy devolved on the Air Force. No conditions of 'mêlée' arose; areas and bomb lines were singularly well defined. Foresight and accident had together conspired to present the Air Force with a classic situation favoured by Douhet of the defensive on land and the offensive in the air. In the words of Group Captain Bedmish, S.A.S.O., W.D.A.F., 'In effect the guns and armour of the Army made a ring and the air gave the punch inside the ring.'

It was some little time before this pattern, which governed the battle, could be fully discerned. In pursuance of the policy to 'hit the enemy hard in the south', a large-scale programme of light-bombing was arranged for the first day of the offensive, 31 August. This, however, was marred by rising dust on the landing grounds and, in spite of a system of alternative landing grounds being put into operation, only roughly one third of the bomber effort planned could be carried out. A total of 55 bomber sorties were made in the course of which some 34 tons of bombs were dropped. Fighters, however, operating from dust-free L.G.s farther to the east, were able to carry out 230 sorties and caused the enemy the loss of 10 aircraft.

Given a respite from bombing on 31 August, the enemy offensive began to get into its stride. In spite of opposition from the 7th Armoured Division, the two German Panzer Divisions were operating some thirty miles behind the British minefields by the afternoon of 31 August, and, by working in a north-easterly direction, were soon challenging the 10th Armoured Division on Alam el Halfa Ridge, from the South. By last light, forward elements of 15th Panzer Division had installed themselves at only about one thousand yards' distance from 22nd Armoured Brigade Headquarters and close to 1st Regiment R.H.A. waggon lines. Both enemy Panzer Divisions were well-positioned for a resumption of their attacks on the following day.

That night, 31 August to 1 September, improved weather conditions permitted the night bombers to operate against the enemy concentrations in the battle area which offered a series of magnificent targets. Over 89 tons of bombs were dropped by Wellingtons which had been guided to their targets by flare-dropping Albatrosses, and almost half of the aircraft carried out second sorties. According to enemy reports, the German Reconnaissance Group covering the eastern flank of the Afrika Korps suffered severely from these attacks and 'their effective strength was reduced.'

On the morning of 1 September, the two German Panzer Divisions resumed their attacks on Alam el Halfa, but were beaten off mainly by 22nd Armoured Brigade. From first light, the weather now being more favourable for air operations, the light bombers of No.3 S.A.A.F. Wing subjected the vast pool of enemy vehicles and armour in the Munassib - Daayis - Ragil area to intensive bombing attacks, in the course of which over 76 tons of H.E. were dropped. The density of the enemy A.A. was very great and three of the bombers were shot down and many others damaged. Besides escorting the bombers, fighters of the W.D.A.F. were very busy on fighter sweeps protecting the ground troops from dive-bombing attacks. There were signs already that the Stuka force were beginning to crack under the strain - many were jettisoning their bombs and others were bombing level.

It was on 1 September that the sinking by an aircraft of No.39 Squadron of the 5,077 ton tanker, Sanandrea on 30 August had its most noticeable effect on the fuel supply position. Two other ships, the 5,416 ton Istria and the 1,527 ton Dielpi had been sunk on 27 August by aircraft of Nos.38 and 39 Squadrons respectively and the Manfredo Campieri of 5,463 tons by submarine. That afternoon of 1 September, the panzer attacks on Alam el Halfa were called off and the two Panzer Divisions were forced to go over to the defensive mainly due to the critical fuel position, as the tankers promised for 1 September had not arrived.

That night, 1/2 September, strategic air operations brought the enemy fuel shortage to a climax when the eagerly-awaited Picci Fascio of 2,261 tons, carrying fuel and ammunition for the Panzer Army, was sunk by an aircraft of No.38 Squadron, and the Abruzzi, a tanker, was so badly damaged - probably by a U.S.A.A.F. Liberator - that she had to be beached. During the same night, a total of ninety medium bombers dropped approximately 105 tons of bombs, finding a magnificent series of targets in the battle area, some of the aircraft operating from as low as 200 feet. Considerable loss and disorganisation was caused to the enemy on the field of battle. 'These enemy raids,' said an enemy report, 'intensified night after night are an effective battle technique.... The casualties and loss of equipment occasioned by these attacks urgently necessitate an improvement in day and night defences.'

By dawn 2 September, the battle of Alam el Halfa as a planned offensive carried out by the enemy, was virtually over. At 07.50 hours Field Marshal Rommel issued orders for the Afrika Korps to withdraw towards the west. He gave as his reasons, 'enemy air superiority and the supply shortage, particularly of fuel.' That day, with the land battle static and the weather good, the light bombers were able to deal their most crushing blow at the enemy, whose best concentrations of MT were mainly centred in the area

of the Ragil Depression. A total weight of over 112 tons of bombs was dropped by 176 aircraft. Eighth Army artillery, which had also been very active by night and day throughout the battle, added to the confusion and havoc.

In the course of night operations 2/3 September, the medium-bomber raids of the aircraft of No.205 Group, helped by the F.A.A. Albacores, reached a peak of destructiveness, and enemy units found most of their vehicles were unserviceable in the morning. A total of eighty aircraft dropped again well over 112 tons of bombs.

By dawn on 3 September, it was obvious to air observers from the general trend of vehicle movement that the enemy forces were in full retreat. All records were then broken by the light bombers which flew a total of 200 sorties and dropped 120 tons of H.E. while the fighters flew 578 sorties. The best targets were found among the main enemy concentrations now gradually withdrawing from the Ragil Depression and to the south and west, between Munassib and Himeimat. The Eighth Army Commander was still undecided whether this was the start of a real retreat or merely a feint to entice the British armour into battle and XIII Corps followed up with armoured cars only. He also gave orders, on the night of 3/4 September, for Operation 'Beresford', in which the New Zealand Division, with the 132nd Brigade of the 44th Division under command, were to attack southwards and 'slowly and methodically to close the minefield gap'.

Medium bombers of No.205 Group again struck on the night of 3/4 September against the enemy on the field of battle and their supply lines. The enemy had adopted considerably wider dispersal and results did not appear as spectacular as before. That night out of three tankers in convoy, the Davide Bianchi of 1,477 tons and the Padenna of 1,589 tons were sunk - the latter by submarine and aircraft - when within less than 50 miles of Tobruk, and this in spite of the enemy instructions that 'owing to the great value of the convoy it was to be escorted... in as great strength as possible.'

On 4 September the retreat continued but a series of duststorms gravely hampered operations. Sorties fell to a total of 72. They were all flown in support of the New Zealanders whose offensive, having begun promisingly, had run into difficulties. By 08.00 hours the Ragil Depression, where enemy concentrations of vehicles had presented such a magnificent series of targets throughout the battle, was declared free of the enemy.

During the night of 4/5 September, the smallest force of medium-bombers to operate over the battle area since the beginning of Rommel's offensive found what was described as their best target. A massed concentration of enemy M.T. was located in a wadi, in the Munassib area to the south of the New Zealand positions. Thirty-nine tons of bombs were dropped in the course of 23 sorties with considerable success. One aircraft alone was able to report 17 fires.

On 5 September there was a radical change in policy for the employment of the field fighter force, which had suffered heavily in the course of six days' strenuous operations. As the enemy had strengthened their fighter patrols, the Eighth Army were not planning to follow up the retreating enemy, and targets for the light bombers, in any case, had become poor, it was decided to switch the fighters from bomber

escort to fighter sweeps. This policy for the conservation of the fighter force was justified, for on the next day, 6 September, the Western Desert Air Force lost 12 fighters. No night operations were carried out over the battle area by aircraft of No. 205 Group, on the night of 5/6 September, and by 6 September the beaten enemy were consolidating their new positions in the south, making use of the British mine-fields. Two more sinkings, the Albachiara of 1,245 tons, off Derna, by submarine on 5 September and the Luciano Manara of 7,121 tons by Malta-based Beauforts on 6 September, brought the total of enemy ships sunk between 30 August and 6 September to eight, representing a total of 24,761 tons of which 16,616 tons, or five vessels, were due to air attack. From 20 August until 6 September aircraft of Middle East Command sank or seriously damaged 31,359 tons of shipping in eight ships which were carrying vital stores - mainly fuel - to the German-Italian Panzer Army.

Conclusions

The defeat of Rommel's Panzer Army, at Alam el Halfa, was governed by air power to a far greater extent than was realised by the British Commanders at the time. Air power fixed the pattern of the battle from its inception. Although it was the enemy's offensive, the Air Force stole the initiative as early as the preliminary stages of regrouping at the beginning of the moon period, nine days before the land battle opened. Given the excellent tactical disposition for defence adopted by the Eighth Army, combined with their high morale and resolution that there was to be no further retreat, it is no exaggeration to say that the battle of Alam el Halfa was won primarily by the skilful and concentrated use of air power in a combined tactical and strategical rôle.

To the Air Historian, the battle of Alam el Halfa is a classic of its kind. It was the proving ground for rival policies and theories for the handling of an air force. On the one hand the Luftwaffe - essentially the handmaiden of the German Army - was employed solely along the narrow sectarian lines imposed by the immediate tactical requirements of the land battle. The Royal Air Force, however, had already won a status of independence as the Air Arm, on terms of equality with the other two Services. Within the framework of an agreed Army-Air policy, it was handled by its own Commander who, as the specialist, knew the best and most economical methods of achieving those results required by the Army Commander. From this evolved the true co-operative spirit between the Services which was to be evinced so markedly during the pursuit from El Alamein and which was the salient feature in the relationship between the Eighth Army and the Desert Air Force.

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Air power not merely robbed Rommel of the initiative at Alam el Halfa, but denied him the possibility of achieving tactical surprise, 'an essential provision of the success of his undertaking.' A broad deduction of the time and place of what proved to be the enemy's last offensive in Egypt was made by General Auchinleck as early as 27 July, while Air Vice-Marshal Coningham was treating the offensive as a foregone conclusion, in directives, nine days before the battle opened. From this date, the beginning of the August moon period, W.D.A.F. reconnaissance aircraft plotted the enemy build-up in the south. In the course of the day-and-night bombing during this period over 446 tons weight of bombs were dropped on the enemy striking force. Rommel

referred to the considerable material and personnel losses to units and the effect on morale of these raids as one of the most potent causes of his failure. The Axis Air Forces were weakened by attacks on their landing grounds during this period of pre-battle air offensive. In addition, Operation 'Pedestal' caused the enemy heavy losses in aircraft at a time when they were doing their utmost to build up strength and serviceability for the coming battle.

The breaking of the blockade of Malta, and particularly the success of the tanker Ohio in reaching Valetta, meant that air strikes against the enemy shipping could be resumed from the island. Without this, Rommel's build-up for the battle might well have been decisive, as had happened at Gazala when, in the preparatory phase, Malta was too weak to impede the even flow of supplies and reinforcements to North Africa. From the beginning of the moon-period, Egypt and Malta-based aircraft sank or seriously damaged over 30,000 tons of enemy shipping. Five vessels, all tankers or fuel-carrying, en route to Tobruk, totalling some 16,000 tons were sunk or damaged by aircraft whilst the battle was actually in progress. When the enemy Commander-in-Chief eventually launched his offensive his Panzer Divisions held merely one fifth of the necessary fuel supplies.

Determined air reconnaissance at last light on 30 August, the eve of the offensive, enabled a force of medium bombers to disorganise the attack from the very beginning. The Battle H.Q. of the Afrika Korps received a serious direct hit in which the Commanding General was wounded and others among his Staff killed. The unexpectedly strong system of British minefields in the south and the dogged resistance of the Eighth Army defenders put the enemy Commander's timetable for the attack still further out of gear. The check given to the enemy offensive at its very inception meant the failure of the whole operation. As a planned offensive it was virtually over by dawn on 2 September: for the remainder of the time Rommel was engaged in extricating his forces from a position of great danger in which they found themselves well to the east of the British minefields. Had the XIII Corps Operation 'Beresford', on the night of 3/4 September, succeeded in its object of closing the minefield gap behind the enemy, it would have meant annihilation or surrender for the whole of the Afrika Korps.

Except when the weather intervened, as happened on 31 August, it was possible to pursue unimpeded the air policy of concentrating the main weight of air attack, with a system of 'round-the-clock' bombing with light bombers in daylight and medium bombers at night, on the main enemy striking force in the south. The Axis Panzer Army, contained by a combination of consistent pressure from the Eighth Army artillery and armour to the north and east and by the intractable nature of the terrain to the south, presented a series of almost unparalleled targets for the bombers. 'In effect the guns and armour of the Army made a ring and the air gave the punch inside the ring.' Previous training which had been especially designed to familiarise pilots and crews thoroughly with the operational terrain was of great help in enabling the Air Force to make the best possible use of this unique situation.

The flare-dropping and pathfinding technique, followed by the Fleet Air Arm Albacores of Nos. 821 and 826 Squadrons,

was of major importance in the very high level of results achieved by No.205 Group Wellingtons in their night raids over the battle area. Because of the high density of light anti-aircraft gunfire put up by the static enemy formations, opportunities for the use of the fighter bombers during the battle were negligible. In any case, the W.D.A.F. field fighter force was fully engaged on offensive sweeps, to minimise the activity of the enemy dive-bombers and fighters, and in providing escort aircraft for the light bombers.

The Bostons, Baltimores and Mitchells of No.3 (S.A.A.F.) Wing bombing by day, and the Wellingtons of No.205 Group, together with the F.A.A. Albacores by night, provided the main offensive weapon used against the enemy. At no time was the Eighth Army heavy armour committed to the battle in a mobile rôle, but the tanks were employed as a static defence, in hull-down positions, to augment the powerful and highly efficient Eighth Army artillery force. By denying mobility to the main armoured force, and prompted by a mood of caution in the Eighth Army Commander, and not as part of a prepared Army-Air plan, the R.A.F. were presented with a great opportunity for the exercise of air power in a tactical rôle. Conditions of 'mêlée' such as had happened at Gazala, when the light bombers were kept standing idly by for risk of bombing friendly troops and armour, were avoided. Bomblines were well-defined and almost static.

The field fighter force gave the light bombers a very high degree of protection throughout the battle. In spite of the intense day-bombing activity, there was no single light-bomber casualty from hostile air attack. The enemy A.A. gunfire was very effective. Five light bombers were shot down, twelve damaged and many others holed by 'flak'. The fighters were also very active on offensive sweeps hunting down the enemy dive-bomber formations. The W.D.A.F. fighter force paid heavily for the protection afforded the light bombers and the ground troops. In the course of seven days' fighting 11 per cent of the initial force was shot down and a total of 18 per cent destroyed or damaged. Heavy casualties were also inflicted on the enemy: the Germans lost approximately 15 per cent of their fighter force.

The enemy Air Forces failed in every one of the major tasks set them for the offensive. They did not protect their own troops and convoys or in any way interfere with the movement of Eighth Army troops and reinforcements. They were beaten in the very kind of tactical air support in which their training and traditions had led them to be most proficient. The strategic force of Crete-based long-range bombers, invaluable placed for action against the Eighth Army's rear, were frittered away in providing singularly ineffective escort to convoys, misemployed as transport aircraft, used as dive-bombers or else, when they were used in their correct rôle as long range bombers, the raids were so light and sporadic as to have little more than nuisance value. The dive-bombers, on the other hand, although very active with as many as 45 bombers used in a single raid, were proved a singularly ineffective weapon against a determined defence either in the air or on the ground. Casualties and damage to equipment caused by the dive-bombers were negligible, and it would appear that the enemy aircraft and crews suffered far more heavily than the

ground troops they attacked, being forced, either to jettison their bombload - often within their own lines - or else bomb level, a most wasteful expedient for this specialized aircraft.

Although the Axis Air Forces in North Africa outnumbered the Allied Air Forces at this time and their fighter aircraft were, for the most part, technically superior, they suffered severely from the drawback that, as a Force, they were by no means as homogeneous. A most disproportionate amount of the air activity, at least in the forward areas, fell on the Luftwaffe which suffered the loss of ten aircraft for every Italian one shot down. The Luftwaffe did not spare themselves in support of the Afrika Korps and they suffered proportionately very high casualties. That they failed - and they did fail very badly - is due mainly to their muddled air policy, adherence to an outmoded and costly technique of close support and allies whose fighting ability was inadequate. They lacked an efficient maintenance organisation, for their serviceability state dropped catastrophically as soon as any major strain was placed on the air force, and their inability to protect their troops, bases and convoys with night fighters and carry out offensive air operations on an appreciable scale by night were glaring weaknesses for which they paid heavily.

From the beginning of the battle - and, indeed, long before it - the R.A.F. held the initiative. The offensive spirit was never relaxed by them, so that the whole time the enemy Air Forces were compelled to adopt a defensive attitude which degenerated into a defensive psychology. Between the Eighth Army and the W.D.A.F. Commanders there was a high level of co-operation: between the enemy C.-in-C. and the Commander of the Luftwaffe there was too little collaboration and an excess of dictation. The outmoded 'blitzkrieg' technique was still being pursued when the situation demanded the utmost flexibility in the use of air power.

Taken in perspective as the last battle of Rommel's Gazala offensive which had come so near to shattering the whole structure of Allied control in the Middle East, the victory at Alam el Halfa - even more than at El Alamein - proved a turning point of enemy fortunes during one of the most critical periods of the whole war. Basically it was a battle of all arms in which Navy, Army and Air Force played their parts. The interdependence of the three services was never more patent than in this battle. Nevertheless, from the earliest days of the pre-battle 'softening-up' period to the time when the Eighth Army Commander decided not to commit his heavy armour in the battle, but to wait for the correct time and place for the British counter-offensive, it was obvious that victory would depend more than anything else on the correct employment of air power, both tactically and strategically, following closely the principle of concentration.

'The tremendous power of the air arm in close co-operation with the land battle was well demonstrated in the operation', wrote General Montgomery in his "Reflections on the Battle of Alam Halfa", 'The Army and Air Force worked to a combined plan, made possible because the Army and Air Commanders and their Staffs were working together at one Headquarters.... I think that this battle has never received the interest or attention it deserved. It was a vital action because had we lost it, we might well have lost Egypt. In winning it we paved the way for success at El Alamein and the subsequent advance to Tunisia.'

SECRET

PART III

EL ALAMEIN - THE THIRD PHASE -- THE BATTLE OF EL ALAMEIN

(84234)

SECRET

CHAPTER 7

THE PREPARATORY PERIOD AND BUILD-UP BEFORE THE BATTLE OF EL ALAMEIN
(8 SEPTEMBER - 23 OCTOBER 1942)

Air Policy After the Battle of Alam el Halfa

The chief task facing the Air Officer Commanding-in-Chief after the defensive battle of Alam el Halfa was to build up his force, particularly the fighter squadrons which were still well below establishment, in preparation for a major land and air offensive, and at the same time prevent the enemy Commander from strengthening his land and air forces. Broadly speaking, his policy was to cut down to a minimum offensive operations by the light bombers and fighters, in order to give the squadrons time to rest and train, while continuing the operations of the heavy and medium bombers, as fully as possible, against the enemy's supply ports. This was additional to an intensification of shipping strikes against the enemy's convoys to North Africa. In addition, it was necessary to undertake certain measures for the reorganisation of the field fighter force, including particularly the introduction of American squadrons into the Western Desert Air Force.

Absorption of the American Squadrons

While the allocation by the U.S.A.A.F. of No. 57 Fighter Group of three Warhawk (P.40) Squadrons and the 12th Bombardment Group of between two and three Mitchell (B.25) Squadrons to the W.D.A.F. had been very welcome, the problem of absorbing these squadrons into a highly trained mobile force raised many problems. The Americans, although thoroughly trained and attaining a very high peacetime standard of flying, had at that time no experience of war and particularly of war under Desert conditions. The problem was tackled and solved by infiltrating U.S.A.A.F. section leaders into Royal Air Force squadrons and followed gradually by the whole of the squadron. Instruction on every phase of squadron activity was given them by word of mouth by the Officers Commanding the formations to which they were attached, and it was arranged that one R.A.F. Squadron Leader should be attached to each American Group for liaison duties.

A.H.B./IIJ1/
122/19(A)

The scheme worked well and in a short time the personnel were ready to take their places in squadrons. The operational control of the American squadrons was vested in the Air Officer Commanding, with a nominal H.Q. located at Advanced Air Headquarters to study the control of air forces in the field and to watch over American interests.

A.H.B./IIJ1/
183/146(D)

In the allocation of the squadrons, No. 66 Squadron was attached on 7 October to a Kittyhawk Wing (No. 239) which was earmarked to go forward with an advance. The remaining two squadrons, Nos. 64 and 65, after a period of dual control, formed an independent Fighter Wing (No. 57 Fighter Group) under the operational control of No. 211 Group. The U.S.A.A.F. fighter Squadrons (Nos. 81, 82, 83 and 434) were attached to No. 232 Wing for operations.

Reorganisation of the Fighter Force

In preparation for the forthcoming offensive, the fighter force underwent considerable reorganisation. The seven Kittyhawk and one Tomahawk squadron formed two Kittyhawk wings of four squadrons each to one of which was

attached an American P.40 fighter squadron (No. 66). Both these Wings were earmarked to go forward with an advance. Since, owing to the increase in the Kittyhawk strength, the Hurricane squadrons were unlikely to go forward, the three Spitfire squadrons which had hitherto operated with them in mixed wings were reorganised on 25 September to form a Spitfire Wing (No. 244) in which was also included No. 73 Squadron of Hurricane night fighters. The remaining eight Hurricane squadrons, with the exception of No. 6 Squadron and No. 7 Squadron (S.A.A.F.), formed two Hurricane Wings.

A.H.B./IIJ1/
122/69 (A) & (B)

No. 73 Squadron had already specialised in night operations at the time of the Battle of Alam el Halfa, and it was retained in this capacity for the offensive, although day training was continued in the squadron to permit a switch over to day operations at short notice should this become necessary. The scope for operational activity with a fully trained squadron of this type was very great, and the work of No. 73 Squadron was outstanding both before and during the offensive.

No. 6 Squadron
O.R.B.

No. 6 Squadron, with Hurricane IID 'tankbusting' aircraft and No. 7 Squadron (S.A.A.F.) which had recently been re-equipped with the same type, had already been taken out of the Hurricane Wings on 28 July, on account of their specialised role, to operate together as a small wing formation under the operational control of Advanced Air Headquarters Western Desert, through No. 211 Group. A further innovation was the formation of a second fighter group, No. 212, which became operational at the beginning of September, although it was not officially formed until 1 December. The operational control by No. 211 Group of all the fighter squadrons in the field, organised in five fighter wings of normally four squadrons each, constituted an enormous task and, with the addition of the American squadrons, necessitated a further control formation. No. 212 Group therefore took over control of No. 243 Wing and No. 7 Wing (S.A.A.F.) - both Hurricane Wings - on 30 September. It was essential, however, that No. 211 Group should remain the chief control formation of the fighter force, and for this reason a close liaison between the Groups was maintained. The forming of a second mobile fighter Group was also desirable so that a mobile fighter Group would be available, if required, for transfer to another theatre of operations.

A.H.B./IIJ1/
122/19(A)

Defence of the Delta: Resting and Training of Squadrons

The reorganisation of the fighter force took place gradually during the six weeks of comparative quiet, between 8 September and 23 October, during which period the fighter squadrons were rested and trained. The end of the battle of Alam el Halfa still left the enemy within easy range of the Delta area, with long-range fighters, and a portion of the W.D.A.F. was therefore allocated to A.H.Q. Egypt for the close defence of Alexandria and Cairo. The break from the Desert and the change of task represented some rest for the squadrons thus employed, and where possible the proportion of the squadrons maintained at readiness was restricted as far as possible to allow full training to continue. The remainder of the fighter force was rested and given time for training in turn as the situation permitted, (usually a week was allotted for training and a week for leave) but the strength of the fighter force in the field was always maintained at adequate strength to meet any sudden action by the enemy. At the beginning of the preparatory period,

offensive activity by the fighters was cut down to a minimum while squadrons rested and trained, but as the time for the advance approached the number of operations steadily increased. Even so, most squadrons managed to find time to continue training up to the time of the battle. In the same way the fighter squadrons operating in a defensive role took advantage of periods of inactivity by the enemy to keep their pilots constantly in training.

Fighter Reinforcement

A.H.B./ILJ1/
31/1 M.E.F.O.S.
& Sqdns O.R.B.s

The supplies of Kittyhawks and Spitfires to the Middle East, although sufficient to build up the fighter squadrons to normal strength could not enable the rearming of any of the Hurricane squadrons. No. 238 Squadron, however, was re-equipped during the week 10-17 September with Hurricane IIC (Cannon) aircraft and its Hurricane IIB aircraft were handed on to No. 335 Hellenic Squadron which had hitherto been operating with Hurricane I's.

At the beginning of the period the fighter squadrons, particularly those with Kittyhawk and Spitfires were far below strength.

A.H.B./ILJ1/
183/146(D)

On 7 September the Air Officer Commanding-in-Chief wrote: 'I am gravely worried over my fighter position and prospects. I know everything is being done to improve them but facts are that we are at only 50 per cent strength with three Spitfire squadrons and lower with the Kittyhawk squadrons - so that I will almost certainly have to roll up two or three of latter squadrons.' Owing to the increased shipment of Kittyhawks to Egypt, however, it was found possible to retain all the Kittyhawk squadrons. But these and the Spitfire squadrons were still under strength. In addition it had been decided not to send the American 33rd Pursuit Group to Egypt. It had been due there on 1 October although it would have been late in any event.

A.H.B./ILJ1/
183/173

A.H.B./ILJ1/
183/148(A)

The following table indicates the strength which had to be established and maintained by reinforcement and repair. This does not take into account the strength of squadrons at the outset of the period.

A.H.B./ILJ1/
31/1 M.E.F.O.S.

<u>Aircraft</u>	<u>No. of Sqdns.</u>	<u>Total I.E. of Squadrons</u>	<u>Arrivals in Egypt</u>	<u>Issues to squadrons</u>
Hurricanes	11	198	124	238
Spitfires	3	54	32	62
Kittyhawks	7	126	119	210
Tomahawks	1	18	1	8

It will be seen that the output of aircraft to squadrons far exceeded the arrivals of aircraft in Egypt, an indication of the high standard of repair of aircraft, particularly in Kittyhawks, which was maintained in very difficult conditions and without the support of a basic aircraft industry as in the United Kingdom.

Formation of No. 232 Light Bomber Wing

A.H.B./ILJ1/
122/69(A)

During the Battle of Alam el Halfa four light bomber squadrons had been controlled by No. 3 Wing (S.A.A.F.), the only light bomber formation. The addition of the American Mitchell squadrons and the prospect of a further

S.A.A.F. Baltimore squadron necessitated the creation of a second control formation. No. 232 Wing was therefore formed to control No. 55 and 223 Baltimore Squadrons, with the 12th Bombardment Group squadrons attached to the Wing for operations.⁽¹⁾ This left No. 3 Wing (S.A.A.F.) in control of Nos. 12 and 24 Squadrons (S.A.A.F.) (Bostons) and No. 21 Squadron (S.A.A.F.) (Baltimores)⁽²⁾ which was on the point of arriving. A further advantage to be gained by the addition of a second light bomber wing was that, like the second fighter group, it would be available for transfer to another theatre of operations as a complete unit if required.

Employment of the Light Bomber Force

With existing conditions severely restricting suitable light bomber targets, the light bomber squadrons, like the fighters, were able to reduce their operations in order to rest and train, and only a small proportion of their strength was retained at forward landing-grounds. The policy for the employment and training of the light bomber squadrons, as laid down by Air Headquarters Western Desert after Alam el Halfa, was the limiting of day attacks to occasional raids on selected targets, but with full night operations during the moon period by the Boston squadrons. The squadrons were therefore ordered to reduce holdings of aircraft at forward airfields to a maximum of twelve and to send the remaining aircraft to the base landing grounds where the number held was always to be adequate for full training requirements, at the expense of the aircraft at the forward landing grounds. When the congestion at the base landing grounds was relieved by the availability of new landing grounds on the Suez road, the number of aircraft held at forward landing grounds was to be still further reduced, particularly during the moon period. All the American B.25 squadrons were withdrawn from operations for training in day and night operations.

Nos. 55 and 223 Squadrons were withdrawn from operations until 19 October, although this period of rest and training was interrupted once on 30 September when No. 223 Squadron was called up to operate in close support of the Army, once on 6 October when No. 55 Squadron attacked a petrol dump at Daba, and again on 9 October, when both squadrons took part in the 'blitz' on water-logged enemy airfields. The squadrons came under operational control of No. 232 Wing on 23 September, and were joined by the American 12th Medium Bombardment Group with three B-25 Squadrons on 15 October. The American Squadrons were Nos. 82, 83 and 434.

Meanwhile the remaining light bomber squadrons, Nos. 12 and 24 S.A.A.F. under No. 3 Wing S.A.A.F., carried out thorough training programmes at base landing-grounds right up to the time of the offensive while maintaining from the advanced landing grounds night operations against enemy landing-grounds during the moon period, 20 September to 1 October, and occasional day raids against selected targets as required.

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- (1) No. 232 Wing had existed as a skeleton formation at Tel Aviv. It arrived at L.G. '7' on 31 August and became operational on 23 September 1942.
 - (2) The Squadron began operations on 9 October.

No. 3 S.A.A.F.
Wing O.R.B.

Sqns O.R.B.s

No. 232 Wing
O.R.B.

Sqdn. &
Wing O.R.B.s

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In addition, experiments were successfully made in smoke dropping by the Bostons. In the forthcoming advance, the Army wished to use smoke to screen their movements against the established defences of the enemy, both as deception measures and as direct assistance against enemy artillery. Tests were carried out with smoke laying by day and in moonlight, using Bostons fitted with two S. C. I. containers. It was found that in this way a curtain of smoke approximately one mile long which would last for fifteen to twenty minutes depending on wind conditions, could readily be laid, and this was considered a satisfactory result. The outstanding difficulty was to lay the smoke at the correct point, and it was found that to ensure this a very careful disposition of markers in the immediate area of the dropping point was essential. Without this, smoke laying could have only a limited success and might be of no value to the ground forces. It was also found, that in smoke laying by moonlight, there was a tendency for the smoke to be laid too high, thus considerably reducing the screening effect.

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Question of the Withdrawal of the Albacore Squadrons

Although the Heavy and Medium bombers of No. 205 Group did not come under the operational control of Air Headquarters Western Desert, it was fully intended as in the Battle of Alam Halfa, to employ the Wellingtons, in conjunction with the F.A.A. Albacore squadrons, in night attacks on enemy positions in the battle area. These plans were jeopardised, however, when the Admiralty announced its intention to withdraw the Albacores squadrons and to replace them with a squadron of twelve Swordfish aircraft.

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On 9 September the Air Officer Commanding-in-Chief wrote to the Chief of the Air Staff: 'There is no doubt at all that the technique which has evolved between the Albacores and the Wellingtons has been most effective and I see no reason why it should not go on being equally effective in the future. The point is that the Albacore flies slowly, and the pilot can put his head out and get clear vision, and in consequence, can amble about the countryside looking for targets with the help of the moon, and/or flares, until he finds something appetising on which to direct the Wellingtons.'

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(AOC/206)

The Naval Commander-in-Chief pointed out that the replacement situation for torpedo bombers in the Mediterranean was bad and that he had been informed by the Admiralty that it was getting worse. However, he agreed to support the Air Officer Commanding-in-Chief's request to the Chiefs of Staff for the retention of the Albacores in the Middle East during the offensive 'until Rommel had been decisively defeated.' Apart from lack of experience, the Swordfish force could not meet the requirements fulfilled by the Albacores, since a force of twelve aircraft would be inadequate to maintain the continuity of attack throughout the night - one of the main factors in the success of the Albacores.

It was subsequently agreed by the Chiefs of Staffs, that, although the dispatch of the Swordfish to Middle East should proceed, the Albacores should be retained there until after the offensive and the arrival of the Swordfish, when the position would be reconsidered. But this provided no long-term answer to the problem of finding a slow-flying pathfinder aircraft for the air force and on 12 October the

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Air Officer Commanding-in-Chief wrote to the Vice-Chief of the Air Staff: 'The sanction we got should cover the immediate battle but we do need to get a permanent answer to meet this problem. To my mind the continuous twenty-four hour service of bombing which is made possible by the combination with the slow flying Albacore and the medium bomber is one of the most potent factors in land warfare which has emerged as a result of our experience. I feel that somehow we ought to make a permanent provision for it.'

Shortage of Wellington Aircraft

The policy of using medium bombers at night in conjunction with 'pathfinder' Albacores, in order to maintain a 'round-the-clock' bombing programme with the light bombers, had been carried out successfully at the beginning of the Battle of Alam el Halfa, but was almost immediately threatened by the shortage of Wellingtons in the Command.

There had been a steady decline in the Wellington strength for some time. In July the number of serviceable aircraft had been approximately 130. By October it was scarcely 80. This decline was due in part to the alteration of the I.E. of 20 in the squadrons to a U.E. of 16. In October the four Wellington bomber squadrons in the Middle East could muster a strength of only 64 U.E., giving an average available strength of 35 aircraft as a striking force.⁽¹⁾ This figure, after a spell of intensive operations had fallen considerably. Thus the Air Officer Commanding had found it difficult to raise a striking force of more than 20 aircraft per night, even though all serviceable aircraft operated every night. This latter resort, to which the Air Officer Commanding had been reduced resulted in a high percentage of casualties over heavily defended targets such as Tobruk.

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On 27 October, therefore, the Air Officer Commanding-in-Chief asked C.A.S. for increased Wellington reinforcements. He considered that to produce effective and economical results against such targets, a raid force of 50 aircraft was the minimum required, and that he should therefore hold a raid force of 100 bomber Wellingtons, to be organised, preferably, into five squadrons of 20 U.E. which was far more economical and efficient under Middle East conditions than squadrons at 16 U.E.

Ibid

The existing Air Ministry tariff aimed to give Middle East two Wellington torpedo squadrons and four bomber squadrons all at 16 I.E. for the maintenance of which it provided 53 Wellington aircraft per month. The Air Officer Commanding-in-Chief was prepared to exchange an A.S.V. for a bomber squadron but advocated the fixing of the establishment of all the squadrons at 20 U.E. and the proportionate increase of the monthly reinforcement quota to 61, in addition to eight aircraft for forwarding to India, and 7 to allow for wastage en route.⁽²⁾

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- (1) There were six bomber Wellington squadrons in the Middle East according to the Order of Battle, but the Wellington strength was only equal to that of four squadrons.
 - (2) In July the Mediterranean route for bomber reinforcements had to be abandoned owing to the necessity for conserving petrol at Malta. The diversion through West Africa tended to increase the wastage.

Despite the Air Officer Commanding-in-Chief's admittedly strong reasons for making this request, C.A.S. felt unable to increase the monthly quota, because this could only be done at the expense of the 50 Squadron Bomber Programme at home which he was pledged to meet by the end of the year. However, he hoped that in a few weeks' time after Operation Torch had been launched, he would be in a better position to judge whether or not some increase was justified. Meanwhile measures were taken to ensure that there would be no delay in sending out any increase which might then be decided upon.

Medium and Heavy Bomber Operations - 8 September to 23 October

After the Battle of Alam el Halfa, the medium bomber force was switched from operations in the battle area, back to its customary task of attacking enemy ports and bases, in conjunction with the heavy bombers.

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No. 205 Grp
& Sqdns
O.R.B.s.

The chief target was Tobruk, and night after night the Wellingtons took off to bomb shipping,⁽¹⁾ the harbour and port installations. Between 7 September and 23 October they made over eight hundred sorties, and dropped over 674 tons of bombs, mostly high explosive, as well as laying mines in the harbour. During the same period, the heavy bombers made one hundred and forty sorties and dropped over 295 tons of bombs. Although the primary object of the raids was the destruction of shipping, the results were not very successful, as damage was inflicted only on harbour craft and mine-sweepers, except on one occasion when a merchant ship, the Ravello (6,142 tons) was damaged. However, damage to jetties, buildings and installations was believed to be considerable. At Benghazi, more success was achieved against shipping with a smaller effort, probably because the enemy was forced by the constant bombing of Tobruk to divert most of his large ships to Benghazi, thus presenting better targets. In a total of sixty-five heavy bomber sorties approximately 190 tons of bombs were dropped of which twenty-seven sorties were made by aircraft of the U.S.A.A.F. On 23 September reports on shipping in the harbour was as follows:-⁽²⁾

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- * Apuania (6200 tons) blown up by direct bomb hit.⁽³⁾
 - * Ravello (6400 tons) now heavily damaged.
 - Pertusola (1500 tons) very heavily damaged.
 - Tripolino (1070 tons) damaged.
 - Ostia (tonnage ?) damaged but seaworthy.
 - Lombardia (harbour tanker) stern burnt out.
- Several light and auxiliary sailing vessels sunk.

Ibid

Matruh harbour and Sollum were also attacked by both heavy and medium bombers. Five heavy and twenty-four medium bomber sorties were mounted against the former in which over 25 tons of bombs were dropped and sixteen mines were laid, while three Wellingtons dropped 2 tons on Sollum. In the Mediterranean area heavy bombers attacked shipping in Suda and Navarino bays, damaging two ships,⁽⁴⁾ and the airfields of Heraklion, Maleme and Tymbaki were attacked by

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- (1) For full details of anti-shipping offensive see page 230 below.
 - (2) Damage was not all necessarily inflicted during September.
 - (3) * ships marked thus confirmed by Lloyds.
 - (4) See anti-shipping operations below.

heavy and medium bombers, a total of 12 tons of bombs being dropped on the latter targets in thirteen sorties. Finally, the Wellingtons made a very big contribution to the offensive against the enemy's airfields in the Western Desert carrying out over two hundred sorties in which nearly 198 tons of bombs were dropped. These figures do not include the Wellington sorties flown during the four day pre-offensive 'blitz'.

Anti-shipping Operations, 8 September - 23 October

During the early weeks of September the offensive against enemy shipping had not achieved very satisfactory results. Torpedo-carrying aircraft were often prevented from strikes by Axis destroyer smoke-screens. It was hoped to surmount this difficulty by using heavy bombers (usually Liberators) in a combined attack, but it proved that the crews had not yet had enough experience to reach the necessary accuracy either in bomb aiming or in navigation. On one occasion, when eighteen Liberators were given the position of a convoy by reconnaissance which was in fact correct to five miles, only two aircraft succeeded in finding the convoy and these caused no damage.

The Air Officer Commanding-in-Chief felt, too, that the torpedoes which were being used were not lethal enough, largely owing to their having an inadequate charge.

Finally, there was a great shortage of Mark II Beauforts. All these aircraft which were operational had been sent to Malta and the Air Ministry signal stating that no further Mk.II Beauforts were to be sent to the Middle East for the next six months was a great blow. The Mk.I version was 25 m.p.h. slower than the Mk.II and, when escorted by Beaufighters, reduced the speed of the escort below the economical cruising speed, thereby reducing the range of strikes by more than 15 per cent. In a signal to the Air Ministry on 19 September, the Air Officer Commanding-in-Chief pointed out that, 'The reduction in effective striking range will leave a considerable gap between Malta's striking range and the striking range from Egypt with Torpedo Wellingtons. Unless we can have Mk.II Beauforts or torpedo Beaufighters, it will definitely be possible for enemy to slip in between Malta's and Egypt's strikes. Even now it requires good judgement, very good reconnaissance, and still better luck to ensure that enemy do not evade north Malta and Egypt.'

In spite of these difficulties, however, the air war at sea began to meet with considerable success in the four weeks preceding the offensive. The period, in fact, began with a shipping success for the Axis, when the tanker Alberto Fassio sailed safely from Crete to Tobruk where it arrived on 15 September with a cargo of about 2,000 tons of fuel, of which 600 tons were apportioned to the Luftwaffe. This cargo was regarded as very important for the conduct of operations in North Africa and orders had been given by Kesselring for adequate protection to be provided by Fliegerkorps X. In addition to the cover of at least eight aircraft, further Me.110's were held ready in case of air attack.

The first R.A.F. success occurred on 17 September, when six Beaufighters from Malta, five of which carried bombs, attacked the merchant vessel Carbonia (1237 tons) en route from Italy to Tripoli, thirty miles south of Kelibia.

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IIJ1/183/
248(B)

Enemy Records
A.H.B.6

Enemy Records
A.H.B.6 and
H.Q., R.A.F.
Malta O.R.B.

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The aircraft bombed at mast height, scoring a direct hit with a 500 lb bomb and several near misses, and afterwards machine-gunned the vessel: Deck cargo was hurled into the sea and the ship was left stationary with a list to port and emitting oil and smoke. Reconnaissance confirmed that she sank a few hours later. This strike disposed of 310 tons of fuel for the Army and 215 tons for the Luftwaffe.

M.E.W.I.S.
& Enemy
Documents

In an attack on Benghazi on 16 September by 17 U.S.A.A.F. and 7 R.A.F. Liberators, an American aircraft made a direct hit on the motor vessel Ravello (3499 tons) which was badly damaged, and the Gloria Stella pier was also hit during the attacks. Two further attacks at dusk on 22 September and during the night, by 18 U.S.A.A.F. and 11 British Liberators resulted in a direct hit by the American aircraft on the S.S. Apuania (7949 tons). The vessel was destroyed with over 500 tons of ammunition and 350 tons of rations on board. During these raids three smaller vessels and one torpedo boat and harbour installations were also damaged. As a direct result of these attacks the Panzer Army requested the German General in Rome (von Rintelen) to arrange for urgent measures to be taken to ensure that Benghazi was kept fully serviceable, and to make available increased coastal shipping space. At the same time Kesselring was asked to reinforce the air defence of the port. A further success by Liberators against shipping in port was achieved on 1 October when eight U.S.A.A.F. aircraft attacked Navarino and claimed hits on a large merchant vessel in the harbour. This ship was the s.s. Bixio (7000 tons) (also referred to as the Nino Dixie) which was hit by two bombs and set on fire, the central superstructure and fuel tanks being destroyed.

M.E.F.D.S.
M.E.W.I.S. and
A.H.B. (6) Enemy
Documents

Aircraft from both Malta and Egypt attacked a merchant vessel in the area south-west of Matapan during the night of 27/28 September, but none of the aircraft (a Beaufort from Malta and two torpedo Wellingtons from Egypt) was able to observe results of the attacks. However, the Italian ship Unione (6071 tons) was hit by a torpedo in this area during the night and had to be towed to Navarino where unloading was commenced. Her cargo consisted of 2,000 tons of fuel, M.T. and equipment. On 3 October this ship received a further two direct hits on the hold in an attack by 18 U.S.A.A.F. Liberators against the port. On the night of 28/29th Wellingtons, Albacores and Swordfish from Malta attacked the Ravenna (1148 tons), bound for Messina from Taranto, near Cape Spartivento, and on the following day the vessel was beached. (1)

Enemy Documents
A.H.B. (6) &
H.Q. R.A.F.
Malta O.R.B.

On 6 October the Dandolo (4964 tons) carrying a cargo of bombs, ammunition and aircraft spares, left Crete for Tobruk escorted by two destroyers. Orders were given to Fliegerkorps X to provide continuous air protection from dawn to dusk, with at least six bombers and fighters. This convoy was attacked, apparently without result by four R.A.F. Liberators south-west of Crete at dusk on 6th, but on the night of 7/8 October the Dandolo (4964 tons) was hit by aircraft torpedo 60 miles off Ras el Tin and sank some hours later. The attacking aircraft were two torpedo Wellingtons of No. 38 Squadron.

Enemy Documents
A.H.B. (6) and
M.E.F.O.S.

(1) Enemy documents record no damage but according to Lloyds these air attacks combined with a submarine attack resulted in the loss of the ship.

A further success by U.S.A.A.F. Liberators was achieved on 11 October when eight aircraft attacked two merchant vessels escorted by three destroyers, en route for Africa, south-west of Crete. The Tergeste (5890 tons) carrying 200 tons of ammunition, 1000 tons of rations and 40 motor transport vehicles, was damaged and forced to put into a Greek port. It would appear that this vessel was held up for some twelve days as she was subsequently sunk off Tobruk on 26 October.

On the night of 14/15 October the Amsterdam (8,673 tons) was attacked by a special Albacore from Malta eighty miles north-east of Homs and received a direct hit from a torpedo which apparently stopped her. More attacks by Wellingtons were made during the night without any further results being observed, and on 17 October the ship was found beached at Homs. An attack by an Albacore on the following night apparently also produced no further results, and in spite of hits by submarines on 23 October, some of the cargo, including fuel oil, was salvaged. The ship was recorded by Lloyds as lost during October.

A serious fuel crisis was threatened to the Panzer Army Africa, through damage to the tanker Panuco⁽¹⁾ carrying a cargo of 2,600 tons of fuel to North Africa. The vessel was torpedoed by Wellingtons of No. 69 Squadron from Malta off Punta Stilo on the night of 18/19 October and had to be towed into Crotone. This strike, coming as it did only five days before the opening of the Eighth Army offensive, was probably the most important during the period. There is no doubt that the loss of fuel was gravely embarrassing to Rommel and a few days later the Quarter Master General of the Panzer Army asked for 1,000 tons of fuel to be flown over from Greece to Tobruk to avert the crisis.

Ten sorties were made by Wellingtons, Albacores and Swordfish against a south-bound convoy on the night of 19/20 October. Direct hits with a torpedo and with a bomb were claimed on the merchant vessels and one hit with a torpedo on a tanker. As a result, probably of the torpedo attack, the Titania (5397 tons) was hit and severely damaged. She was subsequently sunk by a submarine torpedo early on the following morning. From the same convoy the destroyer Da Verazzano and the Beppe had been sunk by the Navy on the morning of 19 October.

From 8 September to 23 October the numbers of effective sorties flown on anti-shipping operations were as follows:-

	<u>Egypt/Levant</u>	<u>Malta</u>
Heavy Bomber	12	-
Medium Bomber	39	28
Light Bomber	3	27
Fighter Bomber	-	12
Cannon & Machine Gun	10	5
	<u>64</u>	<u>72</u>

Results were four ships destroyed amounting to a total of 15,298 tons, and seven damaged amounting to 73,000 tons. The anti-shipping successes of the period were divided

(1) Tonnage not known. Estimated at 8,000 tons.

Enemy Documents
A.H.B. (6) and
H.Q., R.A.F.
Malta O.R.B.

Enemy sources
A.H.B. (6) and
H.Q., R.A.F.,
Malta O.R.B.

Ibid

M.E.F.O.S.

equally between the Malta and Egypt/Levant forces, each force accounting for two ships destroyed and three damaged,⁽¹⁾ the seventh damaged ship being the possible victim of either. Three of the vessels attacked from Egypt were hit in harbour and not at sea.

No. 201 Group
O.R.B. No. 38
Sqdn O.R.B.
A.H.B./IIJ1/
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German and Italian records are also supported by Lloyds in stating that on the 10 September the hospital ship Arno (8024 tons) was sunk by an aircraft torpedo with the loss of 4 sailors and 23 nurses. During the night 9/10 September two aircraft of No. 38 Squadron Detachment sighted a hospital ship but did not attack it. A third aircraft however attacked what appeared to be a small vessel immediately astern which was trans-shipping something from the larger ship. All the sources agree that this small vessel was very close to the Arno (estimated 50 yards according to the No. 38 Squadron O.R.B.) and it seems probable that the torpedo launched against it, did in fact strike the Arno.

Operations 'Agreement' and 'Bigamy' 13/14 September

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The intention of these operations was to seize temporarily the ports of Tobruk and Benghazi and to destroy shipping, fuel, stocks, port facilities and any other important objectives. Plans had been under discussion ever since the withdrawal from Cyrenaica and on 3 September the Commander-in-Chief held a conference with Admiral Harwood Commander-in-Chief Mediterranean and the Air Officer Commanding-in-Chief. The Air Officer Commanding-in-Chief pointed out that no air support could be provided except bombing attacks to help in covering the approach. Fighter cover would be impossible owing to the distance. However as the army and naval commanders were anxious to continue with the schemes and realised the great risks involved, he felt unable to carry his opposition to the extent of refusal.

Operation 'Agreement'

The raid on Tobruk was launched on the night of 13 September. The plan was to capture the port by a combined operation from two sides, by sea and overland. According to the Air Plan the R.A.F. would:-

- (a) Provide cover bombing for British naval and land forces.
- (b) Provide a diversion for enemy R.D.F. and sea lookouts.
- (c) Provide visual reconnaissance for 'success' signals from the ground forces for transmission to the controlling formations.
- (d) Protect and provide reconnaissance for naval forces proceeding to and returning from Tobruk.

The role of the land force which consisted of some three hundred men was to approach Tobruk across the desert from Kufra and to attack the town under cover of the air bombardment on the night of 13/14 September.

(1) Excluding the Arno.

Simultaneously the naval landing force was to make an assault on the coastal defences followed by attacks by motor torpedo boats on shipping in the harbour. It was hoped that the land force would be able to link up with the naval landing parties and consolidate the position sufficiently to hold the town for one day, during which demolitions could be carried out.

No. 205 Gp
O.R.B. No. 201
Gp O.R.B.

Air operations in support of 'Agreement' began with the bombing attack by approximately one hundred aircraft of Nos. 201 and 205 Groups between 2225 and 0350 hours on the night of 13/14 September. Several large fires were started on the peninsula and a number of exceptionally large explosions were reported, one of which apparently resulted from a direct hit on the enemy's gun control room with a 4,000 lb. bomb and could be seen seventy miles away. A second very large explosion occurred near the naval fuel tanks. Low-flying and machine-gunning attacks were also carried out to divert attention from the naval landings.

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The land force from Kufra reached its first objective and waited till dawn for the motor torpedo boat parties which, except for two, failed to materialise. The destroyers Sikh and Zulu were fired on when they had landed only a very few troops and the Sikh was repeatedly hit and eventually blew up or was scuttled. It seems likely that enemy R.D.F. had given warning of the destroyers. At 0639 hours the Zulu was ordered back to Alexandria to avoid further damage and the Admiral turned back the covering force of the Coventry and the 5th Destroyer Flotilla (which was by then approaching safety) to cover the Zulu. Throughout 14 September the ships were heavily attacked from the air. Fighter cover was given by Beaufighters of Nos. 252 and 272 Squadrons, which flew thirty sorties and claimed one Ju.88 and one Ju.87 probably destroyed and four Ju.87's damaged.⁽¹⁾ The Beaufighters forced many enemy aircraft to jettison their bombs but the enemy made good use of the low cloud and after repeated attacks both the Coventry and the Zulu were sunk.

The motor torpedo boats accompanying the larger ships escaped the bombing attacks by virtue of their speed but two were destroyed by Italian fighters soon after leaving Tobruk. Anti-submarine and reconnaissance patrols were again provided by No. 201 Group during the return voyage.

There is no doubt that the R.A.F. bombing at Tobruk was very successful - indeed the naval landing parties complained that they found it difficult to get ashore at the right time and place owing to the glare of fires and explosions started by the R.A.F.

The long range fighter cover for the Navy was criticised by the Commander-in-Chief as being insufficient but the number of aircraft that would be available had been known at the planning stage. The general failure was largely caused by the unforeseen necessity of withdrawing naval forces from Tobruk by day and this had made unexpectedly heavy demands on the fighter escort. As the Air Officer Commanding-in-Chief pointed out, 'no practicably conceivable force of long range fighters would have been adequate to

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(1) Enemy records show two bombers, two dive bombers and one twin-engined fighter destroyed and one bomber damaged on this day.

cover the surface craft which dotted the four hundred miles of sea from Tobruk to Alexandria.'

Operation 'Bigamy'

The object of the operation was the temporary capture of Benghazi. In outline it was similar to that of Operation 'Agreement', except that the attack was to be on land with air cover only, no naval forces being involved. The air effort was to be on a far smaller scale than that mounted at Tobruk, only twenty Liberators being detailed to attack. During the bombing low cloud obscured the target and only bursts could be observed.

A preliminary attack by the land force on the town found the defences on the alert and the operation was abandoned, the force withdrawing during the 14 September. It was subjected to heavy air attacks and in the ensuing air fighting one enemy aircraft was claimed destroyed (see footnote (1) on page 234). A small diversionary raid on Barce by the Lond Range desert Group was however successful in destroying twenty aircraft.⁽¹⁾ This third force was also heavily attacked from the air during the withdrawal.

Neither of the two larger raids achieved the success they aimed at. Air cover had not - and as the Air Officer Commanding-in-Chief had shown at the preliminary conference could not - be provided on an adequate scale. The destruction of dumps and facilities at Tobruk and Benghazi would have undoubtedly had a large effect on the enemy's supply difficulties, but the risks accepted proved too great. It is possible, however, the raids were instrumental in making Rommel keep the Pistoia Division at Bardia and helped to divert his attention to the possibility of seaborne raids on his long open flank.

Munassib Operation 30 September/1 October

At dawn on 30 September 131st Brigade supported by nine field regiments and one medium regiment of artillery attacked enemy locations in the Munassib area. The intention was to obtain artillery observation and to gain sufficient ground to deploy artillery well forward for Operation 'Lightfoot'. These objects were attained, together with useful information about the defensive methods being used by the enemy. It was also found that new formations from the United Kingdom would need more intensive training under local conditions before they could pull their full weight in desert battle.

The air plan was modest and although 505 sorties were flown during the two days, 484 of these were by fighter aircraft. On the morning of the 30 September nine Baltimores of No. 223 Squadron bombed 250 well dispersed M.T. at M.R. 867257, scoring two direct hits and dropping a little over six tons of bombs. In the afternoon eleven Kittybombers, escorted by Kittyhawks, answered an Army call for close support and dropped two tons of bombs on two gun pits and a concentration of 50 M.T. The bombs were seen to fall in the target area but no definite results were observed.

(1) These were probably Italian aircraft, for which casualty figures are not available.

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No. 250 Sqn.
O.R.B.

On the following day, 1 October, twenty Kittyhawks of Nos. 112 and 250 Squadrons intercepted a formation of eighteen Ju.87's with an escort of twenty Me.109's. The formation was completely broken up and several of the Stukas were forced to jettison their bombs on their own troops. The Kittyhawks suffered no losses and claimed six Ju.87's destroyed, four probably destroyed and two damaged. No. 112 Squadron which was engaging the German top cover also claimed one Me.109 probably destroyed and one damaged. German records however show only two dive bombers destroyed and one damaged on this day.

No. 3 (S.A.)
Wing O.R.B.

In addition to the sorties mentioned above medium bombers flew thirty-three sorties against Tobruk on the night of 30 September/1 October and on the following night 3 (S.A.A.F.) Wing took advantage of the last night of the moon period by mounting an attack by seventeen Bostons of Nos. 12 and 24 Squadrons against dispersed aircraft at L.G.'s 13 and 101. These operations, however, do not appear to have had any direct connection with the Army's operations.

A.H.B./IJJ/
122/69(A)

In spite of strong opposition by Italian parachutists of the Folgore Division, the 131st Brigade succeeded in reaching its objectives but was unable to consolidate its position and retired during 1 October. The R.A.F.'s rôle in the operation was to sweep the air clear of enemy aircraft. Many of the light bomber squadrons were resting or training in the rear areas at the time, and the Air Officer Commanding did not feel it necessary to recall them. However, even the modest amount of direct support afforded by the R.A.F. was a useful testing ground for the efficiency of the Army Air Support Control network, and of the newly established Forward Fighter Control Unit.

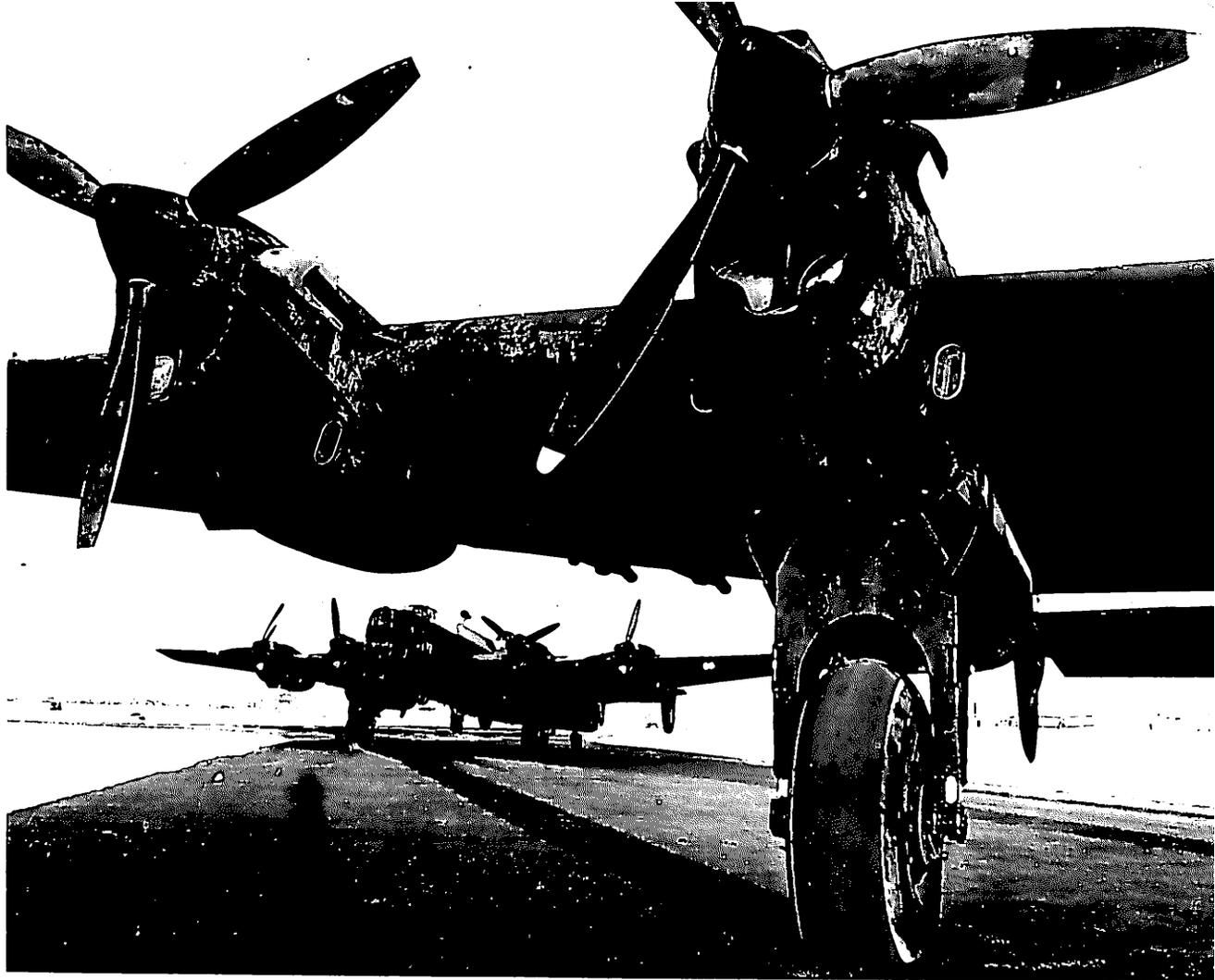
Operations against Enemy Airfields

A.H.B./IJJ/
31/1

During the six weeks preparatory period for the British offensive, the light bomber effort, with the exception of a few raids against enemy positions, was directed entirely against enemy landing-grounds in the forward area. On the nights 12/13 and 13/14 September two attacks comprising 57 sorties, including Albacore sorties, were made in support of Operation 'Agreement' to counter enemy air activity against the British Naval forces, and during the moon period from 20 September to 2 October operations were mounted every night, with only one exception, a total of 198 sorties being flown and approximately 70 tons of high explosives dropped. All these raids were made by Nos. 12 and 24 Squadrons (S.A.A.F.). After the end of the moon period, no more night attacks were made until the pre-offensive softening up operations were begun on 19 October four days before the commencement of the battle.

Cunningham's Opportunist 'Weather Blitz', 9 October

On 6 October, photographic reconnaissance showed that the enemy's forward airfields around Daba were water-logged as a result of recent heavy rains. Two days later photographic reconnaissance established that many aircraft were grounded and it was decided to take the maximum advantage of this opportunity of dealing the enemy air force a heavy blow. Light bomber, fighter bomber and fighter squadrons were recalled from rest and training in the Delta area, and a large-scale air attack was rapidly organised for the following day.



Halifax bombers



Ammunition waggon wrecked by air attack near Daba

The initial attack of the 'blitz' achieved complete surprise, when synchronised raids were mounted against L.G.'s 21 and 104 by a total of 185 aircraft, 48 of which were light bombers. Throughout the remainder of the day a series of bomber attacks was maintained against the Daba group of airfields bringing the total to approximately 170 sorties, bomber attacks being interspersed by low flying fighter and fighter bomber attacks at selected intervals. The number of fighter sorties flown including escort sorties, was approximately 400, over 100 of which were offensive bombing, machine-gun, or cannon attacks. The total weight of bombs dropped during the day was 88 tons and at the end of the day it was estimated that sixteen parked aircraft had been destroyed, while tents, motor transport, gun batteries and petrol, ammunition and other supply dumps had suffered heavy damage. Ten Me.109's were claimed destroyed in combat.

A.H.B./IIJ1/
122/73

Subsequent photographic reconnaissance of the enemy airfields, however, indicated that the damage estimates had been well above the actual facts.⁽¹⁾ In the photographs of L.G.104 about 100 bomb craters were visible on the landing ground, one small aircraft was burnt out and another had lost its starboard wing, while ten others were within 50 yards of bomb bursts. The bombing runs appeared to have been just too far north to hit the concentrations of aircraft in the S.E. & N.W. of the airfield. At L.G.21 no bomb craters were visible although this was possibly due to water on the ground, and there were no damaged aircraft to be seen on the landing-ground. However, the interpretation of photographs taken by bombers during their attacks showed direct hits and near misses on tents and A.A. positions.

Enemy Records
A.H.B.6

A.H.B./IIJ1/
122/73

No. 223 Sqdn
O.R.B.

German records show only ten aircraft destroyed and thirteen damaged in North Africa on 9 October. Italian losses figures are not available, but their aircraft were evidently active, as Axis claims against the R.A.F. awarded twenty to the Italian Air Force compared with twenty-five to the German Air Force and nine to A.A. The total claim of fifty-four⁽²⁾ Allied aircraft destroyed was a considerable overestimate of the actual losses which were thirteen fighters and one bomber missing or destroyed. The absence of any bomber casualties by enemy aircraft was a triumph for Allied fighter escorts. The loss of the single Baltimore was thought to be due to the heavy A.A. fire over the target.

A.H.B./IIJ1/
31/1

During the night of 9/10 October, Wellingtons and Albacores carried the offensive to the Fuka landing-grounds, which were being used by the enemy while the Daba group was unserviceable, and reported fires, explosions, and bursts among tents and buildings. 47 Wellington and 5 Albacore sorties were flown, and 71 tons of explosive were dropped.

A few further attacks on the forward airfields were made by Wellingtons at night and fighter bombers by day, but no further heavy raids were launched until the four-day pre-offensive 'blitz' which commenced on 19 October.

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- (1) German records show 8 aircraft destroyed and 12 damaged near El Daba on 9 October.
 - (2) The D.A.K. Diary records German claims as 46 aircraft destroyed.

Attacks on Enemy Positions

When it was found on 6 October that the enemy airfields were water-logged, the available fighter force took advantage of the grounding of the enemy fighters to attack M.T. and camps in the Northern, Southern and coastal sectors, and railways and landing grounds at Daba. Claims from low-level strafing attacks alone were 20 - 30 M.T. set on fire, while the bombing resulted in three fires and numerous near misses in the M.T. target areas, a direct hit on the railway near Galal, and near misses on two Ju.88's on L.G.104. In addition, Baltimores of No. 223 Squadron attacked a petrol dump near Daba starting one fire. Unfortunately three bombers were hit by A.A., and crashed, during the outward journey. None of the operations was hindered by enemy fighters.

A.H.B./IIJ1/
31/1

On the following day, 7 October, our fighter bombers continued to take advantage of the situation and attacked M.T. and camps in all sectors of the battle area from early morning until late afternoon, claiming three direct hits and eleven near misses on M.T. and causing two fires. A.A. was heavy in all sectors. Enemy fighters however, interfered in only one of eleven attacks.

Beaufighters, and on a few occasions, Bisleys and long range Spitfires made some successful attacks on enemy road and rail transport and camps behind the line during the period. During September Beaufighters of Nos. 252 and 272 Squadrons made 36 sorties and claimed 24 lorries completely destroyed and 136 damaged. On 6 and 7 October ten sorties were flown against Bomba Seaplane base, when twelve aircraft were damaged. In October, attacks against enemy communications showed a marked increase. On 9 October three Bisleys of No. 15 Squadron (S.A.A.F.) escorted by four Beaufighters of No. 252 Squadron attacked a train carrying guns and ammunition and scored direct hits with bombs causing a violent explosion. The Beaufighters machine gunned the train which was completely destroyed. On 12 October further attack on a train by three Bisleys destroyed four trucks and damaged others. In sixteen more sorties against road and rail traffic, Beaufighters claimed two petrol bowzers, a large petrol lorry, six petrol lorries with trailers and a locomotive destroyed and numerous vehicles damaged, convoys halted and railway lines temporarily blocked.

A.H.B./IIJ1/
31/1

Ibid

A few operations were carried out by Beaufighters against coastal type shipping. In a total of nine sorties several 'F' boats and four schooners were attacked with machine guns and cannon fire. One of the latter, which was attacked by four Beaufighters of No. 272 Squadron on 19 October appeared to be carrying petrol as it was left blazing from stem to stern, while a second schooner, attacked on 11 October, was left with smoke rising to fifty feet. The Beaufighters suffered no losses during these attacks.

Reconnaissance

During October up to the evening of the 23rd the battle area was photographed continually with both 20 - and 36-inch focal length lenses, to obtain the latest enemy dispositions. Most of the landing-grounds in use by the German and Italian air forces were photographed daily, and an occasional check was made to ensure that the unoccupied landing grounds were not being put into use. Matruh, Bardia and Sollum were photographed on most days, and Derna and Tobruk

No. 285 Wing
O.R.B.

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A.O.C.
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occasionally, and a thorough look-out was maintained in the enemy's road, rail and sea lines of communication. Baltimores and B.25's took photographs on all their day bombing raids and damage assessment reports were issued. In several instances gun positions and tank and M.T. dispositions discovered in reconnaissance photographs were telephoned to the Army. It is interesting to note that, in his interrogation, General Von Thoma commented that the R.A.F. must have been very accurately informed of the emplacement of all German A.A. batteries, because, when crossing the enemy lines the Allied bombers always followed a course which passed just in between main battery positions, so that they could not be hit.

Enemy Air Activity

A.H.B./IIJ1/
122/73

Between 8 September to 19 October, apart from the operations already mentioned, there was little outstanding enemy air activity. For the most part normal Axis operations consisted of fighter sweeps and patrols, fighter bomber and more occasionally dive bomber attacks on Allied troops in the forward area, and sporadic day and night raids by Crete-based Ju.88's against the Delta and forward areas.

A.H.B./IIJ1/
183/271(E)

On 14 September there was considerable enemy air activity against British naval forces returning from the Operation 'Agreement' at Tobruk, when Africa-based fighter bombers and dive bombers joined with bombers from Crete in a day-long series of attacks. As stated above interception by long range British fighters caused some attacks to be abandoned and the bombs to be jettisoned.

M.E.W.I.S.
A.H.B. (6)
Enemy Documents

On 25 September, eight Ju.88's and a He.111 made two separate low level bombing and machine gun attacks on Allied forces at Kufra, and one Ju.88 and one He.111 were shot down by ground fire. German records for 26 September show three bombers shot down, one of which was possibly a Ju.88 on reconnaissance claimed shot down by our fighters south of Suez. On 30th, the day of the British ground attack in the Munassib area, enemy air activity was on an increased scale, two attacks by nine and twelve Ju.87's being made in the Central Sector, and six attacks by small formations of fighters in the Southern Sector. There were also frequent reconnaissance flights over the forward area, and Alexandria. On the following day British fighters effected the successful interception described above.

On 2 October enemy activity showed a marked increase, and a more offensive spirit was noticeable. There were two morning, and one afternoon attacks by Stukas and at least six attacks by fighter bombers, over the forward area, while enemy fighters made constant patrols over the battle area. Bad weather prevented much further activity, until 9 October, when the Allied attack on Axis airfields forced the enemy to take a defensive role. During the following week fighter-bomber and some Stuka raids were made over the battle area, but as the pre-battle operations against enemy airfields developed, enemy activity became more and more defensive.

Malta's Increasingly Critical Fuel Situation

By the beginning of September the stocks of aviation fuel on Malta had fallen considerably since the boost given

to them by the partial success of the August convoy,⁽¹⁾ and because there was no prospect of large-scale relief in the immediate future, every effort was made to economise. Fighter operations were restricted to an absolute minimum, and the transit of Wellington VIII's and other aircraft through Malta was stopped. In this way it was hoped to reduce petrol consumption to a weekly 200 tons, which would allow Malta to continue operations until 19 November. Specially-fitted submarines had already achieved success in bringing aviation fuel into Malta, and by the 20 September their contribution had risen to 160 tons a month.

On 25 September the Air Ministry again reviewed the situation and decided that somehow the weekly expenditure of 200 tons must be reduced to 150 tons. This would extend Malta's air duration until 18 December. The Air Officer Commanding agreed to this - somewhat grudgingly, as he disliked a policy which lessened Malta's offensive power, merely in order 'to extend its miserable existence a couple of weeks.'

A.H.B./IIJ1/
183/160(D)

For the week ending 3 October proportionate fuel expenditure was:

Shipping Strikes	37 tons	
Transit	30 "	Received by submarine
Reconnaissance	26 "	40 tons.
Freight	26 "	
Fighters	64 "	
Leakage	13 "	
	<u>196</u> tons	

The expenditure for the following week had, however, dropped to 148 tons while submarines contributed 136 tons. For the week ending 17 October, expenditure had risen to 233 tons but this was the week that the Axis renewed the air offensive against Malta and in the circumstances it is remarkable that the rise was not much greater. One of the successful economies which had been effected was the blending of fuels, so that at the end of October only Spitfires were using pure 100 octane fuel. There had also been a drastic curtailment of fighter operations and fighters were only ordered for air defence when a definite raid was imminent. The policy of forward interception was still practised, but the number of fighters sent up was always just below what was really adequate.

Offensive Policy

An account has already been given of Malta's part in the air war at sea under 'Anti-Shipping Operations' but it is important to note that the vigorous offensive policy pursued by the Air Officer Commanding was the direct cause of the Axis's last offensive against Malta. On 14 September Hitler himself wrote:-

'Because of the revival of Malta as an air base and the numerous sinkings in the Mediterranean, supplies for the 1st Panzer Army have fallen far below normal requirements. Unless Malta is weakened or paralysed once more the situation cannot be remedied. The Commander-in-Chief, Air, will report whether and when additional air forces can be made available to the Commanding General, Armed Forces, South.'

A.H.B./
IIa 1/67(B)

(1) Operation 'Pedestal'.

SECRET

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It is indeed remarkable that Malta was able to maintain such a high operational efficiency faced as she was with acute and increasing logistical difficulties.⁽¹⁾ During the period 8 September - 20 October the following sorties were flown:-

A.H.B./ILJ/
31/1

<u>Air Operations at Sea</u> <u>against Shipping and Submarines</u>	<u>Bomber</u> <u>Operations</u>	<u>Fighter</u> <u>Operations</u>	<u>Land</u> <u>Reconn-</u> <u>ances</u>
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No. 69 Sqdn.
O.R.B.

299

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2513

164

The figure for fighter operations includes 1115 sorties flown, during 11-19 October (inclusive).

Final Axis Air Offensive Against Malta (11-19 October)

A.H.B. (6)
Translation
No. VII/II

On 11 October, the Axis launched a renewed air offensive against Malta in a final attempt to neutralise the island's constant activity against the sea supply lines between Italy and North Africa. In a report by the German Air Historical Branch (8th Abteilung) dated 30 October 1944 it was stated that, owing to the drop in German air strengths available to operate against the Island, Malta had been able to build up the establishment of her airfields, and a force of 121 fighters and 43 twin-engined aircraft had been sufficient to hamper the Axis convoys.⁽²⁾

A.H.Q. Malta
O.R.B.

According to British sources, the enemy mustered some six hundred aircraft for the offensive - one third of the German Air Force in the Mediterranean, and half its bomber strength. It is now known, however, that German air strength in the Mediterranean on 10 October 1942 totalled 784 aircraft with 462 serviceable. Bomber and fighter strengths were as follows:-

Axis Figures
A.H.B. (6)

	North Africa		Greece & Crete		Sicily	
	Strength	Serviceable	Strength	Serviceable	Strength	Serviceable
Bombers	39	28	166	105	154	98
Fighters	131	72	73	30	77	54
	170	100	239	135	231	152

88 bombers (62 serviceable) of those based on Greece and Crete operated against Malta during 10-19 October 1942, bringing the total German offensive force employed against

A.H.B./ILJ1/
183/160(D)

- (1) The food situation was as critical as that of fuel. On 26 September the Governor wrote to the Secretary of State in Cairo and said that the stocks of flour, sugar, edible oil fats, preserved meat and fresh milk could not be expected to last beyond the second week in September.
- (2) On 1 September, at the time of the Battle of Alam el Halfa, the total number of aircraft on strength in Malta was as follows:-

S.E. Fighters	95 (including No. 6 P.R.U.)
Beaufighters	32 (including 10 night fighters)
Beauforts	22
Wellington VIII	6
Baltimores (G.R.)	5
	<u>160</u>

the Island to 319 aircraft with 214 serviceable of which 242 were bombers with 160 serviceable.

H.Q. Malta
O.R.B.

R.A.F. M.E.
Weekly
Intelligence
Summary 121.

The attack began during the morning of 11 October when the enemy sent 58 unescorted bombers against the island although enemy fighters (usually Me.109's) had been flying in large formations of up to 43 aircraft during the previous three days. The battle lasted nine days on a generally diminishing scale, during which the enemy steadily increased the proportion of fighters to bombers. On the morning of 16 October, for example, seven Ju.88's were escorted by seventy enemy fighters. The enemy also began to employ bomb-carrying Me.109's but none of the bombing attacks was really pressed home, and approximately one half were broken up, with the German bombers jettisoning their bombs in the sea and turning for home before they reached Malta. This demonstrates the high standard of R.A.F. interception. According to a Luftwaffe fighter pilot, under interrogation, raids against Malta were exceptionally unpopular owing to the high rate of casualties that was to be expected.

The most strenuous day of the battle for the R.A.F. was 16 October when four separate raids comprising two hundred enemy sorties were successfully intercepted and broken up by Spitfires during battles which lasted from 0900 - 1815 hours. At one time in the morning, over ninety aircraft were engaged in a fight ten miles north of the Island, in which three Me.109's and one Ju.88 were claimed destroyed. In the evening eight Ju.88's and six Me.109 fighter-bombers, escorted by fifty-four fighters, approached in six waves, but again were intercepted north of the Island by thirty-two Spitfires which claimed two Ju.88's destroyed without loss. During the day twenty-four enemy aircraft were claimed destroyed for the loss of six Spitfires (three of the pilots being safe). The damage caused was very slight compared to the enemy effort. Fifteen civilians were injured, several civilian houses were damaged and minor damage was caused at Halfar, Takali and Luqa.

After 19 October no more twin-engined aircraft approached the Island and according to the 8th Abteilung Report, the German Commander-in-Chief, Southern Area, on the 18th forbade any further daylight attacks by Ju.88 formations, even with fighter cover, because of the heavy losses in bombers. This order has to be compared with the conflicting enemy admission of losses. During the battle, the Luftwaffe records only twenty-nine aircraft destroyed and four damaged, while the R.A.F. claims were:-

	<u>Destroyed</u>	<u>Probable</u>	<u>Damaged</u>
Luftwaffe	95	44	128
Italian A.F.	14	6	15

Actual Italian losses are not known. R.A.F. losses during the battle were thirty Spitfires, seventeen pilots being safe.

There is no doubt that the R.A.F. victory was complete and this was clearly demonstrated by the fact that during this attempt to neutralise Malta's striking force, there was only one night, between 11 and 19 October, when R.A.F. aircraft did not carry out shipping strikes, and on that night no enemy shipping passed within range of the island. Indeed, the 8th Abteilung Report quotes this Axis failure

as the turning point of the German air campaign in the Mediterranean, because it had been decisively proved that British defence was superior to the offensive power of the Luftwaffe.

From the strategic viewpoint the attack on Malta was a major blunder because it allowed approximately one half of the Luftwaffe's first line strength to be deployed in Sicily at a time when every available aircraft should have been used to reinforce the already hard pressed Luftwaffe squadrons in the Western Desert.

Pre-battle Air Offensive. 19-23 October

In accordance with the policy of hard training of squadrons and building up the strength of aircraft, fighter bomber and machine gun attacks in the forward area were on a small scale during the period 8 September - 23 October. There were also very few light bomber attacks. More unusual, however, the extremely light effort mounted against enemy positions, troops, gun emplacements and similar targets immediately before the offensive when heavy 'softening-up', operations were normally the rule. The absence of such operations before El Alamein is explained by the stress that was laid by General Montgomery on the value of surprise, which despite the Air Officer Commanding-in-Chief's opposition, he apparently considered, in this case, of greater importance than preliminary weakening of the enemy ground forces by air attack. (1) It was evidently assumed that the enemy would not take warning from the concentrated effort mounted against his airfields immediately before the battle or that, if he did, there would be no indication to tell him from which part of the front the attack would come.

A.H.B./IIJ1/
183/271(E)

The outstanding requirement of the Army in this preliminary phase was the prevention of any heavy scale of air attack on the restricted assembly areas in the Northern Sector when X Corps moved in. Disorganisation resulting from air attack at this juncture might have had the most serious effect on the opening phase of the attack. In addition, it was hoped that the air offensive would limit enemy air reconnaissance, although full deception and camouflage measures for the move of X Corps were also enforced. The chief object of the air operations was, therefore, the weakening of the enemy air forces in order to deny the enemy air reconnaissance, to prevent enemy offensive air operations and to provide our own air and ground forces with freedom of movement.

A.H.B./IIJ1/
122/19.

It was decided to concentrate attacks on the Daba group of airfields which afforded three tactical advantages:-

- (a) By driving the enemy fighters back to Fuka their effectiveness in offensive fighter operations and as escort to bombers was decreased by the distance (about 80 miles) between their bases and targets in the battle area.
- (b) Conversely since the Daba area was much nearer the British air bases than Fuka, a longer period for operations over the target was possible with a lesser degree of risk en route to and from it.

(1) This question is dealt with at greater length in Part IV Chap. 12.

(c) The Germans had very few night bombers in Africa, and the day bombers never operated without fighter escort and thus damage to fighter aircraft affected the operations of both bombers and fighters.

Air operations in support of the Army plan began on 19 October. L.G.s 104 and 21 were the chief targets where fires were started and bombs seen to fall among dispersed aircraft and tents during raids by fighter bombers, and Baltimores of Nos. 223 and 55 Squadrons, which were given fighter escort by No. 239 Wing. Special models of enemy airfields had been constructed which showed the main dispersal areas and these had been issued to squadrons. Gun positions and M.T. were also attacked at intervals throughout the day by Kittyhawk fighter bombers of Nos. 2 and 4 Squadrons (S.A.A.F.) and No. 450 Squadron (R.A.A.F.).

A.H.B./IIJ1/
122/69(B).

During the night 19/20 October, Halifaxes and Wellingtons attacked shipping and dock installations at Tobruk while Albacores and Bostons kept up the pressure on the enemy landing grounds by attacking L.G.s 104 and 13. At L.G. 13, which was the main Stuka base, two large fires were started in the N.E. corner of the airfield which were plainly visible from a distance of over sixty miles.

A.H.B./IIJ1/
31/1.

During 20 October the weight of the light bomber attacks was switched to the Fuka L.G.s 17 and 18. Three operations were carried out by strong formations of light bombers escorted by fighters and fighter bombers. The first attack caught the enemy unawares but strong fighter opposition was encountered later. Photographs confirmed bomb bursts among dispersed aircraft and stores. In the evening three Bostons of No. 12 Squadron (S.A.A.F.) and fifteen Baltimores of No. 21 Squadron (S.A.A.F.) bombed L.G. 21. Intense and accurate anti-aircraft fire was encountered, but our aircraft suffered no casualties.

Daily
Intelligence
A.A.H.Q.
W.D.

L.G.s 20 and 104 and Tobruk were again the chief targets for night attacks during the night 20/21 October by Wellingtons and Bostons, Albacores providing illumination. The attacks were sustained by the light bombers during the following day, although cloud impeded accurate bombing in some cases. L.G.s 16 and 18 were the joint targets for the bombers during the night 21/22 October and the following day. During the night, twenty-one Wellingtons of Nos. 70, 108 and 148 Squadrons dropped over thirty tons of bombs on the two airfields between 2306 hours and 2355 hours. Many hits were observed on buildings and among dispersed aircraft. One Wellington was lost probably due to A.A. fire as no night fighters were seen. During the day cloud again interfered with accurate observation.

A.H.B./IIJ1/
122/69(A).

On 23 October the peak of British fighter achievement was reached when a continuous fighter patrol was maintained, without challenge, over the enemy's forward fighter airfields. During the night 22/23 October Wellingtons and Bostons, with Albacores providing the illumination, delivered heavy attacks on L.G.s 20 and 104, fifty-five tons of bombs being dropped. All the aircraft returned safely. During the day, four formations of fighter bombers and fighters attacked L.G.s 21 and 104. There were no operations by the light bombers which were resting in preparation for the battle.

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Enemy Air Operations 19-23 October

From the opening of the air offensive on 19 October, the enemy air forces were obliged to adopt a defensive rôle. On 20 October, two fighter bomber formations succeeded in reaching the L.G. 91 area, but they caused no damage, while on 21 October twelve Me. 109's bombed Somara, in the southern sector. Other smaller formations which attempted to cross the Eighth Army lines were turned back by fighters and A.A. gunfire. On 22 and 23 October, enemy air activity was purely defensive.

CHAPTER 8

THE BATTLE OF EL ALAMEIN (23 OCTOBER TO 4 NOVEMBER, 1942)Factors Governing the Timing of the Eighth Army Offensive

Once the defensive battle of Alam el Halfa had been won and the security of Egypt assured, an offensive by the Eighth Army with the object of defeating the Panzer Army on the field of battle, or else of driving the invading force out of Egypt, was inevitable. Indeed, this had been part of the Appreciation of the Situation made by General Auchinleck as early as 27 July. 'Eventually,' he said, 'we will have to renew the offensive and this will probably mean a break through the enemy positions about El Alamein. The newly-arrived infantry divisions and the armoured divisions must be trained for this and for pursuit.'

A.O.C.-in-C.
Papers of the
Defence Com-
mittee. Part
III.

The action at Deir el Munassib, (30 September - 1 October) had shown the Army Commander that the new formations from the United Kingdom needed training under local conditions and much desert experience before they could 'pull their full weight in battle.' It was principally this factor which - together with a full moon - governed the timing of the battle. The state of preparedness of the Western Desert Air Force would appear to have been taken for granted in the planning.

General Alex-
ander to P.M.
Hist. (B)
Crusader 5.

On his arrival in the Middle East, General Alexander had been of the opinion that the offensive could not be launched before the end of September. The battle of Alam el Halfa had pushed back the date of the offensive by another week. The need for the further training of reinforcements revealed by the action at Munassib and the urgent need for X Corps with their new weapons - which included the Sherman tank - to settle down into a 'well-drilled and confident whole' caused further postponement until late October. The actual date chosen and which was finally dictated by the phases of the moon was the night of 23/24 October.

C.-in-C.'s
Despatch.

Although the fighting efficiency of the Eighth Army was the final arbiter of the timing of the offensive, it was also necessary to fit the battle into the Allied strategy for the war as a whole. This envisaged a double blow at the Axis forces in North Africa with the object of clearing the south shore of the Mediterranean. The success of 'Torch' - the plan for the invasion of French North West Africa by Allied forces - was intimately linked with the battle for Egypt. A crushing defeat of the Afrika Korps, almost within sight of their goal and after the victorious advance of June, would serve to influence profoundly not only the French in North Africa, but also General Franco who was known to be vacillating in his neutrality. Operation 'Torch' was planned for 8 November, and General Alexander was of the opinion that, by timing the Eighth Army offensive for a fortnight earlier, 'It would be long enough to destroy the greater part of the Axis army facing us, but on the other hand it would be too short for the enemy to start reinforcing Africa on any significant scale.'

C.-in-C.'s
Despatch.

The Enemy's Elaborate Defensive System

The signal defeat of his Panzer Army at Alam el Halfa had impressed upon Rommel the overriding need for a strong defensive system adequate to withstand a full-scale offensive by a reinforced and largely re-equipped Eighth Army. Protective measures such as slit trenches and blast-proof

D.A.K. War
Diary. A.H.B.6
Trans. No.
V11/100/2

Panzer Army
Afrika Order.

shelters to help mitigate the grave losses in tanks, vehicles and personnel experienced at Alam el Halfa from air attack were also required. Before he left for Europe for interviews with the Fuehrer and the Duce on 23 September, Field Marshal Rommel ordered that defensive measures should be taken against air attack. This policy was amplified by his successor, General Stumme, who ordered the wide dispersal of vehicles which were to be dug in 4 - 5 feet deep. This instruction applied 'not merely to the front-line area, but to rear-line troops and supply columns.'

Panzer Army
Africa War Diary
AL 981.

The very considerable reinforcements received by the Eighth Army and the action at Munassib were correctly interpreted by the enemy as 'preparations for a major offensive'. Field Marshal Rommel and the Acting Army Commander, General Stumme, discussed the Panzer Army's situation very thoroughly before Rommel left for Europe, and Stumme assured Marshal Cavallero, on 3 October, that he was 'carrying on with (Rommel's) policy in all respects.' Stumme outlined the steps taken by the Panzer Army to defeat the anticipated offensive by the Eighth Army. He considered that they were in a position, as far as numerical strength went, to defend themselves against a frontal attack on the Alamein positions. The dispersal of the defences in depth - to be completed by 20 October - was expressly designed to 'decrease the effect of the hostile artillery preparatory fire and bombing attacks we expect. This is all the more important because the enemy has at his disposal strong air forces and an almost unlimited ammunition supply.'

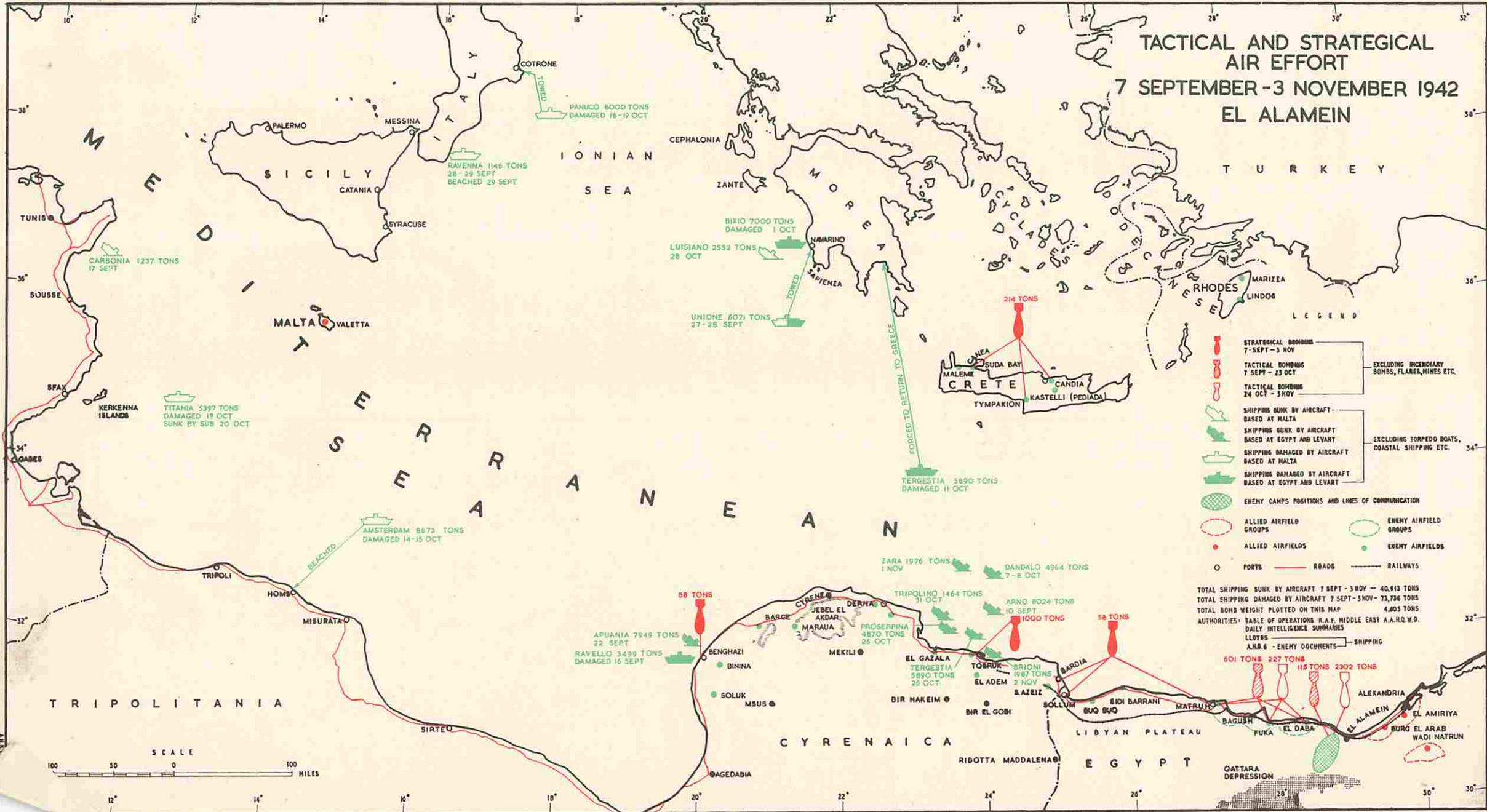
Operation
Lightfoot.
A.A.H.Q.W.D./16/
Air.

Before the Eighth Army offensive, therefore, the enemy defensive system achieved a state of elaboration 'hitherto unparalleled in North Africa.' From the coast southwards to the Deir el Shein positions, the system was in a consistent depth of 3 to 4 kms. widening in parts to 7 kms. South from Deir el Shein, there was a steady decrease in continuity down to Himeimat, to the south and west of which there were mainly isolated observation posts, such as Taqa.

Photographic reconnaissance revealed that the defensive system had been constructed, not with a solid defensive wall as the end in view, but a cunningly contrived system which made the fullest use of topographical features. It was a honeycomb in which areas free of mines were left to serve not only as traps for forward troops, who succeeded in piercing the outer crust, but also to divert such elements to right or left and thereby dissipate the remaining force of the attack. In addition to the loss of direction, the attack, after a limited advance, ran the gauntlet of enfilading fire into an angle of minefields and gun positions.

As was to be expected, the hard core of this system was in the north, in the region of the road and railway, where a triple defensive system had been constructed, to almost as far south as Deir el Shein. South of Thompson's Post where some bitter fighting was to take place, the system of 'hollow areas' was clearly defined, where it was apparently hoped to steer the opposing forces, there to receive the smashing armoured counter-attack upon which German defensive principles were based. In addition, the Axis artillery was so disposed that defensive fire could be put down throughout the whole front, with particular concentration upon the 'hollows'. Further guns were readily available to be moved to the area of the main threat, when it had been located.

TACTICAL AND STRATEGICAL AIR EFFORT 7 SEPTEMBER - 3 NOVEMBER 1942 EL ALAMEIN



LEGEND

- STRATEGICAL BOMBING 7 SEPT - 3 NOV
- TACTICAL BOMBING 7 SEPT - 25 OCT
- ◇ TACTICAL BOMBING 24 OCT - 3 NOV
- SHIPPING SUNK BY AIRCRAFT BASED AT MALTA
- SHIPPING SUNK BY AIRCRAFT BASED AT EGYPT AND LEVANT
- ◇ SHIPPING DAMAGED BY AIRCRAFT BASED AT MALTA
- ◇ SHIPPING DAMAGED BY AIRCRAFT BASED AT EGYPT AND LEVANT
- ENEMY CAMPS POSITIONS AND LINES OF COMMUNICATION
- ALLIED AIRFIELD GROUPS
- ENEMY AIRFIELD GROUPS
- ALLIED AIRFIELDS
- ENEMY AIRFIELDS
- PORTS
- ROADS
- RAILWAYS

TOTAL SHIPPING SUNK BY AIRCRAFT 7 SEPT - 3 NOV - 40,913 TONS
 TOTAL SHIPPING DAMAGED BY AIRCRAFT 7 SEPT - 3 NOV - 73,726 TONS
 TOTAL BOMB WEIGHT PLOTTED ON THIS MAP 4,805 TONS
 AUTHORITIES: TABLE OF OPERATIONS R.A.F. MIDDLE EAST A.A.H.Q.W.D.
 DAILY INTELLIGENCE SUMMARIES
 LLOYDS
 A.M.S. & - ENEMY DOCUMENTS - SHIPPING

SCALE
 0 50 100 MILES

The Enemy Plan for the Use of Armour in a Defensive Battle

Afrika Korps
War Diary.

The enemy plan for the use of his armour in a defensive battle was laid down in an instruction given to the Afrika Korps, when the Commander-in-Chief attended a conference at Battle H.Q. on 14 October. In the event of the Eighth Army launching a full-scale offensive, the armoured formations were to act as the Army's striking force. The Afrika Korps was therefore directed to work out the possibilities of going over to mobile defence and of encircling by a pincer counter-attack and destroying any force which had succeeded in breaking in. It was considered important 'that this counter-attack should be launched early, and east of the minefields, so as to be effective before the enemy reaches the gun positions of the front-line units.'

A.O.C.-in-C.'s Appreciation of the Situation in the Mediterranean, Mid-October 1942.

An indication of the Air Officer Commanding-in-Chief's views on the general strategic situation in the Mediterranean was contained in a letter he wrote to the Vice-Chief of Air Staff, on 12 October 1942.

'The more one thinks about it, the more one feels that if the African operations go well, we simply must exploit them. As one has been saying for many months, Italy is the one weak spot in the Axis at present. We know from past experience that it does not take very much to make her begin to totter. If we hold the African coast and have the forces available, we can begin to pound Italy in a way which I do not think she will be able to stand. Sardinia and Sicily are the next stepping stones. Here, to my mind, is the real Second Front. From Italy we can reach Skoda and all the other centres of industry and population which have been transferred from the north west.....

A.O.C.-in-C.
Correspondence
with Prime
Minister,
Secretary of
State, C.A.S.
etc. A.O.C./26.

To me it would seem a tragic mistake to make a detachment of that sort (to the Caucasus) just at the time when one should be getting at long last a base for offensive action. Up to date, the whole of the campaign in the Middle East has necessarily been defensive. I recognise that we may be compelled to send some forces to defend North Persia: if that happens it will just be too bad, but apart from that possibility, for heaven's sake let us concentrate in the area where we have at long last a possibility of getting on to the offensive.

It is probably no direct concern of mine, but what one is really afraid of is that the military minds are still hankering after another 1914 - 1918 in France and that we may make the same mistake as the Germans made when they undertook the Russian land campaign and in so doing threw away their strongest weapon - air power.

I had a long private talk with Smuts the day before yesterday, and yesterday we had a long Defence Committee meeting with him. I took the line I have indicated above and managed to get Alexander and Harwood to take the same line. Smuts told me that he entirely agreed with this view. When I was alone with Smuts, I reminded him of the phrase he used early this year - "the air, the architect of victory" -

and said I was afraid that the old conventions might obscure that great truth. If only people will learn the lesson of the German-Russian Campaign in relation to the war as a whole.'

The Eighth Army Commander's Views on Co-operation with the Royal Air Force

In the first of his Eighth Army Training Memoranda, the G.O.C. Eighth Army was most emphatic on the subject of co-operation with the Royal Air Force.

'I have outlined in the following paragraphs,' he wrote, 'the main fundamentals which will govern the conduct of our battle operations in Eighth Army....'

We cannot fight successfully on the ground without the closest co-operation of the R.A.F. We cannot get this co-operation in full measure and without interruption unless we are active in securing aerodromes and landing-grounds, and unless we ensure that these are at all times adequately protected against ground or air attack. Therefore this factor must be kept to the fore in our planning.

Whatever the military plan, it is vital that the air should be brought in from the start; it is not sufficient to decide on the plan and then to ask the R.A.F. how it can help.

Without the closest touch between Army and R.A.F. Staffs, the co-ordination of the Air plan with that of the Army cannot be as effective as it should be, and in emergency may well fail. It involves the whole of the Air plan - the employment of the fighter force for air superiority and protection at the right time and place: the employment of the bomber force and the careful selection of bomber objectives best calculated to assist the military aim: and, not least, the careful planning of air reconnaissance without which the close support squadrons for the attack cannot operate with maximum efficiency.

In all our dealings with the R.A.F. our motto must be:

"United we stand, divided we fall."

The Eighth Army Plan for Operation 'Lightfoot.'

Bearing in mind these views expressed so forcibly by the Army Commander and the proven value of air power in checking Rommel's advance in early July and in his defeat at Alam el Halfa, early the previous month, it is surprising that in his Memorandum No. 2 which was devoted to Operation 'Lightfoot,' the whole battle was outlined, in plan, as a purely army operation. There was only one brief reference to the role the R.A.F. was to play. Artillery and armour were to be the primary weapons.

'Throughout (the battle) it is vital that we should retain the initiative and keep up sustained pressure on the enemy. We must not have long pauses during which he can recover his balance. The R.A.F. will help us in this respect. And we ourselves must shoot up the enemy with artillery from all sides.'

A.A.H.Q.W.D./
16/Air
Operation Light-
foot. A.H.B./
IIJI/122/11.

SECRET

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The actual plan for Operation 'Lightfoot', as conceived by the Army Commander, is best told in his own words.

'Surprise

'I do not think it will be possible to prevent the enemy from finding out that British offensive is intended at some time. He must know of our growing strength in tanks, artillery and so on; an Eighth Army offensive is being talked about now in Cairo and other places.

We must therefore obtain tactical surprise, and must try to conceal from the enemy the exact places where the blows will fall and the exact time and place of the blows.

I consider that we can do this; in fact, it is essential that we should do so.

Our cover plan is designed for this purpose.

All the arrangements in connection with the assembly and concentration of troops and the stage-management of the preliminary arrangements are designed to hoodwink the enemy as to exactly where the blows will fall. We must not slip up in these arrangements.

Enemy Intentions

In view of (the) above, we must accept the fact that the enemy will strengthen his defences.

In fact he has already begun to do so.

At present his increased defences are being organised and prepared in the forward area, and these are being carefully watched.

Such forward defences will affect XXX Corps and XIII Corps very directly, and it is essential that these Corps should keep in touch with what is going on by carefully organised patrol activity.....

By D day, XIII and XXX Corps must be in full possession of all information about the enemy defences; they will then organise the 'break-in' battle accordingly.....

The Battle

We have great superiority in tanks and fire-power.

But it is a regrettable fact that our troops are not, in all cases, highly trained.

By doing foolish or stupid things we could lose heavily in the first few days of the battle, and thus negative our superiority.

We must therefore ensure that we fight the battle in our own way, that we stage-manage the battle to suit the state of training of our own troops, and that we keep well-balanced at all times, so that we can ignore enemy thrusts and can proceed relentlessly with our own plans to destroy the enemy.

Above all, we must ensure that we keep the initiative; we start with it and we must never lose it; we must make the enemy dance to our tune throughout.

The plan of battle of the Eighth Army is such that the enemy will be attacked simultaneously at the following places on D day;

- (a) In the north by XXX Corps to secure a bridge-head through which X Corps will be passed.
- (b) In the south by XIII Corps along the axis of (approximately) the 256 Northing grid, in order to pass 7 Armd. Div. into the area East of Gebel Kalakh and Qaret el Khadim.
- (c) Further south by XIII Corps, to secure Himeimat and the Taqa feature. This operation will be carried out by the Fighting French Forces....

I am quite certain that the enemy will stand and fight it out. He will have strengthened his defences and I do not want to have serious losses by running our heads into snags.'

The Memorandum then goes on to describe in para' 11 the tasks assigned to the three Army Corps, and then continues:

'I hope that the operations outlined in para' 11 will result in the destruction, by a "crumbling" process, of the whole of the enemy holding troops.

Having thus "eaten the guts" out of the enemy, he will have no troops with which to hold a front. His Panzer Army may attempt to interfere with our tactics, and may launch counter-attacks; this would be what we want, and would give us the opportunity of inflicting casualties on the enemy's armour.

When we have succeeded in destroying the enemy holding troops, the eventual fate of the Panzer Army is certain - it will not be able to avoid destruction.'

From the air point of view, it would appear that the plan for Operation 'Lightfoot' did not exploit to anything like the fullest extent the potentialities of air power for neutralising the enemy defences, as an essential part of the preliminary 'softening-up' process. The evidence suggests that this was part of the Army Commander's deliberate policy which relied on the weight of heavy concentrations of artillery fire, as the air bombardment would be too easily interpreted as a prelude to an all-out offensive, and the greatest emphasis was placed on Operation 'Bertram,' the Eighth Army Cover Plan. On the other hand, in an Eighth Army Intelligence Appreciation it was concluded that, 'the enemy will fight the battle according to the principles of the system (of defence) he is developing at Alamein. The factor of surprise will not affect these principles, which do not demand immediate knowledge of the direction of our main attack.'

The A.O.C.-in-C.'s Comments on the G.O.C. Eighth Army's Plan

On the eve of the battle, the Air Officer Commanding-in-Chief made a tour of the squadrons of the Western Desert Air Force and No. 201 Group, where he saw all the C.O.s and most of the air crews. On 22 October he wrote to C.A.S.:-

'Co-operation with the Army has further improved thanks undoubtedly in some part to the lead given by Montgomery on the subject....

Air Officer
Commanding-in-
Chief.
Correspondence
with Prime
Minister,
Secretary of
State, Chief
of Air
Staff. Part V.
A.O.C.26.

I am not very happy about Montgomery's plans. As I told him, one of the main lessons of the past few months has been that the enemy strength has really been broken by the twenty-four hour day of almost incessant air attack, allowing him no rest for day after day, interrupting his supplies and food, ammunition, etc., dislocating his communications and control. This factor should, I feel, have been exploited to the utmost in the next battle. Having forced him to disperse to a fantastic extent, we cannot of course make this attack effective unless he has concentrated again. He will only concentrate if he is threatened on the land. We know he is nervous and tense and any serious-looking threat would almost certainly make him concentrate immediately. I feel we should have made such a threat, giving us the opportunity from the air to hammer him and weaken him for three or four days before delivering the vital blow on land. I am afraid, however, it is too late to do anything about it now and we shall have a contest on the best Queensbury Rules lines; the two opponents carefully fattening up in their respective corners, fanned and advised by their seconds up to the last minute, until the seconds are ordered out and the gong goes. Of course, from the air point of view, the contest has been going on for sometime in the attacks on shipping, lines of communication, and, with the last two or three days, against his air.'

Operation 'Bertram' - the Eighth-Army Cover Plan

Cabinet Office
Narrative.

The concealment measures undertaken by the Eighth Army in order to mislead the enemy as to the date and sector for the main thrust depended, to a large extent, on the way in which, by achieving a high degree of local air superiority before the battle, the R.A.F. were able to discourage, if not prevent, enemy air reconnaissance. It is a remarkable fact that on 23 October, the day of the offensive and during which time the whole of XXX Corps infantry lay concealed in the forward area, in slit trenches, no single enemy aircraft was over the Eighth Army area.

Measures undertaken by the Eighth Army for the Cover Plan (Operation 'Bertram') included the dissemination, in the bazaars of Cairo, the story that owing to teething trouble with tanks, uncertainty about the Russian front and the need to synchronize the offensive with a convoy to Malta, the attack would be timed for 5 November and would take place in the southern sector.

The visual deception measures involved the preservation of a constant density of vehicles throughout the zone of operations. As early as 1 October, the layout and density of vehicles required for the assault in the northern sector was established on the ground. Whilst the 51st Highland Division and 2nd New Zealand Division and XXX Corps were concentrated in the forward areas, the substitute transport was replaced by the operational transport of the divisions concerned. Extensive use was made of dummy vehicles, tracks were carefully concealed, a dummy pipeline was built in the southern sector and progress was timed to indicate completion by the first week in November; the slit trenches in which

Operation
Lightfoot.
A.H.B./IIJ1/
122/11.

A.H.Q.D./16/Air

the assaulting infantry of XXX Corps would be concealed the day of the offensive were dug a month before the attack; and careful regulation of messages was taken to keep wireless traffic constant, as the volume of W/T was one of the most precise indications to the enemy of an impending attack.

The R.A.F. Contribution to the Eighth Army Cover Plan

The main contribution of the R.A.F. to the Eighth Army Cover Plan was to obtain such a high state of local air superiority over the enemy air forces, in the period preceding the battle, that air reconnaissance would be virtually denied to them. That this was achieved was an outstanding contribution to the battle and will be considered later, when the air plan for the battle is discussed.

A major problem facing Air Vice-Marshal Coningham was to determine how to prevent a leakage of information to the enemy and yet ensure, as was his consistent policy, that the whole force under his command went into action with a working knowledge of what was being attempted in the offensive. He also had to decide how to graduate the periods of leave so that the attention of enemy agents in Cairo and elsewhere would not be drawn to the fact that leave was being stopped.

On 12 October 1942, a Memorandum by the Air Officer Commanding Western Desert Air Force was circulated to all R.A.F. Groups and Wings, the 12th U.S.A.A.F. Medium Bombardment Group and the 57th Pursuit Group, under the codename 'Buster', which reveals the way in which these particular problems were tackled. These messages - for there were several of them - are far removed from the stereotyped 'Order of the Day' and are distinguished for their reasoned approach and straightforward, almost colloquial language.

'The Army plans for the battle, codeword "Lightfoot" are complete, and after a meeting with Corps Commanders on Friday, 16 October 1942, which I am attending, nothing remains to be done but the final concentration.

The coming offensive is being discussed in Cairo and elsewhere and the enemy expects it. He does not know D day, however, and the essential requirement, tactical surprise, can therefore be obtained. To this end secrecy is of paramount importance.

'The Army have trained hard for this battle. They are on their toes and with their great preponderance of Armoured strength, Artillery and our air superiority, the result seems clear. But the enemy will not surrender and a killing match lasting anything up to 10 days will probably result. Heavy casualties and hard fighting and then difficult exploitation.

The final plan for the R.A.F. day action is not yet decided. I am consulting Group and Wing Commanders on the result of the operations on the 9th. We shall have our plans ready by the 17 October. In the meantime, current operations continue at normal intensity with the force training and strengthening for the day.

Secrecy is a more difficult matter with our Service because of the constant risk of capture. It is therefore not advisable to inform pilots of details until just before the operations commence. I therefore require the following instructions to be carefully and strictly carried out.

Appendix to Air
Staff, A.A.H.Q.W.D.
Appendix to Report
on Operations, A.H.B./
IIJ1/122/69 (B).

This Memorandum is Most Secret for you only until October 18th when Squadron Commander level are to be informed of the main details as given herein and augmented by operational matters which we have dealt with in discussions and knowledge of which will help the Squadron Commanders' operational preparation and efficiency.

In discussing the battle on this occasion, you are to emphasise that it is likely to be a hard gruelling and extended fight and that the Army will require every possible help that maximum and continuous air operations can give. Every R.A.F. officer and airman must do his very best. We should have over-whelming airforces and it is an opportunity to prove that we can do as well in the offensive as in the defensive.

No more leave is to be given from A.M. on 21st inclusive, nor are any visits to be made to Alexandria, Cairo or other Delta towns or neighbourhoods from A.M. 21/10 onwards. This ban applies to all personnel of all formations forming the Western Desert Air Force. This order is to be strictly enforced as a slip up here might have serious consequences. The order applies to base units.

The reason to be given is that all personnel are required for the moon period which is normally quite intensive.

On the 21st Squadron Commanders are to assemble their units and explain to them the importance and significance of the battle. Maps should be explained and from this day onwards the ordinary machinery of keeping the units informed of both land and air operations should begin to function.

From this day, no pilots will cross the lines or risk being captured until the air battle commences. (1) Certain units may be required for operations on these days, but in that case special security briefing will be given.

I shall be seeing all operational units between now and 18/10 and shall give personnel a brief preliminary picture.'

'The Present Situation' - Memorandum by S.A.S.O., W.D.A.F.

Two days later, on 14 October 1942, yet another important step was taken in keeping all ranks informed on the subject of the Eighth Army's offensive by the circulation by Air Commodore Beamish, Senior Air Staff Officer, Western Desert Air Force, of a Memorandum entitled 'The Present Situation - October 1942' and from which the following extracts have been taken:-

(1) This order was subsequently modified.

Object of Memorandum

This memorandum is issued with the object of providing Officers Commanding Formations and units with a general review of the present situation and an interpretation of the probable trend of the forthcoming operations. It is hoped that it may be of assistance to Commanders in representing the situation to subordinates in preliminary talks, in accordance with the instructions of the Air Officer Commanding, while at the same time serving as an "aide mémoire" on particular points of importance which must never be lost sight of throughout the period of operations.

Land Operations

From the aspect of land operations, it is well known that the enemy occupies very strong defensive positions on a front which precludes the possibility of wide manoeuvre and compels direct assault. The natural strength of this position was demonstrated by the failure of the victorious and aggressive enemy to break through a comparable position of ours in July held by hastily re-organised troops. It must be expected, therefore, that the land battle will bring very hard and bitter fighting. The task confronting the land forces is to break through the strong enemy defensive barriers of minefields covered by concentrated artillery fire and destroy his armoured forces in rear. The operations will call for leadership and fighting qualities of the highest order. The Eighth Army is fully prepared and trained for its task and is now ready; it will go into battle with superior forces to the enemy, but at a tactical disadvantage. The aim of the land forces will be to defeat the enemy in detail in his present positions. The greater the defeat inflicted now the more speedy will our advance be into CYRENAICA and beyond.

Air Operations

It must be assumed that, as a direct result of the effect of our previous air operations in weakening the enemy, he will endeavour to challenge the degree of local air superiority held by our air forces in this theatre of operations. The German Fighter Force is likely to have been reinforced with this end in view.

Our air forces, however, have also been very appreciably strengthened and we are now stronger in the Western Desert than ever before. We are in a position to accept and liquidate any challenge from the enemy and provide maximum assistance to our land forces, while denying the enemy air forces the power to interfere effectively with our land operations. These are the objects that our air forces are to strive to achieve in full measure.

Duration of the Battle on the El Alamein Line

As the enemy has had ample time to prepare his defences in the forward area, and as he cannot withdraw to a defensive position with a secure southern flank this side of Agheila, or accept any loss of prestige through retirement, allowing us to give increased assistance to Malta, he may be expected to fight desperately where he is now.

Appendix 'V' to
A. A. H. Q. W. D.
Record of
Operations.
A. H. B. / IJ 1 / 122
/ 69 (A)

In consequence, the struggle at El Alamein is likely to continue for some 7 - 10 days and we must be prepared to maintain the most intensive operational effort for this period.

The Air Battle

In the coming battle, we shall not be enjoying the advantage we had during the recent "reconnaissance in force" by the enemy, when his land forces by their advance shortened the distance from our fighter landing grounds to the battle area, while lengthening the distance from his own. The position will in fact be reversed and although the disadvantage will to some extent be reduced by the use of forward landing grounds for two Fighter Wings, the difficulty of intercepting enemy aircraft must be outweighed by our ruthless determination to engage and destroy all enemy aircraft on sight when engaged on this specific role.

Our task during the battle will be to assist and protect the Eighth Army. However large the number of enemy aircraft we destroy and however great our ascendancy in the air, it will avail us nought if our Army fails to break through. The enemy must therefore never be permitted to divert our sorties from the specific task they have been ordered to carry out in support of land operations.

The enemy air forces will start on the defensive. He must be kept on the defensive by our aggressive fighting and high cost of his efforts to interfere with our operations.

Probable Enemy Fighter-Bomber and Bomber Employment - Dispersal Measures

It is probable that he may employ a proportion of his fighter bomber effort against our aerodromes and particularly our forward landing grounds by day, and his bomber force from Crete in strength against them by night. In consequence, there must be no relaxation of dispersal measures at aerodromes throughout the period of operations. The tendency with squadrons may well be to increase the state of preparedness of aircraft by closing the dispersal; this must be resisted and full measures to conceal aircraft with nets by day and for wide dispersal at night must continue. The A.A. defences at aerodromes will be quite ready to maintain increased vigilance throughout a period of intensive operations....

Exploitation of the Retreat of the Enemy

When the enemy cracks, it is likely to happen suddenly, and our land and air forces must be prepared to exploit any advantages gained to the full. In these circumstances, the work of the R.A.F. will be of paramount importance in increasing the disorganisation and demoralisation of the enemy.

The need for increasing the range of our aircraft in these circumstances will be most pressing, while supplies are being established at forward landing grounds.

In this connection, therefore, the necessity for having long-range tanks tested and ready for immediate fitment to aircraft must be appreciated by all units. This, however, is only a temporary expedient and the main factor in mobile warfare will be the ability of units to "up sticks", move and come into full operation as soon as possible after arrival at the new location. This requirement is met only by adequate ground organisation.

Conclusion

For the battle which is now imminent, the position is definitely in favour of our forces. The prize we are fighting for is large, as the successful outcome may well alter the whole aspect of the war, while the immediate benefits can readily be envisaged.

To this end, each individual must do his utmost; it is felt that this will be automatic, provided the situation is understood. Formation and Unit Commanders must therefore accept the responsibility of making the issues known to personnel, so that their full effort will be enlisted.'

The way in which the Western Desert Air Force was taken into the confidence of its A.O.C. is one of the outstanding features of the pre-battle organisation and is reflected in the Unit war diaries to a remarkable degree.

The Air Plan for the Battle of El Alamein

It was assumed that, at the beginning of the ground offensive, the enemy would challenge the Western Desert Air Force's local air superiority. There was also evidence that the enemy air forces - but particularly the German Fighter Force - might be augmented both in quantity and quality at the outset of the battle. Any such challenge would reduce the air effort in support of land operations which the W.D.A.F. could give the Eighth Army.

It was therefore decided that, in its initial stages, the most important contribution to the land battle from the air force would be to ensure a high degree of local air superiority. Models of the main enemy landing grounds were constructed for the briefing of pilots, and a series of intensive day and night bombing attacks was undertaken against all the main enemy fighter and bomber bases. These raids - commencing on 19 October and supplementing the 'opportunistic attack' or 'weather blitz' of 9 October - must be considered as an integral part of the W.D.A.F. air offensive for the battle of El Alamein.

After his capture, the Afrika Korps Commander, General von Thoma testified to the destructiveness of these concentrated attacks on their landing grounds. 'They did great damage,' he said, 'and created a profound impression.' The main effect of these attacks, however, was not so much to destroy aircraft as to reduce serviceability. By the opening of the offensive the serviceability of the G.A.F. dive-bomber force had fallen to 50 per cent and that of the fighters to an even lower figure. Most spectacular confirmation of the way in which the enemy Air Forces had been thrown on to the defensive by these attacks is contained in the fact that on 23 October no enemy aircraft were reported as having been operating over the Eighth Army area and,

A.A.H.Q.W.D.
Operational
Instruction
No. 1Cc.

Interrogation
of General
von Thoma,
A.C.C. 26.

D.D.I. 3 Report
A.H.B./IIJ1/63.

furthermore, throughout the same day W.D.A.F. fighters maintained patrols over the enemy forward fighter landing grounds. From the air point of view, the battle could not have opened under more promising conditions.

For the battle itself, the guiding principle was that the R.A.F. should give the Army the maximum possible support along the lines dictated by the ground situation and the Army Commander's requirements.

The Air Plan for the Pursuit Considered as an Integral Part of the Air Plan for the Battle of El Alamein

The air plan for the Battle of El Alamein cannot be considered without reference to Operation 'Buster,' the operational plan for the pursuit of the Axis forces once the Panzer Army had been defeated in a battle of fixed positions. All the W.D.A.F. plans regard the battle and the advance as part of one and the same operation, and it is interesting to note that there is never any suggestion at this stage that the enemy force might be finally destroyed on the field of battle.

In the initial stages of the planning, the campaign was divided into four phases:

Operation
Lightfoot
Outline Plan.
A.H.B./IIJ1/
122/11

Phase I	The decisive battle
II	The advance to Tobruk
III	Tobruk to El Agheila
IV	El Agheila to Tripoli.

The later Phases - II, III and IV - will be considered in their correct chronological sequence. At this point it is enough to indicate the coherence of the plans for the battle as being part of a larger whole and which, as a result, largely governed the way in which the Force was handled.

Owing to the logistical difficulties involved in the pursuit, the force was divided, as early as mid-September, into two components - Force 'A' and Force 'B'. Force 'A' was to go forward as the spearhead of the field fighter force to provide the forward troops with air support while Force 'B' acted as a reserve of aircraft and personnel and with the defensive commitment of protecting lines of communication. It was accepted as a guiding principle, even during the battle, that Force 'A' Wings should be maintained at, as near as possible, full strength at the expense of Force 'B' Wings. This involved the inception of a new principle in air planning, i.e. the creation of a strategic reserve.

Tactical Support from No. 201 and No. 205 Groups

Tactical co-operation with No. 201 and No. 205 Groups (the naval co-operation and strategic components, respectively) was planned along the lines which had proved so successful at Alam el Halfa. The No. 201 Group Albacore Squadrons (Nos. 821 and 826), initially borrowed from the Fleet Air Arm, were to be used at maximum strength for an estimated period of seven days, both for independent operations in the battle area and to provide illumination for the Wellingtons of No. 205 Group. Six Beaufighters of Nos. 252 and 272 Squadrons were to be made available daily for operations against the enemy's lines of communication. The whole Wellington force of No. 205 Group was to be diverted from strategic bombing and again used in a tactical rôle, in direct support of ground operations. Prior to the opening

Administrative
Plans for
Operation
Buster.
A.H.B./IIJ1/
122/84/6

of the attack the Wellingtons were to be employed - in conjunction with the Albacores - for night operations against enemy airfields and, during the offensive, against targets in the battle area.

General Plan for the Use of the Field Fighter Force

For the battle, it was planned to use the Field Fighter Force, comprising Spitfire, Kittyhawk and Hurricane Squadrons, along the following lines:-

Spitfire Squadrons:

The three Spitfire Squadrons were to operate over the enemy forward landing-grounds and provide a continuous offensive patrol. In addition, they were to be used to reinforce the Hurricane Squadrons and in support of bomber operations. These Spitfire Squadrons were not, however, to be given a specific defensive commitment which would necessitate their being tied in any way.

Kittyhawk Squadrons

The Kittyhawk force of 10 Squadrons (including the three American Squadrons) had the following tasks allotted to them:-

- (a) To act as bomber escort.
- (b) Fighter bombing against opportunity targets enemy landing grounds and objectives in close support of the Eighth Army.
- (c) Armed reconnaissance in the battle area, a task of particular value when the situation was changing rapidly.
- (d) Long-range strafing attacks in rear areas which, with long-range tanks, could be undertaken as far west as Matruh.
- (e) Lending support to the Hurricane squadrons in meeting enemy bomber attacks, as the new-type Ju. 87 and 88 were both faster than the Hurricane.

Hurricane Squadrons

The Hurricane Force of eight squadrons (plus one night-flying squadron) were retained specifically for:-

- (a) Protection in the battle area.
- (b) Escort of Tac/R and anti-tank squadrons.
- (c) Ground attacks on selected objectives in the battle area.
- (d) One squadron fitted with bomb racks to be available for fighter-bomber operations.
- (e) One night-fighter Hurricane Squadron (No. 73) to operate in a protective rôle over the battle area, on intruder patrols over the enemy bomber landing-grounds and on night low-level attacks on the enemy lines of communication, by road and rail.

The Condition of the Axis Air Forces on the Eve of the Battle

After the battle of Alam el Halfa, there was no immediate attempt to build up the German Air Force in North Africa, although it was quite evident that the Royal Air Force were being steadily strengthened in preparation for a major offensive. In fact, owing to Hitler's 'idee fixe' that the British would attempt to re-enter the Balkans, some 30 Me. 109F's were transferred from North Africa, mainly to strengthen the local defences of Crete. This loss was subsequently made good by a reinforcement of 30 Me. 109G's which had previously been operating in Russia. These, however, were mainly unserviceable after the transfer, and only about one half were operational at the time of the battle.

A.H.B.6 and
D.D.I.3.

In September, the G.A.F. fighter force in Africa had been largely re-equipped with these Me. 109G's which possessed an improved performance over the Me. 109F's, particularly at heights. In comparison with the British fighters in the Desert at this time, of which one half were the obsolete Hurricane, this aircraft is seen to have been particularly efficient in performance.

<u>Type</u>	<u>Maximum Speed (M.P.H.)</u>	<u>Effective Range</u>	<u>Service Ceiling</u>	<u>Armament</u>
Me. 109G	367	400	35 - 39,000 ft.	Two 7.92- mm. machine guns
Spitfire I	355	415	36,000	Eight .303 machine guns
Kittyhawk	350		29,000	Four to six .50 m. guns.
Hurricane IIC	332	311	36,000	Four 20 mm. cannon
do. I	320	340	36,000	Eight .303 machine guns

There were also reports that the F.W. 190 fighter, with its outstandingly good armament and performance, had been encountered in North Africa at this time. German records do not bear out these reports, although it may have been possible that one or more of these aircraft were in the theatre for purely experimental purposes and experience in tropicalisation.

A.H.B.6.

German aircraft in North Africa were all located in the forward operational area, with the exception of some ten S.E. fighters which supplemented the Italian defensive commitment at Benghazi and Tobruk.. The Italian long-range bomber force in Cyrenaica and Egypt had been increased by about 15 aircraft, mainly for convoy escort duties and reconnaissance. To offset this, there was a reduction of 30 in the number of S.E. fighters for the defence of base areas, following the successful Allied bombing attacks.

Record of
Operations
A.H.B./IIJ1/
122/69 (A)

At Opening of Offensive German Long-Range Bomber Force in Sicily

The main feature of the disposition of the G.A.F. was that, whereas in September almost the whole of the long-range bomber force was concentrated in Greece and Crete, in support of Rommel's offensive, in October this disposition had been reversed and the main concentration of bombers was still in

D.D.I.3 and
A.H.B.6.

Sicily, following the air attacks on Malta which began on 10 October. It is indicative of the enemy's muddled air planning at this time that the G.A.F. should be caught so badly off balance. The attack against Malta was essentially strategic in scope: it was a forlorn attempt to remedy Rommel's mistake of pushing forward into Egypt, whilst the island base of Malta was still left unsubdued in his rear, across his lines of communication. A similar situation had arisen in early July when, at a time when every enemy bomber was urgently needed to support the Panzer Army and help prevent the Eighth Army from stabilising at El Alamein, a diversion of the main enemy strategic bomber force from Crete to Sicily had taken place.

As soon as the Eighth Army offensive opened, an attempt was made to repair the damage. A redistribution of the available forces was quickly made. Fighters were withdrawn from Crete, Benghazi and Tobruk and sent to the forward area, their place being taken by reinforcements from Sicily. In addition, a further 40-50 Me. 109G's and Me. 109E's were rushed to North Africa from Central Germany, together with 10 Heinkel 129's which formed part of an anti-tank unit.

By October 1942, therefore, the Axis air forces in the Mediterranean were stretched to the limit and were quite unable to fulfil adequately any single one of the many diverse duties assigned to them. The October 'blitz' against Malta - the last that island was to endure - was a failure. Ships carrying invaluable cargoes of petrol and ammunition to the Panzer Army, lacking adequate escort, were sunk outside Tobruk, within easy range of enemy shore-based fighters. The enemy advanced air bases were subjected to systematic and concentrated attacks against which they were powerless to protect themselves. By the time the Eighth Army offensive had been launched the enemy air forces were everywhere on the defensive.

'Consequently,' wrote Air Commodore Beamish, in his report, 'the pre-battle moves of the land forces were all completed to schedule on 22 October, without in any way being disturbed by enemy air action, or as far as it was discovered, by air reconnaissance, and tactical surprise for the battle was probable.'

The Strength of the Axis Air Forces on the Eve of the Battle

At the opening of the Eighth Army offensive at El Alamein, the strength of the Axis Air Forces in the Mediterranean theatre was:-

Type	<u>Mediterranean</u> (including N. Africa)			<u>North Africa</u>		
	G.A.F.	I.A.F.	Total	G.A.F.	I.A.F.	Total
<u>Fighters</u> S.E. and T.E. (including recce' and Army Co-op' and Fighter- bomber.)	394	765	1159	195	400	595
<u>Bombers</u>	228	265	493	-	70	70
<u>Dive Bombers</u>	112	15	127	80	-	80
<u>Coastal</u>	11	135	146	-	25	25
	745	1180	1925	275	495	770

Report on
Operations.
Air Staff
A.A.H.Q.W.D.

A.H.B.6
From Enemy
Records.

Transport Aircraft:

There was a fleet of some 250 Ju. 52 transport aircraft, mainly used for quick strategic moves of the German main bomber force of Ju. 88 aircraft from one part of the Mediterranean to the other (e.g. for the periods of intensive air attacks against Malta) and for ferrying personnel and also urgently-needed stores, such as petrol and ammunition, to the Panzer Army.

Bombers:

Although the long-range bomber force was based on Crete and is included in the figure for the Mediterranean, it should be considered as an integral part of the North African force. The function of this strategic bomber force, which had a potential striking power considerably higher than that of the Wellingtons of No. 205 Group, was largely either misunderstood or ignored by the enemy. The aircraft were consistently misemployed ferrying fuel to North Africa, on convoy escort duties, tactical bombing in support of the Army and on what were little more than nuisance raids against ports and bases in Egypt.

The Strength of the Allied Air Forces in the Western Desert and Egypt on 19 October 1942.

An Order of Battle for the Western Desert Air Force, as at 27 October 1942, is given at Appendix 13.

The combined strength of the British and U.S.A. Air Forces in the Western Desert and Egypt, on 19 October 1942, gives the following figures:-

Type	<u>A.H.Q.</u> <u>W.D.</u>	<u>U.S.A.A.F.</u> <u>W.D.</u>	<u>No. 205</u> <u>Group</u>	<u>U.S.A.A.F.</u> <u>Bomber</u> <u>Group</u>	<u>No. 201</u> <u>Group</u>	<u>A.H.Q.</u> <u>Egypt</u>	<u>Totals</u>
Heavy Bomber	-	-	19	42	-	-	61
Medium Bomber	-	37 (1)	71	-	-	11	119
Light Bomber	114	-	-	-	-	-	114
Torpedo Bomber	-	-	-	-	71	-	71
S.E. Fighter	384	37	-	-	-	56	477
T.E. Fighter	-	-	-	-	-	29	29
Night Fighter	-	-	-	-	32	30	62
Army Co' op & Recce'	24	-	-	-	36	19	79
Coastal & Misc.	-	-	-	-	-	-	36
	522	74	90	42	139	145	1048

Transport aircraft of No. 216 Group amounted to 54. There were also 32 Albacores on loan from the Fleet Air Arm (Nos. 821 and 826 Squadrons).

- (1) These American-manned Mitchell aircraft, although classified as medium bombers, were used in conjunction with the Bostons and Baltimores as light bombers.

The Western Desert strength of 522 aircraft was augmented by the U.S.A.A.F. strength of 74 aircraft (37 medium bombers and 37 S.E. Fighters), approximately 100 bombers of No. 205 Group (70 Wellingtons and 30 Albacores) and two Squadrons of Beaufighters borrowed from No. 201 Group (Nos. 252 and 272 Squadrons). Under the control of the A.O.C., W.D.A.F., therefore, on the eve of the battle of El Alamein, was the following force (approximate figures only):-

Western Desert Air Force - Strength on 19 October 1942

S.E. Fighters	420
T.E. Fighters	30
Light Bombers	150
Medium Bombers	100
Recce'	30
Total	<u>730</u>

Out of a front-line strength of some 420 S.E. Fighters, 50, or 12 per cent were Spitfires, while almost half of the total S.E. fighter strength consisted of the obsolescent Hurricane. At this time, Fighter Command in U.K. had at their disposal 48 Squadrons of Spitfires comprising a total of over 800 aircraft.

The A.O.C.-in-C. commented on the fighter strength in a letter he wrote to the Chief of Air Staff, on 22 October 1942.

'As regards aircraft, thanks to going very quietly for the last two or three weeks, we have been able to build up strength to a certain extent. The Hurricane Squadrons are now up to strength and the Kittyhawks nearly up to strength, though the one Merlin Kittyhawk Squadron is still badly down. We have not yet succeeded in getting our three Spitfire Squadrons anything like up to full strength and of course I have no reserves for them. There is a trickle coming through from Takoradi, but at present rate there is no hope of being able to make them up to full strength much less meet really heavy wastage. This is going to be a very severe handicap since the poor old Hurricane is becoming more and more out of date, especially since the 109G is now on the map. What we have got to do is to try and knock the enemy air right out of the ring. This is of course easier said than done, but you will already have noticed from other sources that Coningham has already made some progress in this direction. If we can do this, the Hurricane will once again be able to do its job, especially the Tac. R Squadrons who at the moment have a pretty grim task - since I cannot possibly afford to give them Spitfires.'

In spite of the outstanding success of the night-bombing technique which had done so much to help the Eighth Army stabilise at El Alamein and also to win the battle of Alam el Halfa, the Wellington force had been permitted to drop catastrophically, in spite of the protestations of the A.O.C.-in-C. In July 1942 there had been a force of some 130 Wellington aircraft which, by the beginning of the battle of El Alamein, had dropped to 70. At this time Bomber Command

A.O.C.-in-C.
Correspondence
with Prime
Minister,
Secretary of
State and Chief
of Air Staff.
A.O.C. 26.

Metropolitan Air
Force Strength.
A.H.B./WB/11/3.

had a strength of 63 Squadrons and 970 aircraft, of which 57 squadrons or some 600 aircraft were medium and heavy bombers.

'Am becoming increasingly concerned,' the A.O.C.-in-C. signalled to C.A.S., during the battle, 'at my Wellington situation and feel I must ask for reconsideration of present Air Ministry policy and in consequence suitable adjustment in the present programme for supply of new aircraft.... I am convinced that a strong night-bomber force is a vital factor in the campaign out here, whether to attack enemy land or air forces or his supplies and ports.'

A stronger night-bomber force might have resulted in the complete annihilation of the Axis Panzer Army at El Alamein. As it was, it was only by placing an almost intolerable burden on the Squadrons by the flying of second sorties that it was possible to exert the necessary pressure on the enemy.

R.A.F. Preparations for the Offensive

The R.A.F. preparations for the offensive have to a large extent been recounted in the preceding Sections of the Narrative. They included the resting, training and, as far as possible, the re-equipping of Squadrons to establishment, together with certain reorganisation measures which included the absorption of the American Squadrons into the W.D.A.F. A problem thrown up by the expansion of the field striking force was the construction of further airfields. This was undertaken by the C.R.E. aerodromes attached to the force. For ease of control and supply, the airfields were concentrated in one area, and this proved most beneficial. Moreover, the concentration of airfield facilities made the most economical use of the A.A. resources available, particularly from the heavy A.A. point of view, while the layout of light A.A. at individual airfields became mutually supporting. Also, in order to extend the limited range and time on patrol of the Hurricanes, two advanced landing-grounds (Nos. 37 and 172) were prepared near the battle area from which two Hurricane Wings could operate for the period of the battle.

Report by the
C.R.E.
Aerodromes.

An interesting feature of the preparations and which had a particular bearing on close-support technique was the installation of a forward fighter control on the Ruweisat Ridge, approximately 40 miles forward of the main fighter base. It consisted of one C.O.L., one type 600 A.M.E.S. and H/F, V.H.F., R/T to fighters. W/T, R/T and subsequently land-line links were available to the main fighter control, and an intercept watch was maintained on plots from the V.H.F.D/F fixer stations. This organisation in the forward area proved of great benefit to the tactical control of fighters over the battle area.

Appendix to
A.A.H.Q.W.D.
Report on
Operations.
A.H.B./IJJ1/
122/69 (A).

An important training measure which was to show good results during the battle was the specialisation of No. 73 Squadron in night operations. A special directive issued to the Squadron on 14 October ensured that the squadron, which would be required to operate at maximum intensity for the moon period of October would be adequately prepared. The list of duties which the squadron might be called upon to undertake was detailed and included night attacks on enemy lines of communication, harassing attacks on established camps, intruder sorties against enemy bomber bases, defence of airfields against dawn attacks or night bombing, protection

for M.T. at night on the coast road against enemy strafing, night reconnaissance in the battle area, occasional reconnaissance of the coast against enemy seaborne landings, special operations at dusk or dawn and dawn weather reconnaissance.

Operations 'Grapeshot' and 'Snapper'.

Two operations, 'Grapeshot' and 'Snapper,' were planned at this time in conjunction with the Eighth Army, but as the opportunity did not arise for either of them to be implemented, only a brief reference is made to them. Operation 'Grapeshot' was an army operation involving the despatch of a self-contained mobile force of some 100 tanks with the object of seizing Tobruk, before the enemy 'had had the time to reorganise the remnants of his defeated force.' The R.A.F. were to provide fighter cover and tactical reconnaissance for the operation and, if the air situation permitted, a daily air lift of some 60 tons.

Operation 'Snapper' visualised an attack, at an opportune moment, on the enemy air transport of supplies. A landing ground (L.G. 122, in the Maddalena area) was to be occupied by 12 Kittyhawks of No. 239 Wing and No. 216 Group were to provide 9 Hudson aircraft to transport personnel, supplies and equipment. One Section of the R.A.F. Regiment were also to be included in the party. (1)

The Enemy's Critical Supply Situation

The Axis Air Forces' attack on Malta, in October 1942, was a last despairing effort to free the Mediterranean for their shipping from the slow strangulation of British air and naval power. At the end of the battle of Alam el Halfa, the Duce had declared that 'the battle in the Mediterranean area consisted of two parts - the battle at sea and the battle on land. The battle at sea had been lost, so that the subsequent battle on Egyptian soil could not be carried through.' In early October, the German Naval Staff reported that the continued losses of shipping could not be replaced. The danger existed of a weakening of the Axis forces in North Africa 'to a point when the entire North African position would be lost, with dire military and political consequences.' Panzer Army reported, on 7 October, that 'the fuel situation was very strained, ammunition stocks were completely inadequate and the food situation had reached an unprecedented low level. The vehicle and spare parts situation, including tyres, was also very alarming.' On the 17 October, Panzer Army Headquarters reported that, 'The condition of supply routes was wearing out troop and supply vehicles to such an extent that, unless adequate vehicle replacements were provided, the mobility of the Panzer Army and the ability to move supplies up to the front would be jeopardised.'

(1) Although Operation 'Snapper' did not take place, preliminary work on this plan was put to good use, in the middle of November, when two Hurricane squadrons moved to L.G. 125, 180 miles due east of Agedabia. The appearance of W.D.A.F. fighters in the Agedabia-Agheila area, while the main body of the retreating enemy was still to the east of Benghazi took the enemy completely by surprise and nearly 300 enemy vehicles were reported as destroyed or damaged in 3 days' operations.

A.A.H.Q.W.D.
Operational
Instruction
No. 40C.

High Level
Reports and
Directives.
A.H.B.6 Trans.

War Diary of
the Panzer
Army Africa.

The effect of this blockade of the enemy forces in North Africa were complex and, in some respects, unexpected. For instance, Rommel complained that the acute shortage of food had led to a very high incidence of sickness among his troops. 'The serious supply crisis of the Panzer Army still exists,' he wrote to the Chief of OKW Operations Staff. 'The Army has been compelled to reduce the bread ration by half, owing to the absence of flour allocations from Italy. Additional food supplies cannot be issued. The number of sick cases is exceptionally high, most of them being due to undernourishment. For example, there are over 1,000 men in an infantry Regiment of the 164th Light Africa Division. The fuel situation will permit only current supplies to be transported for a limited period, but will not allow large-scale movements by motorised units. The ammunition situation is also very strained. The German troops of the Panzer Army who are bearing the brunt of the fighting against the best troops of the British Empire must be continuously sent supplies necessary to live and fight, by using all available shipping and air transport space, as otherwise it will not be possible to continue holding this theatre of operations successfully, and the troops run the danger of suffering the fate of the Halfaya garrison, in an eventual British offensive.'

Logistical difficulties curtailed drastically the size of the enemy air force which they could support in North Africa. This in turn meant that the enemy air forces in North Africa were inadequate for their many and varied duties. The fleet of 230 Ju. 88 long-range bombers based on Crete - three times the strength of No. 205 Group's Wellington force - was frittered away doing convoy escort work, as substitute transport aircraft for the transport of items in short supply and as substitute dive-bombers. It was a prodigal waste of the most powerful bomber force the Mediterranean had seen up to that time. It led to constant friction between the Germans and the Italians, as the Germans alleged - with some justification - that the Italians were shipping a disproportionate amount of their own supplies to North Africa, compared with the part they took in the fighting. Not only this, but relations between the Panzer Army and the Luftwaffe - never very cordial at the best of times - were exacerbated. 'The supply situation, of the Army is extremely critical,' Rommel remarked in one of his many reports on this vexed topic, as the requirements of the German troops of the Panzer Army are continually being held up in favour of the Italian forces and the Luftwaffe.'

High Level
Reports and
Directives.

The constant sinkings led to a crisis in the shipping situation.⁽¹⁾ 'An improvement in the transport and supply situation can be expected,' signalled OKW Operations Staff to the Panzer Army, 'when the shipping from France is in use. However, the total available shipping and transport space will even then remain inadequate. In accordance with a priority scale drawn up here,' the message concludes somewhat lamely, 'every effort will be made to supply the Panzer army adequately and to despatch replacements for it.'

(1) 'At this time, only four fast motor-ships aggregating 19,000 tons, and seven large but slow transports of together 40,000 tons, were in use for the Panzer Army. Eight ships, totalling 40,000 tons, were in dock undergoing repairs.' 'The Rommel Papers'.

By 19 October, however, the supply situation had deteriorated to such an extent that the following entry was made in the Afrika Korps War Diary. 'The fuel situation has been so serious for the past few days that current allocations are no longer sufficient to cover requirements for supply runs. The stock in the Corps dump is decreasing daily.' The next day - only three days before the Eighth Army offensive was launched the Panzer Army despatched what was described as 'a very urgent message' to Rome, emphasizing the 'very serious petrol situation caused by the loss of the Panuco.⁽¹⁾ The supply of petrol caused by the loss of the Panuco was reduced to three units of which one was in Benghazi, so that on the evening of 25 October (when the Proserpina was due to arrive) only two consumption units will be available east of Tobruk. This will jeopardise the mobility of the German troops, if the enemy should attack, as current supply traffic uses half a consumption unit per day.'

Panzer Army
War Diary.
A.L. 981.

Owing to the crisis in the petrol situation, caused by the torpedoing of the Panuco, the Panzer Army requested Kesselring to fly over 1,000 tons of fuel from Greece to Tobruk, temporarily holding up the transportation of personnel. An entry in the Panzer Army War Diary for 22 October records that the Commander-in-Chief, General Stumme, had summed up the supply situation as follows; 'We are living from hand to mouth; we fill one gap only to see another open. We cannot build up the basic supply which would enable us to overcome critical situations through our own resources and which allows operational freedom of movement which is an absolutely vital necessity for the Army.'

In response to Panzer Army's request that fuel should be flown over, Kesselring reported that 100 tons of fuel would be flown to Tobruk on 23 October and further regular supplies during the following few days. On 23 October, the day the offensive was launched, the German QMG laid down the following orders 'to save petrol and conserve it for tactical purposes':

- '(a) All petrol dumps in the Rear Army area are closed and issues to single vehicles are forbidden, if not authorized by Panzer Army. The immobilisation of single vehicles must be accepted. Troop carriers between Tobruk and the front will not be affected.
- (b) Petrol in the possession of the supply units and H.Q. in the Rear Army area will be frozen and part of it sent forward.
- (c) M.T. columns are to be used between Benghazi and Tobruk, and between Tobruk and the front, only to carry such goods as are urgently necessary for current supply purposes. (Ammunition, engineer and other equipment is not to be taken.) As much use as possible is to be made of the railway and shipping.'

Panzer Armee
Afrika Misc.
Supply Messages.
AL 866.

-
- (1) Torpedoed by a Malta-based Wellington of No. 69 Squadron off Punta Stilo night 18/19 October and towed to Cotrone where she was beached. This vessel should have arrived at Tobruk on 20 October with about 3.5 V.S. (2,600 tons) of fuel.

The Pre-Battle Air Offensive. (1)

The preliminary phase of the air offensive which began on 19 October was directed by day against the Daba group of landing-grounds, and by night was extended to include L.G. 13, the main Stuka base. The intention was to weaken the Axis Air Forces to such an extent that there would be little or no risk of enemy air attack on the restricted assembly areas in the Northern sector, when X Corps moved in. The disorganisation resulting from enemy air attack, at this juncture, would have had most serious repercussions on the opening phase of the attack. It was also hoped to limit enemy air reconnaissance.

In this phase of the air offensive which preceded the land battle, 285 fighter bomber, 208 light and 76 medium bomber sorties were flown, in the course of which approximately 300 tons of bombs were dropped. It so happened that the enemy had not recovered from the 'opportunist attack' or 'weather blitz' of 9 October, while action against Malta, as has already been seen, had caught the enemy air forces strategically off-balance. By the opening of the Eighth Army offensive, therefore, the enemy air forces had been thrown fully on to the defensive. Consequently, the pre-battle moves of the land forces were all completed to schedule, on 22 October, without in any way being disturbed by enemy air action or, so far as could be discovered, by air reconnaissance.

Enemy's Conflicting Views on Likelihood of an Eighth Army Offensive.

On 10 October, the Panzer Army sent the following report to the Commander-in-Chief South:

'Enemy situation: The presumed arrival of reinforcements in the southern and central sectors and yesterday's heavy raids on our landing grounds support Panzer Army's opinion that the British may launch an offensive soon.... Panzer Army thinks the main weight of the enemy attack will be south of the Ruweisat Ridge and perhaps also on either side of the coast road. Difficulties of going make it improbable that any major thrust will be launched against our southern flank. All defensive measures have been taken. The following points are disadvantageous to our defence:-

H. Q. Middle
East Table of
Operations.
A.H.B./IIJ1/
31/1.

Panzer Armee
Afrika War
Diary
Appendices.
AL 901.

- (1) The preliminaries to the British Eighth Army's attack began during the night of 18/19 October with R.A.F. raids aimed at grounding the Axis air forces, destroying the Panzer Army's rearward lines of communication, interrupting the flow of supplies to the front and breaking the morale of the ground forces. The axis defences against these raids were weak, as there were no night-fighters available, and during daytime the few fighter-bombers had to be concentrated in certain places so as to prevent losses reaching a dangerously high level. With this complete superiority in numbers, it was no wonder that the R.A.F. was able to accomplish its task with speed and thorough-going efficiency. When the Eighth Army launched its attack on the ground, the Allies had achieved almost complete mastery of the air and had therefore practically won the battle in the air. German planes from Greece made secondary attacks on British supply shipping. Reinforcements from Sicily for Fliegerfuhrer Afrika did not reach Cyrenalca until 20th October and were not in the air until after the retreat had begun. In this last vital battle, the Panzer Army was exposed to the full fury of the Allied Air Forces. Weichhold.

- (a) the shortage of ammunition and petrol
 (b) the present inadequacy of the mining of the southern sector.'

On 20 October, the Panzer Army Commander circulated the following information to lower formations:-

'The enemy is sending out patrols and reconnaissance thrusts all the time to try to discover weak spots in our positions. Our minefields are making things very uncomfortable for him and are a source of worry to him. In return, he is trying to shake, and if possible shatter, our nerves by air raids on our ports, airfields and M.T. concentrations and by shellfire. He will not succeed in this. Political and military reasons make it imperative for him to attack. He may come anywhere and at any time, despite the fact that his main strength seems to be on the northern part of our southern sector, and despite the possibility that he does not feel strong enough for a major attack and would like to accompany it with a wide flanking move against our deep southern flank.

When our regrouping and mining operations are finished (which should be in a few days) we will be in a position to meet the expected attack with the greatest equanimity.'

On the other hand, the Chief of the Foreign Armies West Branch of OKH made an inspection of the front and reported, only seven hours before the Eighth Army launched their offensive, that 'contrary to the Panzer Army view, an enemy offensive was not to be expected in the immediate future.' This entry in the Afrika Korps War Diary concludes, on 23 October 1942, 'the Day passed uneventfully.'

The Army Commander's Final Plan for Operation 'Lightfoot.'

The Army Commander's plan for Operation 'Lightfoot', as finally approved and issued, was:-

XXX Corps to attack with four divisions to clear two lines through the enemy minefields to permit the passage of X Corps

X Corps having passed through the area cleared by XXX Corps, to prevent the enemy armour from interfering with XXX Corps and ultimately to destroy the enemy armour.

XIII Corps to mount two operations: one into the area east of Gebel Kalakh and Qaret el Khadin, the other further south directed on Himeimat and the Taqa feature. The role of XIII Corps was primarily to mislead the enemy into thinking that the main thrust was being delivered in the south and to contain the enemy forces there, particularly the 21st. Panzer Division.

The break-in operations were to be facilitated by an extensive counter-battery plan which was to be strengthened by switching the whole of the bomber effort on to the artillery areas as soon as the battle began.

War Diary of
 the German
 Africa Corps
 Trans. No.
 A.H.B./VII/100
 /2

Cabinet Office
 Narrative and
 F/M Montgomery
 'El Alamein to
 the Sangro.'

R.A.F.: to commence its offensive operations by attacking enemy air forces in order to ensure local air superiority, after which the whole weight of air effort was to be turned on to close co-operation with the Eighth Army in the land battle.

Royal Navy: to simulate a landing near el Daba in order to mislead the enemy and tie down the German Division in that area.

British and Enemy Dispositions on 23 October 1942

C.-in-C.'s
Despatch
O184/1575/MOI
Records.

The 'corset' policy of strengthening Italian with German units had been widely adopted by Rommel before resigning his command to General Stumme. The enemy's main line of defence was held by rather more than six divisions. Four armoured and two mobile divisions were held in reserve, half German and half Italian. The armoured divisions were organised into two main groups. In the North, the 15th Panzer Division and Littorio, and in the South, the 21st Panzer Division and the Ariete. Further to the rear still was the 90th Light Division which was watching the coast in the region of Ghazal, with the Trieste around el Daba. The two main armoured groups were subdivided each into three mixed battle groups and disposed at intervals all along the rear of the battle front. This system of dispersal was very much at variance with the principle of the concentration of armour followed by Rommel. It followed far more closely the principles for the use of armour in a defensive battle as practised on the Russian front and is generally attributed to the planning of General Stumme, the new Commander-in-Chief, who had arrived from Russia to relieve Field Marshal Rommel who had returned to Germany on sick leave, on 23 September. The new Commander of the Afrika Korps, General von Thoma, who had relieved General Nehring who was wounded on the first night of the battle of Alam el Halfa when a Wellington obtained a direct hit on the Afrika Korps H.Q., had also been transferred from the Russian front, and it is probable that his views on the use of armour coincided with those of his Commander-in-Chief.

Cabinet Office
Narrative.

The Eighth Army comprised XXX Corps which, reading from north to south, consisted of the 9th Australian, 51st Highland, 2nd New Zealand, 1st South African and 4th Indian Divisions. South of the Ruweisat Ridge was XIII Corps with, again from north to south, 50th Division (including 1st Greek Infantry Brigade), 44th Division, 7th Armoured Division (including 1st Free French Infantry Brigade). X Corps, as the armoured corps de chasse (and made immensely more powerful by having been recently equipped with American Sherman tanks) was composed of, from north to south, the 1st and 10th Armoured Divisions. 'At last,' wrote General Alexander, 'we had for the first time a tank (the Sherman) which was equal in armour, armament and performance to the best tank in the Afrika Korps.'

Air Operations on 23 October to Dominate the Enemy Air Forces and Prevent Enemy Air Reconnaissance

An unbroken day-and-night air offensive was carried out throughout the 24 hours ending 20.00 hrs on 23 October. The cumulative effect of this sustained air attack was such that, on 23 October, a continuous fighter patrol was carried out without hindrance over the enemy's forward fighter bases and Eighth Army reported no single enemy aircraft

Panzer Army
War Diary.

operating over their area. 'Owing to strong fighter defence,' the enemy reported, 'observation could be made over only part of the southern area. No changes were identified. The enemy resumed his countless fighter-bomber and bomber attacks on troops, airfields and the coastal road. Seven enemy aircraft were shot down in these operations.'

A.A.H.Q.W.D.
War Diary.

Between dusk and dawn on the night of 22/23 October, a force of 59 bombers - Wellingtons, Albacores and Bostons - attacked enemy landing-grounds, Nos. 20 and 104, to the west of Daba. These were the enemy's main forward fighter landing-grounds from which they would be operating on the following day. The night bombers, asked particularly to report on signs of Eighth Army troop movements stated that, 'dust trailing denoting apparently considerable movement, but no estimate of numbers was possible.' At the same time as these bombers were attacking, night-fighter Hurricanes of No. 73 Squadron were out shooting up enemy M.T., AA posts and tents in square 8525, in the vicinity of Naqb abu Dweis, in the extreme south.

Main Eighth
Army War Diary.

Soon after dawn, on 23 October, 35 Kittyhawks escorted by Spitfires and Kittyhawks resumed the attacks on the enemy's forward landing-grounds at Daba. Further strong Kittybomber attacks were carried out on enemy landing-grounds throughout the day. In accordance with the agreed Army-Air plan of driving the enemy out of the air, out of a total of nearly 500 fighter sorties, almost half were flown on offensive sweeps. A total of 80 fighter-bomber attacks were made, of which 70 were against enemy landing-grounds. This total was not reached again until the fifth day of the battle. Reconnaissance escort took up 58 fighter sorties which was the highest figure since a record total had been reached on the day before the battle of Alam el Halfa.

H.Q. Middle
East Table
of Operations.
A.H.B./IIJ1/
31/1

The enemy air activity - as had been the case for some time past - was wholly defensive in character. It was an outstanding failure that, on the eve of the Eighth Army offensive, the Luftwaffe failed completely to penetrate the Western Desert Air Force fighter screen. Also, enemy Intelligence failed to appreciate the significance of this intense air activity, not merely over the front, but over their own landing-grounds. Throughout this day, the infantry of four Divisions - the 9th Australian, the 51st Highland, the 2nd New Zealand and the 1st South African - were lying undetected in slit trenches, awaiting the offensive.

'The Fourth Libyan Campaign Has Commenced' - W.D.A.F. War Diary.

Cabinet Office
Narrative.

At 22.00 hours, on the night of 23/24 October, the long-awaited Eighth Army offensive began with attacks by XXX and XIII Corps, after twenty minutes' intense counter-battery bombardment by some eight hundred guns. The last entry in the A.A.H.Q.W.D. War Diary for 23 October reads:-

'21.40 hrs. Zero hour. 8th. Army attacked along the whole front. The fourth Libyan campaign has commenced.'

A.A.H.Q.W.D.
War Diary.

At 22.10 hours, Main H.Q. Eighth Army noted, in a message from XXX Corps:-

'The show has started. Everything going O.K.'

Main H.Q.
Eighth Army
War Diary.

The night programme arranged for the battle area, in support of the land offensive, was for 60 Wellingtons to attack in the northern sector, in the area of Tell el Aqqar from 22.00 hours to 04.15 hours. Illuminations for these raids were to be provided by 20 Albacores of the F.A.A. Offensive patrols were to be carried out by night Hurricanes of No. 73 Squadron. Four special Wellingtons of No. 162 Squadron were detailed for jamming operations. Four aircraft of No. 216 Squadron were detailed for parachute dropping in the Fuka area, at 01.00 hrs. At 23.59 hours a Boston was to lay smoke at Map Reference 874300 (Tell el Eisa) and at 00.45 hours another was required for smoke laying at Maaten Bagush.

No. 205
Group O.R.B.
A.H.B./IIM/
B205/1A

No. 205 Group's night bombers were briefed 'to destroy by bombing gun positions and other defences in the battle area and to cause the maximum amount of irritation and loss of sleep.' The two main areas for the bombing attacks were defined in considerable detail, and give a good idea of the care with which the operation was planned and also the way in which details of the ground picture were impressed on the airmen.

Northern area: 86703040, 86953000, 86702953, 86453000. This represents primarily a gun area and the main objective are batteries of guns which will be firing continuously in duels with our own guns. The intention is to keep these guns quiet and to create confusion. In this area, there will also be two Battle Gruppe and M.T. and forward dumps. One mile to 1½ miles directly to the west of the northern area is the concentration area of one of the Panzer Divisions. It is not anticipated that they will be concentrated tonight. The Albacores have been briefed to keep a watch on this area. If concentration is observed by them they will fire a red followed by a green. This then becomes the primary target for those aircraft detailed to attack the northern area. If no concentrations are seen by Albacores, the silencing of the gun batteries in the northern area given above is the primary target.

Southern Area: A circle with two miles radius with centre point 860270. This is the territory of the 21st Panzer Division and no guns are involved. Target area may be concentrated, in which case it will present a good target. If it is not concentrated, it is our job to make it as difficult as possible for them to concentrate. Targets in this area may be well camouflaged.'

The night-bombing force was allocated in the proportion of 60 per cent to the northern and 40 per cent to the southern Sectors. As an aid to navigation searchlights were concentrated in a cone for five minutes over the battle area at stated intervals.

Throughout the night of 23/24 October, the whole of No. 205 Group's night-bomber force was concentrated in a tactical rôle in the battle area, in direct support of the Army. This was to continue throughout the battle. Owing to the weakness of the Wellington Squadrons, the total number of aircraft available and which were drawn from Nos. 37, 40, 70, 104, 108 and 148 Squadrons, was limited to 48. However, with the aid of 18 of Nos. 104, 108 and 148 Squadrons flying double sorties and 12 Albacores of No. 821 Squadron Fleet Air Arm which dropped flares and bombed, the number of bomber

No. 205 Group
and Squadron
O.R.B.s. H.Q.
Middle East
Table of
Operations.

sorties was raised to 78. Six Wellingtons of No. 162 Squadron also operated, carrying out jamming operations over the battle area while, at the request of the Army, four Bostons of Nos. 12 and 24 S.A.A.F. Squadrons laid a smoke screen.

No notification was given by the Albacores that the 15th Panzer Division had concentrated. In accordance with the alternative plan therefore the Wellingtons which operated over the northern Sector concentrated primarily on gunposts, although eight Wellingtons of No. 40 Squadron, in an endeavour to disorganise the enemy's communications system, attacked track and telephone wires in the northern Sector. Alternative targets chosen were concentrations of enemy MT and tanks.

The effectiveness of this attempt to saturate the enemy defences is difficult to assess, and in any case it must be taken to some extent in conjunction with the terrific concentration of artillery fire which opened up at 21.40 hours. The enemy reported that, 'strong bomber attacks were made, particularly on our gun positions.'

D.A.K. War
Diary.

The No. 205 Group report of the night's operations stated that in the northern Sector three medium and one large fire were started. A direct hit was scored on a gun or on ammunition, producing a terrific explosion which rocked the aircraft at 6,000 feet. In the southern Sector several direct hits on vehicles were observed and one large fire was started which lasted for 45 minutes and threw smoke up to 3,000 feet. It is perhaps significant that in the early part of the operation over the northern Sector, opposition was reported as 3-4 searchlights, 3 heavy and 3 light guns, but by 04.00 hours, when the bombers left, only light A.A. gunfire was seen. Similarly in the south, opposition at first consisted of 4 heavy and 8-10 light guns, but this gradually dwindled until by the time the last aircraft had left there was none. The weather was reported as being good, with perfect visibility. Two night fighters were seen and one of them, a Me. 109, chased a Wellington out to sea. Returning aircraft reported that the Eighth Army guns were in action throughout the entire front, from the sea to the Qattara Depression.

No. 205 Group
O.R.B.

No. 73 Squadron, with their night-flying Hurricanes, put up 26 aircraft in the coastal area, where three ammunition carriers were claimed as having been blown up, as well as a small dump; five field guns, enemy M.T. tents and huts were damaged and two Bredas silenced. 'This,' the Squadron O.R.B. recorded, with somewhat exaggerated pride, 'was the prelude to the opening of the Army's offensive.'

No. 73 Squadron
O.R.B.

Eighth Army Progress Night 23/24 October

After the preliminary counter-batter bombardment, in which the whole of the Eighth Army artillery was involved and which lasted for 20 minutes, the main fire plan was brought into action and XXX Corps and XIII Corps infantry advanced to the attack. (1) As the enemy dispositions were well-known

Cabinet Office
Narrative.

- (1) Strictly speaking, in the case of a number of the guns, the counter-battery bombardment lasted for 15 minutes after which there was a five minute pause before the commencement of the main fire plan.

R.A. Notes on
the offensive
by Eighth Army
23 Oct. - 4 Nov.
on the
El Alamein
Position. A.H.B./
IIJ1/122/9 (B)

from overprinted maps showing his defences as seen on air photos and, in the case of his forward defences from reports of ground observers and patrols, the fire plan took the form of concentrations on all prepared defensive localities, the fire lifting from locality to locality at an average rate of 100 yards in three minutes. (2) (1) As the infantry paused on their first objective, the programme lasted for 185 minutes, excluding the 20 minutes' counter-battery bombardment, and the average rate of fire was about 2 r.p.g. per minute.

By dawn on 24 October the 9th Australian Division had secured most of its final objective and the New Zealanders had captured the Western end of the Miteiriya Ridge. In the centre, however, the Highland Division and a brigade of the Australians were held up short of their objectives by enemy strongpoints in the middle of what should have been the northern corridor, while on the left the South Africans fell short of the Miteiriya Ridge by about 500 yards.

The attempt to pass X Corps through the minefield gaps began at 02.00 hours, Nos. 1 and 10 Armoured Divisions making for the northern and southern gaps respectively. However, both formations got behind schedule. The 1st Armoured Division was delayed because the northern lane was still blocked by minefields under fire from the enemy strongpoints which the Australian and Highland Divisions had been unable to overcome. When X Corps reached the Miteiriya Ridge, they were met with such strong enemy artillery and anti-tank gunfire that they could make no further progress.

Cabinet Office
Narrative,
C.-in-C.'s
Despatch and
'El Alamein to
the Sangro.'

Meanwhile, in XIII Corps sector to the south, attempts to breach the enemy minefield system were only partially successful. The 7th Armoured Division penetrated the first of two minefields and passed some of the 22nd Armoured Brigade through. The second minefield, however, was covered by heavy defensive fire and progress was halted. The Free French, after a long and difficult night march, eventually reached the escarpment to the south of Himeimat. Owing to the deep sand, however, they were unable to bring up their anti-tank guns and later, as will be seen in the account of operations for 24 October, they were unable to resist an enemy counter-attack.

By daybreak on 24 October the position was generally-speaking disappointing. It was essential to General Montgomery's plan - as it had been to Rommel's at the battle of Alam el Halfa - that the main weight of armour should be through the minefield by dawn on 24 October. This had not been achieved and at first light the 10th Armoured Division, which should have debouched to gain freedom of movement, was still bogged down in the minefields.

(1) According to a report prepared by the Eighth Army H.Q. R.A., the value of these vertical photographs obtained by the R.A.A. both before and during the battle was "immense". Practically all counter-battery locations and the exact whereabouts of enemy defended localities were based on air photographs. Before the battle, a photo plot was built up which covered the whole battle area. It was then comparatively simple by comparing the photos taken from day to day during the battle with the original photo plot to fix the co-ordinates of fresh hostile batteries seen on new photos.

The Afrika Korps' Account of Operations on the Night of
23/24 October

At 21.15 hours on 23 October, the 15th Panzer Division reported a very heavy barrage on the central sector of the front. Half an hour later, a further report said that the bombardment had extended to the whole of the northern sector. Later, at 22.45 hours, a message was received from the 15th Panzer Division that British infantry spearheads, with tanks, were advancing towards the gaps between certain mine boxes. In addition to the heavy bombardment, the message continued, 'strong bomber attacks are in progress, particularly on our gun positions.'

From the southern sector of the enemy front came a report at 23.00 hours from 21st Panzer Division and the Ramcke Brigade that 'there was no fighting worth mentioning' but that in the central area an attack on the Deir el Shein defence works was in progress.

War Diary of the German Afrika Korps. A.H.B. 6 Trans. No. VII/100/2.

'The Afrika Korps had alerted all units,' their War Diary records. 'The use of massed artillery indicated the possibility of an enemy offensive. At midnight it was thought that the enemy had penetrated the line of battle outposts in one or two places and was advancing on the main defence line.'

After XXX Corps had broken through the part of the enemy front held by a battalion of the Trento Division and a Panzer Grenadier Regiment of the 164th Light Division, General Stumme, the acting Commander-in-Chief, ordered the 15th Panzer Division to counter attack and restore the situation. However, shortly afterwards, General Stumme, for a reason that is not stated, countermanded the order and instead the Trento Division were ordered to carry out the counter attack. 'The attack was unsuccessful,' the diary records, 'and at dawn the enemy moved forward ... to continue the attack in a south-westerly direction.' A discussion then took place between General Stumme and General von Thoma which resulted in an order being given to the 15th Panzer Division and the Littorio Division 'to counter-attack and retake the main defence line.' This was the first of the counterattacks in which 15th Panzer Division was involved. It fulfilled the Eighth Army Commander's designs that the Afrika Korps should be committed piecemeal against the Eighth Army guns. By the time Rommel had arrived on 25 October, to re-assume command of the Panzer Army, the 15th Panzer Division had been decimated to such an extent that it no longer counted as an armoured division.

The official German War Narrative gives the following account of the opening of the Battle of El Alamein:-

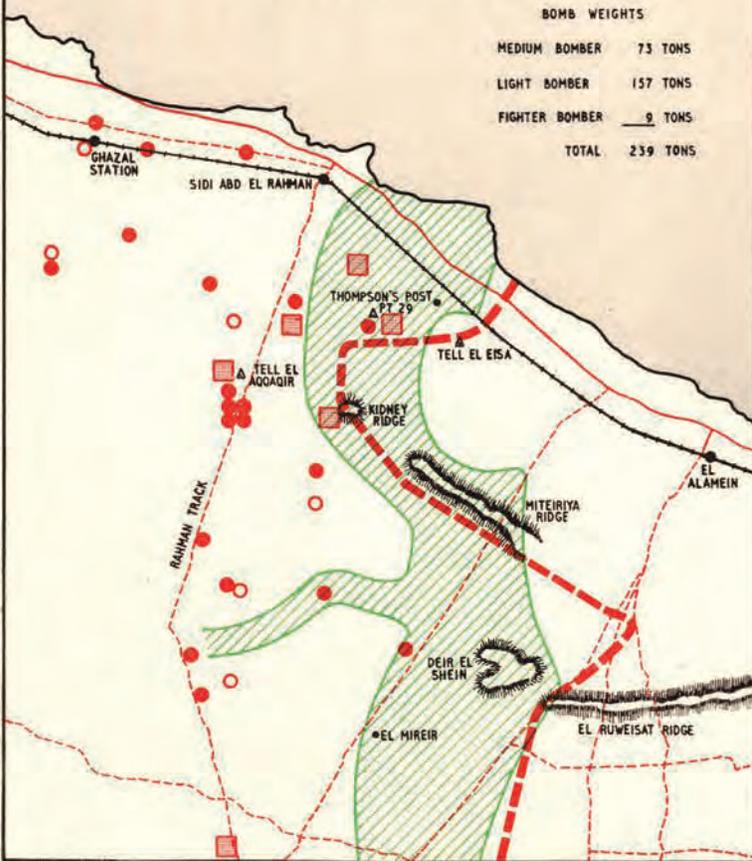
'23 October 1942

With the exception of strong enemy air attacks against front line troops and landing grounds, the day was quiet as usual. At 20.40 hours sudden and extremely heavy artillery fire came down right along the front, and after some time this slackened off in the southern sector, but increased in the northern. After over an hour's firing, the enemy attacked in the northern sector along the railway line and for about 10 km. south of it with strong forces supported by tanks and night bombers. Although the attack between the railway and the coast road was halted in front of our line, the enemy

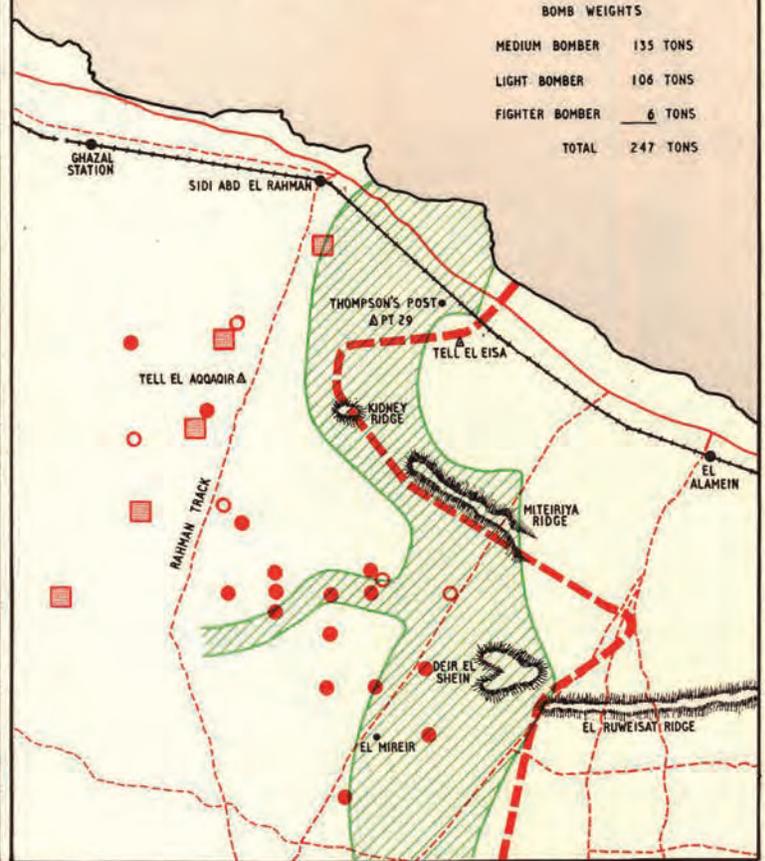
German - Italian
Forces in Africa.
Trans. of German
Official War
Narrative.
Cabinet Office
Archives Foreign
Section A.L. 743.

THE BATTLE OF EL ALAMEIN - TACTICAL BOMBING

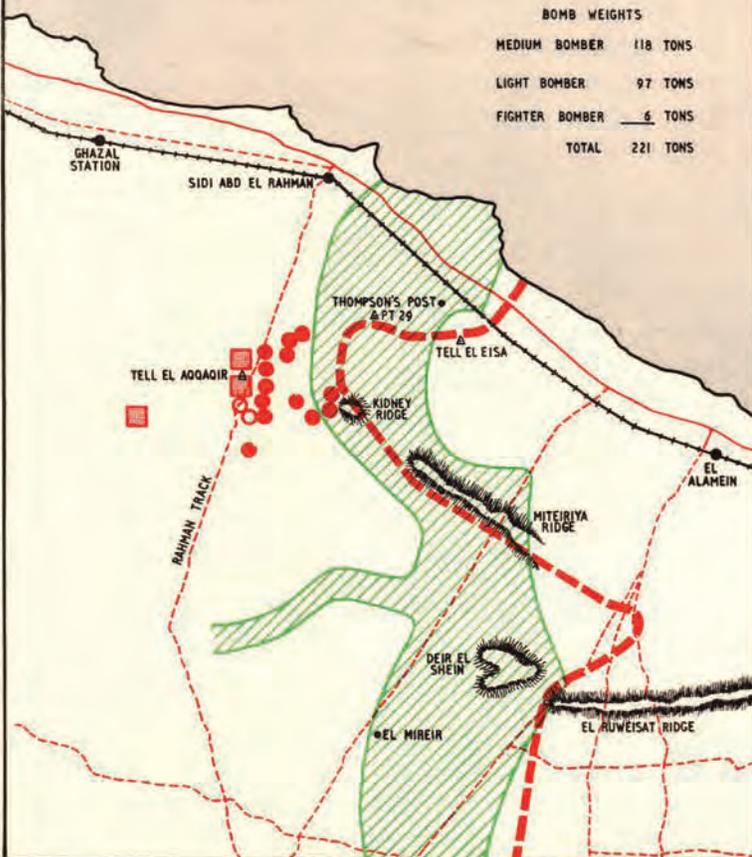
24 OCTOBER 1942



25 OCTOBER 1942



26 OCTOBER 1942

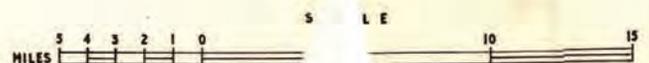


LEGEND

- AREA BOMBING BY WELLINGTONS AND ALBACORES
- LIGHT BOMBER ATTACKS
- FIGHTER BOMBER ATTACKS
- AREA OF AXIS MINEFIELDS AND DEFENCES
- APPROXIMATE POSITION OF BRITISH LINE
- ROADS FIRST CLASS
- ROADS SECOND CLASS
- RAILWAY

AUTHORITIES: R.A.F. MIDDLE EAST TABLE OF OPERATIONS
A.A.H.Q. W.D. DAILY INTELLIGENCE SUMMARIES

NOTE: THE POSITION OF MEDIUM BOMBER NIGHT ATTACKS IS APPROXIMATE ONLY. EACH MAP INCLUDES THE NIGHT BOMBING OF THE PREVIOUS NIGHT. ONLY TACTICAL SUPPORT IS INCLUDED (I.E. NOT ATTACKS ON LANDING GROUNDS ETC.)



succeeded about midnight in overrunning the advance posts south of the railway and breaking into minefields J and L. As the telephone lines were mostly destroyed by the artillery fire, only scanty reports were received. At midnight the position was still obscure, but the unusually heavy artillery fire and the attacks in strength at several places on a broad front indicated that this was the expected English offensive against the Alamein position.'

The Army Commander's Plan and the Air Policy Laid Down for 24 October

The B.G.S. set forth the Army Commander's intentions for the following day which were:-

- XXX Corps (a) To clear the northern gap.
- (b) The New Zealanders to exploit their success to the south and 51st Division to take over from the New Zealanders on the Miteiriya Ridge.
- (c) The 9th Australian Division not to exploit to the north but to plan a 'crumbling' operation for the night of 24/25 October.
- (d) The 4th Indian Division to raid and hold, if possible, on the Ruweisat Ridge.

Eighth Army
War Diary.

- XIII Corps 7th Armoured Division to try and push their way through the second minefield if unable to continue 'crumbling' between minefields and to break through the second minefield on the night 24/25 October.

In direct support of these ground operations, the agreed air policy for the first day of the offensive was:-

- (a) To help X Corps on to its objective.
- (b) To help 2nd New Zealand Division and 1st South African Division in their 'crumbling' operations southwards.
- (c) To protect 9th Australian Division from counter-attack from the north.
- (d) To assist 7th Armoured Division in the south.

A.A.H.Q. W.D.
O.R.B.

Intensive Air Operations on the First Day of the Battle - 24 October

The first day of the Eighth Army offensive was one of intense air activity, in the course of which - in spite of adverse weather conditions - the Western Desert Air Force flew a total of approximately 1,000 effective sorties, in support of the ground forces. This was the highest figure so far reached, in the Western Desert Campaigns, and was not to be surpassed until 3 November, by which time the Battle of El Alamein had been virtually won. Of this record number of sorties, 274 were flown by the light bombers and the balance by fighters on bomber escort duties, offensive patrols and fighter-bomber raids.

H.Q. R.A.F.
Middle East
Table of
Operations.
A.H. B./IIJ1/31/
1.

No. 208
Squadron O.R.B.

First-light recces flown by No. 208 (Army Co-operation) Squadron aircraft - one in the north on behalf of No. XXX Corps and another in the south for XIII Corps - revealed no appreciable change in the disposition of the main enemy forces. The 15th Panzer Division was still in the northern sector, opposite the XXX Corps front and, what was immensely promising for the Army Commander's plans, the 21st Panzer Division was still located in the south, opposite the XIII Corps front, while the 90th Light Division were still held back in reserve, along the coast. In order to conserve fighter strength for offensive operations, these early morning reconnaissance flights were made without escorts, or even 'weavers'. For this reason, the sorties were carried out by picked experienced pilots and not by roster. In the north, no new developments were observed, except for some unarmoured vehicles moving west along the main coast road from Sidi Abd el Rahman. In the southern sector, on the other hand, a concentration of about 350 tanks, armoured cars and vehicles was located at Map Reference 871252, in the El Taqa Plateau area.

The Intense Enemy A.A. Gunfire Causes Considerable Damage to the Light Bombers

In spite of offering an inviting target, the concentration of enemy vehicles on the XIII Corps front was not engaged, owing to the Army Commander's ruling that the maximum air support should be concentrated in the northern sector. In accordance with this policy, almost the whole weight of the light and fighter-bomber effort was directed against the 15th Panzer Division. For instance, all but one of the 16 light-bomber raids were made in direct support of XXX Corps, in the north. Severe A.A. opposition was encountered over the battle area and eight light bombers of Nos. 3 S.A.A.F. and 232 Wings were shot down, comprising five Bostons, one Baltimore and two Mitchells. Damage to bombers from the heavy and accurate A.A. gunfire was also considerable and 27 aircraft or 10 per cent of the force was badly holed. Apart from the crews of the aircraft shot down, two were killed and seven others badly injured in aircraft which landed back at their home bases. At the outset, targets were relatively poor, but these improved later in the day as the enemy were forced to concentrate. Numerous fires and direct hits on the enemy M.T. and gun positions were reported.

The Enemy's Forward Landing-grounds Patrolled by W.D.A.F. Fighters - 24 October

The battle area and the enemy landing-grounds were patrolled by fighters, in order to keep the sky clear for the light-bomber operations. Protection was also afforded the ground forces in the area of gaps in the minefields where they were particularly vulnerable to hostile air attack. This policy was effective. Only one small fighter-bomber raid was carried out by the enemy in the afternoon and no damage was reported. Throughout the day, the enemy fighters were wholly on the defensive and fighter opposition was encountered only twice. According to the Luftwaffe records, the enemy lost two S.E. and one T.E. fighters. The R.A.F. claimed one Me. 109. The W.D.A.F. losses, which were mainly caused by the intensive A.A. gunfire, were the eight light bombers already mentioned and five fighters (four Hurricanes, one Spitfire, four pilots safe).

Air Support
Control War
Diary.

No. 3 S.A.A.F.
No. 232 Wing
O.R.B.s.

A.H.B. 6
Records
Table of
Operations

Dust Curtails the Fighter Effort - 24 October

A. A. H. Q. W. D.
and Main
Eighth Army
War Diaries

At 13.00 hours, rising dust on the advanced fighter landing-grounds (Nos. 172 and 37) put them out of action, and alternative dust-free landing-grounds were brought into use at Mariut. In spite of this, delay was caused, and this dislocated the fighter programme. It thereupon became necessary to decide whether to curtail the light-bomber effort in order to provide fighters to maintain the standing fighter patrols over the battle area, or else to reduce the patrols in order to find escorts for the bombers. When this was submitted to the Army Commander, he decided to continue the bomber attacks, but he asked that arrangements should be made to enable the fighters to be switched over to patrol work should Stuka raids develop. It was not until 18.00 hours that dust eventually cleared on these two forward fighter landing-grounds.

No. 6 Squadron and No. 7 Squadron (S.A.A.F.) 'Tank-busters' Annihilate an Entire Company of the Kiel Group

Cositrep No.
558, Hist. (B)
(Crusader) 5.

Although, according to the Army-Air plan, the main bombing on 24 October was concentrated in the northern sector, on the XXX Corps front, an opportunity presented itself for No. 6 ('Tankbuster') Squadron to be of considerable assistance to the 1st Free French Brigade, who were operating in the extreme south. By the morning of 24 October, the Free French had managed to install themselves in the Himeimat area. In the course of their advance, however, they had left behind their anti-tank guns which had become bogged in the deep sand. The enemy reacted vigorously and, after the Free French had been heavily counter-attacked by tanks, they were eventually forced to withdraw.

A. A. H. Q. W. D.
War Diary.

No. 6 Squadron
O.R.B.

About this time in the engagement, No. 2 Air Support Control at Advanced Air Headquarters Western Desert were notified that there was a possible target for No. 6 Squadron presented by captured Eighth Army tanks. The target was accepted and the operation was carried out by four Hurricanes of No. 6 Squadron and two of No. 7 S.A.A.F. which accompanied them for experience. The tanks which were confirmed as captured Eighth Army ones were located and attacked at Map Reference 876243, in front of the French. The operation proved to be outstandingly successful and claims were made of eight tanks hit of which three were left smoking, after being on fire. Less than an hour later, another raid was launched which resulted in damage to a further nine tanks, of which eight were Honeys and one a Crusader.(1)

The enemy attributed the attacks to American Airacobras, although the Hurricane IID 'Tankbuster' armed with 40 mm. cannon had been operating successfully against the enemy

(1) Rommel's own comment on this operation is interesting. In 'The Rommel Papers' he stated that 'The R.A.F.'s new fighter-bombers were particularly in evidence, as is shown by the fact that every one of the captured tanks belonging to the Kampfstaffel had been shot up by this new type of aircraft.'

armour for some time. (1) 'During the Army Battle Group's counter-attack on Naqb abu Dweis,' says the enemy account, 'these so-called "tankbusters" put an entire company of this unit out of action. Seven tanks were destroyed, five more seriously damaged and only one remained capable of action. The effectiveness of this new anti-tank weapon in the coverless country was thus proved.'

German Official
War Narrative.
AL743.

Raids on Enemy Landing Grounds - 24 October

In the course of the day's operations, two bomber raids were diverted to landing-grounds 104 and 20, west of Daba. This was part of the agreed policy in order 'to maintain enemy anxiety as to security of aerodromes'. In the course of the raid on L.G. 20 carried out by Kittybombers of No. 4 Squadron, escorted by Tomahawks of No. 5 Squadron, hits were registered on tents and single-engined aircraft, and fires were started. No results were observed from the bombing of L.G. 104.

A.A.H.Q.W.D.
War Diary.
A.H.B./IIJ1/
112/1 (D)

Analysis of Bomb Weights Night 23/24 and Day 24 October

During the night 23/24 October, medium bombers dropped 43 tons of bombs on targets in the battle area. In the course of the following day, light bombers dropped 159 tons of bombs on targets in the battle area, in direct support of the army, and eight tons on enemy forward landing-grounds. Fighter bombers dropped nine tons on targets in the battle area and two tons on landing-grounds.

A.A.H.Q.W.D.
Daily Intelligence
Summaries
and Table of
Operations
R.A.F.

Total Bomb Weights

<u>Army Air Support</u>	<u>Attacks on L.G.s</u>	<u>Total</u>
239 tons	10 tons	249 tons

Enemy Reports on the Air and Supply Situation - 24 October

On 24 October, the enemy reported that continuous day-and-night attacks were kept up on their front-line troops, on the coast road and the forward landing-grounds. Throughout the day there were hourly attacks by 18-24 bombers protected by 50-60 fighters on the troops in the northern sector. According to this report, the enemy could not make use of Stukas owing to the shortage of fighter aircraft. They claimed 16 of our aircraft shot down by fighters, 4 by A.A. and ground troops: the actual losses were 13.

Official
Enemy Narrative
AL 743.

- (1) No. 6 Squadron arrived at Shandur in order to commence intensive training on Hurricane IID aircraft and the 40-m.m. 'S' gun" which were designed for low-flying attacks against enemy tanks, on 25 April 1942. Two flights, comprising 'A' and 'C' Flights and H.Q. personnel, left for the Western Desert on 1 June. Although the debut of the 'tankbuster' aircraft was made on 7 June, this operation was abortive, and it was on 8 June that these aircraft were in action against enemy tanks and vehicles. The C.O., Wing Commander Porteous, hit one unidentified tank and a lorry. Flying Officer McPhee hit a lorry and a bowser and Pilot Officer Lee hit one unidentified tank. These targets were located to the west of Bir Hacheim and they were again attacked later in the day by F/Lt. Simpson, F/O Morrison-Bell and P/O Besley. Two aircraft were Cat. 3 and one Cat. 2.

No. 6
Squadron
O.R.B.

The total German supply of petrol was three consumption units (a consumption unit being enough petrol to move a formation 100 kms. with all its vehicles) of which one was in the Benghazi area. The air transport of petrol from Greece, which had been arranged with Field Marshal Kesselring after the loss of the Panuco, was inaugurated on 24 October with an estimated daily air lift of some 150 tons. Panzer Army Headquarters stated that, if the two tankers scheduled to arrive on 26 October did not do so (the Proserpina with 2,500 tons and the Luisiano with 1,500 tons both subsequently sunk by the Royal Air Force) the position would be most serious, as the Italian petrol supply was already very low.

Death of General Stumme, the Enemy Commander-in-Chief
24 October

An early casualty in the battle was the enemy Commander-in-Chief, General Stumme, who had taken over command of the German-Italian Panzer Army when Field Marshal Rommel returned to Germany on 23 September. It is not clear how the General died. According to one report, his death was indirectly due to air attack, as he fell or jumped out of his car without the driver noticing whilst the car was being machine-gunned. Another version was that the General's Chief Signals Officer, who was out on reconnaissance with him, was struck down by machine-gun fire and Stumme, who was in ill health, had a heart attack and died on the spot. Yet a third version, given in the official German narrative, relates that, 'At 08.30 hours the acting Army Commander went forward with the Chief Army Signal Officer to form a personal impression of the depth of the enemy penetration at mine-field L. While there, he fell into an enemy ambush on the alarm track, near Point 28. At 09.30 hours, in spite of a thorough search, he was posted missing. It was presumed that he had been wounded and captured.'⁽¹⁾

Whatever the cause of General Stumme's death, there is no doubt that, from the enemy point of view, it had a profound effect on the course of the battle and it is probably the basic reason why the 21st Panzer Division was not moved from the southern sector until fairly late in the battle.

(1) Rommel gave his own account of the death of General Stumme in 'The Rommel Papers'. 'Feeling that we would fight this battle with but small hope of success, I crossed the Mediterranean in my Storch and reached headquarters at dusk (25 October). Meanwhile, General Stumme's body had been found at midday and taken to Derna. He had apparently been driving to the battle-field along the Alarm track when he had suddenly been fired on in the region of Hill 21 by British infantry using anti-tank and machine-guns. Colonel Buechting had received a mortal wound in the head. The driver, Corporal Wolf, had immediately swung the car round, and General Stumme had leapt out and hung on to the outside of it, while the driver drove at top speed out of the enemy fire. General Stumme must have suddenly had a heart attack and fallen off the car. The driver had noticed nothing. On Sunday morning the General had been found dead beside the Alarm track. General Stumme had been known to suffer from high blood-pressure and had not really been fit for tropical service.'

'Rommel' by
Desmond Young.

C.-in-C.'s
Despatch.

Official
German War
Narrative.
AL 743.

At 10.40 hours on 24 October an entry was made in the Afrika Korps War Diary 'there is no word from the Commander-in-Chief who went to clarify the situation'. At 16.00 hours as General Stumme was still missing General von Thoma, Commander of the Afrika Korps, took over command as acting Commander-in-Chief in his place, but stayed temporarily at Corps Headquarters. It was not until early on 25 October that General Stumme was found dead by men of the 15th Panzer Division.

The death of the enemy Commander-in-Chief brought a characteristically quick reaction from the Germans. A request was made for a situation report 'on which the Fuehrer would decide whether Field Marshal Rommel should cut his leave short and resume command of the army immediately.' From this report it was seen that conditions at Alamein were so serious that the Fuehrer ordered Field Marshal Rommel to take over the command of the African Panzer Army again immediately.

The enemy appreciation of the situation on the evening of 24 October was:-

'There is no cause for anxiety on the Southern Sector. However the enemy attack may be resumed and intensified and Himeimat is the most strongly threatened point on the Southern Sector. XX Corps has been asked to send reinforcements there. In the Northern Sector the situation appears to have been temporarily stabilised by 15th Panzer Division's counter attack, but the enemy is expected to resume the offensive. Consideration is being given to moving up the 90th Light Division and launching an attack from the north on the flank of the enemy penetration'.

A reference was also made at 22.40 hours to the fact that:-

'On the northern sector enemy ground force were supported by frequent heavy bombing raids. German fighter and anti-aircraft defences had only slight success. Owing to the well-built positions casualties and losses caused by bombing attacks were comparatively light'.

Night-Bomber Attacks Concentrated Wholly Against 15th Panzer Division - Night 24/25 October

Continuing the Army-Air policy for the first day of the offensive, which was to concentrate the bombing of XXX Corps front, in the north, the programme for the medium bombers of No. 205 Group was arranged solely against 15th Panzer Division. The target area was defined as a rectangle bounded by the Grid lines 850300, 850280, 860300 and 860280 where it was anticipated that the 15th Panzer Division would be leaguering. It was considered that, as the military situation developed, it might be necessary to issue alterations to this briefing, but nevertheless, it was thought unlikely that the night-bombers would be called upon to bomb to the south of the defined area, although it might possibly extend as much as three miles to the west.

The units detailed were Nos. 37, 40, 70, 104 and 148 Squadrons, together with Albacores of Nos. 821 and 826 Squadrons, which were briefed to locate the main concentration of the 15th Panzer Division tanks and M.T., whereupon

Afrika Korps
War Diary
A.H.B.6 Transla-
tion No. VII/100
/2.

No. 205 Group
O.R.B.

they would 'signal the discovery by the firing of a red and green Verey light. After that, the whole weight of the bombing was to be directed against this concentration.'

There were 84 medium-bomber sorties on the night of 24/25 October. This total was made possible by 18 aircraft of Nos. 37 and 70 Squadrons carrying out double sorties. As was anticipated, the main enemy concentration of tanks and M.T. was located in the defined area, broadly speaking in the locality of the Sidi Abd el Rahman track. Bombing took place in variable weather conditions with some rain and ground haze at first from 22.00 hours to 05.00 hours. Opposition was noted as being moderate, consisting of about 20 L.A.A. guns firing red, green and white tracer up to 10,000 feet.

All aircraft reached the prescribed area, where M.T. were found to be better dispersed than on the previous night. A very large fire was started to the south of Sidi Abd el Rahman, with a trail of black smoke stretching some three miles towards the sea. This was begun by early aircraft and was still burning by dawn. About eleven other fires were reported, of which two in the western end of the target area developed into big fires. Three moving convoys were also straddled with bombs.

Between 22.00 hours and dawn Hurricanes of No. 73 Squadron carried out 14 sorties on intruder and interception patrols. No enemy aircraft were seen but tents and vehicles in both the northern and southern sectors were machine gunned. The activity of the German Air Force which was centred in the northern sector was missed.

Success of Enemy Night-Bombing Activity - 24/25 October

It is significant that during the early stages of the battle of El Alamein, enemy dive-bombers operated in greater numbers by moonlight than by day. This was primarily due to the small available fighter force - by then temporarily reduced to 20 serviceable aircraft - which was unable to provide adequate escort to the Stukas in their daylight attacks, until fighter reinforcements arrived in North Africa later in the battle.

On the night of 24/25 October the enemy operated a number of Ju. 88's from Crete, in the battle area, being briefed for this particular task at landing grounds in North Africa. The activity of these aircraft, which bombed singly during the night, had quite a disproportionate effect on the progress of the battle at this stage. What was variously described as a shell or a bombing attack on a petrol lorry in one of the minefield gaps on the XXX Corps front at Map reference 874292, caused a fire involving some 25 lorries carrying petrol and ammunition which provided an ideal landmark for enemy guns and subsequent attacks by the night bombers. Further fires and explosions among vehicles resulted in considerable disorganisation in the narrow minefield gap, and the whole offensive was held up on this part of the front.

The Eighth Armoured Brigade reported at 23.50 hours that all had been going well until they started getting bombed. The next morning at 04.45 hours XXX Corps demanded a 3.7 battery for gap protection, but this was wisely turned down as being both unjustifiable and unprofitable. Nevertheless, the Army were badly shaken by the effect that

D.D.I.3
Intelligence
Reports.

Report on
operations in
the Western
Desert.
A.H.B./I.I.J.1/
122/69 (A).

Eighth Army
War Diary.

this bombing had had on the night offensive and, at a conference in the early hours of 25 October, they asked that 'suitable measures should be taken by the R.A.F. to neutralize these night-bombing attacks'. As a result it was decided to intensify raids on the enemy landing grounds not only in North Africa but in Crete, increase night-fighter patrols over the battle area and night-intruder patrols over the enemy forward air-bases.

25 October a Critical Day: Three-Quarters of 15th Panzer Division Tanks Lost in Fruitless Counter-Attacks

Throughout the 25 October - probably due to the disorganisation caused by the death of the enemy Commander-in-Chief - the main enemy force continued split into three parts. In the northern sector, opposite XXX Corps, was the 15th Panzer Division; in the south and retained there by XIII Corps was the 21st Panzer Division; while 90th Light Division, which had been resting and refitting at Daba, along the coast, were being kept there as the army reserve.

Soon after daybreak, the 15th Panzer Division began a series of counter-attacks: the method of attack - not in strength but by battle groups of some 20-40 tanks each - revealed the absence of the vigorous direction formerly provided by Rommel. It was not until 20.30 hours on 25 October that Rommel arrived at Battle H.Q. and resumed command of the Army and the handling of the German-Italian Panzer Army (1) was soon to show characteristic signs of his vigorous personality and direction.

XXX Corps had made a breach six miles wide which threatened the centre of the enemy's lines of communication along the Rahman track. X Corps were deployed in a position where it could, in turn, threaten the envelopment of the enemy's line, or bring the full weight of its 700 tanks and powerful artillery to bear on these enemy counter-attacks which were broken up as they came in, piecemeal. These attacks, therefore, only served to whittle away the enemy tank strength, and the day's fighting left the 15th Panzer Division very weak indeed.

'15 Pz Div,' says the enemy narrative, 'which had been committed in the counter attack, fought all day to halt the hostile attacks and seal off the small penetrations which kept on occurring. In the course of the counter attack it succeeded, after a bitter struggle, in throwing the enemy back to his start line in Minefield L, and towards evening in regaining control of the main defence line in this sector, consolidating and strengthening it by putting in reinforcements. But because of the hard fighting and the great enemy superiority in air and artillery, our own losses were considerable. 15 Pz Divisions armoured regiment had heavy tank losses in the repeated counter attacks. Out of 119 tanks, only 31 were battleworthy by the evening. The Italian Trento Division lost 3/5ths of its infantry and much of its artillery; the German 164th Division the majority of two battalions and two

(1) By an understanding between the Supreme Command of the German and Italian forces, the name 'Panzer Army (Afrika)' was changed to 'German-Italian Panzer Army.'

O.-in-C.'s
Despatch.

Afrika Korps
War Diary.

German Official
War Narrative.
AL 743.

batteries. The Italian 62nd Regt. of Trento Division, except for one company still in position, consisted of 250 stragglers banded together with no heavy weapons. The destruction and capture of the greater part (about 4/5ths) of the regiment had to be accepted. (1)

On the XIII Corps front there was little to report. It had become apparent that heavy casualties would be sustained if the attack were pressed home in the south. The Eighth Army Commander, therefore, authorised XIII Corps to break off this action, in accordance with his policy of maintaining 7th Armoured Division at effective fighting strength. This attack had nevertheless served its primary purpose which had been to retain the 21st Panzer Division on this southern part of the front.

'El Alamein to the Sangro.'

Air Policy for 25 October to Prevent Enemy Spearhead from Concentrating

There is a certain irony in the fact that, until Field Marshal Rommel resumed command of the Panzer Army and followed again closely the principle of concentration of armour, the targets presented to the light bombers were, generally speaking, poor. The tactics of using small battle groups of tanks, although wasteful from the point of view of the ground forces, did to a large extent defeat the bomber.

A. A. H. Q. W. D.
War Diary.

The policy for the employment of the light bombers on 25 October was to prevent the enemy spearhead from concentrating to attack our armoured forces in the Northern sector. In all, 165 light-bomber sorties were carried out of which 126 were against close-support targets, the balance being against landing grounds. The most promising targets were found in the Deir el Abyad area which, at that time, was the centre of the 15th Panzer Division's resistance. Here M.T. tanks, guns and tents were bombed with satisfactory results, a number of fires being caused and direct hits obtained. Light bombers and fighter bombers between them dropped 112 tons of bombs against close-support targets. The success of the enemy's bombing attacks in the battle area, during the previous night, is reflected in the scale of effort directed against their landing grounds on the following day. A total of 27 tons of bombs was dropped on landing grounds compared with only 11 for the previous day.

H.Q. Middle
East Table of
Operations.
A. H. B. / III 1/31
/1

Part V. AOC. -
in-C. Corres-
pondence with
the Prime
Minister, etc.

In most of the light bomber raids, a proportion amounting to as much as one half of the escorting fighters also carried a 500 lb. bomb. In this way it was possible to make the most economical use possible of the field fighter force. In this connection it is interesting to note that during the interrogation of General Ritter von Thoma, when asked why it was that the German Air Force which had previously specialised in dive-bombing had now taken to use fighter bombers, he gave the reason that they were 'faster, more manoeuvrable and more economical as a weapon.'

- (1) 'Units of the 15th Panzer Division had counter-attacked several times on the 24 and 25 October, but had suffered frightful losses in the terrible British artillery fire and non-stop R.A.F. bombing attacks. By the evening of the 25th, only 31 of their 119 tanks remained serviceable.' 'The Rommel Papers'.

Supplementary to the activity of the light bombers in the north, a number of fighter-bomber raids were made in the south, on the XIII Corps sector. This followed closely the established principle for the battle that nothing was permitted to divert the main bomber effort from targets in the area of the Eighth Army's main offensive, in the north.

The sorties flown by fighters of the W.D.A.F. on offensive sweeps and on bomber escort were almost equal, totalling 221 and 226 sorties respectively. A feature of the fighter activity on 25 October was that many of the fighter patrols by both Spitfires and Hurricanes, were again carried out directly over the enemy's forward fighter landing-grounds, at Daba. This direct challenge to the enemy fighter force was the climax of the W.D.A.F.'s aggressive air policy which had as its objective the domination of the Axis Air Forces throughout all phases of the battle.(1)

A.H.B. 6 and
Table of
Operations.

W.D.A.F. fighters claimed to have shot down three Me. 109's, while U.S.A.A.F. Warhawks claimed four. Enemy records state that four S.E. fighters, one bomber and two dive-bombers were lost. The W.D.A.F. lost a Spitfire and a Kittyhawk.

No. 208 Squadron Reconnaissance Flights Made Without Escort

No. 208 O.R.B.

Further evidence of the remarkable degree of local air superiority gained over the enemy air forces in this early stage of the battle is revealed by the fact that No. 208 (Army Co-operation) Squadron was able to carry out all five of its tactical reconnaissance flights in the battle area without escort, although the aircraft they employed were Hurricanes. The dawn reconnaissance by No. 208 Squadron over the northern sector was considered most important by the Eighth Army who relied on the information brought back from this flight to indicate the areas in which the enemy were forming up for a counter-attack. It also gave valuable information as to the best potential bombing targets. One other of the five flown was abortive owing to rising dust which affected visibility. For the second day running, dust had an adverse effect on air operations and caused a number of bomber raids to be cancelled in the afternoon.

A.A.H. Q.W.D.
War Diary.
A.H.B./IIJ1/
122/1.

Successful Interception of Ju 52 Transports by Beaufighters of No. 272 Squadron

No. 272
Squadron O.R.B.
and A.H.B. 6
Records.

During the afternoon of 25 October, a formation of eight Beaufighters of No. 272 Squadron, on patrol to intercept the Ju. 52 traffic between Crete and North Africa, encountered 23 Ju. 52's with an escort of 3 Me. 110's, some 25 miles to the north west of Tobruk. The formation of Ju. 52's was fairly compact and was apparently composed of Vics. of 3. The striking force of Beaufighters at once turned towards them and the top cover climbed up to engage the enemy fighters. As a result of this encounter, four of the Ju. 52's were claimed as destroyed. Enemy records show only the loss of one. The C.O. of No. 272 Squadron was missing after this operation.

(1) 'Our own air force was still (25 October) unable to prevent the British bombing attacks, or to shoot down any major number of British aircraft. The R.A.F.'s new fighter-bombers were particularly in evidence, as is shown by the fact that every one of the captured tanks belonging to Kampfstaffel had been shot up by this new type of aircraft.' These were the Hurricane IID 'tankbusters' which were not fighter-bombers. 'Rommel Papers'.

The German Fighter Force Temporarily Reduced to 20 Serviceable Aircraft - 25 October

Afrika Korps
War Diary.

Afrika Korps
War Diary.

German
Official War
Narrative.
AL. 743.

On the afternoon of 25 October, Field Marshal Kesselring arrived at the Afrika Korps Battle H.Q. and discussed the situation with the Afrika Korps Commander who stressed the difficult supply situation and also the necessity for increasing the air defence. Kesselring was told how, earlier in the day, a request for fighter-bomber support for the ground forces had had to be turned down, by the Fliegerfuehrer Afrika, 'as only 20 fighters were serviceable owing to the recent intensification of enemy air operations.' He was also told how the supply situation was giving rise to much anxiety. There now remained only 1.5 petrol consumption units. 'The petrol position almost unbearably limited the mobility of the motorised formations. The scanty ammunition supply compelled the utmost economy of expenditure. This was all the more grave as the enemy seemed to have almost unlimited ammunition at his disposal. Afrika Korps estimated that the enemy's ammunition supply, in comparison with its own, on one sector of the northern front at 500 to 1. An immediate vast improvement in the petrol and ammunition position, and preparation for the successful carrying out of a more prolonged defensive battle, were vitally necessary.'

Rommel, who had stopped at Rome⁽¹⁾ on his way to rejoin the Panzer Army, when he heard of the seriousness of the supply situation, made the 'emphatic demand to the German G.O.C. Rome (General von Rintelen) that all the Italian submarines and warships should immediately be transferred by the Supreme Command to the transporting of supplies for the Panzer Army Afrika.' That evening, when Rommel resumed command in North Africa, he ordered the already seriously depleted armoured forces to be reserved for mobile operations. Guns in permanent positions - especially the 88-m.m. anti-aircraft guns - were to be used to knock out the advancing enemy tanks.

Enemy Appreciation of the Situation on the Evening of 25 October

Late in the evening of 25 October, after Rommel's conference had been held, the following appreciation of the situation was entered in the Afrika Korps War Diary:

(1) 'On arriving at Rome at about 11.00 hours (25 October) I was met at the airport by General von Rintelen, Military Attache and German General attached to the Italian forces. He informed me of the latest events in the African theatre. After heavy artillery preparation, the enemy had taken part of our line south of Hill 31; several battalions of 164th Division and of Italians had been completely wiped out. The British attack was still in progress and General Stumme still missing. General von Rintelen also informed me that only three issues of petrol remained in the African theatre; it had been impossible to send any more across in the last weeks, partly because the Italian Navy had not provided the shipping and partly because of the British sinkings. This was sheer disaster, for with only 300 kilometres worth of petrol per vehicle between Tripoli and the front, and that calculated over good driving country, a prolonged resistance could not be expected; we would be completely prevented from taking the correct tactical decisions and would thus suffer a tremendous limitation in our freedom of action. I was bitterly angry, because when I left there had been at least eight issues for the Army in Egypt and Libya, and even this had been absurdly little in comparison with the minimum essential of thirty issues. Experience had shown that one issue of petrol was required for each day of battle; without it, the army was crippled and could not react to the enemy's moves.'

'The Rommel Papers.'

Afrika Korps
War Diary.

'To-day's attacks had less impetus than those carried out yesterday. However, enemy bomber operations continued in force, in the northern sector. The enemy is fighting cautiously and has sustained heavy losses of men, particularly from German artillery fire. In spite of this, it is expected that the attack will be resumed at all costs. The attacks themselves and enemy troop movements in the rear indicate that the enemy has obviously concentrated in the north...'

The final entry for the day was a note, that 'attacks by waves of night bombers on Corps Battle H.Q. began and continued until 01.00 hours.'

Night Bombing Operations - 25/26 October

Wellingtons of No. 205 Group, assisted by flare-dropping F.A.A. Albacores, again attacked enemy positions, A.F.V.s and M.T. in the battle area, still concentrating on the northern sector. A total of 48 Wellingtons of Nos. 37, 40, 104, 108 and 148 Squadrons were employed, 16 of Nos. 40 and 104 Squadrons carrying out second sorties. The attacks lasted from 22.00 hrs. to 03.30 hours and bombing heights ranged from 8,400 to 4,000 feet. A further 14 sorties were carried out by the Albacores which concentrated on square 8529 and Map Ref. 861297, in the region of Tell el Aqqaqir.

Well-dispersed M.T. and possibly tanks were located and all squadrons claimed direct hits and many near misses. One big exploding fire and many small fires were reported. A camp comprising some 30 to 50 tents was located and successfully bombed, some of the tents being blown down. This, it is now known, was probably the Afrika Korps Battle Headquarters. The Stuka base at L.G. 13, near Sidi Haneish, was also bombed by aircraft of No. 70 Squadron where two fires were started.

In the course of the night's bombing operations a total of 129 tons of bombs was dropped of which approximately 10 per cent was against landing grounds. The Afrika Korps War Diary referred to 'the incessant bombing attacks carried out during the night 25/26 October.'

Patrols Over the Battle-Area by Night-Flying Hurricanes of No. 73 Squadron - Night 25/26 October

In order to prevent a repetition of the confusion caused by the Stuka attacks on the previous night, Hurricanes of No. 73 Squadron, operating from a forward base, patrolled the line. Several hostile aircraft were chased away from their objectives which again appeared to be the congested and vulnerable minefield gaps, on the XXX Corps front. Long-range intruder patrols were also flown over Sidi Haneish, where an enemy aircraft coming in to land, was damaged. The Hurricanes of this Squadron flew a total of 30 sorties, with a flying time of 52 hours. There is no doubt that the activity of this Squadron contributed very largely to the Eighth Army's security from hostile air attack, on the night of 25/26 October.

Northwards Thrust by the 26th Australian Brigade - Night 25/26 October

On the XXX Corps front the 26th Australian Brigade began the first phase of what eventually proved to be the most important Eighth Army manoeuvre of the whole battle. At

No. 205 Group
O.R.B. and
Squadron O.R.B.

Air Support
Control War
Diary
No. 73 Squadron
O.R.B.

Cabinet Office
Narrative and
C.-in-C.s
Despatch.

midnight it attacked northwards towards the sea and by dawn had captured important high ground in the coastal sector which up to then had provided an extremely valuable vantage-point for the enemy. The 51st Division also made local gains and secured the enemy locality at Map Reference 868294 and a part of 869293. The 1st Armoured Division which had been ordered to operate in a due westerly direction, on the Australians' left, was unable to gain any ground.

The same night, XIII Corps carried out a limited operation to divert the enemy's attention. The enemy, however, were found to be strong and well-positioned and the attack was not pressed home. The XIII Corps attack had, however, served its main purpose which was to retain 21st Panzer Division in the south, thus forcing the 15th Panzer Division to fight alone for an invaluable 48 hours, in the very crucial opening stages of the battle.

Air Policy for 26 October still Primarily to Prevent Enemy Counter-Attacks

No. 2 Air
Support Control
War Diary.

The general air policy laid down for the Western Desert Air Force for 26 October was to attack the 15th Panzer Division and the 90th Light wherever they presented the best targets. The Sidi Abd el Rahman track provided an excellent landmark which enabled the bombers to attack the targets in full view of our forward troops.

At 09.10 hours, a message was passed from Army Tac H.Q. to the Air Support Control outlining the day's air policy:-

Eighth Army War
Diary and
Cositrep No.
563.

(a) Attacks to be made on the area to the north of the 9th Australian Division, with the object of destroying enemy morale and preventing counter-attacks from being made. (The Eighth Army were particularly sensitive to any threat of a counter-offensive at the junction of the 9th Australian and 51st Division, in area 86802975).

(b) Attacks in the area to the west of the bridgehead to prevent enemy interference with X Corps exploitation.

(c) Attacks on any good targets located by air reconnaissance.

It was agreed that the light-bomber shuttle service should not be undertaken unless good targets had been found by air observation, or unless requests were received from Army formations. The Royal Air Force were also asked to be prepared to attack the 21st Panzer Division, should they be detected moving (1) or to attack hostile heavy guns, if located.

No. 208
Squadron O.R.B.s

The first-light reconnaissance on 26 October over the northern sector reported 1,200 M.T. to the east of the Rahman track, with well-dispersed tanks and many guns firing to the north-east. Early Kittybomber sweeps reported few good targets, but later the 9th Australian Division, the 26th Australian Infantry Brigade and the 1st Armoured Division all indicated good targets of enemy armour and troops preparing for a counter-attack on the western face of the newly-won Australian Division's salient.

(1) The 21st Panzer Division did not begin to move north until after dark on 26 October, in order to escape air attack. They were, however, caught 'en route', by the Wellingtons.

No. 3 Wing
S.A.A.F. O.R.B.

The first call for close-support came at 08.15 hours from the Australians who indicated a concentration of tanks and M.T. at Map Reference 865297, due east of Tell el Aqqaqir. This was answered at 08.45 hours, when 12 Baltimores of No. 55 Squadron and 6 B.25's of No. 82 Squadron, U.S.A.A.F. bombed 200 M.T. and tanks, dropping 120 x 250 lb. bombs at Map Reference 862297 - 862295. The next raid by six Bostons of No. 24 S.A.A.F., six Bostons of No. 12 S.A.A.F. and six Baltimores of No. 21 S.A.A.F. was directed against L.G. 18, at Fuka. At 11.00 hours, however, the light bombers returned to Map Reference 862298, when 12 Baltimores of No. 223 Squadron and six B.25's bombed 800 fairly-well dispersed tanks and M.T., with 150 x 250 lb. bombs with good results.

H.Q. Middle
East Table of
Operations.

In all, a total of 120 light bombers dropped some 80 tons of bombs on enemy concentrations in this comparatively small area. In many cases, owing to the proximity of the Rahman track which served as an admirable and clearly-defined bomb-line, the effect of the bombing was visible to the forward troops and was very favourably commended. The Eighth Army report stated that:-

Hist. B.
(Crusader)
5. Personal
from General
Alexander to
Prime Minister.

'During the night 25/26 October, the 26th Australian Brigade attacked north towards the sea, advancing some 2,000 yards. The enemy apparently appreciated the danger of allowing our salient to be extended north, as this would give us a firm flank on the sea coast. During the day 26 October, he formed up several counter-attacks which were dispersed before starting by R.A.F. bombing.'

Fighter bombers also attacked enemy tanks and vehicles in both the northern and southern sectors, with good results. A total of 4 light-bomber and fighter-bomber attacks was also directed against enemy landing-grounds in the Fuka and Daba area, in which direct hits were scored on two aircraft and near-misses on others.

Weight of Bomber Effort Night 25/26 October and Day 26 October

H.Q.M.E.
Table of Ops.
and Daily
Intelligence
Summaries.

Between dusk 25 and dusk 26 October, medium, light and fighter bombers dropped a total of 255 tons of bombs of which 220 tons were against close-support targets in the battle area and the balance against enemy landing-grounds.

In the course of operations on 26 October, a total of 156 light bomber and 697 fighter sorties were flown. There were 280 bomber escort sorties and 272 were flown on offensive sweeps over land. In addition to the maintenance of pressure on the enemy landing grounds by bombing attacks, fighter patrols were flown over the Daba landing grounds. (1)

(1) 'Following on their non-stop night attacks, the R.A.F. sent over formations of 18 to 20 bombers at hourly intervals throughout the day, which not only caused considerable casualties, but also began to produce serious signs of fatigue and a sense of inferiority among our troops.' 'The Rommel Papers'.

Long-Range Fighter Patrols by Aircraft of No. 450 R.A.A.F. Squadron

No. 450 R.A.A.F.
Squadron O.R.B.

Long-range Kittyhawks fitted with belly tanks carried out three successful operations on 26 October. The aircraft - six in each operation - all belonged to No. 450 R.A.A.F. Squadron and the targets were Sidi Haneish, Matruh, the Sidi Barrani road and the Abu Hagag railway station. The targets were all strafed very effectively and some thirty enemy vehicles were either destroyed or damaged and seven left in flames. Two railway trucks and a Ju. 88 were also damaged. One operation was directed against a train on the coast railway, but it was found to be a Red Cross train and so alternative targets were found. These low-level attacks by long-range fighters in the enemy's back areas, and particularly along the coast road, caused the enemy serious losses of both supplies and vehicles, having an effect on the battle quite out of proportion to the number of aircraft involved.

Further Successes Scored on the XIII Corps Front by No. 6 and No. 7 S.A.A.F. Squadron Aircraft

No. 6 Squadron
O.R.B.

A target for No. 6 Squadron 'Tankbusters' was reported in the morning of 26 October, in the XIII Corps Sector, on the front of the 1st Free French Infantry Brigade. It consisted of a group of some 25 A.F.V.s, including a number of captured Eighth Army tanks. The target was accepted and three Hurricanes of No. 6 Squadron were accompanied by three of No. 7 S.A.A.F. It was another most successful operation, the attackers being credited with two Honeys, two Crusaders, five armoured cars, one half-tracked vehicle and one lorry.

Increased Enemy Air Activity in the Battle Area - 26 October

A.A.H.Q. W.D.
Daily Int.
Summaries.

Cabinet Office
Narrative.

H.Q. Middle
East Table of
Operation.
A.H.B./IIJ1/31/
1,
Squadron O.R.B.s
and Daily
Int. Sums.

There were signs that the enemy fighter force had been strengthened on 26 October, as there were strong fighter sweeps carried out in the morning and afternoon in the forward area. The Eighth Army reported six raids, four of which were made by small formations of from three to four fighter-bombers, a fifth by a single bomber and the sixth, a last-light attack by a formation of 19 Stukas. The raid by the dive-bombers which was made on 127th Field Regiment R.A. caused neither damage nor casualties, although the enemy claimed that it had been very successful. Owing to a shortage of escort aircraft, the Stukas flew unescorted and relied on the bad light for protection. However, after the bombing, they were intercepted by 12 Hurricanes of No. 213 Squadron and 12 Hurricanes of No. 238 Squadron and chased back towards their base. Two of the Stukas were destroyed. This same formation of dive-bombers was again intercepted by Hurricanes of No. 73 Squadron out on intruder patrol in the dusk when the Stukas were orbiting L.G. 12, at Sidi Haneish, with their landing lights on and the flare path lit up. One Ju. 87 was shot down and another damaged.

In what was considered by the Western Desert Air Force to have been up to that time, their most successful day's air fighting, they claimed four Me. 109's and three Ju. 87s destroyed and a further 18 aircraft damaged. Enemy records show that four S.E. fighters, four dive-bombers and two

fighter-bombers were destroyed and one bomber and two dive-bombers damaged. (1) The R.A.F. lost seven fighters in the battle area.

The enemy report on the air situation on 26 October stated that:-

'The main point of the enemy attack was directed at the main battleground west of Minefields J and L. The almost ceaseless night-bomber attacks were followed by attacks all day, at intervals of an hour on the average, by heavy bomber groups of 18 - 20 aircraft, and also fighter-bomber and dive-bomber attacks.'

The Sinking of the Tanker Proserpina (4870 tons) and the S.S. Tergestea (5890 tons) off Tobruk 26 October

As has already been noted, it was a most important part of the enemy supply programme that the tanker Proserpina 4870 tons should arrive in Tobruk with her cargo of 2,500 tons of petrol, on 26 October. (2) The Proserpina was in convoy with the S.S. Tergestea of 5890 tons and a smaller vessel which were escorted by four destroyers when they were located by a Malta-based Baltimore on the afternoon of 25 October. After an unsuccessful attack on the night of 25/26 October by a bomber and three torpedo Wellingtons, No. 201 Group arranged for the despatch of three more striking forces (at 12.30 hours on 26 October, 14.00 hours and 15.20 hours). On the morning of 26 October, a Baltimore and a Maryland carried out an early reconnaissance and the Baltimore relocated the convoy nine miles to the north-west of Derna, with two Ju. 88's as escort. In spite of the fact that the convoy now came within single-seater fighter cover of the shore, it was kept under observation.

- (1) 'Later in the afternoon (26 October) German and Italian dive-bomber formations made a self-immolating attempt to break up the British lorry columns moving towards the north-west. Some 60 British fighters pounced on these slow machines and forced the Italians to jettison their bombs over their own lines, while the German pilots pressed home their attack with very heavy losses. Never before in Africa had we seen such a density of anti-aircraft fire. Hundreds of British tracer shells criss-crossed the sky and the air became an absolute inferno of fire.' 'The Rommel Papers'.
- (2) The transport programme submitted to the Panzer Army on 21 October was: -
 - (a) The tanker Proserpina to sail with 2,500 tons of petrol on 21 October to arrive at Tobruk early on 26 October.
 - (b) The tanker Luisiano with 1,500 tons of petrol, was to be ready to sail on 25 October. Subject to the safe arrival of the Proserpina, the Luisiano would sail with another tanker, the Portofino, to arrive at Tobruk on 31 October. If the Proserpina did not arrive, the Luisiano was scheduled to sail on the evening of 25 October to arrive at Tobruk on the 29th. It was necessary to send the Luisiano and the Portofino together as both escort fuel vessels and naval fuel oil were short.

Official German
War Narrative
AL 743.

No. 201 Group
O.R.B.

A.H.B.6
Document.

H.Q. Middle East
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tions and
O.R.B.s

The first force, comprising eight Beauforts of No. 47 Squadron, five Bisley's of No. 15 S.A.A.F. Squadron, escorted by nine Beaufighters of Nos. 252 and 272 Squadrons sighted the convoy 18 miles north-west of Tobruk. All aircraft attacked and a Bisley, piloted by Major Pidsley, bombed from 20 feet, scoring hits on the stern of the tanker. A second Bisley which attacked the tanker practically simultaneously with Major Pidsley, scored near misses, but in pulling out of his attack, his starboard wing hit the mast of the tanker and the aircraft crashed into the sea. Almost simultaneously, a torpedo hit was scored by a Beaufort of No. 47 Squadron piloted by Pilot Officer N. V. Manning immediately below the funnel. As a result of these attacks, there was an explosion followed by a 70-foot flame and thick black smoke. The Proserpina caught fire and sank the following morning. One Beaufighter crashed into the sea and whilst altering course for base, a Bisley and a Beaufort collided and crashed in flames. A third Bisley and another Beaufort were also missing from the operation, making a total of three Bisleys, two Beauforts and one Beaufighter lost out of the force of 22 aircraft. The convoy was escorted by three Ju. 88's and one Italian fighter. All these attacks were made in the face of intense A.A. gun-fire, not only from the four escorting destroyers, but from the shore batteries as well.

A second striking force of five Beauforts of No. 39 Squadron, escorted by eight Beaufighters of Nos. 252 and 272 Squadrons, failed to locate the convoy an hour and a half later. However, the Beaufighter escort intercepted five He. 111's and claimed two destroyed and the remainder damaged. One Beaufighter was lost and three others badly damaged.

The third striking force comprising three torpedo-carrying Wellingtons of No. 38 Squadron attacked the S.S. Tergeste (5,890 tons) when she was no more than one mile north of Tobruk harbour. It was an interesting operation, as it succeeded so perfectly in its planning.

'The three crews,' says No. 38 Squadron O.R.B., 'were briefed to proceed in formation at 100 feet to a position about 60 miles out to sea, then to keep approximately parallel to the coast until a position approximately 60 miles N.E. of Tobruk was reached. The formation was then to head straight for Tobruk harbour, take the enemy completely by surprise and carry out a dusk attack on a large merchant vessel or tanker lying outside the harbour (The first dusk attack ever to be attempted by the Squadron).'

F/Lt. Wiggins led the formation with P/O Bertram and Sgt. Viles in Nos. 2 and 3 positions respectively. Navigation was perfect and the A/C were able to make an immediate run in in formation on the M/V. There were many destroyers around but they were taken completely by surprise and it was not until the A/C were within two miles of the MV that frantic signalling from destroyers to M/V took place. F/Lt. Wiggins and P/O Bertram dropped at 800 and 600 yards and it is estimated that Sgt. Viles dropped at 800 yards. Three torpedoes were seen to be running straight towards the M/V which was stationary. About a minute later there was a terrific explosion and a pall of black smoke rose up to 3,000 feet.

F/Lt. Wiggins went straight over the M.V. and was subjected to an intense barrage of A.A. fire from the destroyers. The aircraft was hit in many places. P/O Bertram broke away to starboard and did not receive so much attention.

Sgt. Viles' aircraft was seen to stagger immediately after dropping torpedoes and then broke away to port. Nothing more was seen of Viles and he did not return to base. The other two aircraft returned safely. Weather was good, there being good visibility and very little cloud.

That night, five Wellingtons of No. 38 Squadron were briefed to search the sea area north of Tobruk. All crews did so but saw nothing except a tanker burning fiercely outside Tobruk harbour. The vessel was low in the water and the hull was red hot.

According to enemy records, at the time the Tergestea was sunk, the German Radar System (FREYA) did not pick up the approaching aircraft and darkness precluded any air protection being afforded the convoy.

A.H.B.6
Records.

From a P.O.W. report derives the story that Rommel together with other senior officers were on the cliffs at Tobruk watching the arrival of the tanker. This is certainly apocryphal as far as Rommel is concerned, since the Field Marshal had only arrived at the front the previous evening and the return journey to Tobruk would have entailed a round trip of some 600 miles. Nevertheless, the effect of the loss of the Proserpina and the Tergestea on the battle must have been very great indeed.(1)

On the evening of 26 October, Field Marshal Rommel sent the following report to the German War Ministry and the Italian Supreme Command:-

(a) Panzer Army is still engaged in very heavy and costly fighting. The climax of this operation does not appear to have been reached yet, as considerable forces of the British Eighth Army are still in the second line or on the way forward.

(b) Now that the Proserpina has been burnt off Tobruk, Panzer Army has petrol for only 2 or 3 days' current consumption. Therefore it is impossible, at present, to initiate mobile operations by the Panzer and motorised troops, although this is most urgently necessary. If every possible method is not used forthwith to send us petrol, there is no prospect of success.

Even the tactical disposition of the enemy C.-in-C.'s reserves was affected. The decision to move the 21st Panzer Division

Panzer-Armee
Afrika Supply
Messages.
AL 866

(1) 'The supply position was now approaching disaster. The tanker Proserpina, which we had hoped would bring some relief in the petrol situation, had been bombed and sunk outside Tobruk. There was only enough petrol left to keep supply traffic going between Tripoli and the front for another two or three days, and that without counting the needs of the motorised forces, which had to be met out of the same stocks.' 'The Rommel Papers'.

German Official
War Narrative.
AL 743.

Official German
War Narrative.
AL 743.

from the southern to the northern sector, on the night of 26/27 October, says the Official German Report, 'was all the harder to make because the scarcity of petrol would make any move of these reserves back to the southern sector impracticable, if the enemy should exert pressure there.'

(NOT known to E) 1703
The Eighth Army Commander's Decision to Regroup - 26 October

Cabinet Office
Narrative and
C.-in-C.'s
Despatch.

At 17.00 hours on 26 October, the Army Commander's conference was held at TAC/HQ, at which the Army Commander made the decision to regroup, in order to form a reserve for further offensive action. The intention was still to gain ground to the north of the Eighth Army's salient, but it was clear that XXX Corps needed a rest after its exertions. Casualties in infantry had been heavy and replacements were limited. The momentum of the attack was diminishing and by this, the third day of the offensive, X Corps had not managed to break out into open country. The area of break-in was still ringed by a strong anti-tank gun screen and attempts to pierce it had been unsuccessful. X Corps was therefore temporarily relieved of the responsibility for breaking out further and ordered to pass to the defensive, while XIII and XXX Corps reorganised.

In point of fact, the first phase of the battle of El Alamein - Operation 'Lightfoot' - had come to an end and another phase of reorganisation had to take place before Operation 'Supercharge' could be launched. It was during this period, when generally speaking the Eighth Army were forced temporarily to adopt a defensive policy that the Western Desert Air Force made its most outstanding contribution to the battle, by smashing a series of typical Rommel old-style armoured counter attacks. The air arm had again become the main offensive weapon. Also, at the beginning of this period, No. 201 Group made one of their greatest contributions to the battle by destroying the convoy comprising the Proserpina and Tergeste.

Rommel Concentrates his Armour and Mobile Reserves - 26 October

Cabinet Office
Narrative and
Afrika Korps
War Diary.

The day following his arrival in North Africa, Field Marshal Rommel began to try to make good General Stumme's initial mistake by concentrating his armour and mobile reserves in the northern sector. In the early afternoon of 26 October, the 90th Light Division was ordered forward to the position of Sidi Abd el Rahman, at 865308. At the same time, the 21st Panzer Division was ordered to move its northern Combat Group into the Northern sector to the area round and south of Tell el Aqqaqir. At 19.45 hours, Rommel sent a message from his Army H.Q. to the Chief of Staff of the Afrika Korps that the 21st Panzer Division (less one battalion and one anti-tank company) was to be ready to move off immediately, but that the Ariete was to remain in the southern area.

Move of 21st Panzer Division 'Badly Hampered by the Continual Bombing Attacks' by No. 205 Group Wellingtons

No. 205 Group
O.R.B.

No. 162 Squad-
ron O.R.B.

The briefing to the medium bombers, on the night of 26/27 October, was 'to destroy by bombing the concentration of enemy troops tanks and M.T. in the Battle Area, and to prevent the enemy concentrating still further.' By the fourth night of the battle, only 26 Wellingtons were available for operations in the battle area. They were drawn from Nos. 40, 104, 108 and 148 Squadrons, and were augmented by five of No. 162 Squadron which, in addition to carrying out their routine wireless jamming against enemy tanks, had also

obtained permission to join more actively in the battle and carry bombs. There were also six Albacores of No. 826 Squadron which dropped flares for the Wellingtons and bombed.

Squadron reports stated that good targets were illuminated by the Albacores; the weather was good and the opposition non-existent. Four direct hits were claimed and other bursts were seen among and close to vehicles. Five medium fires were started and one large one. Two aircraft strafed vehicles from 250 to 700 feet. Two particularly large explosions were noted, a white one at 23.25 hours among M.T. in the target area and a red one somewhere between Ghazal and Sidi Abd el Rahman.

There are interesting references to the night bombing in enemy documents(1) which show that the results achieved were much more effective than claimed at the time. Had a really heavy force of night bombers been available at this stage of the battle it might well have had a decisive effect.

'After 164th Light Division and 15th Panzer Division had been heavily attacked by bombers during the day,' says the Afrika Korps War Diary, 'from 22.30 hours to midnight heavy bombing raids were made on Battle H.Q. and on 21st. Panzer Division moving up into the northern area along XX Corps track.'

'The move of parts of the armoured divisions,' relates the Official German War Narrative, 'and the army artillery from the southern to the northern sector was badly hampered by the continual bombing attacks and could not be completed before morning.'

No. 104 Squadron
O.R.B. A further five Wellingtons of No. 104 Squadron attacked dispersed aircraft on L.G. 13, at Sidi Haneish, but with disappointing results. Two fires were started among huts to the north of the landing ground. One stick of bombs was seen to fall across aircraft pens and other bursts among aircraft.

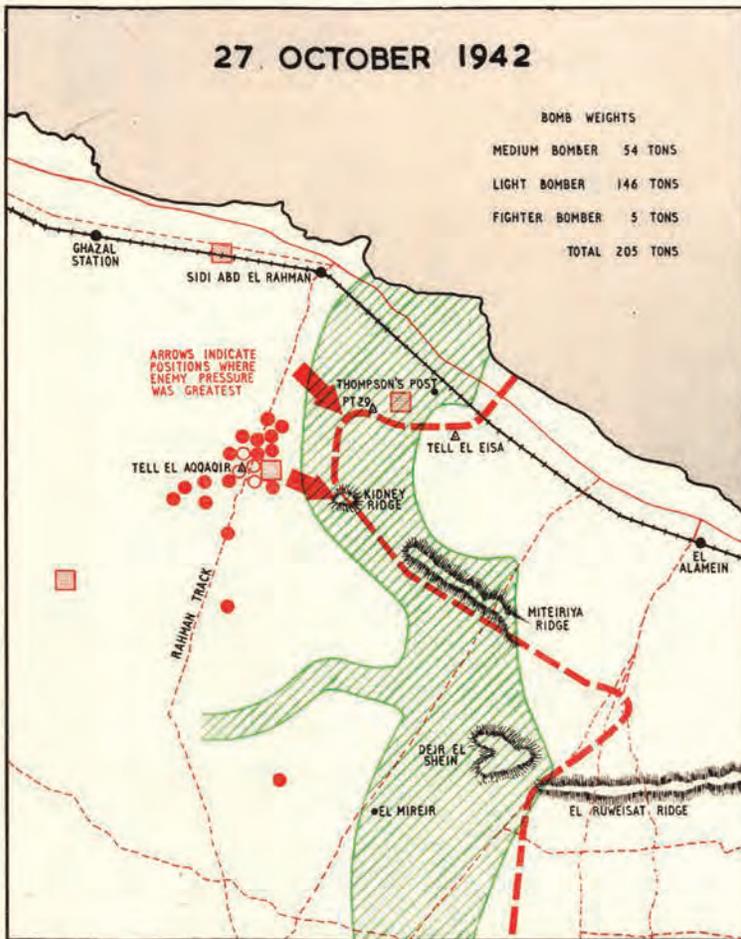
Activity of No. 73 Squadron Night - Flying Hurricanes - Night 26/27 October

No. 73 Squadron
O.R.B. Mention has already been made of the activities of Hurricanes of No. 73 Squadron, on the night of 26/27 October, when they attacked Ju. 87's in circuit over their home base. In the course of the night's operations, this squadron flew 23 sorties. Seven enemy aircraft were seen in the battle area and two were chased unsuccessfully. Tents and enemy vehicles were machine-gunned south of Ghazal and four patrols were made in an attempt to direct the Air/Sea Rescue Service to a pilot in the sea off Ras el Shagig.

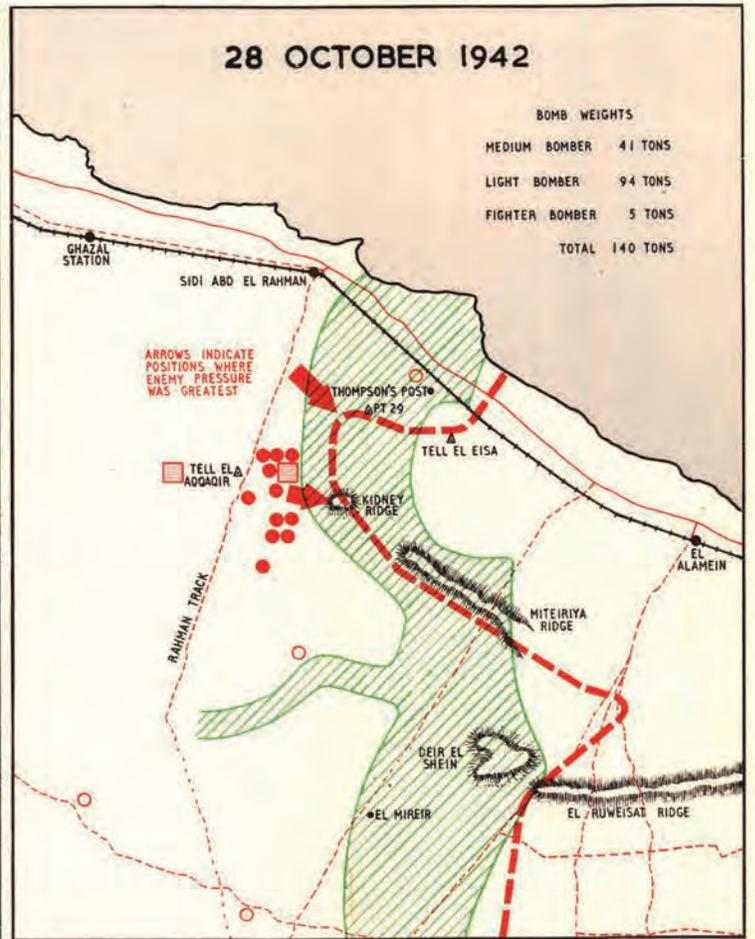
- (1) 'Relays of British bombers continued their attack throughout the night of the 26th. At about 02.00 hours a furious British barrage by guns of every calibre suddenly began in the northern sector. Soon it was impossible to distinguish between gun-fire and exploding shells and the sky grew bright with the glare of muzzle-flashes and shell-bursts. Continuous bombing attacks seriously delayed the approach march of the 21st. Panzer Division and a third of the Ariete.' 'The Rommel Papers'.

THE BATTLE OF EL ALAMEIN - TACTICAL BOMBING

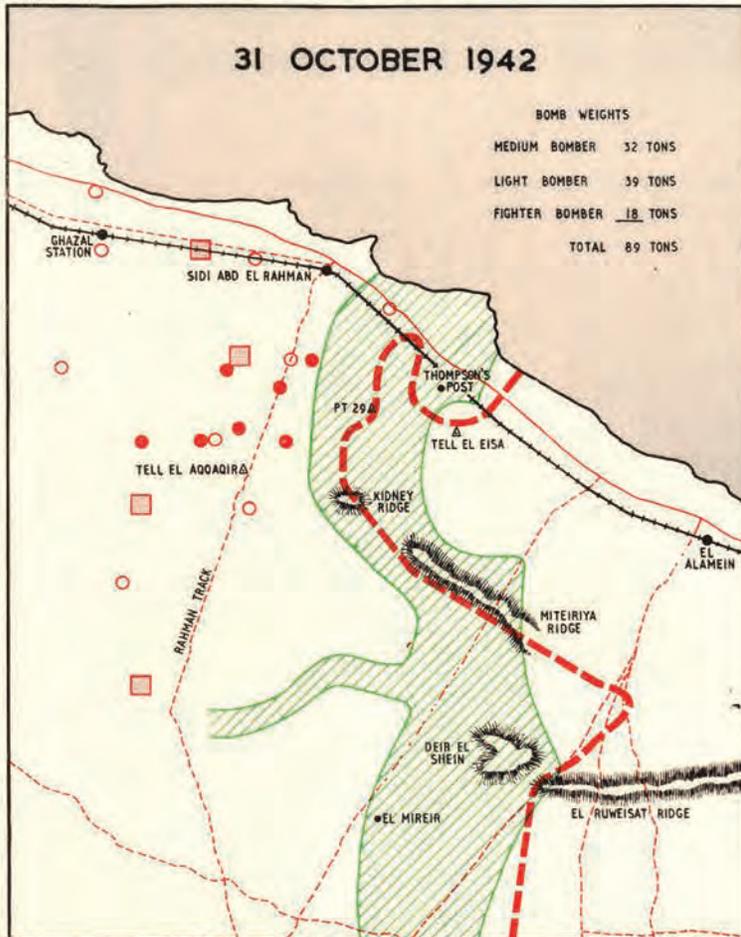
27 OCTOBER 1942



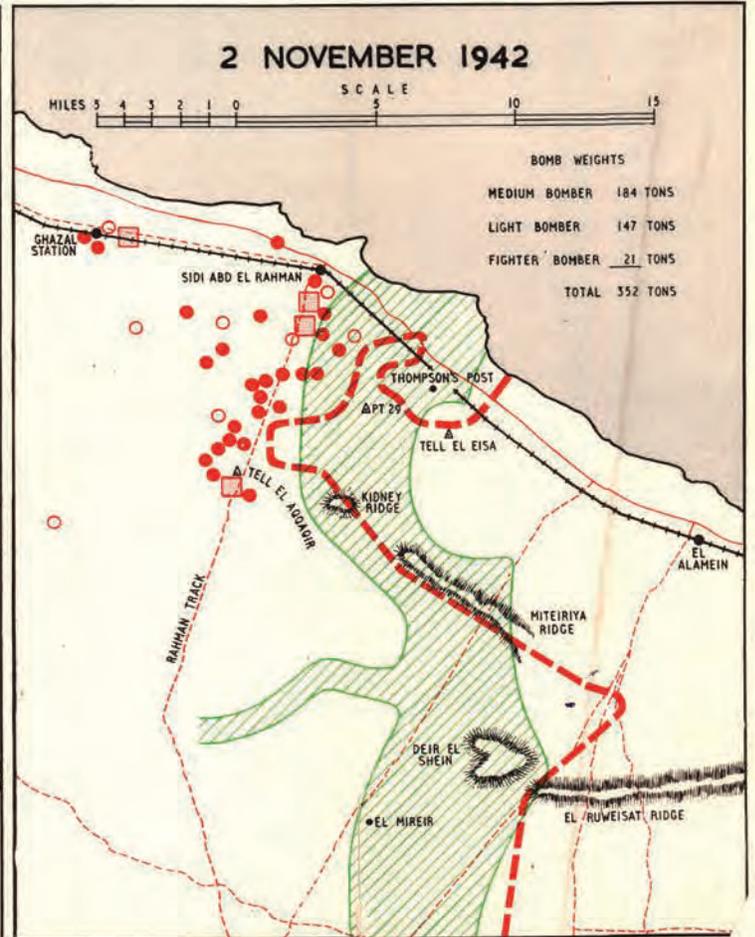
28 OCTOBER 1942



31 OCTOBER 1942



2 NOVEMBER 1942



Ground Operations Night 26/27 October

Preparatory to the reorganisation, it was found necessary to strengthen and round off the front. On the night of 26/27 October, 1st South African Division and 2nd New Zealand Division advanced about 1,000 yards, thus gaining more depth in front of the Miteiriya Ridge. At the same time, the 7th Motor Brigade, after a stiff fight, advanced down the northern corridor and captured Kidney Ridge (1) a strongly-fortified rise in the ground on the far edge of the enemy minefield. This was the position that held up the 1st Armoured Division on the previous night; now it was to form the key to the Eighth Army's defensive front.

C.-in-C.'s
Despatch and
'El Alamein
to the Sangro'

Dawn Tac/R by No. 208 Squadron Locates the Main Enemy Tank Concentration - 27 October

The task set the first-light Tac/R of No. 208 Squadron on 27 October by XXX Corps was 'to check up on any signs of coming counter-attack, or movement of known concentrations in Squares 8630, 8629, 8628.' This dawn reconnaissance reported a concentration of some 1,000 M.T. in Squares 8629 and 8529. It was from this area that Rommel's main armoured attack originated and against which almost the whole of the day's air effort was directed, with outstandingly good results.

Main H.Q. Eighth
Army War Diary.

No. 208
Squadron O.R.B.

Concentrated Bombing Attacks Against the 15th and 21st Panzer Divisions - 27 October

The full effects of Rommel's leadership were felt on 27 October when, with the move north of the 21st Panzer Division by forced marches from the south, during the night of 26/27 October, the German mobile spearhead was again united. A big armoured counter-attack was launched in the old style and presenting a series of splendid targets for the light bombers. The attacks were made with all available tanks - both German and Italian - against the Kidney Ridge area and were repulsed by 1st Armoured Division who inflicted heavy and, worse still, disproportionate losses on the enemy, for the Eighth Army tanks - fighting on the defensive - suffered but lightly.

Hist. (B)
Crusader (5)

No. 2 Air
Support War
Diary.

Main Eighth
Army War Diary.

The air policy laid down for the day was to attack the 15th Panzer Division and the 90th Light Division - the presence of the 21st Panzer Division was not confirmed until later in the day - wherever the best targets were located, which proved to be the Tell el Aqqaqir area, in the sector newly taken over by the 21st Panzer Division. An early fighter-bomber sortie by No. 2 Squadron S.A.A.F., on an armed reconnaissance, located the first good target and subsequently a total of nearly 200 light bombers attacked targets in the same area, mostly within 3,000 yards of the Eighth Army's forward positions, using the Sidi Abd el Rahman track as a landmark. The enemy made many attempts, with small parties of tanks, to get back the strong points in the Kidney Ridge area and in the late afternoon a heavy attack was repulsed with heavy losses. All these attacks developed from the direction of Tell el Aqqaqir, which was the main centre of the day's bombing. Forward units of the Eighth Army reported enthusiastically on the effects of the bombing.

(1) This was disputed by 51st Division the next day.

Official German
Narrative
AL 743.

The heaviest and most concentrated bombing of the day took place in the late afternoon, when Rommel had intended to mount 'a counter attack in the northern sector with the greater part of the armoured and motorised formations, supported by all the Army, A.A. and divisional artillery and by the Luftwaffe. This was intended to throw the enemy out of Minefields J and L, to regain possession of the lost main defence line and minefields and to reorganise the defence behind this line.' Within 3 hours, a total of 90 Bostons, Baltimores and Mitchells of Nos. 12, 21 and 24 S.A.A.F., 55, 223 and 82 U.S.A.A.F. Squadrons dropped over 500 x 250 lb. bombs.

No. 2 Air
Support Control
War Diary.

Air Support Control reported a high degree of efficiency in air support technique, targets being submitted from Army sources in an average time of under two minutes from the time of origin to receipt in control.

Rommel's Full-Scale Armoured Counter-Attack on 27 October a Failure.

At 15.00 hours the Panzer Army went into action. This was to be Rommel's major attack in the old style, supported by artillery, anti-aircraft and Stukas. In addition to having had their assembly areas heavily bombed, the pre-arranged dive-bomber raid was completely disorganised by U.S.A.A.F. Warhawks of Nos. 64 and 65 Squadrons. These aircraft - 16 in all, and of which 8 were carrying 500 lb. bombs - were on their way to bomb enemy landing-grounds at Daba, when they saw a strong force of some 20 Ju. 87's and 20 Cr. 42's, escorted by a score of Me., 109s. The Warhawks dropped their bombs on L.Gs 20 and 104 and gave chase, claiming three Me. 109's and three Cr. 42's shot down. This same formation was again intercepted by 12 Hurricanes of No. 213 Squadron and 12 of No. 33 Squadron who claimed as destroyed a further two Ju. 87's, four Cr. 42's and three Me. 109's, for the loss of three Hurricanes. This was the enemy's main air operation on 27 October and on which, because of its size and its close timing with Rommel's counter-offensive in the afternoon, a great deal of importance was based. It is significant that, by this early stage in the battle, the pattern of the dive-bombing attack which preceded the full-scale armoured thrust and which had proved so successful in the past, had been completely broken.

A.A.H.Q.W.D.
Daily
Intelligence
Summary.

H.Q.M.E.
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A.H.B./ILJ1/31
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Official German
War Narrative.
AL 743.

A.H.B. 6
Records.

The enemy reported that their own air activity was very cramped by the W.D.A.F.'s great fighter superiority. There were as many as 100 Desert Air Force fighters opposing them in the air at one time. They claimed 10 aircraft shot down in battles with German fighters, but actually there were only four. The R.A.F. claimed seven Me. 109's, seven Cr. 42's and two Ju. 87 destroyed. German records show the loss of three S.E. fighters and one dive-bomber. Italian losses are not known.

Raids Against Enemy Forward Landing Grounds - 27 October

In addition to concentrated close-support attacks in the battle area, further raids were made against the enemy landing grounds. To divert attention from a raid on Matruh, 12 Baltimores of No. 55 Squadron dropped 102 x 250 lb. bombs along the southern edge of L.G. 18. The attack on Matruh was made by eight Baltimores of No. 223 Squadron, four B. 25 Mitchells of No. 434 Squadron U.S.A.A.F. and six B. 25's of No. 82 Squadron U.S.A.A.F. No. 223 Squadron bombed the quayside and roads while Nos. 434 and 82 Squadrons bombed the

Squadron O.R.B.s
and A.A. H.Q.W.D.
Daily Intelligence
Summaries.

railway station. Another attack was carried out against landing-ground 104, to the west of Daba, by 12 Baltimores of No. 223 Squadron and six B.25's of No. 83 Squadron U.S.A.A.F., scoring direct hits on tents and camps and near-misses on aircraft. A large explosion was noted after the aircraft had left the area. Other attacks against L.G.s 17, 18 and 68 at Fuka were carried out by Kittybombers and Warhawks with good results.

From dusk on 26 October to dusk on 27 October, a total weight of 250 tons of bombs was dropped on the enemy of which 205 tons was against close-support targets and 45 tons against landing-grounds. This was easily the biggest scale of attack against enemy landing-grounds for this 'Lightfoot' phase of the battle.

H.Q.M.E.
Table of
Operations.
A.H.B./IIJ1/31/
1.

Enemy Reports on the Failure of 21st Panzer Division's
Counter Attack - 27 October

At 19.50 hours, the Afrika Korps Commander reported to Rommel that the 21st Panzer Division attack had not come up to expectation. The Commander-in-Chief then issued the order to hold the positions which had been reached, deploy for defence and close the existing gaps in the minefields by fire. Rommel pointed out that the primary task must be to prevent the Eighth Army breaking through in strength, but that infiltration by minor elements presented no danger.

Afrika Korps
War Diary.

By this stage in the battle, the 15th Panzer Division may be considered as almost completely out of action, as it had lost two-thirds of its tanks. The enemy losses in men and equipment were still very heavy. Because of this and also because of the high sickness rate and the very meagre recent supply of reinforcements, the German units were very low in strength. For instance the III Bn. 382nd Regiment consisted of only one officer and ten other ranks; the III Bn. 115th Regiment of the 15th Panzer Division of three officers and forty other ranks and 62nd Infantry Regiment of Trento Division 150 men. According to this situation report, the 21st Panzer Division had suffered least and the artillery of all three divisions was still almost entirely intact.

Official German
War Narrative.

The Panzer Army's Situation 'Grave in the Extreme' -
27 October

By the fourth day of the battle, the enemy Commander-in-Chief was faced with a very critical situation. The petrol position had deteriorated still further owing to the fact that only 70 tons had been flown across on the 26th and because of 21st Panzer Division's move to the northern sector. Early on the 27th the 15th Panzer Division had only 0.6 of a consumption unit and the 21st Panzer Division 1 consumption unit. The C.-in-C. South was requested to put all air transport on to the carrying of petrol until further notice. Towards evening, the reply was received that until the next tanker's arrival about 300 - 400 tons of petrol would be flown over daily for the Panzer Army. The shortage of ammunition was also very acute. Supplies held in Tripoli could not be brought forward 'because of the serious coastal shipping situation.'

Q
not a tanker
in E

'In general,' says the German report, 'the enemy grouping was unchanged. Air reconnaissance confirmed the impression of a change-over from the southern to the northern sector and of the location of the main point of attack in the northern sector.'

Official German
War Narrative.
AL 743.

The Army was engaged day and night in ceaseless heavy fighting and had, in consequence, lost heavily. Despite more defensive successes during the day, Army's situation was grave in the extreme. The enemy's superiority in air power, tanks, artillery and ammunition was so great that it was doubtful whether the German and Italian troops, with insufficient supplies, could stand up to a prolongation of the battle..... If the enemy, to whom our supply difficulties were known, were to continue his attrition tactics any longer, the army - at present immobile - would be destroyed piecemeal. If it was to hold out any longer immediate and enormous supplies of petrol and ammunition were necessary. For this Army must demand, besides the use of all the air transport available, also temporary control of the Italian civil supply shipping..... The Commander-in-Chief South (F/M Kesselring) was also requested, in view of the unusual gravity of the situation, to make all possible use of air power available to prevent an enemy break-through on the northern flank of the Alamein front.'

Medium Bomber Operations Night 27/28 October Directed Against Northern Sector

'During the night,' says the enemy report, 'the enemy made his main point of attack more obvious by continuing his air and ground attacks almost exclusively in the northern sector.'

No. 205 Group
O.R.B.

No. 205 Group pursued their policy of exerting the main pressure of the night bombing on close-support targets in the battle area 'to prevent enemy concentrations concentrating still further.' A total of 67 aircraft operated. Attacks on the enemy in the battle area were made by 28 Wellingtons of Nos. 40, 104, 108 and 148 Squadrons which scored direct hits on enemy transport, and also many near misses, starting at least 8 fires. Six Albacores of No. 826 Squadron dropped flares for the Wellingtons in Square 8529 and also bombed, starting one large and one small fire. On the whole, targets were reported as being well-dispersed. A further five Wellingtons of No. 162 Squadron carried out their wireless jamming over the battle area and, in addition to this task, also dropped bombs in the northern sector.

No. 205 Group
C.R.B.,
Squadron
O.R.B.s and
Table of
Operations.

A special operation was carried out by five Wellingtons of Nos. 104 and 108 Squadrons against L.G. 13, at Sidi Haneish, which had been in use as a Stuka base. Delay action bombs were dropped (1 x 1 hour, 1 x 2 hour, 1 x 3 hour, 2 x 6 hour and 1 x 12 hour), bursts were scored among dispersed aircraft and a number of huts were set on fire. Similar attacks were also carried out by a total of 13 heavy bombers (6 Liberators and 7 Halifaxes) against Maleme airfield, Crete. At least 11 good fires were started, some of which were visible 30 miles to the south of the island. Throughout the night, 10 Hurricanes of No. 73 Squadron operated singly over the battle area and carried out intruder patrols over Sidi Haneish, when one Ju. 88 was destroyed.

Eighth Army Reorganisation Continues for Operation 'Supercharge' - Night 27/28 October

During the night 27/28 October, the Eighth Army continued with the reorganisation of their forces for Operation 'Supercharge' which was the code name for the new Army plan to break through the enemy's defensive position. Operation

Hist. (B)
(Crusader) 5.
C.S. 1689.

'Supercharge' was to be on the same lines as the opening offensive, Operation 'Lightfoot', with artillery bombardments followed by a barrage, and infantry to clear a way through minefields for tanks. As will be seen, however, plans were made in advance for air support to be given to the offensive, by both night and day bombers, on a scale hitherto unprecedented in North Africa.

In the course of this reorganisation, XXX Corps asked for fighter cover for the move of 4th Indian Division to take over from the South African Division. 'This,' commented the Air Support Control War Diary, with a touch of asperity, 'although six divisions, including two armoured divisions, have been concentrated in an area five miles by five for three days with complete immunity from air attack.'

Rommel's Large-Scale, 'Old Style' Armoured Counter Attack
Smashed by R.A.F. Bombing - 28 October

No. 2 Air
Support Control
War Diary and
No. 208
Squadron O.R.B.

The morning of 28 October - the fifth day of the battle of El Alamein - produced little information of concentrations of enemy M.T. Accordingly, at 11.00 hours a special Tac/R was flown by an aircraft of No. 208 Squadron mainly at zero feet and it reported some 4,000 M.T. and 35 tanks dug in very deeply at the north end of the Rahman track. According to Eighth Army sources this Tac/R flight 'brought back extremely accurate information of enemy concentrations' from which it was possible to deduce the fact that a big tank attack would obviously build up during the afternoon.

During the morning, whilst the enemy were dispersed and there was a dearth of suitable targets for the light bombers, highly successful attacks were carried out against the enemy's forward landing-grounds. Later, when it was realised that the enemy were building up for a large-scale counter attack, the policy was laid down for all the main bombing effort to be concentrated on the area in front of 10th Armoured Division salient. General Alexander's personal despatch to the Prime Minister is worth quoting at some length on the subject of the Panzer Army counter-attack which was planned for the afternoon of 28 October and which may be regarded as the turning point of the battle:-

Hist. (B)
(Crusader)
5. From
General
Alexander to
Prime Minister.
C.S. 1689.

'On 28 October (the enemy) came again. It was fought as an attack in the old African style, with a prolonged and careful reconnaissance all the morning to find the weak spots and locate our anti-tank guns, followed by a smashing concentrated attack, in the afternoon, with the setting sun behind him. The reconnaissance was less successful than in the old days, since both our tanks and anti-tank guns could engage him westward (at) longer range. When the enemy attempted to concentrate for the final attack, the R.A.F. once more intervened on a devastating scale. In two and a half hours, seven light bomber formations dropped 80 tons of bombs in his concentration area, measuring 3 miles by 2, and the enemy's attack was defeated before he could even complete his forming up.'

Main H.Q.
Eighth Army
War Diary.
Sheet No. 495.

A number of enthusiastic messages about the bombing were received from Army formations. Appreciation was also expressed by the 2nd Armoured Brigade that the German 88 mm. guns were revealing their positions by opening up on the aircraft. 'These Army messages are most encouraging' says an entry in No. 250 Squadron O.R.B.,

No. 250 Squadron
O.R.B.

'as the pilots sometimes feel that the target given is not very profitable.' The No. 2 Air Support Control War Diary pointed out that 'two of the afternoon raids were notable for their size. They consisted of 36 Baltimores, Bostons or B. 25's, and some 200,000 lb. of bombs were dropped in a small area in 2½ hours, within 2,000 yards of the forward troops, the Rahman track being a very good landmark.'

A.A.H.Q.W.D.
War Diary.
A.H.B./IIJ1/
122/1.

In the course of the day, the light bombers made 144 sorties and dropped 839 x 250 lb. bombs. (1) Fighter bombers found their most productive targets in the southern sector where they carried out five raids in which, after dropping their bombs, they machine-gunned from a low level, direct hits being scored on armoured cars, ammunition lorries and a W/T trailer. One of these attacks in the southern sector was carried out by No. 335 Hellenic Squadron, their objective being 'a suspected Italian H.Q., it being the second anniversary of Italy's attack on Greece' and 8 vehicles were set on fire. A further successful attack, in the southern sector, was made by six 'Tankbuster' Hurricane IID aircraft of No. 6 Squadron against an isolated enemy unit. They scored hits on two Mk. III tanks, seven lorries, two half-tracked vehicles and a wireless truck. There were three good fires burning, when the aircraft left the area.

No. 6 Squadron
O.R.B.

H.Q. Middle
East Table of
Operations.
A.H.B./IIJ1/31
/1.

During the night 27/28 October and the day 28 October, a total weight of 164 tons of bombs was dropped on targets in the battle area and on enemy forward landing-grounds. There were 139 tons on close-support targets and 25 tons on landing-grounds. The total of the day's sorties amounted to 742.

German Official
War Narrative.
AL 743.

'The enemy air activity,' says the Official German War Narrative, 'still increasing in comparison with previous days, was again directed against the front-line troops in the Northern sector. One division was attacked three times in ¼ hour by 18 heavy bombers. During the day, 11 heavy bombing attacks were carried out on 21st Panzer Division's area. In the Southern sector, the enemy's so-called "Tank busters" (single-engined fighters with 4 cm. cannon) attacked our armoured reconnaissance troops at various times. 33 Recce Unit reported that during the last six days it had lost 18 armoured cars through enemy fighter action.'

The report continues:

'Our own air force, as on previous days, supported the defence by bold raids with all available forces; but it was much too weak numerically to bring any relief to the troops, who were suffering severely under the vast English air superiority. Army therefore requested the C.-in-C. South to reinforce the air strength, especially with fighters.'

-
- (1) 28 October. 'As on the previous days, ceaseless bombing attacks hammered down on the German-Italian forces. The Luftwaffe tried all it could to help us, but could achieve little or nothing against the tremendous numerical superiority of the enemy.' 'The Rommel Papers'.

The Sinking of the Enemy Tanker Luisiano (2,550 tons) -
Night 28/29 October

A.H.B. 6.
Records.

On 28 October, another severe blow was dealt the enemy's already sufficiently precarious petrol position, by the sinking by Malta-based aircraft of No. 69 Squadron of the 2,550 ton tanker, Luisiano, carrying 1,500 tons of petrol to the German-Italian Panzer Army. (1) It was a superbly economical action, as only two torpedo Wellingtons were used on the strike, a third having experienced engine trouble being forced to return to base.

No. 69 Squadron
O.R.B., H.Q.M.E.
Table of Operations
and A.H.Q.
Malta War Diary

The initial sighting of the enemy convoy, consisting of one M.V., one tanker and two destroyers, off the Greek coast on 27 October was made by a Baltimore. At 19.18 hours and 19.20 hours on 28 October, Wellington aircraft 'X' piloted by Pilot Officer Matthews and Wellington 'W', piloted by Pilot Officer Donkersley of No. 69 Squadron were airborne from Luqa in search of the convoy. It was not until approximately three hours later that the convoy was located some 23 miles south west of Sapienza, approximately 400 miles from base. The first aircraft to arrive - Wellington 'X' - attacked the M.V. from 1,000 yds, whereupon there was an explosion and a column of white smoke. Twenty minutes later, Wellington 'W' arrived on the scene and located a destroyer, the tanker and then another destroyer in line astern. The aircraft dropped a torpedo on its second run, at an estimated distance of between 6 and 800 yards, scoring a direct hit amidships on the tanker which immediately burst into flames. Both Pilot Officers Donkersley and Matthews were awarded the D.F.C.

German-Italian
Forces in
Africa. A.L.
743.

The Panzer Army was now caught up in an unparalleled crisis of supplies. No further seaborne supplies of petrol could be counted on before the 31st. Certainly 300 tons had arrived at Benghazi on the steamer Morandi, but as a thousand mile journey was involved in transporting it to the front line, not only would part of it be used up on the journey, but it would not arrive for about a week. 'The petrol situation,' says an enemy report, 'which now (on 28 October) amounted to 1.3 consumption units, would necessarily sink to a minimum in a very short time. This would mean that the Army would be immobilised and would be cut to pieces little by little by the enemy's vastly superior air and artillery power.'

Panic measures advocated the next day in Rome to alleviate the supply crisis was for the use of 8-10 submarines to carry ammunition, the use of all possible Italian transport aircraft, including civilian transport lines and the transfer of another German transport Group from the Western

(1) 'AT about half-past eleven (29 Oct.) I received the shattering news that the tanker Luisiano, which had been sent as a replacement for the Proserpina, had been sunk by an aerial torpedo. Now we really were up against it. The ill-humour in which this news left me vented itself on the head of General Barbassetti, who arrived at my H.Q. shortly afterwards to represent Marshal Cavallero, who was detained in Rome. What riled me most was that heavily armed Italian auxiliary cruisers and other vessels, carrying cargoes intended for the front, were still being sent to Benghazi in order to keep them out of range of the torpedo-carrying British aircraft.'

bound paper?

front to Italy. Moreover, the day after the sinking of the Luisiano, the German G.O.C. Rome sent to the Combined H.Q. of the Armed Forces Operational Staff the following despondent report:-

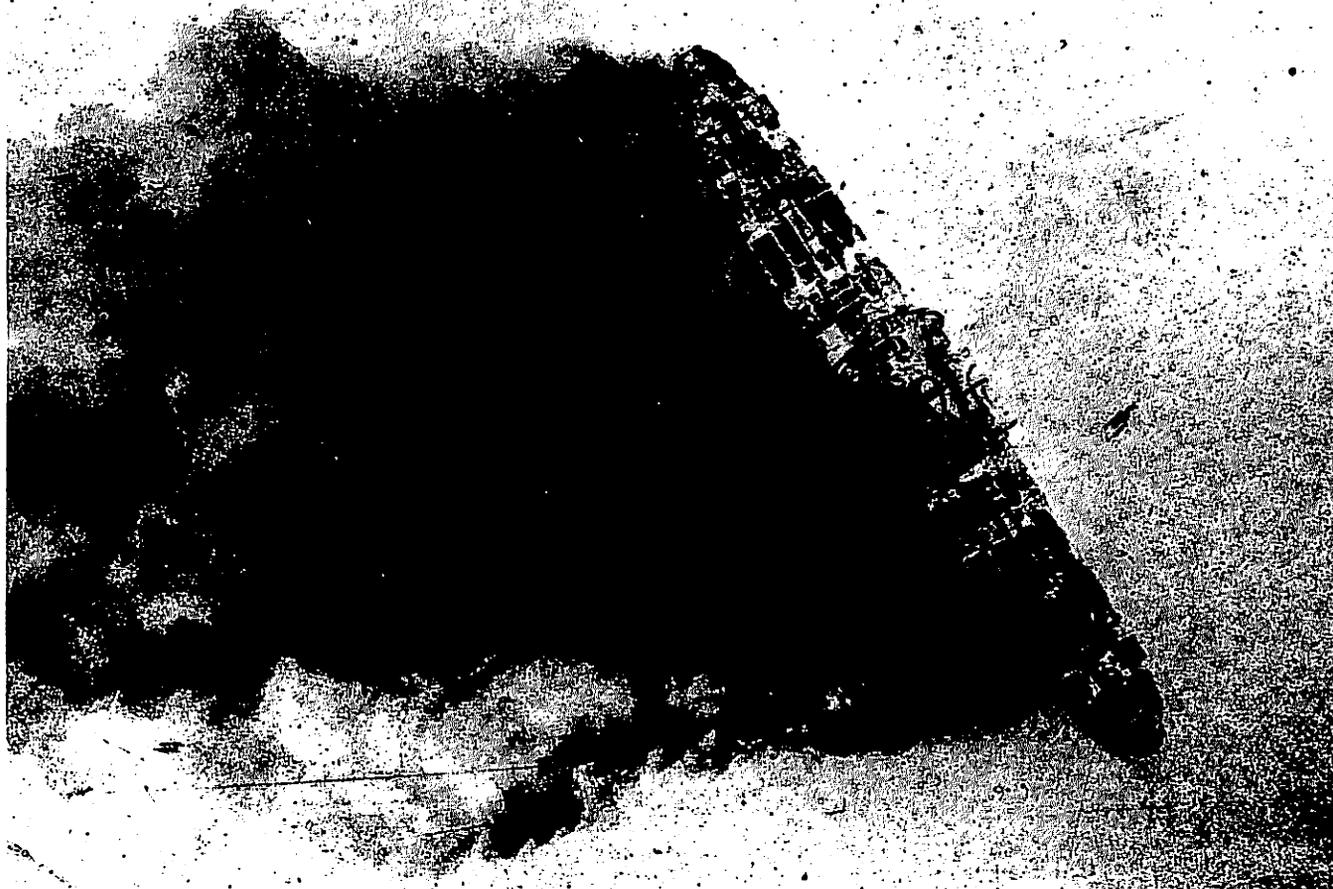
'Since we have been unable to dominate Malta permanently, sinkings have risen sharply, escort strength has become small and shipping space still smaller, and therefore a complete alleviation of the supply position and an end of the petrol crisis are not to be expected. The ammunition situation will deteriorate because of the difficulty of transporting it and the high rate of expenditure necessitated by the tactical situation; it may even become critical. As regards supply, shortages of some individual articles may arise by the middle of November. If we do not succeed in rectifying this position, making convoys perfectly safe from air attack and permanently dominating Malta, no measures will suffice in the long run to keep up the Panzer Army's supply position, let alone to transport material to reinforce the Army. During the last 3 months the transport losses have amounted to 40,000 tons monthly, even higher in October. If losses continue at this rate, there will soon not be enough cargo space available. The use of warships to protect convoys is limited by the shortage of fuel oil; their use as supply transport is limited for the same reason, and alone cannot ensure the supplying of so large an army. Real help can be obtained by continually reinforcing the sea transport with air transport.'

Wide Dispersal of Enemy M.T. Provides Poor Targets for Night Bombers - 28/29 October

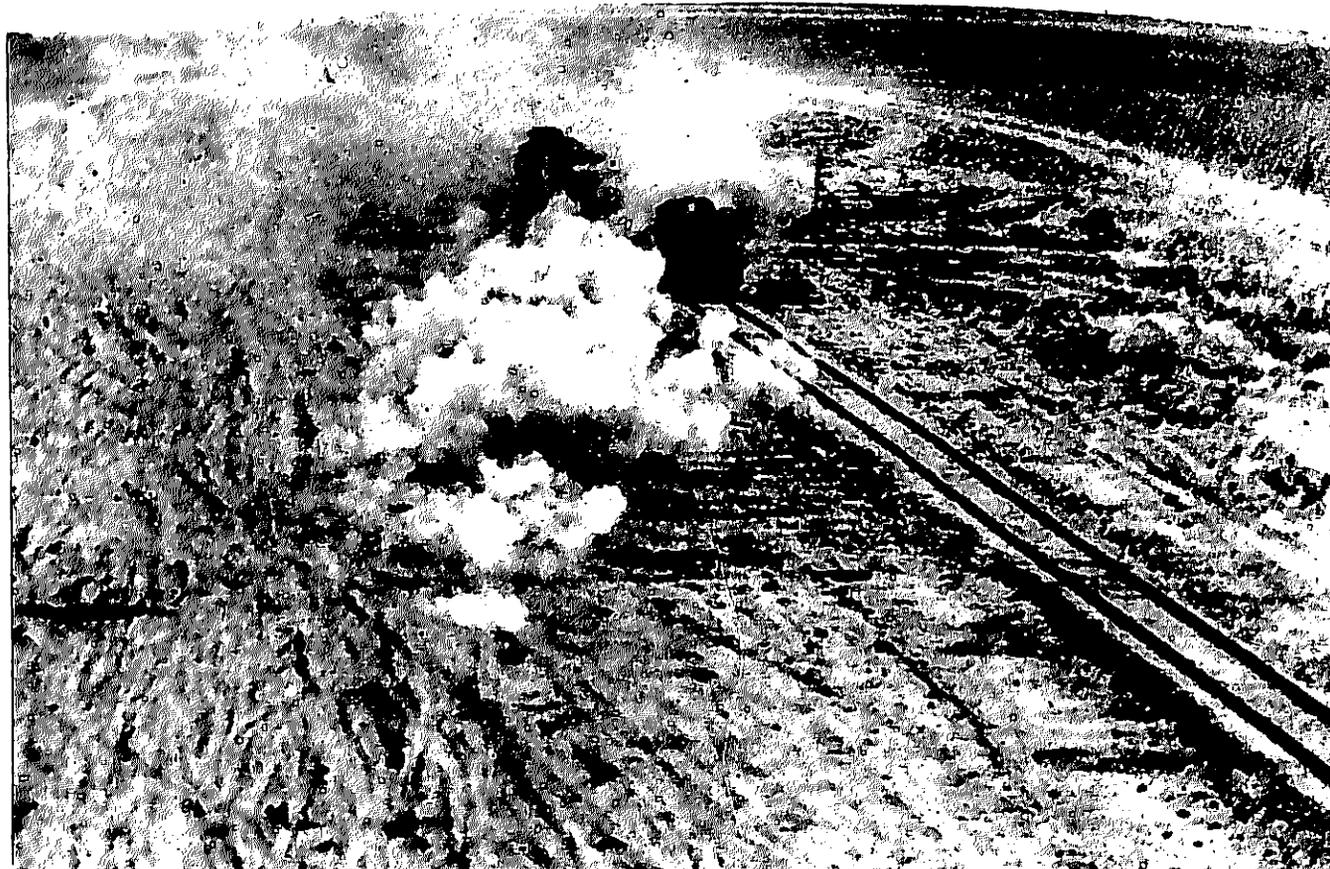
During the night 28/29 October, a total of 29 Wellingtons of Nos. 37, 40, 70 and 104 Squadrons, aided by F.A.A. Albacores, attacked targets in the battle area. Weather was good, opposition was negligible and the target area was well-illuminated. Nevertheless, according to the reports brought back, the night's operations were considered to have been disappointing. (1) No big concentrations of enemy vehicles were seen in the target area and on the whole the enemy appeared to be following a policy of wide dispersal, especially in the north. A number of direct hits were scored and about a dozen fires started. A direct hit was also scored on an enemy aircraft. In addition to jamming operations, special Wellingtons also bombed enemy gun positions. A further six Wellingtons of Nos. 148 and 162 Squadrons attacked L.G. 13, at Sidi Haneish, starting two fires on the landing ground. No. 73 Squadron put up 10 Hurricanes which operated singly over the battle area throughout the night, or carried out intruder patrols over

No. 205 Group
and Squadron
O.R.B.s.

(1) 'Army H.Q. had meanwhile been moved farther to the west. I spent the whole of that night 28/29 October with a number of my officers and men on the coast road roughly in line with the old H.Q. site, from where we could see the flash of bursting shells in the darkness and hear the rolling thunder of the battle. Again and again British bomber formations flew up and tipped their death-dealing loads on my troops, or bathed the country in the brilliant light of parachute flares.' 'The Rommel Papers.'



Sinking of one of Rommel's supply ships by Malta-based
Beauforts and Beaufighters



Attack on a train between Sidi Barrani and Matruh

the enemy Stuka bases, shooting down one Ju. 87. A total of 54 tons of bombs was dropped in the battle area and a further 5 tons on landing-grounds.

Attack by the 9th Australian Division Night 28/29 October:
the 'Cocked-Thumb' Salient

During the night 28/29 October, began the first preparatory action for Operation 'Supercharge.' The 9th Australian Division attacked northwards, at 22.00 hours and made good progress. A narrow wedge was driven into the enemy's positions, reaching almost to the road between Sidi Abd el Rahman and Tell el Eisa. The result was a small salient which was described as sticking out like a 'cocked thumb' from the north side of the Eighth Army's original salient and extending nearly to the coast road. This almost encircled the II Bn. 125th Regiment of the 164th Light Division who held a very well-defended collection of strongpoints just to the north-west of Tell el Eisa, known as 'Thompson's Post', and which was the bastion of the enemy's coastal salient.

C.-in-C.'s
Despatch and
'El Alamein to
the Sangro.'

High Level of Fighter-Bomber Activity - 29 October

Early on the morning of 29 October, the air policy was laid down on the following lines:-

Owing to the postponement of a resumption of the Australian Division attack, until the night of 30/31 October, it was planned to concentrate the main air effort on the Panzer Divisions and the 90th Light Division.

During the morning, however, owing to the lack of worthwhile targets in the battle area, due to the wide dispersal of their A.F.Vs and M.T. pursued by the enemy, the greater part of the air effort was diverted to attacks on landing-grounds. There were no calls made on the light bombers until the afternoon which gave the ground crews a valuable opportunity for servicing their aircraft.

No. 12 S.A.A.F.
Squadron O.R.B.

The first fighter-bomber raid was made by 12 Kittyhawks of No. 450 Squadron, each carrying one 500 lb. bomb, with 12 Kittyhawks of No. 3 Squadron R.A.A.F. as cover. They bombed and machine-gunned a Ju. 52 and M.T. in the southern sector, a little to the north-east of Gebel Kalakh. Ghazal Station was the next target for eight Kittyhawks of No. 4 Squadron S.A.A.F., carrying 3 x 500 and 5 x 250 lb. bombs, with 12 Tomahawks of No. 5 S.A.A.F. as escort. Between 10.15 and 11.40 hours, 12 Kittyhawks of No. 112 Squadron, carrying 12 x 500 lb. bombs, attacked enemy forward landing-grounds (Nos. 20 and 104) to the west of Daba, along the main road. Bombs fell among dispersed aircraft, resulting in a large explosion, and also among tents on the camp. At much the same time, eight Warhawks of No. 64 Squadron U.S.A.A.F., carrying 500 lb. bombs, with 10 Warhawks of No. 65 Squadron as cover, bombed L.G. 20 without observed result. The next raid by 12 Hurricanes of No. 274 Squadron, carrying a total of 24 x 250 lb. bombs, escorted by 12 Hurricanes of No. 335 Hellenic Squadron, bombed a concentration of M.T. at Map Reference 862303, in the Tell el Agqaqir area. Both the bombers and their escort were attacked by enemy fighters which affected bomb-aiming to such an extent that the raid was considered a total failure. A further raid on L.G. 22, at Daba and also on the station was made by 12 Kittybombers of No. 260 Squadron. Another enemy fighter patrol intercepted this formation, shooting down one of the escorting aircraft.

A.A.H.Q.W.D.
Daily Int. Sums
and Squadron
O.R.B.s.

(84234)337

SECRET

Main H.Q.
Eighth Army's
War Diary.

At mid-day, a special Tac/R sortie was flown for bomber targets. No great changes of disposition were reported. Later, however, at 13.15 hours, a report was received at Air Support Control that 'enemy troops now concentrating' and a message was passed from Advanced Air Headquarters Western Desert to Nos. 211 Group, 232 Wing and 3 Wing S.A.A.F. that the bomber programme was in force from 13.30 hours.

The first rendezvous for the light bombers was put into operation immediately and 12 Baltimores of No. 223 Squadron and six B.25's of No. 82 Squadron U.S.A.A.F. attacked what was believed to be 15th Panzer Division's Headquarters, in the northern sector, near the coast road. The next raid, half an hour later, was made by 12 Baltimores of No. 55 Squadron and six B.25's of No. 83 Squadron U.S.A.A.F. which bombed tanks and M.T. near the Rahman track, in the Tell el Aggaqir area, with 120 x 250 lb. bombs. The heavy anti-aircraft gunfire was intense and accurate and two-thirds of the bombers were damaged, 4 of them severely. A number of fires and direct hits were reported as a result of these two raids. The next raid by 18 Bostons of No. 24 Squadron S.A.A.F. was directed against dispersed aircraft on L.G. 21, scoring two probable direct hits and a number of near misses. Again the heavy A.A. gunfire was intense and accurate and a further four bombers were damaged. The next raid by 12 Bostons of No. 12 S.A.A.F. and 6 Baltimores of No. 21 S.A.A.F. Squadron was easily the most successful of the day and the bombing was considered excellent. The attack was directed against 3/400 well-dispersed M.T., with tanks, stationary at Tell el Aggaqir, when 84 x 250 lb. bombs were dropped from 7,800 feet. Four fires and two with large columns of black smoke were started. Intense and accurate heavy A.A. gunfire was again encountered and five more light bombers were holed. The last light-bomber raid of the day was directed against L.G. 104 and the railway which was hit four times, and a fire was caused among aircraft in the dispersal area. During this raid, four more light bombers were damaged by A.A. gunfire, making a total of 25 spread over the five raids.

Squadron O.R.B.
and Daily
Intelligence
Summaries.

The day's light-bomber operations proved once again that, until the enemy were forced to concentrate - either for defence, or in order to launch a counter-attack - suitable targets were not provided for the light bombers, and also that when ground operations were static the enemy's anti-aircraft gunfire could cause a high proportion of damaged aircraft among the attacking bombers - in this case nearly 30 per cent. Such conditions certainly favoured the use of fighter bombers, and for the first time in the battle the number of fighter-bomber sorties exceeded those made by the light bombers.

H.Q. Middle
East Table of
Operations.

Attacks in the Enemy's Rear Areas by Long-Range Kittyhawks of No. 250 Squadron

An interesting and highly successful operation was carried out by 12 long-range Kittyhawks of No. 250 Squadron during the afternoon of 29 October. (1) They divided into

- (1) 'The front continued comparatively quiet except for heavy artillery fire and air attacks hammering at our northern sector. That day the R.A.F. concentrated their attack on the coast road, where many of our vehicles were shot up by low-flying aircraft.' 'The Rommel Papers',

No. 250 Squadron
O.R.B.

two sixes, one of which was led to Matruh junction where a goods train, M.T. and an anti-aircraft gunpost were shot up. A staff car was hit and overturned and the three occupants either killed or badly injured. The other six Kittyhawks machine-gunned aircraft on Mersa Matruh airfield, setting on fire two He. 111's and one Caudron Goeland. 'Both flights,' says the Squadron O.R.B. 'were enthusiastic on return and one pilot said it was "like the fifth of November".' As will be seen, these and other long-distance patrols in the enemy's rear areas were causing the enemy serious losses, and eventually forced them to institute fighter patrols along the coast road and also install A.A. gun posts.

Enemy Air Operations - 29 October: The Eclipse of the Dive-Bomber

A.A.H.Q.W.D.
War Diary.

Apart from the usual protection patrols over Daba and the Northern sector, there were only five enemy bombing attacks, nearly all of which were directed against the Eighth Army salient in the north. A very significant trend in the enemy bombing policy is revealed by the fact that three out of the five bombing attacks were made by fighter bombers. The first and last raids were made by formations of about 20 Ju. 87's. One of these formations was intercepted by 12 Hurricanes of No. 1 S.A.A.F. and 12 Hurricanes of No. 238 Squadron, causing them to jettison their bombs. American Warhawks sent out to intercept Stukas complained that 'owing to the large number of aircraft of different types in the air the Stukas were lost.'

The first reports of the F.W. 190 operating in the Western Desert were received at this time, but the presence of these aircraft cannot be confirmed from enemy sources. It is possible that there was a 'tropicalised' F.W. 190 sent to North Africa for purely experimental purposes. The F.W. 190 was superior in performance to any British or American machine which was in North Africa during this period, and its advent there in any strength would have meant a grave threat to the W.D.A.F. FW 190

According to enemy reports, their air force attempted to relieve the II Bn. 125th Regiment which was hemmed in in the most northerly part of the line, by attacking the Australians' forming up areas with Stukas and fighter bombers. 'Despite this,' says the report, 'the great British air superiority and the sustained strength of the enemy pressure made probable the loss of considerable portions of II Bn. 125th Regiment in spite of its stubborn defence.'

A Static Phase in the Land Battle - 29 and 30 October

Apart from the 90th Light Division's attempts to relieve the II Battalion, 125th Regiment, there was a pronounced lull in land operations during 29 and 30 October, both sides being preoccupied with a regrouping of their forces for what was realised would be the most decisive phase of the battle. The Eighth Army Commander continued with his preparations for Operation 'Supercharge'. The enemy, on the other hand, decided to commit the Trieste Division which, until that time, had been held in the Fuka area as Army reserve, replacing the 21st Panzer Division which was to be withdrawn and held as a mobile reserve in the area to the north of Tell el Aqqaqir.

Afrika Korps
War Diary and
Official German
War Narrative.

The enemy made a reference to the 'incessant air attacks' on 29 October which, together with the artillery, appear to have made a profound impression. Summarising the fighting from the beginning of the battle, it would appear that the heavy casualties suffered by the front line divisions of XXI Corps (164th Light and Trento Divisions) had made it necessary to commit, little by little, almost the whole of the Afrika Korps 'to bolster up the northern sector. Pitifully small reserve groups,' the report continued most pessimistically, 'composed of tanks, anti-tank and parts of the artillery, were stationed behind the front line as mobile counter-attack reserves. These parts of the Afrika Korps, thrown into counter-attack several times daily - often against superior tank forces - and also the Grenadier battalions of the armoured divisions engaged in a desperate struggle for several days, had suffered heavy losses.'

Although the Panzer Army had been almost completely cut off from seaborne supplies of petrol, an increase in the amount flown across from Greece which averaged 200 tons for the previous four days, had brought the level of the supply of petrol to almost two consumption units. 'This afforded a momentary relief in the petrol situation. Taking a long view, however, the situation was as critical as ever, because the main enemy attack was still awaited and might begin any time.' On the other hand the ammunition supply was grave and had fallen by this time to 0.7 of establishment.

Medium Bomber Operations Night 29/30 October - Enemy M. T. Less Well Dispersed

In addition to most successful attacks in the battle area, operations by No. 205 Group aircraft on the night of 29/30 October included a raid on the Ju. 52 base of Maleme, in Crete, by Liberators and Halifaxes, and a Wellington attack on the familiar target, L.G. 13, the Stuka base at Sidi Haneish. Altogether 60 tons of bombs were dropped, of which 51 tons were in the battle area and the balance on L.G. 13.

Over the battle area, where 26 Wellingtons of Nos. 40, 104, 108 and 148 Squadrons operated - aided by F.A.A. Albacores - an improvement in the targets was noted, due to vehicles being less well dispersed, probably due to the arrival in the line of the Trieste Division. Some 18 fires were started and a vivid explosion was noted. This may have been due to the crashing of a Wellington of No. 104 Squadron which was missing from the operation. The only opposition reported was from one Bofors gun which was encountered by an aircraft carrying out a low-level machine gunning attack.

A total of 13 Liberators and Halifaxes of Nos. 160 and 462 Squadrons attacked Maleme airfield. Bursts only were seen and no fires were claimed. As a result of this raid, however, the enemy lost four Ju. 52's. Two fires were started by six Wellingtons of Nos. 148 and 162 Squadrons which attacked L.G. 13. Hurricanes of No. 73 Squadron were again busy throughout the night on interception patrols over the battle area and intruder patrols over enemy landing-grounds.

Main Air Effort 30 October in Close Support of the Australians

The policy of giving all help to the land forces, whilst still striking at the enemy air forces, was continued throughout 30 October. It was planned by the Army that the Australians would attack north east towards the coast on the

Main Eighth
Army War Diary.

night of 30/31 October, as the Eighth Army Commander had recognised the fact that the key to the enemy defence lay in that area. The R.A.F. accordingly agreed to give priority to targets opposite the Australians' salient. Unfortunately, conditions were not favourable in the morning for the use of the light-bomber 'shuttle-service', owing to the dispersal of targets, and in the afternoon a ground haze restricted visibility.

H.Q. Middle
East Table of
Operations and
Daily Int.
Sums.

Although the fighter-bomber effort was spread over the whole of the day, as targets presented themselves, the light-bomber attacks were timed to take place within a very limited space of time, so that they would reach their maximum concentration just before dusk and as close as possible to the Australians' attack. This pre-arranged plan for the 'softening up' of the enemy defences by the combined onslaught of over 150 light and fighter bombers which dropped 85 tons of bombs must have had an appreciable effect on the success of the subsequent operation carried out by the Australians.

Squadron
O.R.B.s.

The day's most intensive bombing was carried out by the light bombers during the afternoon when a total of 54 Bostons and Baltimores of Nos. 21 and 24 S.A.A.F. and 55 Squadrons concentrated the weight of their bombing, within 40 minutes, on enemy strongpoints and A.F.V.s just north of the Australian appendix. Owing to the proximity of good landmarks, such as Ras el Shagig on the coast and the railway, it was possible to direct the bombing to within 1,000 yards of the Australians' own strongpoints. Results were obscured by a slight haze, but the Army reported enthusiastically on the results. All the raids were escorted by fighters of Nos. 233 and 239 Wings, of which a number carried one 500 lb. bomb.

In the course of the day's operations, 4 raids were made by escorted light and fighter bombers against enemy forward landing-grounds at Daba, Quotafiya and Fuka. The weight of bombs dropped on these landing grounds totalled 39 tons which was the highest for the battle.

Attack by Beaufighters of No. 252 Squadron on Ju. 52's at El Adem - 30 October

Nos. 272
Squadron and
252 Wing O.R.B.

A last-light attack on Ju. 52 transport aircraft, on El Adem aerodrome, was carried out by Beaufighters of No. 252 Squadron. Six or more Ju. 52's were running up their engines and much dust hindered accurate observation, but one aircraft was claimed as destroyed and is thought to have been carrying troops. On crossing the coastal road on the return journey four lorries were attacked, one of which was left in flames and three others damaged. A petrol bowser was left a mass of flames and a parade of some 50 troops was machine-gunned and many casualties inflicted. When nearing base, however, three of the aircraft became involved in a severe electrical storm and crashed, but all crews managed to bale out. A single Beaufighter of No. 46 Squadron, on a roving patrol in the enemy rear areas, also scored some success against enemy M.T. along the coast road, near Sidi Barrani, and bombed a train.

Official German War
Narrative. A.L. 743.

The enemy were seriously disturbed by the effect this long-range air activity against the coast road and the railway, between the forward and the rear areas, was having on their supply system, as their supply transport was suffering such heavy losses. Orders were therefore issued

for permanent anti-aircraft posts to be set up on the roads in and south of the supply areas.

Low Level of Enemy Air Activity - 30 October

A.A.H.Q.W.D.
War Diary.
A.H.B./IIJ1/122
/1.

The enemy air activity was hampered by rising dust over the landing-grounds in the afternoon and was on a much reduced scale. The only major operation was in the morning when some 18 Stukas, preceded by 9 fighter bombers and 15 fighters, attacked gun positions near Tell el Eisa. They were intercepted by 12 Hurricanes of No. 33 Squadron and 12 of No. 238 Squadron. No damage was reported and the only casualty was one O.R. wounded. One Ju. 87 was shot down for the loss of one Hurricane.

It was remarked, in the course of the day's operations, that the enemy had realised that artillery smoke was used to indicate a target. When, therefore, an air attack seemed imminent, the enemy fired smoke shells into the Eighth Army positions in all directions.

No. 2 Air
Support Control
War Diary.

Slight Improvement in the Enemy Petrol Supply Position - 30 October

The enemy were able to report a slight alleviation of the supply position on 30 October. In addition to the flying across of increased supplies, 600 tons had arrived by sea. A message was received from the Italian Supreme Command, on 30 October, stating that the amount would be still further increased. Excluding reserve machines, the number used every day in the air lift would rise within two days to 250, so that a daily load of 500 tons could be counted on. Owing to the heavy rate of firing over the past week, however, there had been a marked deterioration in the supply position of all kinds of ammunition, including even those kinds which had been plentiful. Owing to the shortage of suitable transport, the enemy were reduced to the expedient of pressing into service all the Italian scows - some 20 in all - at that time available at Tobruk to make the trip to Matruh carrying ammunition.

Rommel Orders a Second Line of Defence to be Reconnoitred at Fuka - 30 October

The Eighth Army's extensive regrouping for Operation 'Supercharge' had not escaped the notice of the enemy. The battle had now lasted a week and, by that time, Rommel was convinced that with 'the systematic attrition tactics' being practised by his opponents, he was no longer in a position to prevent a break through. He therefore decided - very late in the day as it so happened - to have another position reconnoitred further to the rear and General Krause, the artillery Commander, was sent to reconnoitre the new position on the general line Fuka and southwards. The object of this position would be to halt any attack should the Alamein line become untenable.

The Australians Continue Their Attack Northwards Towards the Coast - Night 30/31 October

The threat to the enemy positions in the north had caused the enemy to move the 90th Light Division into the Sidi Abd el Rahman area. In order to force the enemy to concentrate still further in this vital sector which covered the coast road and the railway, and ensure that the 90th Light Division remained about Sidi Abd el Rahman, the

Official German
War Narrative.

C.-in-C.'s
Despatch,
'El Alamein to
the Sangro'
and Hist. (B)
(Crusader) 5
Sitreps.

Eighth Army Commander decided to continue the Australians' offensive northwards to the sea, on the night 30/31 October. It would also help to prepare the way for Operation 'Supercharge' to strike a little further to the south where, in the position vacated by 21st Panzer Division, the enemy Commander had put Trieste, his last uncommitted reserve formation.

Official German
War Narrative.

On the night 30/31 October, therefore, the 26th Australian Infantry Brigade struck north east and then east from the salient won by 20th Brigade two nights before. Owing to the strength of the defences and the enemy's stubborn resistance, it was found impossible to clear the whole area. Nevertheless, the Australians advanced sufficiently far to cross the coast road, thus reducing the corridor to the 125th Panzer Grenadiers to a narrow strip along the coast. This attack by the Australians was well-timed, as it caught the enemy at a moment when the relief of the Panzer Grenadiers of 21st Panzer Division by the Trieste Division was in progress during the night, and when there was only No. 580 Recce Unit available for a counter attack.

20/31.0

Heavy Wellington Attack Against L.G. 14 (Maaten Bagush) Night 30/31 October

4 3135
A on 30/31

No. 205 Group
O.R.B.

The heaviest single attack by night bombers against an enemy forward landing-ground was carried out on the night of 30/31 October, when a total of 18 Wellingtons of Nos. 37, 70 and 162 Squadrons raided L.G. 14. This was a hitherto unused landing-ground at Maaten Bagush (Map Reference T62328) where reconnaissance had shown that the enemy had recently landed a considerable force of fighter reinforcements and gliders. On arrival, however, crews of the Wellingtons found the flares dropped by the Albazores scattered and only a moderate number of aircraft and M.T. were illuminated. Although over 30 tons of bombs were dropped, results proved most disappointing. A total of 6 fires were started, only one of which was believed to be a burning aircraft. Other activity included the machine-gunning of tents and stores from as low a height as 50 feet and the bombing and silencing of a light gun position.

A.A.H.Q.W.D.
War Diary.

Owing to the switch of a high proportion of the medium bomber force to the attack on the landing-ground at Maaten Bagush, the number of aircraft available for night operations over the battle area was reduced to ten. Targets were attacked in the northern sector where both M.T. and tanks were found to be very well dispersed. Second sorties were made by the aircraft and altogether 32 tons of bombs were dropped. Some eight fires were claimed, the majority of which were believed to have been single vehicles. Chandelier flares, followed by a stick of bombs, were noted in the south-east part of the target area, but this was considered to be an enemy ruse to entice the Wellingtons away to that area.

Rommel's Decision to Relieve the 125th Panzer Grenadiers - 31 October

D.A.K. War
Diary and
Official German
War Narrative.

(84234) 343

The enemy reacted violently to the cutting of the coast road by the Australians and the encirclement of the 125th Panzer Grenadiers. From that moment it would appear that Rommel lost his grip on the battle and was completely out-maneuvred by Montgomery. At 07.40 hours, the Afrika Korps was ordered to assume responsibility for the counter-attack in the coastal sector and for that reason the Afrika Korps Commander had to leave for the 90th Light Division Battle H.Q.

immediately. 'This step,' says the D.A.K. War Diary, 'is all the more incomprehensible since the Corps Commander has to leave his main front (164th Light, 15th Panzer and 21st Panzer Divisions) in order to direct a counter attack on an unfamiliar front some distance away.'

Rommel at this time was faced with the decision of either withdrawing the 125th Panzer Grenadiers - which could be undertaken on the night of 31 October - or else of trying to push the Australians back southwards from the railway. The Afrika Korps Commander and his Chief of Staff were of the opinion that the 125th Panzer Grenadier Regiment's position was untenable and that this would be the most favourable moment for withdrawal. In spite of these representations, Rommel ordered the attack to be resumed. It was a most momentous decision which had a profound effect on the course of the battle.

Close Support and Fighter Protection Given to the
9th Australian Division - 31 October

The events of 31 October, although seemingly insignificant compared with the days of major offensive during Operations 'Lightfoot' and 'Supercharge,' were ones of vital import to the battle. Whilst the Eighth Army were passing through this phase of extensive reorganisation in preparation for Operation 'Supercharge', they were most vulnerable to attack. The Australians themselves had not yet fully consolidated their gains, were very tired and had sustained heavy casualties. The position was such, therefore, that, had Rommel been able to employ the whole of his remaining force - which was still considerable - in the single concentrated blow which was so characteristic of his tactics, it would have caught the Eighth Army off balance, at a moment of considerable weakness. Such a counter attack would not only have disorganised completely all the complex regrouping essential for Operation 'Supercharge,' but might easily have brought the battle to a condition of stalemate. Alternatively, heavy dive-bombing in the Eighth Army's congested forward areas might have had an equally disastrous effect. At this stage in the battle, therefore, the task set the Western Desert Air Force, which continued to be the bombing of enemy concentrations to prevent the effective mounting of an enemy counter attack and the protection of the Eighth Army from hostile aircraft, was particularly important.

Soon after dawn XXX Corps sent a message through to Main Eighth Army H.Q. that 'the Australians are getting a lot of M.T. over the railway at 870304 (to the north east of Tell el Eisa) and are bunched. Can fighter cover be arranged?' The reply given was that, 'Yes, there are already sweeps going on overhead which had been previously arranged and we will try to arrange for them to go on.' This fighter cover was given and, in effect, two-thirds of the total fighter sorties made on 31 October were by aircraft on offensive sweeps over the battle area. Of the four Stuka raids carried out two were intercepted and one was forced to jettison its bombs on German forward positions. The land forces reported the following bombing attacks, all in square 8729, which included the area of operations covered by the Australians:-

05.30 hours	Single aircraft bombed
08.35 hours	10 Ju. 87's dive bombed
11.30 hours	E/A bombed
17.00 hours	12 Ju. 87's bombed from 4/5,000 feet.

Main H.Q.
Eighth Army
War Diary.

Table of
Operations.

A.A.H.Q.W.D.
Daily Int.
Summary.

There are no reports of any noteworthy damage as a result of this bombing and it is significant that the enemy were forced, in the last raid, to follow the wasteful expedient of bombing level.

No.112
Squadron O.R.B.

Kittyhawks of No.112 Squadron were involved in both interceptions of Ju.87's, claiming a total of three Ju.87's and two Me.109's destroyed for the loss of one Kittyhawk. In the second operation, the fighters were carrying bombs and were on a bombing and machine-gunning raid against a camp to the west of L.G.21 (the Quotafiya satellite in the Daba area) when they and their escorts intercepted a formation of 20 Ju.87's, forcing them to jettison their bombs. The flexibility of the fighter bomber as a weapon which, in a single operation, was able to operate successfully in the dual role of bomber and fighter is demonstrated in this and in many other comparable operations throughout the battle. On the other hand, it revealed the inherent weakness of over-specialisation of the dive-bomber. There are no examples of enemy fighter bombers being used, at this time, in a dual capacity of bomber and fighter.

H.Q. Middle
East Table of
Operations
A.H.B./IIJ1/
31/1.

The bombing on 21 October showed a sharp decrease in the number of light bomber sorties (18 Baltimore, 12 Boston and 18 Mitchell), while the number of sorties made by fighters on fighter-bombing and ground attack reached a total of 148 which was easily the highest figure attained so far in the battle. On the whole, targets were unsuitable for the light bombers, being widely dispersed and requiring a degree of accuracy in close-support work for which the fighter bomber was more suitable. A certain amount of cloud also made bombing from a height difficult. Nevertheless, the light bombers dropped 36 tons of bombs against close-support targets, whereas the fighter bombers reached only one half of that figure.

Eighth Army
War Diary.

C.-in-C.'s
Despatch.

As has already been mentioned, the night attack by the Australians and their position of weakness whilst they were consolidating their position the next day governed the main air effort in the battle area at this time. Practically the whole of the bombing for the night 30/31 October and the day 31 October in the battle area and which amounted to 89 tons of bombs was dropped on the very limited area, in the northern sector, where the enemy positions opposite the Australians were located and from which a counter attack was expected. Many messages of appreciation for the help given by the bombers were received from the 9th Australian Division and a Kittybomber attack at 12.30 hours was picked out for especial mention as being 'right in the middle of the target. Australians very pleased.' This raid was directed against a counter attack made by the 90th Light Division which, in spite of some initial success, failed to re-establish contact with the 125th Panzer Grenadier Regiment. In the course of further attacks, however, some 20 German tanks from the 21st Panzer Division did manage to break through down the road and join the defenders of Thompson's Post. In many ways the Army Commander considered that this diversion of the enemy tank strength - already considerably enfeebled - was to his advantage, as it meant that the panzers were being drawn into the area which best suited the Eighth Army Commander's plans and they were now devoting their full efforts to wasteful counter attacks on the Australians.

Medium Bomber Attacks on the Battle Area and on L.G. 14 -
Night 31 October

Attacks on enemy concentrations in the forward area were continued on the night 31 October by a total of 19 Wellingtons of Nos. 37, 70 and 104 Squadrons which dropped a total of 38 tons of bombs on targets in the battle area. The medium-bomber effort was being largely conserved for Operation 'Supercharge' - scheduled to take place the following night - and this figure was only approximately 20 per cent of the weight dropped on the night 1/2 November. Vehicles were again found to be well-dispersed, but one tight concentration was located and bombed, and half-a-dozen fires were started.

Squadron and
No. 205 Group
O.R.B.s.

The bombing of L.G. 14 near Sidi Haneish where enemy fighter reinforcements and gliders had been located was resumed by 12 Wellingtons of Nos. 40 and 162 Squadrons. Some 30 aircraft were seen and bombed and a number of fires were started. Weather was good and flares dropped by the Albacores were well placed. The landing-ground was well-protected by three heavy batteries and six light guns. Some 20 tons of bombs were dropped.

Further attacks on the landing-ground at Maleme, in Crete, with the intention of dislocating the Fliegerkorps X transport service of Ju. 52 aircraft were undertaken by seven Liberators of No. 160 Squadron and eight Halifaxes of No. 462 Squadron. No dispersed aircraft were seen, but four large fires were started and many explosions and flashes were noticed.

The Sinking of the S.S. Tripolino (1,464 tons) Carrying
Petrol and Ammunition to the Panzer Army - Night 31 October

At 01.40 hours on the night of 31 October, six torpedo-carrying Wellingtons of No. 38 Squadron Detachment, stationed at Gianacalis, briefed by No. 247 Wing to attack an enemy convoy north of Derma, received a sighting report from a special Wellington of No. 221 Squadron. They immediately set course to intercept an enemy convoy which was located at 32 37' N, 23 30' E. It was found to consist of 2 destroyers acting as escort to a M.V. of between 1,500 - 2,000 tons (the Tripolino of 1,464 tons) and another smaller vessel, thought to be a torpedo boat and which proved to be the Ostia carrying a cargo of ammunition and rations. The Tripolino's cargo was petrol and ammunition, part of which was stacked as deck cargo. At 03.12 hours, Sergeant McNall, piloting Wellington 'Z' (other members of the crew Sgt. Hemsworth, Sgt. Atkin, Sgt. Waterfield and Sgt. Smith) 'approached up the moonpath and dropped both torpedoes on one run (at 50 feet from 500 yards range). A hit was scored. A red flash was seen and debris was thrown into the air and thick black smoke rose up to 1500 feet. The remaining aircraft saw the explosion and stated that when the smoke cleared the ship had disappeared. Light and accurate A.A. fire was put up by the DR's and the A/C was slightly holed. The loss of the Tripolino was confirmed from enemy sources. This left the Ostia still to be accounted for.

No. 201 Group
and 39 Squadron
O.R.B.s.

No. 38 Squadron
O.R.B.

No. 47 Squadron
O.R.B.

The next morning, 1 November, another striking force consisting of three Beauforts of No. 47 Squadron Detachment, based on Gianacalis, was despatched to make a dawn attack. They located the Ostia, escorted by a destroyer, 25 miles to the north-west of Tobruk. Aircraft 'R', piloted by Flying Officer Pile, made its first run on what was realised,

when close in, to be a destroyer. The Aircraft turned away, coming under fire from the destroyer and the merchant ship, its turret and radio equipment being hit. A second run was made when the torpedo was dropped, scoring a hit. 'The explosion of the torpedo was followed by a much larger one and the entire ship disintegrated.' The crew of Beaufort DE.112 was Pilot Officers F.J.Pile and P.G.Daly and Sergeants S.S.Angus and J.Hallsworth.

Rommel's Renewed Attempt to Relieve 125th Panzer Grenadier Regiment - 1 November

Whilst the greater part of the Eighth Army was still pre-occupied with the final regroupings preparatory to Operation 'Supercharge' which was timed for the night of 1 November, Rommel wasted his resources in a vain attempt to restore the position in the extreme north, where the Australians had their salient. In the early hours of 1 November, the Commander of the 125th Panzer Grenadier Regiment arrived at the 90th Light Division Headquarters with a report that only remnants of the surrounded regiment had been left in the old position. When Rommel heard that the old positions were still occupied by the 125th Panzer Grenadiers, however, and that they had specially distinguished themselves, he decided to renew his full-scale counter-attack, in order to relieve them.

D.A.K. and
Panzer Army
War Diaries.

'The inadequacy of the enemy's resources,' says the Eighth Army Intelligence Summary for 1 November, 'have never been better revealed than by his activity during the last few days. Apart from our successful extension and consolidation of the "thumb", our forces have been regrouping. Here was his chance, had he seen or been able to take it. Instead, he has responded to our northern threat and again to-day 1 November, he was preoccupied with the extrication of 125th Panzer Grenadiers. Never before has the enemy Commander-in-Chief frittered away two valuable days in the rescue of a thousand men.

Cabinet Office
Narrative.

'Although since Rommel's return the enemy has been more active, the activity has been no more effective. It has consisted indeed of continually committing more reserves. True he has succeeded in releasing the bulk of 21st Armoured Division as a new reserve, but already he has thrown part of it into the Northern pocket. The "thumb" has already more than proved its worth.'

Dislocation of Enemy Counter-attack by the Interception of Stukas - 1 November

An important part of the plan for the relief of the 125th Panzer Grenadiers involved the use of a heavy Stuka attack which was to precede an attack by the tank battalion of the Pfeiffer Battle Group, together with the infantry of the 90th Light Division, at full strength. At dawn on 1 November, 12 Kittyhawks of No.112 Squadron carrying 500 lb. bombs, escorted by 12 Warhawks of No.66 Squadron U.S.A.A.F. set out on an armed reconnaissance. They bombed tents and vehicles, thus fulfilling the primary part of their mission. On their return, however, they encountered a strong formation of 45 enemy aircraft, composed of 30 Stukas escorted by 15 Me.109's. The American Warhawks contained the enemy fighters, whilst the Kittyhawks of No.112 Squadron attacked the dive-bombers. As a result, seven Stukas were claimed as shot down for the loss of one Kittyhawk: the enemy admitted the

Afrika Korps
War Diary.

Squadron O.R.B.
and A.A.H.Q.W.D.
Daily Int. Sum.

loss of five Stukas. This was the only operation of this kind carried out by the enemy on 1 November.

Rommel, who was himself on the field of battle, in personal command of the attack, having found that this pre-arranged Stuka attack had failed to materialise, gave orders for the ground attack to begin immediately. After a preliminary success, the attack slowly came to a halt in the face of concentrated gunfire bombing. In spite of the way in which his forces were being dissipated in these futile daylight attacks, Rommel refused to permit the withdrawal of the remnants of the 125th Panzer Grenadier Regiment. That night he planned to simulate attack along the entire line, 'in order to divert the enemy from the coastal sector of the front.' That same night the Eighth Army launched Operation 'Supercharge'.

Fighter-Bomber Activity - 1 November

In addition to the cutting to pieces of this vital Stuka attack, on the morning of 1 November, there were 17 fighter-bomber operations at squadron strength, 14 of which were carried out against the enemy concentrations opposite the Australians, one against a target in the central sector and two against I.G.104, to the west of Daba. Altogether, on 1 November, a total of 179 fighter-bomber sorties was made, in the course of which 40 tons of bombs were dropped. The policy behind this heavy programme of fighter-bombing was to 'dislocate the enemy artillery fire and counter attacks on the Australian appendix and so relieve the pressure of the enemy in that area.'

Compared with this high level of fighter-bomber activity, the light bombing on 1 November was negligible. It consisted of a single raid against the only suitable target found in the battle area throughout the day. In the morning, at a time when the enemy were forming up for their attack against the Australians, 18 Bostons of No.12 Squadron (S.A.A.F.), escorted by fighters of No.233 Wing, bombed a concentration of enemy M.T. to the west of the Rahman track with 68 x 250 lb. bombs. The heavy A.A. gunfire was intense and three of the bombers were badly holed. In spite of this, it was considered that the raid was most effective and at least 4 direct hits with five fires were counted.

Further harassing attacks on the enemy's rear areas and lines of communication were carried out by 12 Kittyhawks of No.250 Squadron fitted with long-range tanks. Whilst engaged in low-level machine-gunning of enemy M.T. on the coast road between Matruh and Sidi Barrani, they were jumped by four Mc.202's and one Kittyhawk was forced to crash-land in enemy territory. The fighters destroyed two petrol bowsers, which were set on fire, together with a number of other vehicles. The presence of this enemy fighter patrol was part of the steps taken by the enemy to strengthen their defences against air attack along this vulnerable stretch of coast road.

An interesting reference to the W.D.A.F.'s intensive air operations on 1 November and the enemy's supply difficulties is contained in 'The Rommel Papers'.

'That day (1 November) waves of British aircraft, each of 18 to 20 bombers, attacked our front north of Hill 28 no less than 34 times. The air was filled with hundreds of British fighters, and large numbers of R.A.F. fighter-bombers spent the day shooting up our supply

Afrika Korps
War Diary.

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No.5 Air
Support Control
War Diary.

No.3 Wing
(S.A.A.F.)
O.R.B.

A.A.H.Q. W.D.
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vehicles on the coast road. The supply position remained as wretched as ever, although petrol showed a slight improvement as a result of increased supplies brought across by air to Tobruk. The ammunition situation was as bad as it could be. Only 40 tons had reached the African coast since the beginning of the British offensive and we were being forced to the strictest economy. We were compelled to issue orders that British assembly areas were to be engaged by harassing fire only and not by concentrated fire.'

The Panzer Army report stated that, although the Eighth Army activity had slackened, air attacks had continued 'undiminished by both day and night. The area of Sidi Abd el Rahman, the telegraph track, Point 28 and 125th Panzer Grenadiers were attacked 34 times during the day. The Luftwaffe flew 30 Stuka and 17 fighter-bomber sorties. According to an entry in the Air Support Control War Diary, since the beginning of the air offensive, on 19 October, a total of 10,000 sorties had been flown by aircraft of Middle East Command, out of these 6,900 were by fighters, 1,400 by light bombers, 1,200 by fighter bombers and 500 by night bombers.

Rommel's Decision to Prepare a Second Line of Defence at Fuka - 1 November

Panzer Army
War Diary.

On 1 November, the conclusion was forced on Rommel that, in order to avoid having his Panzer Army split up into isolated groups and destroyed piecemeal, he might have to retreat to a new position. He therefore decided to have the so-called Fuka position, which had recently been reconnoitred by the Artillery Commander, prepared for occupation. According to the preliminary report, although the position was not yet dug, steep gradients would make its southern end tank-proof. It was therefore arranged for labour to be made available for the construction of field works in the new position, which were to be strongest in the coastal sector. It is surprising that at so late a date in the battle and faced with the imminent threat of having his forces destroyed at El Alamein, Rommel should think that there was still time to prepare an extensive system of fortifications at Fuka.

The Sinking of the Emergency Supply Ships Zara and Brioni - 1 and 2 November

A.H.B.6.
Docs.

Owing to the Panzer Army's critical supply situation, due to the sinkings on the North African supply route, it was decided as an emergency measure to transport fuel and ammunition in two naval auxiliary vessels, the Zara of 1976 tons and the Brioni of 1987 tons. The Zara carried 230 tons of fuel and the Brioni 255 tons of ammunition in short supply and they were en route from Piraeus to Tobruk.

No.210 Group
and Nos.38 and
272 Squadron
O.R.B.s.

The convoy, consisting of the two merchant vessels and their escort of two destroyers, was first sighted by Wellingtons of No.221 Squadron 10 miles to the south-west of Gavdos, an island off Crete, at 02.00 hours on 2 November. A striking force of two torpedo Wellingtons and three bomber Wellingtons of No.38 Squadron, together with two bomber Wellingtons of No.458 Squadron which had been despatched to attack the convoy sighted only the destroyers which they attacked. They claimed hits with bombs on the destroyers. Beauforts of Nos.39 and 47 Squadrons which had been sent to make a dawn attack only managed to sight the destroyers and no attack was made. A second striking

force of six Beauforts of No.39 Squadron (Egypt Detachment), escorted by seven Beaufighters of No.272 Squadron eventually located the convoy some 60 miles north of Tobruk with a fighter escort of two Me.110's, two Ju.88's, two Mc.202's and two Mc.200's. This escort was chased off, and a Ju.88 shot down while the Beauforts made their attack.

Beaufort 'F' made an attack from the forward beam at 50/60 feet at a range of 1000 yards between 09.10 and 09.20 hours. A direct hit was obtained and a large column of smoke seen. This was the Zara which was badly damaged in the stern. She managed to stay afloat for the best part of the day and eventually sank some 27 miles off Tobruk at 22.00 hours. The Brioni was also probably damaged in this attack. Two Beauforts and a Beaufighter were lost. The crew of the Beaufighter (Pilot Officers A. J. Procter and E. A. C. Young) managed to survive eight days in a dinghy in the Mediterranean when they were picked up by an Air/Sea Rescue launch.

The Brioni managed to reach Tobruk. At dusk on 2 November, five U.S.A.A.F. Liberators carried out a most successful attack against the port in which the Brioni, moored at No.1 Jetty, was hit and destroyed. This sinking was later confirmed from enemy sources which also stated that the damage to the harbour was severe and the Naval Headquarters was also badly hit.

The Final Offensive: Operation 'Supercharge' (Night 1/2 November).

Operation 'Supercharge', for which the northwards attack by the Australians had been in the main preparatory, was launched at 01.05 hours on 2 November. As an operation, it was essentially similar to Operation 'Lightfoot' and was designed to open a breach in the enemy's permanent defence system through which X Corps would pass into the open desert beyond, with 1st, 7th and 10th Armoured Divisions and two armoured car regiments. It was important that open country should be reached before daylight, and General Montgomery issued instructions that, should XXX Corps fail to reach its final objectives, the armoured divisions of X Corps were to fight their way through. As with Operation 'Lightfoot', the attack was to be supported by a very strong artillery fire programme. All batteries which had been revealed by R.A.F. photographic reconnaissance were singled out for neutralisation.

The most important respect in which Operation 'Supercharge' differed from Operation 'Lightfoot' was in the employment of the night-bomber force. It was planned to use the whole of the medium-bomber force in massive 'softening-up' operations, with seven hours of non-stop attack, firstly against enemy concentrations around the main centre of resistance, at Tell el Aqqaqir, and then round Ghazal Station. The bombing programme was arranged as follows:-

No.236 Wing	21.50 hours to 23.45 hours
No.231 Wing	23.40 hours to 01.40 hours
No.238 Wing	01.35 hours to 03.00 hours
No.236 Wing	02.55 hours to 04.50 hours

Owing to the weakness of the night-bomber force in the Middle East at this time, it was only possible to maintain this heavy scale of attack by a system of second sorties. Sixty-eight Wellingtons operated. Of these 15 aircraft of No.148 Squadron and 10 aircraft of No.108 Squadron made

H.Q. Middle East
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A.H.B./II 31/31/4.

A.H.B.6.

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No.205 Group
O.R.B.

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A.H.B./IIJ1/
31/1.

second sorties, so that together with 14 Fleet Air Arm Albacores which fulfilled their invaluable role of 'pathfinders', there was a total of 107 effective sorties. It was the most concentrated bombing seen up to that time in the Middle East. The weight of bombs dropped totalled 184 tons, representing approximately 26 tons of H.E. per hour.

No.205 Group
and Squadron
O.R.B.s.

Good targets were found by the Wellingtons in the Rahman area, opposite the gap, but gradually the targets thinned. Shortly before midnight, therefore, the Wellingtons were switched to an area round Ghazal Station where an abundance of targets was illuminated. Thirty fires were claimed and each successive wave of bombers reported 20 burning at a time. Six extremely heavy explosions were caused which rocked aircraft up to 8,000 feet. The height from which the Wellingtons bombed varied from 3,000 to 8,500 feet. The weather was 7/10ths cloud at 4,500 feet, but decreased towards dawn. The last report received from the Wellingtons said that 23 fires were burning including a large ammunition dump which was 'making a good display.' At the same time, in support of the ground attack, 19 night-flying Hurricanes of 73 Squadron patrolled the battle area, in a protective rôle over Eighth Army concentrations, and carried out intruder patrols over the enemy Stuka base at Sidi Haneish. No enemy aircraft were seen.

No.73 Squadron
O.R.B.

No.205 Group's Night Bombing Dislocates the Enemy's Communications - Night 1/2 November

The Afrika Korps reported heavy bombing attacks throughout the night over the whole of the Corps sector. As a result of a particularly heavy attack on the Afrika Korps Advanced Battle H.Q. about midnight, all telephone communications broke down. (1) 'Army Headquarters,' says the Afrika Korps War Diary, 'issued orders for the Afrika Korps. The Corps Commander was kept informed of the situation by wireless. However, some messages were subjected to long delays owing to continuous interference caused by bombing raids. This resulted in Corps H.Q. sending out frequent requests for the divisions for information. The Corps Commander was slightly wounded by a splinter.'

*Proble
operation
H. H. H. H. H.*

The W.D.A.F. Fly One Thousand Sorties in Close Support of Operation Supercharge - Night 1/2 and Day 2 November

Between dusk 1 November and dusk 2 November the whole of the available air strength was flung into the battle in close support of the Army's attack, at maximum effort. The total bomb weight reached 352 tons - over 100 tons more than for the first 24 hours of Operation 'Lightfoot'. Sorties totalled approximately one thousand, including the record total of 233 sorties by the light bombers, 651 by fighters and 107 by the medium bombers.

H.Q. Middle East
Table of Opera-
tions. A.H.B./
IIJ1/31/1.

Hurricanes were employed to provide fighter protection over the armoured forces in restricted areas at the point of penetration. A very high degree of fighter protection was afforded the Eighth Army armoured spearhead throughout the day, and a total of 239 Hurricane sorties was flown,

(1) Six Wellingtons of No.162 Squadron also carried out the jamming of enemy tank R/T together with bombing in the battle area.

Squadron O.R.B.s
and A.A.H.Q.W.D.
Daily Int. Sums.

A.H.B.6.

without break, from dawn to dusk. At no time were the enemy dive-bombers able to break through this protective screen of Hurricanes, against which the Me.109's made sporadic attacks. Only two Stuka operations were organised by the enemy. At 12.15 hours, 12 Hurricanes of No. 238 Squadron and 12 of No. 33 Squadron patrolling the northern sector intercepted 12 Ju.87's, with 8 Me.109's as escort. Aircraft of No. 238 Squadron engaged the Stukas, probably destroying one for the loss of two aircraft. At 16.30 hours, 12 Hurricanes of No. 1 S.A.A.F. Squadron and 12 of No. 213 Squadron were patrolling the northern sector when they encountered a powerful enemy force of some 50 aircraft, of which 30 were Stukas, in the area of Tell el Aqqaqir. The enemy dive-bombers were forced to jettison their bombs on their own forward positions and five Ju.87's were claimed as destroyed, without loss. In the course of the day's operations, the R.A.F. claimed seven Ju.87's and one Me.109 for the loss of one Kittyhawk and one Wellington. Enemy records reveal the loss of two S.E. fighters, five dive bombers and one fighter bomber.

In addition to the patrols over the battle area by Hurricanes, Spitfires of Nos. 601, 92 and 145 Squadrons flew 113 Sorties on offensive sweeps, mainly over Ghazal and Daba, to provide protection for the Royals who, just before dawn, had broken through the enemy lines and were operating against their lines of communication in the rear.

Targets for the light bombers were indifferent throughout the morning, but improved during the afternoon when the enemy armour concentrated for a counter attack.

'November has opened,' says No. 3 S.A.A.F. Wing O.R.B., 'with the Battle for Egypt at its height. Everyone hopes and believes that it will be the last battle for Egypt and continue to go, as hitherto, in our favour.'

The news that the New Zealand Division had made a successful thrust on the night 1/2 November enabling our forces by first light to reach the Sidi Abd el Rahman track, quickly reached the Wing Squadrons. All the Air Crews asked was to be given sufficient opportunity to turn the cracking enemy into a routed remnant.

No. 3 S.A.A.F.
Wing War Diary.

The recognised "shuttle service" - now shared by Nos. 3 and 232 Wings - hit hard on 2 November when 233 sorties were made and more than 1300 x 250 lb. bombs dropped on the enemy's armour and M.T. still situated on the Westward side of the Rahman track in the Northern sector. So accurate and effective was the bombing - and so rapid the communication between our forward positions and Air Support Control - that on one occasion even before 3 Wing's bombers had landed, a flash signal came through that as a result of that raid 200 enemy troops had immediately surrendered.'

Main Eighth
Army War Diary.

This entry was confirmed by a message from X Corps to Main Eighth Army that 'at 15.34 hours the 1st Armoured Division reported that the last bombing raid was extremely effective and 200 of the enemy surrendered.' This particular raid was carried out by 18 Bostons of No. 12 S.A.A.F. who were bombing in the vicinity of Tell el Aqqaqir and dropped 72 x 250 lb. bombs.

Rommel's Decision to Retreat to a New Line at Fuka -
2 November

During the night 1/2 November, when Operation 'Supercharge' was launched, 151st and 152nd Infantry Brigades attacked on the main frontage under command of 2nd New Zealand Division, to clear a way through minefields for tanks. The area chosen for this renewed offensive was to the south of the main enemy concentrations and at the weakest point, at the junction between the Germans and the Italians. Delay was experienced owing to the strength of the enemy defence. The delay proved costly to the Eighth Army for at dawn the 9th Armoured Brigade found itself under the muzzles of a powerful screen of anti-tank guns, on the Rahman track and during the day suffered over 75 per cent casualties in what has been called the battle of Tell el Aqqaqir which was the largest clash of armoured formations in the battle. However, the 9th Armoured Brigade held its ground tenaciously, inflicting in turn heavy losses on the enemy, and managed to hold open the end of the salient for 1st Armoured Division to emerge. (1)

Hist. (B)
 (Crusader) 5
 C.S./1689, C.-
 in-C.'s Despatch
 and 'El Alamein
 to the Sangro.'

This was to prove the decisive action of the battle of El Alamein. Our armour was between the weakened 15th Panzer Division and the 90th Light Division, in the north, and the 21st Panzer Division to the south. The enemy reacted by taking the only action possible in the form of vicious armoured and infantry counter attacks in which he lost heavily. In the face of such crippling losses a withdrawal became inevitable. It was the last action in which the Afrika Korps fought as a Corps on Egyptian soil. (2)

For the first time in North Africa, the Afrika Korps had found its tanks out-armoured and out-gunned. It was a

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- (1) No enemy counter-attacks developed until comparatively late on 2 November mainly due to the chaotic state of the enemy communications covered by the previous night's bombing.
 (2 Nov.)
- (2) 'It was now extremely difficult to obtain any clear picture of the situation, as all our communication lines had been shot to pieces and most of our wireless channels were being jammed by the enemy. Complete chaos existed at many points on the front.'

The 21st and 15th Panzer Divisions - those parts of them that were not already committed in the front - were now put in from the north and south respectively to pinch out the enemy wedge. Violent tank fighting followed. The British air force and artillery hammered away at our troops without let-up. Inside an hour, at about mid-day, seven formations, each of 18 bombers, unloaded their bombs on my troops. More and more of our 88-mm. guns, which were our only really effective weapons against the heavy British tanks, were going out of action. Although every air protection A.A. gun within reach had been brought up to the front, we still had only 24 of these guns available for use that day. Soon, almost all our mobile forces were committed in the front. We had already squeezed every possible reinforcement out of the administrative units, yet our fighting strength was now only a third of what it had been at the start of the battle.' 'The Rommel Papers.'

complete reversal of the situation which had largely led to the Eighth Army's defeat at Gazala, five months before.

Afrika Korps
War Diary.

'The tanks that had made the penetration,' the D.A.K. War Diary Records, 'were almost exclusively heavy tanks of American construction, including a type not previously encountered, heavily armoured and armed. These tanks were superior to the German models, as they could engage them successfully from a range of more than 1,000 metres.'

By 17.30 hours, according to a report given to Rommel by the Afrika Korps Commander, the Afrika Korps had only 35 tanks left which would give the Eighth Army, it was estimated, a four to one superiority in tanks on the following day. 'The front,' continued the report, 'is very thinly held and in a further attack would be unable to withstand the power of the enemy's artillery and the number of his tanks.' Rommel then issued orders for withdrawal:(1)

- (a) The situation compels the Army to retreat slowly, in stages, to a new line.
- (b) The Afrika Korps will withdrawn on a broad front....
- (c) The present positions are to be held as long as possible, so as to enable infantry and service troops to withdraw. Even after the withdrawal rearguards are to remain behind and continue to fight. On 3 November, the withdrawal is not to extend beyond the 850 North - South grid line east of El Daba....
- (d) The policy is for non-motorised troops to be transported by motorised troops. No German soldier is to be left behind. As many operational troops as possible to be brought back to more favourable positions. Italians will move off first on account of their poor performance in battle.
- (e) Preparations for mobile operations to be carried out in retreat. The C.-in-C. mentions German superiority in operations of this type.'

By dusk on 2 November, therefore, the inescapable fact had been forced on Rommel that, for the second time within two months, his Panzer Army had been most decisively beaten. This decision to withdraw his shattered forces to a new line at Fuka was the 'writing on the wall'. It was virtually the end of the battle of El Alamein which must lead inevitably to the final surrender of the Afrika Korps, since the convoys for Operation 'Torch' for the invasion of French North West

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- (1) 'The British now (2 November) had what amounted to complete command of the air and sea up to a point beyond Tobruk, and were repeatedly attacking the town and harbour from the air. Several ships had been sunk in the harbour in the past few days. Due to our increased movement, the petrol situation was also becoming critical again. And we still had the heaviest fighting in front of us. That evening it became clear that the British were concentrating their second-line armour at their point of penetration. So our final destruction was upon us. The Afrika Korps had only 35 serviceable tanks left.' 'The Rommel Papers.'

Africa were already on the high seas. For all concerned, it was the climax of much hard and often bitter campaigning. Bearing in mind Rommel's victorious offensive at Gazala, followed by the spectacular fall of Tobruk and the rapid advance into Egypt, the overwhelming defeat of the German-Italian Panzer Army at El Alamein constituted one of the most remarkable reversals of fortune of military history.

Eighth Army
Intelligence
Summary.

In General Ritter von Thoma's view, 'Rommel had gone on leave to Germany with the intention of getting another command to avoid returning to Africa, as he expected a British attack and knew he could not hold it. To protect himself against censure, when defeat came, he had left express instructions with Stumme. Rommel, however, was sent back and since his return has shown himself to be very rattled. His bearing is nervous and his commands indecisive.' However, Rommel's health had undoubtedly suffered under the strain of the battle, especially in the last phase, when he launched such costly counter attacks for the relief of the 125th Panzer Grenadiers and showed little of his former brilliance as a tactician. Rommel himself had said, 'I knew that there were no more laurels to be earned in North Africa, for I had learnt from reports of my officers that supplies there had fallen far short of the minimum demands which I had made.'

The Enemy Air and Supply Situation - 2 November

The enemy reported that almost continuous day-and-night air attacks had been resumed against 'the hard-pressed troops in the northern sector' on 2 November. All the available strength was used by their own air forces in support of their troops, but they were far too weak to give any effective relief to the ground forces 'who were suffering severely under the great British air superiority.'

The enemy's reserves of petrol and ammunition had again become seriously depleted. Although 268 cubic metres of petrol had been flown over to Tobruk on 2 November, the increased demand for the defensive battle had decreased the supply in the forward areas to 1.7 units. Three destroyers had arrived in Tobruk with 190 tons of ammunition, but the Brioni carrying 100 tons of ammunition in short supply, had been sunk. On the other hand, the day's expenditure of ammunition had been about 450 tons.

'All things taken into consideration,' says the official German War Narrative, 'it had to be admitted that, after a desperate 10-day struggle against an enemy superior on land and in the air, the Army was in no condition to prevent a further attempt at breaking through. A withdrawal to the Fuka position was therefore unavoidable, as all the mine-fields and fortifications in the northern sector of the Alamein front had been lost, and the country between the telegraph track and El Daba was not suitable for the construction of a firm line. The Army Commander therefore decided to begin all preparations to withdraw slowly, fighting all the way, before the enemy pressure, from 3 November... In the course of his gradual fighting withdrawal westwards, Army intended to occupy the Fuka positions. By employing all the available convoy space, the infantry units were to be taken back first and put in the new positions. The mobile formations had the task of holding up the enemy advance as long as possible by a delaying action and thus gain time to improve the Fuka positions.... Army H.Q. saw in this decision the only possibility of saving the Army from immediate destruction and thus of holding the African

Official German
War Narrative
A.L. 743.

battle front. An orderly withdrawal of the six Italian and two German non-motorised divisions and brigades would no longer be possible because of the shortage of M.T. A large part of these formations would in all probability fall into the hands of the fully-motorised enemy. But even the mobile formations were so heavily committed that only a part of them could disengage from the enemy. In addition, the majority of the ammunition supplies were in the forward areas, whereas there was no ammunition supply worth mentioning in the rear areas. The scanty petrol supply would not permit a withdrawal over any long distances. The Army, with only one road at its disposal, would certainly be attacked by day and night by the R.A.F. In such a case, despite the troops' heroic resistance and excellent morale, the gradual destruction of a large part of the Army was to be expected.'

The Heavy Weight of Night-Bombing Attack Continued -
Night 2/3 November

Cabinet Office
Narrative.

The air policy for the night-bombing of the battle area on the night of 2/3 November was based on an Eighth Army report that there were 'no enemy tanks east of the Rahman track'. A request was made that 'the maximum bomber effort' should be maintained on the Germans in the north throughout the night and the 'maximum bombing effort to be available to-morrow' 3 November. In continuation of the policy of non-stop day-and-night bombing in the battle area, all available No. 205 Group Wellingtons were concentrated in direct support of the Eighth Army, the Wellingtons attacking from 21.20 hours to 05.00 hours, whilst F.A.A. Albacores illuminated the target between 21.15 hours and 05.00 hours.

No. 205 Group
O.R.B.

A total of 68 Wellingtons of all squadrons operated which, with 24 aircraft making double sorties and a further 11 made by the Albacores, amounted to a total of 104 sorties. Attacks were mainly concentrated on vehicles and tanks to the east and west of Ghazal Station. On the whole, targets were found to be more dispersed than on the previous night. Five direct hits on vehicles were claimed and 30 fires were started, some of which were very large. Unfortunately one of the best concentrations of enemy M.T. was located in the extreme north, between the road and the coast, when most of the Wellingtons had dropped their bombs. A total of 156 tons of bombs was dropped.

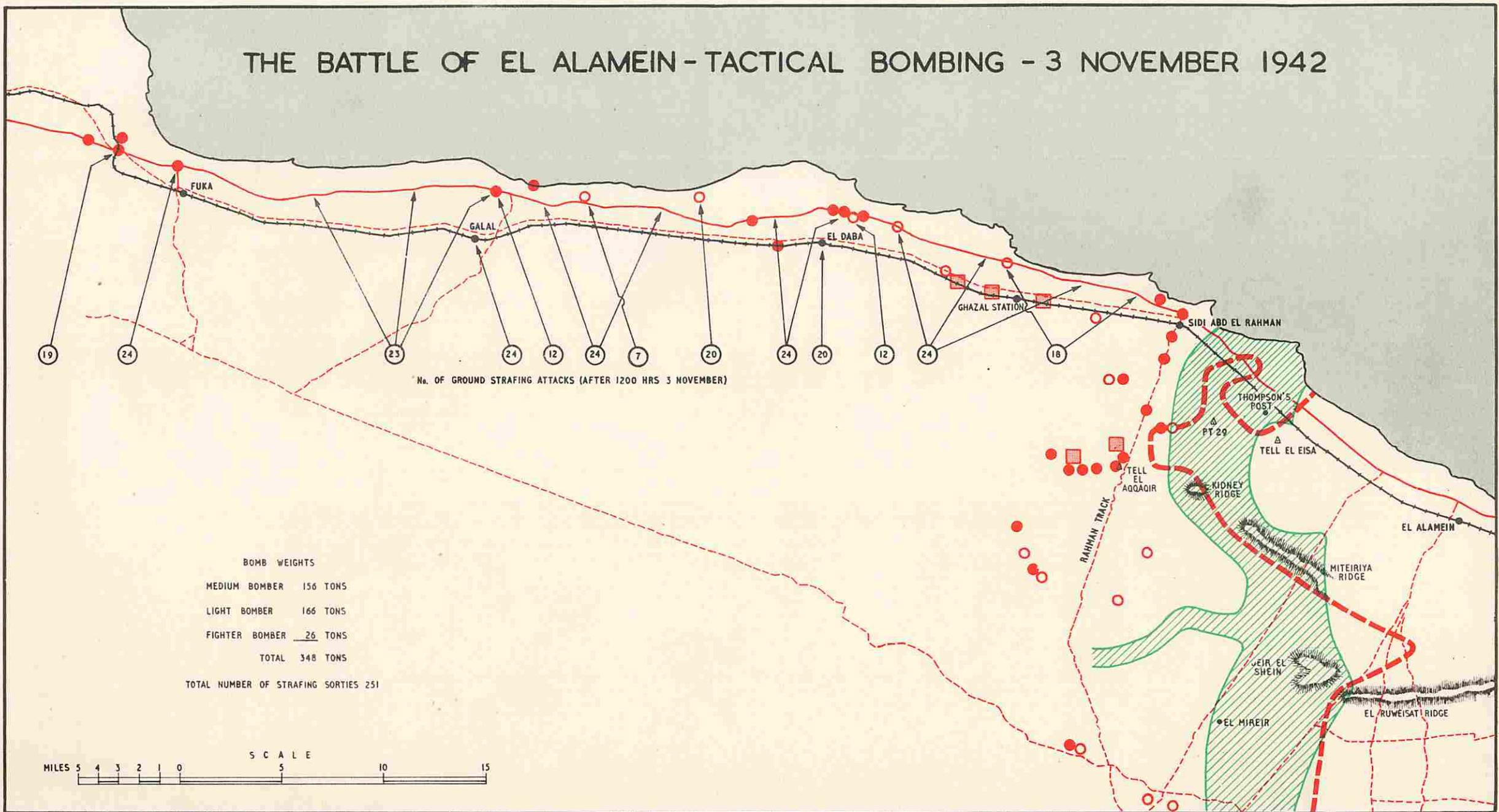
Nos. 73 and 127
Squadrons
O.R.B.s.

In order to interfere with the transportation of petrol by air to North Africa, the heavy bombers of No. 205 Group, comprising 8 Liberators of No. 160 Squadron and 10 Halifaxes of No. 462 Squadron bombed dispersed aircraft at Maleme, starting one very large fire which could be seen from 40 miles away, together with a number of smaller ones. Throughout the night, 12 Hurricanes of No. 73 Squadron carried out protection patrols in the battle area while a further 12 Hurricanes of No. 127 Squadron began first-light patrols at 05.40 hours over the northern sector and carried on until 07.10 hours. There were no incidents reported as a result of any of these patrols.

The Peak Air Effort of the Battle of El Alamein Reached on
3 November

The first bombing raids on 3 November were carried out in the Rahman area soon after dawn whilst fires from the night bombing were still burning. First up at 05.55 hours were four Kittybombers of No. 2 S.A.A.F. Squadron bombing enemy M.T. on the Rahman Track to the east of Qaret el Abd, in the central sector. At much the same time, seven

THE BATTLE OF EL ALAMEIN - TACTICAL BOMBING - 3 NOVEMBER 1942



No. OF GROUND STRAFING ATTACKS (AFTER 1200 HRS 3 NOVEMBER)

- 19
- 24
- 23
- 24
- 12
- 24
- 7
- 20
- 24
- 20
- 12
- 24
- 18

BOMB WEIGHTS
 MEDIUM BOMBER 156 TONS
 LIGHT BOMBER 166 TONS
 FIGHTER BOMBER 26 TONS
 TOTAL 348 TONS
 TOTAL NUMBER OF STRAFING SORTIES 251



No. 3 S.A.A.F.
Wing O.R.B.

H.Q. Middle East
Table of Opera-
tions. A.H.B./
IIJ/31/1 and
A.A.H.Q.W.D.
Daily Int. Sums.

A.A.H.Q.W.D.
War Diary.

Kittybombers of No. 3 R.A.A.F. were airborne and bombing M.T. well behind the enemy's front line, in the northern sector. By 06.47 hours, 18 Bostons of No. 24 S.A.A.F. had left for a rendezvous with their escort to bomb a pre-selected Army target to the north east of Tell el Aqqaqir. They dropped 72 x 250 lb. bombs on M.T. and tents, scoring direct hits and near misses, and starting two good fires. This early start heralded the beginning of the heaviest close-support bombing ever seen in North Africa. On 3 November, 192 tons of bombs were dropped in direct support of the land battle, with a further 16 tons of landing-grounds, and between dusk on 2 November and dusk on 3 November the total reached the peak figure of 364 tons. During this same period 772 fighter, 272 light bomber and 104 medium bomber sorties were flown, making a total of over 1,100 which again was a peak figure for the campaign.

Air operations on 3 November are of exceptional interest for the way in which they demonstrate the flexibility of air power. (1) Throughout the morning, the whole weight of the air effort was concentrated on targets in the battle area - mainly on the Rahman track and to the west of Tell el Aqqaqir. By about mid-day, however, evidence had accumulated that the enemy was withdrawing. At 12.30 hours, a message was circulated from A.A.H.Q.W.D. to Nos. 211 and 212 Groups and Nos. 3 S.A.A.F. and 232 Wings that all available aircraft were to be switched to the attack of moving M.T. which had been reported as being closely packed on the main road in the Daba area. Then, by 15.00 hours, when No. 243 Wing in turn reported the thinning out of enemy traffic on the main road, but that 'the volume of traffic on the desert tracks north west to Daba was very heavy,' the O.C. No. 212 Group made a request to A.A.H.Q.W.D. to switch attacks, and this was granted by S.A.S.O. Finally, at 18.40 hours that evening, a warning order was circulated to No. 211 Group and Wings for Operation 'Buster,' the plan for the pursuit.

There is an undercurrent of enthusiasm and excitement running through the Squadron O.R.B.s for this momentous

- (1) 'At nine in the morning (3 November I drove east along the coast road as far as Forward H.Q. Large numbers of vehicles, mainly Italian, were jammed up on the road, but surprisingly there were no British fighter-bombers about. At about 10.00 hours, General von Thoma and Colonel Bayerlein reported that the British were lying in a semicircle in front of the Afrika Korps, which still possessed 30 serviceable tanks. The British were making only probing and local attacks and appeared to be reorganising and supplying their formations. The moment seemed propitious, and I gave orders for part of the Italian formations to march off. Despite our frequent reminders, the vehicles promised by Barbasetti had still not arrived, and so the Italians had to march. Dense columns of vehicles were already streaming westwards. The Italian infantry marched off and soon the road was full of traffic. But the British soon spotted our move and attacked the coast road with about 200 fighter-bombers. Their bomber squadrons were also extremely active that day. The Afrika Korps was attacked no less than eleven times during the morning by strong formations of bombers. At mid-day I returned to my command post, only just escaping by some frantic driving, a carpet of bombs laid by 18 British aircraft.' 'The Rommel Papers'.

day's operations, when the enemy's resistance was finally seen to crack and their retreat westward, out of Egypt, began. The scale of effort was truly astonishing, coming as it did after a period of intensive air operations which had begun as far back as 19 October. By mid-day, when the switch to targets on the coast road had begun, fighters had flown over 300 sorties and 220 bombing attacks had been made by light and fighter bombers, in the course of which 700 x 250 lb. and 68 x 500 lb. bombs had been dropped. From mid-day until dusk nearly 500 more sorties were flown. Within a space of some four hours, 465 aircraft attacked the slow-moving columns of M.T. along the main coast road, causing a tremendous amount of damage, estimated at a total of some 300 vehicles destroyed or damaged. A total of 214 bombing attacks were made by the light and fighter bombers, in the course of which 106 tons of bombs were dropped. Low-level attacks were made by a total of 250 fighters. In any one hour, therefore, an average of 116 bombers and fighters were operating over a strip of road not much more than 40 miles in length. (1)

At dusk many vehicles were still burning along the whole length of road from Ghazal to Fuka. Fighters also patrolled over the road and prevented the enemy fighters from interfering with the attacking aircraft. The Desert Air Force suffered heavily in the course of these operations, losing 15 fighters of which 11 were Hurricanes, three Kittyhawks and one a Spitfire. These losses were confined to aircraft attacking targets along the coast road. The day's total losses amounted to 24 aircraft destroyed (19 fighters of which 14 were Hurricanes) and 13 damaged (11 fighters and 7 of these Hurricanes). These were by far the heaviest losses experienced by the field fighter force since the early days of Rommel's offensive at Gazala when attempts were made to disrupt the enemy advance by intensive low-level air attack. The enemy showed a loss of 10 aircraft of which eight were fighters (five S.E. fighters, one T.E. fighter and two long-range reconnaissance). According to enemy records three of these aircraft (two S.E. fighters and one Fieseler Storch) were badly damaged and were destroyed by the Germans themselves, on a landing ground at Fuka, in preparation for evacuation of the airfield.

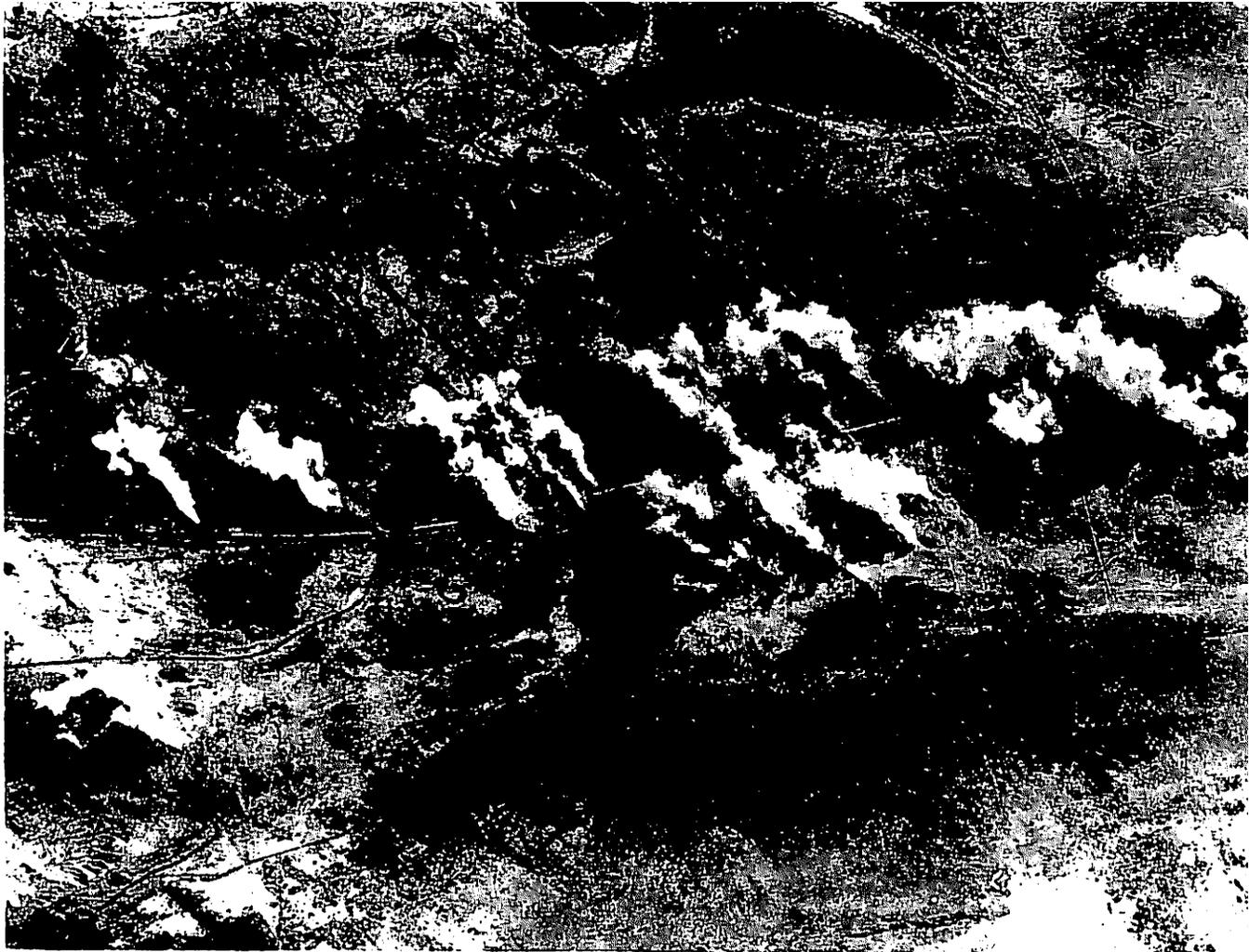
(1) 'In the evening (3 November) I sent Lieutenant Berndt off to the Fuehrer's H.Q. He was to report that if the Fuehrer's order were upheld, the final destruction of the German-Italian Army would be a matter of days only, and was to add that we had already suffered immense harm because of it. Later that night Berndt informed me from Mersa Matruh that hundreds of low-flying aircraft had attacked the densely crowded road, packed with two lines of traffic, continuously from nightfall at about 17.00 hours until his arrival in Mersa Matruh at 21.00 hours. The road was blocked at many points by burning vehicles and vast traffic jams had developed. In many cases drivers and men had abandoned their vehicles and fled westwards on foot. Abandoned tanks and vehicles stood at many points on the road.

The night of the 3 November also passed without any particular move from the British. This was all so much lost time for us, for we could meanwhile have got the whole of our force back to Fuka - in all probability with only small casualties. I had not dared hope that the British commander would give us such a chance. And now it was passing unused.'

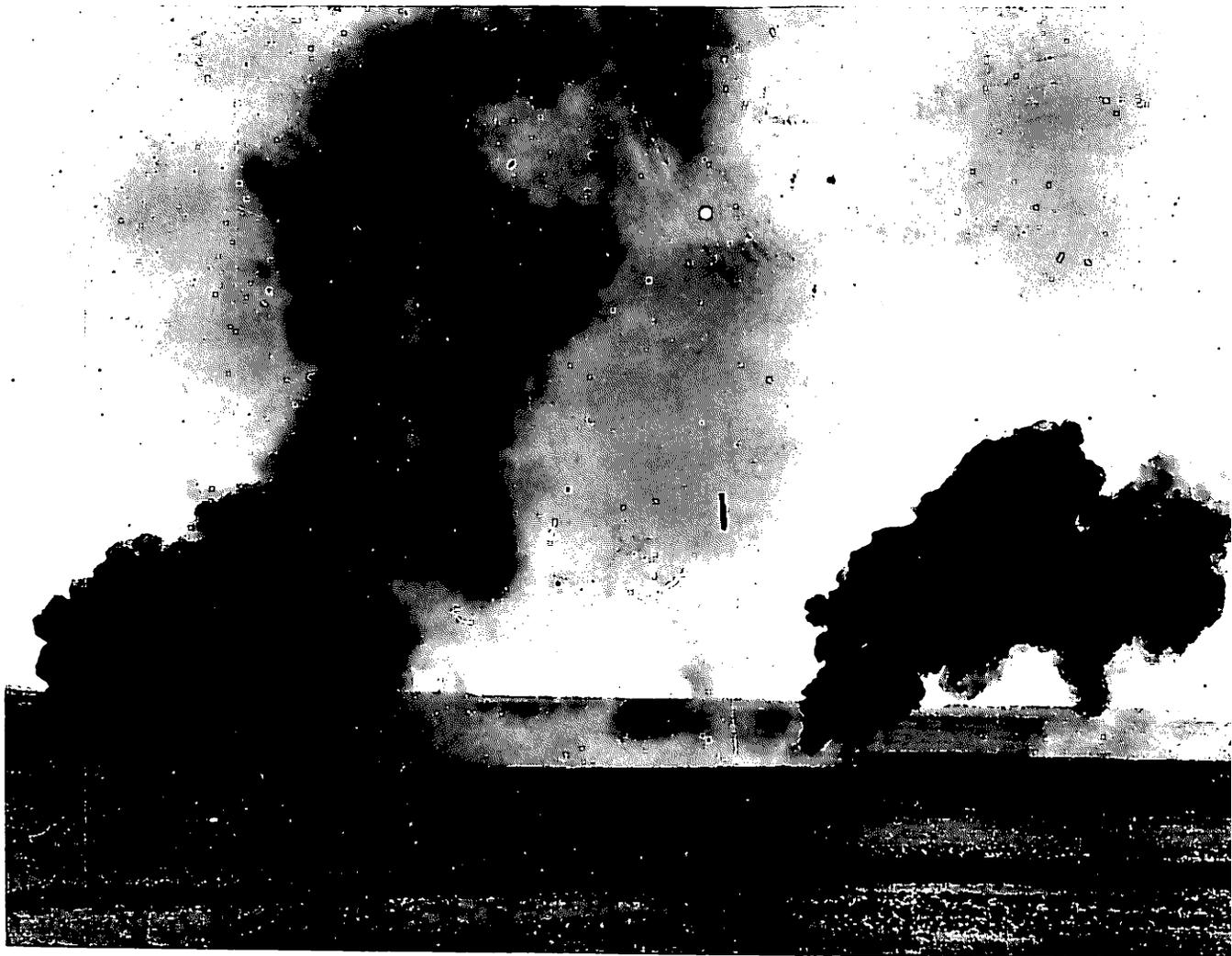
H.Q. Middle East
Table of Operations. A.H.B./
IIJ1/31/1.

A.A.H.Q.W.D.
War Diary.

A.H.B.6.



Retreating enemy transport caught by a salvo of bombs
along the road from Daba to Fuka



Blazing petrol bowers after an attack by long-range fighters
of the W.D.A.F.

No.223 Wing
O.R.B.

A.A.H.Q.W.D.
War Diary.

No.162
Squadron
O.R.B.

Eighth Army reports on the bombing in the morning were most enthusiastic and No.233 Wing recorded a message received at base from the Army, two minutes before the attacking aircraft landed, 'Bombing best ever. Keep it up.' That evening, at 18.25 hours, Air Support Control were able to report that as a result of R.A.F. raids the main coast road was blocked at Daba and Galal. A special operation was undertaken by Wellingtons of No.162 Squadron (which had been used extensively for radio jamming throughout the battle) to attack the road on the Fuka escarpment, between the road and the railway, with the object of cratering the road. Five attacks were carried out by Wellingtons of this squadron and many direct hits were observed on the road. How far this impeded the retreat of the enemy is not known. Returning aircraft reported that they had left 14 enemy vehicles burning at the foot of the escarpment. The operation was marred by the crash of one aircraft on take-off, when performing a second sortie and the death of all the crew.

Enemy Air Activity on 3 November Slight

Enemy air activity on 3 November was slight and it would appear that they were already preparing for the evacuation of their forward bases. Reconnaissance by Me.109 aircraft, in twos and threes, was made in the early morning. There were only two Stuka raids reported by the Eighth Army, one soon after dawn and the other at 13.00 hours. The first raid which consisted of 20 Ju.87's, escorted by 12 Me.109's, was intercepted by 12 Hurricanes of No.238 Squadron and 12 Hurricanes of No.33 Squadron which were patrolling the northern sector. The Stukas were forced to jettison their bombs on the enemy positions and two were claimed as shot down. The Stuka escort was again attacked by nine Spitfires of No.145 Squadron which claimed one Stuka and one fighter destroyed for the loss of two Spitfires. The second raid was also intercepted, this time by Hurricanes of Nos.80 and 127 Squadrons. It consisted of 30 Ju.87's, escorted by 20 Me.109's. The dive bombers dived shallow and released their bombs as No.80 Squadron attacked, while No.127 Squadron contained the escort. The Hurricanes paid heavily for the interception, losing seven aircraft with five pilots missing. Claims were made of five Ju.87's and one Me.109 destroyed, but enemy records do not confirm these figures. Pilots reported that a number of the Stukas were without rear gunners. During the intensive attacks on enemy M.T. along the main road, in the afternoon, formations of Me.109's attempted to break up the Desert Air Force fighter patrols, but without success.

No.80 Squadron
O.R.B.

A.A.H.Q.W.D.
Daily Int. Sums.

No.6 Squadron 'Tankbusters' Given a Free Hand in the Southern Sector

Another operation of note was carried out by No.6 Squadron Hurricane IID 'Tankbusters'.

No.6 Squadron
O.R.B.

'During the night,' says the Squadron O.R.B., 'the Germans began to retreat in earnest. At daybreak, there was a noticeable thinning out all along the line, and at midday the real rush started. The road suddenly became packed with every kind of transport moving west. Every R.A.F. fighter was immediately put on to straffing the road. Medium (light) bombers intensified their efforts, working to a certain extent without escort so that the fighters could straffe. 6 Squadron asked permission to join in but were refused. However, we

were given permission to go hunting in the southern area for any kind of target of any description.... No escort was provided as no enemy fighters were about. Armour was not found, but it proved a good operation as the score was 12 lorries, 3 semi-tracked vehicles and 1 transporter. As a result of the success of this operation, a further six sorties were sent off.... The score was very much worth while. It was 6 Mk. IV Special, 2 Mk. III, 1 AMC, 1 Honey, 2 Crusaders and 17 lorries.'

No official reason can be found for the Western Desert Headquarters' refusal to permit No.6 Squadron to join in the attacks on the coast road where it would have been thought that their particular training and armament would have been of great advantage. Probably it was due to the shortage of fighters for escort duties and also to the vulnerability of these aircraft to light A.A. gunfire. As has already been mentioned, this particular stretch of the main road had already been protected by anti-aircraft gun positions which made low-level attack extremely hazardous. This squadron, which had done some extremely valuable work during the battle, was also refused permission to move forward during the pursuit, resulting in considerable criticism of A.A.H.Q.W.D. policy.

The Fuehrer's 'Victory or Death' Message

In spite of the success of Operation 'Supercharge', the main body of the Eighth Army's armoured strength in the northern sector still remained hemmed in by mines and the enemy's formidable anti-tank screen, on 3 November. For the time being, the main weight of the offensive was being sustained by the air force. However, the beginning of a full-scale enemy withdrawal westward was fully apparent by the afternoon. This was particularly so in the south, where Munassib was found to be unoccupied and the important strong-point of Deir el Shein - around which there had been such bitter fighting during the early days of the stabilisation at El Alamein - was abandoned without a struggle by the enemy.

'About midday,' says the German Official War Narrative, 'whilst the front line situation was generally quiet, the Army decided to begin the withdrawal of the non-motorised German and Italian Infantry to the Fuka positions. The great shortage of M.T. was a deciding factor in this. Only one quarter of the required vehicles were available, on the average; a withdrawal was therefore only possible by bounds.'

In the course of the afternoon, (1) when the withdrawal had already begun, Rommel received what later became to be known as the 'Victory or Death' message, from Adolf Hitler. It was a typical Hitler document:

'The German people joins with me in following with full confidence in your leadership and in the bravery of the German and Italian troops under your command, the heroic defence in Egypt. In your present

(1) The order reached Panzer Army H.Q. at about 13.30 hours, 3 November, 1942.

situation, nothing else can be thought of but to hold on, not to yield a step, and to throw every weapon and every warrior who can be spared into the fight. Strong air reinforcements will be given to the C.-in-C. South very soon. Also the Duce and the Italian Supreme Command will do their utmost to provide you with the means to carry on the struggle. Despite his numerical superiority, the enemy must have exhausted his strength. It would not be the first time in history that the stronger will has triumphed over stronger enemy forces. You can show your troops no other road but that to victory or death.'(1)

Following this message, all orders for withdrawal were cancelled. The westward moves of the rear-line and supply troops were stopped by installing posts commanded by officers along the road. 'The effect of this order and counter order was most disastrous,' says a report from the Panzer Army's Chief Supply Officer, and to it was attributed the reason why such vast stocks of important equipment and supplies had to be either destroyed or abandoned. All formations were ordered to defend their positions to the last. Rommel demanded that 'everything possible should be done to ensure that the present battle should end victoriously in full possession of the battlefield.' It was a weak capitulation to the Fuehrer's order, for the harsh reality - already faced by him for some days - was either precipitate retreat or else annihilation. The German-Italian Panzer Army had already suffered 50 per cent losses in tanks and men and it was in no condition to resist further. His reply to the Fuehrer avoided any mention of the plain issue of defeat.

Pz. Gp. Afr.
Supply Repts.
AL 866.

'The Italian Divisions and 1 German Air Force Bde. in the southern sector have been withdrawn during the night 2-3 November behind the general line el Taqa - Bab el Qattara - south of Deir el Murra to shorten the line. They have orders to defend it to the last. The German divisions in the northern sector are engaged in bitter fighting against a far superior enemy, and are defending the Deir el Murra - Sidi Abd el Rahman area. All German forces that could be made available by any means have already been placed in the front line. So far the German infantry, tank and pioneer losses amount to about 50 per cent, artillery about 40 per cent. Afrika Korps has at the moment 24 tanks available.(2) Littorio Armd. Div and Trieste Mot. Div. of 20 Italian Mot. Corps have been almost wiped out. Ariete Armd. Div., previously in the southern sector, was brought up on the night 2-3 November and put in position immediately adjoining Afrika Korps.

German Official
War Narrative.
AL 743.

'We are doing our utmost to remain in firm possession of the battlefield.

(signed) Rommel, F.M.'

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- (1) 'Paradoxical though it may sound, it was the custom at the Fuehrer's H.Q. to subordinate military interests to those of propaganda. They were simply unable to bring themselves to say to the German people and the world at large that Alamein had been lost, and believed they could avert its fate by a 'Victory or Death' order. Until this moment we in Africa had always had complete freedom of action. Now that was over.' 'The Rommel Papers.'
- (2) Less than 10 per cent of the German tank-strength in the pre-battle line-up.

The General Situation According to Enemy Reports -
3 November

The enemy air situation report, on 3 November, was as follows:

'The enemy air force heavily attacked the troops during the day. Afrika Korps was bombarded 11 times during the morning by 18-20 bombers, and the area west of El Daba 17 times in the afternoon by 18-20 bombers. Moreover, during the afternoon the enemy flew about 150 fighter-bomber sorties against the coast road alone.'

An enemy note on the supply situation stated that there were only 1.7 to 1.9 consumption units of petrol with the troops and in Corps dumps. The increased expenditure of ammunition - on 2 November about 500 tons had been fired - indicated that there would be further shortages on 4 November. 'Because of the supply situation,' says the report, 'the Fuehrer's order to hold the Alamein line was questioned.' Furthermore, considerable destruction had been caused among the supply columns by the British armoured car units which had broken through the enemy lines the previous day, causing grave shortages of water and other supplies, particularly in the southern sector.

The final enemy appreciation of the situation, on 3 November was as follows:-

'We had succeeded on 2 November, by throwing in all our forces, in preventing the enemy from breaking through despite his superiority in men and material, and in patching up the front line. But on the 3rd he resumed his attacks against the thin, partly gapped line; only with great difficulty and effort on the part of our forces could these be beaten off. All the forces that could be made available by any means were either already in the front line or on their way there, to obey the Fuehrer's own order by contending possession of the battlefield to the last. Army expected a continuation of the enemy attack next day; in Army's opinion, this must lead inevitably to a breakthrough and to the Army's destruction. To save the Army from this, the only possibility was to carry on a mobile battle and to break off contact with the enemy, in order to regain freedom of action, group its forces and force the enemy to move his artillery farther up. The Army considered that a stubborn defence would fail, for the following reasons:-

- (a) The enemy's great superiority, especially in tanks (including the excellent latest American pattern) and artillery.
- (b) The continual heavy day and night bombing attacks against which there was no defence. Our own meagre air forces, which very seldom put in an appearance, only added to the feeling of inferiority.
- (c) The almost complete failure of the Italian troops.
- (d) Our own heavy losses in men and material on account of the enemy's vast superiority in the most modern weapons.'

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Heavy Wellington and Albacore Attacks on the Coast Road -
Night 3/4 November

'Rommel' by
Desmond Young.

'During the night,' says a German report, 'the enemy air force attacked troops, the coast road and landing-grounds continually.' All available Wellingtons and Albacores of all squadrons of No.205 Group carried on the attacks started at mid-day 3 November on the enemy's columns along the coast road. For although the orders for retreat had been cancelled, the coast road was carrying an abnormal amount of traffic. According to one source, General von Thoma had continued withdrawing his troops westwards during the night and Rommel turned a blind eye. One of the main objects of the raids was to deny passage to the retreating enemy up the Fuka escarpment.

A total of 103 sorties was flown by 68 Wellingtons. The duration of the attack lasted for 10 hours (from 18.45 hours on 3 November to 04.45 hours on 4 November). There were also 21 sorties made by Fleet Air Arm Albacores. A total of 187 tons of bombs was dropped or nearly 19 tons an hour for the duration of the attack. The fires started were too numerous to mention in detail, especially as they became confused with what pilots reported as 'vast masses of fires' probably caused by the enemy burning stores whilst evacuating his positions between Daba and the battle area.

No.205 Group
War Diary.

In the early part of the attack, a particularly large concentration of enemy vehicles was located between Daba and the coast. Later on many fires were started in the vicinity of Fuka, one being so large that all crews reported it. In addition to bombing, many of the Wellingtons machine-gunned vehicles and tents. Opposition was slight. The only night fighter seen was a Ju.88 which made an unsuccessful attack on a Wellington. There were a few heavy guns and some searchlights between Daba and LG.104 and other heavy A.A. guns were active on LG.104 itself, together with some seven searchlights. One Wellington failed to return and two others crashed on take-off. 'This,' says the No.205 Group report on the night's operations, 'was undoubtedly a highly successful operation and a most useful contribution to the War in the Desert as a whole.'

The Final Break Through at El Alamein - 4 November

Hist. (B)
(Crusader) 5,
C.-in-C.'s
Despatch and
'El Alamein
to the Sangro.'

During the night 3/4 November, the 51st Division launched two attacks with the intention of breaking through the enemy's anti-tank gun screen, the first by a battalion of the 51st Division on Tell el Aqqair and another by the 5th Indian Infantry Brigade to the Rahman track. Once the penetration had been made, the way would be clear for the Eighth Army spearhead to move into the open desert and so outflank the stronger resistance to the north. Both attacks were completely successful. By dawn, the enemy gun screen had been pushed back, so that it faced southeast, covering the main road. Round the end of it the armoured divisions of X Corps now poured. At the same time the Australian Division captured 'Thompson's Post,' in the extreme north. The battle of El Alamein was virtually at an end. By dusk on 4 November, in spite of Hitler's 'Victory or Death' message and Rommel's last minute reversal

of plans, the enemy was pulling out of Egypt as fast as he could go. (1)

Rommel's Request to the Fuehrer for Permission to Retreat to a New Position Running South from Fuka.

During the morning of 4 November, the Afrika Korps reported that their front had been broken in several places. In the afternoon, their Corps Commander, General von Thoma, was taken prisoner 'while attempting, along with the Corps H.Q. Battle Group, to stop enemy tank forces from penetrating. The Corps H.Q. Battle Group was surrounded by 150 enemy tanks and almost wiped out. About 14.00 hours, the Afrika Korps front was broken in many places and it had no more reserves available to seal off the breaches.' The situation was such that there was a very great danger that the German troops still fighting in the northern sector - the Afrika Korps and the 90th Light Division - would be completely cut off, for the whole enemy line had begun to collapse. Rommel therefore reported to the Fuehrer, as follows:-

'In the last day or two, the enemy has broken through the main line in the northern sector on a front 100 km. wide and up to 15 km. deep, with 400-500 tanks and strong infantry forces and has almost wiped out the troops holding the front line. We are doing our best to retain possession of the battlefield. But our losses are so high that there can be no longer a connected front.

We cannot expect any reinforcements. Also the Italian troops have no more fighting value owing to the enemy's vast ground and air superiority. Some of the Italian infantry have been abandoning secure positions without orders.

I am fully aware of the necessity for holding on to the last and not yielding a step. But I think that the English tactics of destroying one formation at a time by terrific concentrations of fire and continued air attacks are turning against us and wasting away more and more of our strength.

(1) 'So now it had come, the thing we had done everything in our power to avoid - our front broken and the fully motorised enemy streaming into our rear. Superior orders could no longer count. We had to save what there was to be saved. After a preliminary talk with Colonel Bayerlein, who had now assumed command of the Afrika Korps again, I issued orders for the retreat to be started immediately. General von Thoma had tried to prevent the British break-through with his Kampfstaffel and, as we heard later over the British news service, had been taken prisoner after the destruction of his force.

This decision could at least be the means of saving the motorised part of the Panzer Army from destruction, although the army had already lost so much as a result of the 24-hour postponement of its retreat - including practically the whole of its infantry and large numbers of tanks, vehicles and guns - that it was no longer in a position to offer effective opposition to the British advance at any point. Orders for the retreat went out at 15.30 hours, and the movement began immediately.

There was now no chance of getting order into our columns, for nothing short of a quick retreat could save us from the British air attacks, which reached a climax that day. Anything that did not immediately reach the road and race off westwards was lost, for the enemy followed us up over a wide front and overran everything that came in his path.

Next morning - far too late - signals arrived from the Fuehrer and the Commando Supremo (sic) authorising the withdrawal of the army to the Fuka position.' 'The Rommel Papers'.

At the present time, therefore, I see mobile warfare in which the enemy has to fight for every foot of ground as being the only possibility of stopping the enemy and preventing the loss of the North African theatre. I ask for consent to carry this out. If this is granted, I intend to carry out a fighting withdrawal platoon by platoon to a new position running south from Fuka. On this 70 km. line about 30 km. of the southern sector are almost impassable to tanks in any strength.

(Signed) Rommel, F.M.'

At 15.30 hours on 4 November, a withdrawal to the Fuka positions, to escape the impending encirclement, was ordered. If Rommel considered the Fuka positions so favourable to defence, it is difficult to understand why they had not been prepared for occupation earlier. Having been defeated so decisively on the naturally strong positions at Alamein, where a vast and complex system of defences had been built up during the previous four months, Rommel can have had no real hope of stabilising the shattered remains of his Panzer Army on improvised defences, at Fuka, especially as the Germans alone had lost 200 of the 238 tanks with which they had started the battle.

Pz. Army Afrika
and Afrika Korps
War Diary.

At 20.45 hours, the Italian Supreme Command radioed that the Duce had given Rommel a free hand to 'withdraw the army platoon by platoon to the Fuka positions.' It was not until 10.00 hours the next day that a wireless message was received from the Fuehrer approving Rommel's decision.

'By dusk,' says the German report, 'the formations able to break contact with the enemy were on their way westwards. Wireless communications were difficult - the enemy was jamming many of the frequencies - and therefore hardly any reports were coming in. At midnight it was not yet ascertainable what German and Italian strength had been able to withdraw, or where the formations then were After breaking contact with the enemy the Army carried out its retreat according to plan, despite continual heavy enemy air attacks. The enemy did not immediately follow up on a wide front.' In a further reference to the air situation, the report says, 'Enemy bombers carried out incessant night raids, mainly on the coast road, causing delays and considerable damage among retreating convoys.'

Air Operations on the Last Day of the Battle - 4 November

Rommel's change in plans, as a result of the Fuehrer's orders to stand and fight at El Alamein was reflected in the air operations for 4 November. Instead of the anticipated stream of traffic westwards, tactical reconnaissance showed little movement in the northern sector, although good targets were reported at Fuka. Symptomatic of another trend, the reconnaissance aircraft encountered intense A.A. gunfire. Owing to the success of the attacks by long-range fighters along the coast road, the enemy had set up 'flak' posts there and instituted a system of fighter patrols. The coast road was not merely an admirable target for attack, but also for defence. Instead of aiming at the attacking aircraft, the enemy's policy was to put up a curtain of fire through which the attacking aircraft had to fly. Out of some 60 Hurricanes and Kittyhawks which carried out early morning attacks along the coast road, as

No.208
Squadron
O.R.B.

Afrika Korps
War Diary.

A.A.H.Q.W.D.
Daily Int.
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far as Fuka, 11 were shot down, either by A.A. gunfire, or else by enemy fighters. The enemy were resourceful even in defeat.

In the morning, the best targets were found at Fuka crossing, where fighter-bomber attacks destroyed or damaged a number of enemy M.T. A dawn raid by six Hurricanes of No.1 Squadron (S.A.A.F.) and 12 of No.33 Squadron was particularly successful and over 20 vehicles were damaged, including a staff car and a trailer. These aircraft also machine-gunned tents and Breda posts, a W/T van and a Fieseler Storch. There were four pilots missing from this operation.

Light Bomber
Operational
Summary.

Over 100 light bombers assisted in the bombing of enemy transport along the main road and dropped 474 x 250 lb. bombs. One raid by 12 Baltimores of No.223 Squadron and six B.25's of No.434 Squadron was considered to have been one of the most successful raids by light bombers since the beginning of the battle. Four direct hits and over 30 near misses were observed and, as the formation left the target, numerous fires could be seen. By mid-day, however, targets along the main road had thinned to such an extent that they were no longer considered suitable for light bombers which were then switched over to attack Army targets in the Northern sector. A total of 75 Bostons, Baltimores and B.25's scored many direct hits on vehicles and tents in this area. Meanwhile, fighter bombers maintained their pressure on the main road. They carried out a total of 208 attacks throughout the day, which was a peak figure for fighter-bomber activity.

H.Q. Middle East
Table of Operations. A.H.B./
IIJ1/31/1.

In the course of one of the fighter bomber raids by 12 Tomahawks of No.5 Squadron (S.A.A.F.) and eight Kittyhawks of No.4 Squadron (S.A.A.F.), the bombers were instructed to jettison their bombs and intercept the Stukas which were operating to the north of Tell el Aqqaqir. They engaged a force of 15 Ju.87's, with Me.109 and Mc.202 escort, claiming two Ju.87's and one Me.109 shot down for the loss of one Kittyhawk. This was the only Stuka attack carried out by the enemy on 4 November. The main enemy air activity was confined to harassing attacks against our aircraft operating in the northern sector, along the coast road. Fighters and light bombers of the W.D.A.F. between them carried out some 700 sorties losing 11 fighters of which eight were Hurricanes. Claims were made of six Me.109's, two Mc.202's, one Ju.88 and one Fieseler Storch destroyed. According to enemy records they lost 17 aircraft of which 14 were S.E. fighters. Some of these aircraft were destroyed by the enemy before evacuating their advanced air base at Fuka.

H.Q. Middle East
Table of Operations. A.H.B./
IIJ1/31/1.

A.H.B.6
Records.

It was the last day of the battle of El Alamein. That night H.Q. 205 Group made no mention of 'enemy concentrations in the battle area' which had been the primary target for 12 nights for the medium bomber force. 'The enemy is retreating westwards along the coast road,' the briefing said, and the task set the bombers was 'to destroy by bombing tanks and M.T. on the road.' A total of 90 aircraft operated that night, carrying on with the destruction along the coast road as far west as the beaches at Fuka.(1) The pursuit

(1) 'On the night of the 4 November, the army retreated to Fuka. The movement was made over a broad front, mainly through the open desert, as the coast road was continually bathed in the brilliant light of British flares and under non-stop R.A.F. attack.' 'The Rommel Papers.'

had begun. Four days later Operation 'Torch' - the Allied landings in French North-West Africa took place. On 4 November, General Alexander sent the following personal message to the Prime Minister:

'After 12 days of heavy and violent fighting, Eighth Army has inflicted a severe defeat on the enemy's German and Italian forces under Rommel's command in Egypt. The enemy's front has broken and British armoured forces in strength have passed through and are operating in the enemy's rear areas. Such portions of the enemy's forces as can get away are in full retreat and are being harassed by our armoured and mobile forces and by our air forces. Other enemy divisions are still in position and endeavouring to stave off defeat, and these are likely to be surrounded and cut off.

The R.A.F. has throughout given superb support to the land battle and are bombing the enemy's retreating columns incessantly.

Fighting continues.'

Some Enemy Comments on the Battle of El Alamein

Field Marshal Rommel's own comments on the battle of El Alamein are contained in the so-called 'Rommel Papers'.

'We had lost the decisive battle of the African campaign,' he wrote. 'It was decisive because the defeat resulted in the loss of the major part of our infantry and of our motorised forces. The consequences defied estimation....

With all my experience, I can confess to only one mistake - that I did not circumvent the 'Victory or Death' order 24 hours earlier or did not disregard it altogether. Then the army, together with all its infantry, would in all probability have been saved in a more or less battleworthy condition....

In future, the battle on the ground will be preceded by the battle in the air. This will decide who will have to suffer under the operational and tactical disadvantages detailed above and who will, therefore, from the start be forced into tactical compromise....

As a result of the British command of the air and hence of the sea in the Central Mediterranean, and of other reasons detailed elsewhere, the army's supplies were hardly sufficient to enable it to eke out a bare existence even on quiet days. It was out of the question to think of building up stocks for a defensive battle. The quantities of material which were available to the British far exceeded our worst fears. Never before in any theatre of war had such a concentration of heavy tanks, bombers and artillery with inexhaustible supplies of ammunition been engaged on so short a front as El Alamein.

The British Command of the air was complete. There were days when the British flew 800 bomber sorties and 2500 sorties of fighters, fighter-bombers and low-flying aircraft. We, on the other hand, could at the

most fly 60 dive-bomber and 100 fighter sorties. This number moreover became continually smaller....

The methods used by the British Command for the destruction of my forces were a result of their overwhelming superiority. They consisted of the following:-

- (a) Highly concentrated artillery fire.
- (b) Continuous bombing attacks by powerful bomber forces.
- (c) Locally limited attacks, which were carried through with lavish use of material and which revealed an extremely high state of training entirely suited to the conditions....'

Rommel's estimate that on certain days a combined total of some 3,300 sorties was flown by British aircraft in support of the Eighth Army is, of course, a considerable over-estimate. One third of that figure would be a more correct approximation. Nevertheless, it is an indication of the impression W.D.A.F. air superiority in the battle area had over the enemy.

In Part I of his 'The War in the Mediterranean', Field Marshal Kesselring expresses some interesting views on the Battle of El Alamein. 'The War in the Mediterranean' was a study written for the United States Historical Division in May 1948 and it is important to bear in mind that, at the time Kesselring wrote this study, he had no documents to help him and for part of the time he was without maps.

'As a preliminary to the landing in Africa, the major attack on the El Alamein position commenced on 23 October 1942. In the middle of my conference with Goering in Naples I received a wireless report on the attack and the heroic death of the Commander-in-Chief, General Stumme. The battle was waged with an expenditure of ammunition unprecedented in Africa and for the first time with exceedingly strong air forces. The dense minefields, Devil's Gardens and other obstacles were completely neutralised by this barrage

There are just a few general points about this phase which I myself only experienced on short visits:

After I had obtained a clear picture of the R.A.F. effort and its effect on material and morale, I gave my impressions in a wireless telegram to the C.-in-C. Luftwaffe and O.K.W., adding in conclusion:

For the first time the R.A.F. has appeared in sufficient strength to be a decisive factor in the battle. But this is probably only the initial phase of the stepping up of Allied air activity which we must expect. If we do not want to be smashed in the near future by the enemy air forces, now is our very last chance to make a comparable increase in strength.

By then I was convinced that the Allies were too far ahead to be overtaken, unless we had for a long time been working in the same direction. I emphasised this again to Goering on his visit to Italy. I insisted on the urgency of sending fighter aircraft, knowingly stressing that all other types of aircraft

could be neglected. Until supremacy in the air had been secured, bombers should only be used in experimental formations. Towards the end of November 1942⁽¹⁾ Rommel flew to Headquarters to discuss the position with Hitler. At the time I knew nothing about the visit nor its object. The first I heard of it was when I received orders to meet Goering and Rommel at Rome railway station. At the same time I heard that Rommel had made a bad impression of dejectedness on Hitler, and on this account Goering was said to be bringing him to Italy in his command train in order to have a good influence on him during the journey. I myself noticed Rommel's tired demeanour; he looked almost more in need of a rest than he did before he went on leave.

Goering and I were convinced that Rommel in this state was not able to do what was expected of him and what the difficult situation required. His thoughts were already retreating to Tunis and thence to the Alps. I knew Rommel and knew that in the face of a partial setback he regarded the whole battle, indeed the campaign, as lost, but that a success could once more inspire in him that vigorous leadership. I was hoping that Rommel, once more on African soil, would be seized by the atmosphere of the front there and would inspire and lead his men in his old audacious style; Besides, there was no one there to replace him. On top of the worry of the African front I had for some weeks past to bear the daily increasing pressure prior to the Allied invasion.

As the decision for the El Alamein position was developing, I wanted to visit Rommel once more to discuss the position with him. Owing to engine trouble on the flight to El Daba I was compelled to land in Crete. When I landed early next morning in Africa, I was requested to go to Rome at once. The situation had deteriorated visibly. Rommel had decided to retreat and had withdrawn his right flank from the commanding Quattara position. Hitler, when informed of this, forbade any idea of a retreat and ordered, in no uncertain manner, the present position to be held. He also appealed to Rommel's honour and censured the withdrawal as cowardly running away. Rommel considered this order slanderous and binding. The whole Army should face the enemy again and he wanted to join in the fighting as a rifleman. I explained to him that such action was completely out of the question and that such a step would mean the end of the German Army in Africa and would lead to the eventual loss of Tripolitania. I told him that the Fuehrer was working on a wrong assumption since his troops were no longer in the positions but in the open desert and that the order could therefore not be countermanded. He and I immediately sent urgent signals to OKW asking for a free hand, and this was granted in a reply received the same afternoon.... This was the foundation of the fighting retreat from Egypt, which produced scenes unparalleled in the history of War, such as the retreat of Ramcke's

(1) Kesselring appears to have confused the two visits made to Germany by Rommel, one in September and the other in November 1942.

Division (Brigade), friend and foe marching along one road, mixed up together. It was fortunate for us that the R.A.F. was not sufficiently trained to bomb a retreating enemy out of existence. They had many chances to do this, especially at Halfaya Pass.'

Kesselring's allusion to the R.A.F.'s failure 'to bomb a retreating enemy out of existence' as being due to a lack of training is an oversimplification of a most complex problem. It is comparable in some respects to the Luftwaffe's own failure at the time of the Eighth Army's retreat from Gazala and, conversely, the Axis air forces' inability to stop the Eighth Army during the pursuit. These matters are dealt with in the next Section of the Narrative.

Further light on the battle of El Alamein, from the air point of view, was thrown by General Ritter von Thoma, Commander of the Afrika Korps, in the course of an interrogation. The General, it will be remembered, was captured on the last day of the battle. According to this interrogation he professed complete ignorance of all technical matters and details of organisation both in regard to the G.A.F. and the R.A.F., but he was quite willing to give his views on those questions which related to general strategy, tactics and operational results.

- '(1)Q. Why did the G.A.F. disperse its bombing effort in the Mediterranean, instead of concentrating all possible effort on Suez and the destruction of arriving British convoys. Was this general policy determined by Kesselring alone, or was it greatly influenced by Rommel?
- (1)A. Air policy in Africa was never influenced by Rommel but was laid down entirely by Kesselring who did not, however, have a free hand, as decisions of major strategy were always subject to approval or disapproval by the 'political gentlemen', i.e. the Italians. Mussolini himself constantly clamoured for more air effort in direct support of Libyan forces, and this for home political reasons.
- (2)Q. What did the Germans think about the R.A.F. in the Alamein battle?
- (2)A. We were impressed by the great superiority of your forces. Only a few days before the battle, I had a telephone conversation with Kesselring who asked me for my opinion about the work of the Luftwaffe. I told him that I felt that our chaps were so outnumbered by the English that they seemed to be reduced to a purely defensive role. He replied that this opinion agreed with reports he had received.
- (3)Q. Why did the Luftwaffe not make fuller use of the aircraft at its disposal?
- (3)A. I do not know, but one reason was certainly that we were so short of petrol.

(4) Q. How do you assess the part played by the R.A.F. in the whole action?

(4) A. The big raids on our aerodromes before the offensive started did great damage and caused a profound impression, and then of course the never-ceasing bombing by day and by night had a terrible effect.

(5) Q. Why has the G.A.F. which had previously specialised in dive-bombing now taken to fighter bombers?

(5) A. They are faster, more manoeuvrable and more economical as a weapon.

(6) Q. Was much damage done by ground-strafting attack and if so was the effect greater in the case of aircraft with cannon or with machine gun?

(6) A. Ground strafing was at times terrific. I do not know whether more damage was done by cannon or machine gun. Personally I should not think it matters much. It all happens so quickly - the planes come down near columns or concentrations and shoot at anything. They are sure to hit something, just by spraying their fire, and then you have the added damage caused by panic and confusion. Your bombers put all my batteries out of action and pounded my H.Q. all night long.

A.O.C.-in-C.
Correspondence
with the Prime
Minister, etc.
Part V. AOC/26.

The General added that 'the R.A.F. must have been very accurately informed of the emplacement of all German A.A. batteries, because when crossing the enemy lines our bombers always followed a course which passed just in between main battery positions, so that they could not be hit.'

Comparative Enemy and Allied Aircraft Losses During the Battle of El Alamein

H.Q. Middle East
Table of Operations
A.H.B./
IIJ1/31/1.

A.H.B.6 Records.

R.A.F.M.E. Weekly
Int. Summary
A.H.B./IIJ1/1.

The total R.A.F. and U.S.A.A.F. aircraft lost from enemy action during the period 24 October to the 4 November inclusive was 94 of which 71 were fighters; 36 of these were Hurricanes. According to enemy records, the German Air Force lost 85 aircraft of which 48 were fighters. Comparable figures for Italian losses are not available, but it is estimated that the Italian Air Force lost approximately 20 aircraft. This brings the combined Axis losses up to 105 aircraft. The R.A.F. and U.S.A.A.F. claimed 96 German aircraft destroyed of which 60 were fighters; this figure does not include 'probables'. In the course of the battle, therefore, the German Air Force lost some 30 per cent of their initial strength of fighters, while the Desert Air Force lost approximately 16 per cent.

The Battle of El Alamein: Summary

Once the battle of Alam el Halfa had been won, the inevitability of an offensive by the Eighth Army to destroy the German-Italian Panzer Army on the field of battle, or at least drive the invaders out of Egypt, became apparent. The timing of the battle was governed not merely by phases of the moon - which must be adequate to provide light for the attacking infantry and yet not make them too conspicuous to the defending force - and by the state of preparedness

of the Eighth Army, but also it must be made to fit into the Allied grand strategy for the war as a whole. The success of 'Torch' - the invasion of French North-West Africa by Allied forces which had been timed for 8 November - was intimately linked with the battle for Egypt. Defeat of the Afrika Korps at El Alamein would have a profound influence, not only on world opinion, but on the whole subsequent course of the war.

Since Alam el Halfa, both sides had been busily engaged, not only in strengthening their forces, but also in consolidating their existing positions. The enemy, made wise by the heavy losses in equipment and personnel whilst their main Panzer force had been exposed to the W.D.A.F. concentrated bombing, both by night and day, in the Ragil Depression, had gone to great pains to prepare slit trenches, and blast shelters for tanks and vehicles, as a defence against air attack. Moreover, the enemy defensive system had achieved a state of elaboration hitherto unparalleled in North Africa. This was particularly true of the defences in the northern sector where it was necessary to protect the coast road and railway.

In order to break through these defences, which consisted of an elaborate system of minefields strengthened with gun positions, it was planned to make the initial assault with infantry, who would open up lanes through which the armour would pass. For this, great importance was placed on a tremendously heavy concentration of artillery fire which was designed to neutralise the enemy's defences and so facilitate the task of the sappers. It was the view of the Air Officer Commanding-in-Chief that insufficient use was being made of the potentialities of air power - amply demonstrated during the period of stabilisation at El Alamein and at the battle of Alam el Halfa - for wearing down the enemy strength 'by the 24-hour day of almost incessant air attack, allowing (the enemy) no rest for day after day, interrupting his supplies and food, ammunitions, etc., dislocating his communications and control. I feel we should have made such a threat (to attack on land, thus giving) us the opportunity from the air to hammer him and weaken him for 3 or 4 days before delivering the final blow on land.'

Although the enemy could not be deceived about the Eighth Army's intention to launch an offensive, the Army Commander considered it possible, and indeed essential to the success of the enterprise, that tactical surprise should be achieved and that the enemy should be misled on the actual time and place of the attack. For this reason a cover plan was evolved, with the intention of giving the enemy the impression, through their agents and the aid of an elaborate system of camouflage, that the offensive would be launched in the south and towards the end of November.

General Stumme, however, who had succeeded Field Marshal Rommel when the latter returned to Germany on 23 September, issued a firmly-worded warning, as late as 20 October, that the Eighth Army 'may come anywhere and at any time.' Panzer Army H.Q. had frequently expressed the opinion that the Eighth Army would soon launch an offensive and a week before the battle an Afrika Korps source stated that 'various measures indicate that an offensive is imminent. The enemy has regrouped his front-line forces, considerably increased his air force and brought up large supplies.' Contrary to these accurate predictions, however, the Chief of the Foreign Armies West branch of OKH made an inspection of the front and reported no more

than seven hours before the Eighth Army launched their massive offensive, that 'contrary to the Panzer Army view, an enemy offensive was not to be expected in the immediate future.'

It was the policy of the Air Officer Commanding the Western Desert Air Force - as far as was compatible with security arrangements - to take the whole of the force under his command into his confidence over the broad policy, objectives and timing of future operations. In a series of Memoranda from Advanced Air Headquarters Western Desert, the nature of the impending operations by the land forces and the part that the W.D.A.F. was to play in them were described, and this information was passed on to all ranks in talks given before the battle. As this involved very obvious security risks, all leave to Cairo and the Delta was stopped, in conjunction with the Army authorities, the reason given being that this was a precaution before the heightened activity which normally accompanied the moon period in the desert.

The air plan for the battle of El Alamein demanded, primarily, an unusually high degree of local air superiority which would enable the Army Commander's cover plan to be carried through successfully, and also permit the extensive regrouping of the land forces to be carried out free from interference by hostile aircraft. Air operations for the battle, therefore, had their inception on 19 October - five days before the land offensive - when a series of intensive attacks on the enemy forward fighter and dive-bomber landing-grounds were begun. In preparation for these attacks, models of landing grounds were constructed for the briefing of pilots. Although the number of aircraft destroyed in this series of day-and-night raids was not high, it resulted in a sharp drop in the enemy air forces' serviceability. General von Thoma, the Afrika Korps Commander, testified to the effectiveness of these attacks during his interrogation. 'They did great damage,' he said, 'and created a profound impression.' Perhaps the best confirmation of the success of these tactics is contained in the fact that throughout 23 October - the offensive was launched at 22.00 hours that night - not only were Western Desert Air Force fighters able to maintain a standing patrol over the enemy's forward landing-grounds, but the Eighth Army were able to report that no enemy aircraft had operated over their area. In point of fact we now know that on 23 October aerial reconnaissance in the vital northern sector was completely denied the enemy.

Part of the air plan for the battle of El Alamein also involved preparations for the pursuit. To facilitate this, the W.D.A.F. was divided into two forces - Force 'A' and Force 'B': Force 'A' was to go forward to provide the advancing land forces with air support, whilst Force 'B' acted as a reserve of personnel and aircraft and at the same time undertook the defensive commitment of protecting lines of communication. It was also planned that the field striking force should be augmented by the use of the whole of No. 205 Group's strategical force of medium bombers - including the two squadrons of Albacores borrowed from the Fleet Air Arm - for tactical night-bombing in the battle area and also for attacks against the enemy's forward landing grounds. Beaufighters of Nos. 252 and 272 Squadrons were borrowed from No. 201 Naval Co-operation Group for long-range operations against the enemy's lines of communication, although as it happened they frequently reverted to their original rôle in the escort of shipping strikes. In point

of fact it meant that the principle of the concentration of force, in time and place, had been followed to its logical conclusion and every available operational aircraft was to be devoted to close support of the Eighth Army's offensive.

The general plan for the employment of the field fighter force was for the three Spitfire squadrons to be used, in the main, on offensive sweeps, in patrols over the enemy's forward landing-grounds, and to reinforce the Hurricane squadrons. The Kittyhawk force of 10 squadrons (which included the three American squadrons) was primarily to act as bomber escort, fighter-bombing against opportunity targets, armed reconnaissance, long-range strafing attacks in rear areas and lending support to the Hurricane squadrons. The Hurricane force of 8 squadrons (plus one night-flying squadron) were retained for protection in the battle area, escort of Tac/R and anti-tank squadrons, ground attack on selected objectives and the night-fighter squadrons (No. 73) to operate in a protective role over the battle area, on intruder patrols and against enemy lines of communication.

Although numerically inferior, the German fighter force was technically superior to the W.D.A.F. field fighter force, almost half of whose squadrons were equipped with the obsolete Hurricane. The enemy fighter force in Africa had been largely re-equipped with the Me.109 G which was superior in performance and armament even to the Spitfire, of which there were only 50 available for the battle. There was also a possibility that the enemy would introduce the F.W.190, in strength, to North Africa, as this aircraft had been reported there, most probably for experimental purposes, with a view to its introduction into operational units at a later date. This was an ever-present threat to W.D.A.F. air superiority, for the F.W.190 was superior by far to any allied fighter at that time in North Africa. At this time, Fighter Command had at their disposal a force of 48 squadrons of Spitfires totalling over 800 aircraft. Air Ministry policy had also had the effect of reducing the night-bomber force of Wellingtons which had played such a valuable part in the battle for the stabilisation of the Eighth Army at El Alamein, in July, and again in the battle of Alam el Halfa, so that since July it had dropped by almost one half, from 130 to 70 aircraft. At this time Bomber Command had a strength of 63 squadrons and 970 aircraft. The A.O.C.-in-C. was very concerned at the Wellington situation and signalled during the battle for a reconsideration of A.M. policy. 'I am convinced,' he wrote, 'that a strong night-bomber force is a vital factor in the campaign out here, whether to attack enemy land or air forces or his supplies and ports.' This statement is amply borne out by enemy documents.

At the opening of the battle of El Alamein, the main body of the enemy air force was caught strategically off-balance, being deeply involved in what proved to be the final Axis air offensive against Malta. This was a repetition of the faulty planning which had led the enemy to divert their main air effort from the battle area to the neutralisation of Malta, at a time when, even had the attacks been successful, they could have had little immediate effect on the course of the land battle. As soon as the Eighth Army offensive began, however, a redistribution of the force from the Central to the Eastern basin of the Mediterranean was made. Reinforcements were also rushed from Germany, but by this time it was too late.

With the exception of some 10 fighters, the whole of the German air force in North Africa was concentrated in the forward operational area. The Italians, on the other hand, undertook mainly a defensive commitment in the rear. Largely due to the vulnerability of the Axis supply routes from Europe to North Africa, coupled with the consistently aggressive air policy pursued by Middle East Command, the Axis air forces were stretched to the limit in the Mediterranean. The long-range bomber force of Ju.88 aircraft, based on Crete - more than twice the strength of the strategical force available to the R.A.F. in the Mediterranean - was misemployed and wasted on convoy escort work.

The enemy had a strength of approximately 800 front-line aircraft in North Africa, of which 600 were fighters. Only one third of the fighter strength, however, was German. The lack of homogeneity in the Axis air forces was one of its salient weaknesses. There was also the long-range bomber force of some 250 aircraft, based on Crete, mentioned above, and the strong transport fleet of some 250 Ju.52 aircraft, mainly employed during this period in ferrying petrol and urgently-needed supplies to the Panzer Army. The Allies had a force of some 1000 operational aircraft in North Africa of which approximately 90 per cent were British-manned. In the Desert, in close-support of the Eighth Army, there were concentrated some 750 aircraft, of which 420 were fighters. In the battle area, therefore, the German Air Force were outnumbered by approximately 2 to 1 in fighters, and as their serviceability was low the figure was even higher. The W.D.A.F.'s numerical superiority was offset to some extent by the comparative obsolescence of many of their aircraft.

Since the battle of Alam el Halfa, six weeks before, the W.D.A.F. had been preparing for the final offensive in the desert. Squadrons had been rested, trained and, as far as operational wastage permitted, brought up to establishment. Forward airfields had been prepared no more than thirty miles from the actual battle front which served to increase both the range and endurance of the Hurricane squadrons. The American squadrons had been gradually absorbed into the W.D.A.F. by a system of infiltration. A forward fighter control had been installed on the Ruweisat Ridge, some 40 miles forward of the main fighter base. Squadrons had been well practised operationally over the terrain and constituted a seasoned, veteran force well-versed in what had come to be known as 'Desert wisdom'.

The blockade of the German-Italian Panzer Army in North Africa, carried out by the Royal Navy and the Royal Air Force and intensified in anticipation of the Eighth Army offensive, had proved remarkably successful. Shortage of food had led to a very high incidence of sickness among the German troops. The Panzer Army's supply position for both fuel and ammunition was critical, as a number of highly successful strikes by the R.A.F. and submarines had reduced the enemy's seaborne supplies to a mere fraction of its true requirements. The only reliable supplies of petrol were being obtained by airlift in Ju.52 aircraft. Logistical difficulties limited drastically the size of the air forces the enemy could operate in North Africa, involved the waste of the enemy's strategical bomber force in almost completely useless convoy escort work and led to constant friction, not only between the Germans and the Italians, but even between the Panzer Army and the Luftwaffe.

At a later stage in the battle, it even affected the enemy Commander-in-Chief's tactical deployment of his armoured divisions. 'We are living from hand to mouth,' signalled the enemy Commander, on the eve of the battle. 'We fill one gap only to see another open. We cannot build up the basic supply which would enable us to overcome critical situations through our own resources and which allow operational freedom of movement which is an absolutely vital necessity for the Army.'

The Eighth Army Commander's final plan for the battle was for XXX Corps to clear two lanes through the enemy minefields, permitting the passage of X Corps - the armoured 'corps de chasse' - to pass through and, ultimately, destroy the enemy armour. XIII Corps were to mount an offensive in the south which would be primarily diversionary in intent and, by misleading the enemy as to the location of the main thrust, help to keep the 21st Panzer Division on that front. The Royal Air Force were to commence their offensive operations by attacking the enemy air forces, in order to ensure a high degree of local air superiority, after which the whole weight of the air effort was to be turned to close co-operation with the Eighth Army in the land battle.

The enemy's main line of defence was held by rather more than six divisions. Four armoured and two mobile divisions were held in reserve of which half were German and half Italian. The armoured divisions were organised into four main groups. In the north, on the XXX Corps sector, were the 15th Panzer Division and the Littorio and, on the XIII Corps front in the south, the 21st Panzer Division and the Ariete. Further to the rear in the north was the German 90th Light Division in the region of Ghazal, with the Trieste around Daba. The dispersal of the enemy armour in groups is thought to have derived from General Stumme's handling of the force, as it followed closely the principles for the use of armour in a defensive battle as practised on the Russian front. General Stumme was the acting Commander-in-Chief who had relieved Field Marshal Rommel when the latter had returned to Germany on 23 September.

Intensification of the air war began on 19 October with a series of concentrated day-and-night attacks by the Royal Air Force on the enemy's forward landing-grounds at Daba and Fuka. Air Marshal Coningham's 'weather blitz' of 9 October, together with the enemy air offensive against Malta, had already reduced the enemy strength of serviceable aircraft in North Africa, so that by 23 October, the day the Eighth Army offensive was launched, W.D.A.F. fighters were able to carry out continuous fighter patrols over the enemy's forward fighter bases, and Eighth Army reported no single enemy aircraft over their area during this vital period. 'Owing to strong fighter defence,' says an enemy source, 'observation could be made over only part of the southern area. No changes were identified.' The Eighth Army cover plan - Operation 'Bertram' - had succeeded. During this day infantry of the 9th Australian, 51st Highland, the 2nd New Zealand and the 1st South African Divisions were lying unobserved in slit trenches, awaiting the offensive.

At 22.00 hours on 23 October 1942, Operation 'Lightfoot', the Eighth Army's major offensive, was launched, after 20 minutes' intense counter-battery bombardment by some 800 guns. The programme for the night-bombing operations assigned to the Wellingtons and Albacores of No. 205 Group was for 60 per cent of the force to concentrate on battery

positions in the north, as the primary target, with the possibility of 15th Panzer Division's concentrations as a secondary target. In the south, where the balance of the night bombers was to operate, the primary target was the 21st Panzer Division. Owing to the weak strength of the medium-bomber force, the number of Wellingtons able to participate in operations over the battle area was limited to 54, (1) but, by making double sorties and including the Albacores the number of bomber sorties was raised to 78. The fact that 'strong bomber attacks' were directed 'particularly on our gun positions' was remarked on by the enemy.

In spite of the weight of the artillery fire and the initial element of surprise, enemy resistance was by no means crushed or any part of their defences overwhelmed. In the northern sector, the XXX Corps attack was slowed down. This delayed X Corps' attempt to pass through the minefield gaps, and both 1st and 10th Armoured Divisions got behind schedule. In the XIII Corps sector, also, the attempts to break through the enemy's minefield system were only partially successful. Although anticipated for so long, the strength of the Eighth Army offensive was plainly unexpected, and there is a pervasive feeling of hopelessness about the enemy war diaries from the start. General Stumme, the acting Commander-in-Chief, showed indecision, giving first one order for 15th Panzer Division to counter attack, then countermanding the order, then committing the Division the next day in the first of the piecemeal attacks which finally ended by the decimation of the Division.

Air policy for 24 October, the first day of the offensive, was primarily directed towards 'helping X Corps on to their objective'. In spite of adverse weather conditions, the W.D.A.F. flew approximately 1000 sorties in close support of the ground forces. Dawn reconnaissance showed that there had been no appreciable change in the disposition of the main enemy forces during the night. The 15th Panzer Division was in the north, opposite the XXX Corps sector, with 90th Light Division held in reserve along the coast. The most important fact revealed by this first-light reconnaissance was that the 21st Panzer Division was still held in the south by XIII Corps.

Although inviting targets were offered by enemy concentrations in the south throughout 24 October, they were not engaged owing to the Army Commander's ruling that the maximum air support should be concentrated in the northern sector. This policy of concentration of air strength on this vital sector was adhered to throughout the battle. The enemy A.A. gunfire was intense and accurate and eight light bombers were shot down and another 27 holed. At the outset, targets were relatively poor for the light bombers, but as the enemy armour concentrated to withstand the Eighth Army attacks and also to counter attack, in turn, targets improved. Fighters were active patrolling the battle area and the enemy's forward landing-grounds keeping the sky clear for the light bomber operations and also affording protection to the ground forces in the area of the gaps in the minefields, where they were particularly vulnerable to air attack. This policy proved effective, as only

(1) Including six Wellingtons used for jamming operations.

one small fighter-bomber attack was carried out by the enemy in the afternoon and no damage was reported. Throughout the day the enemy fighters were dominated and kept consistently on the defensive.

In the afternoon of the 24th rising dust on the W.D.A.F.'s advanced fighter landing-grounds dislocated the fighter programme. It became necessary to decide, either to cut down the number of fighters used as escort for the bombers, or else to reduce the numbers of standing patrols. Faced with this alternative by the Air Officer Commanding the Western Desert Air Force the Army Commander decided to continue the bomber attacks, with the proviso that fighters should be switched over to patrol work should enemy dive-bomber attacks develop. On this opening day of the offensive, valuable help was given to the Free French by Hurricane 'Tankbusters' of No.6 Squadron and No.2 Squadron (S.A.A.F.), which put an entire company of the Kiel Group operating with captured tanks out of action, destroying seven tanks, seriously damaging five more and leaving only one capable of action. During the day two bomber raids were directed against landing grounds in the Daba area, in order 'to maintain enemy anxiety as to security of aerodromes.'

The enemy reported continuous day-and-night air attacks on their front-line troops, the coast road and forward landing grounds. They were unable to make use of Stukas owing to the shortage of fighters for escort purposes. Panzer Army also reported that their supply position was very difficult, as there were only two consumption units in the forward area. Should the tankers the Proserpina and the Luisiano fail to arrive on 26 October, then the supply position would be 'very serious'. Both these tankers were subsequently sunk by the Royal Air Force. On 24 October, the enemy system of air lift of petrol by transport aircraft from Greece was inaugurated, with an estimated daily transport of 150 tons.

An early casualty in the battle was General Stumme, the acting Commander-in-Chief. There was a delay of 24 hours before the body of General Stumme was found and from 08.30 hours on 24 October when General Stumme went forward on a reconnaissance until 16.00 hours when the Commander of the Afrika Korps, General von Thoma assumed command of the Panzer Army, the enemy forces were without centralised control or direction. This is probably the fundamental reason why the 15th Panzer Division was wasted in piecemeal counter attacks and the main enemy armoured force remained split for so long, with the 15th Panzer Division in the north and the 21st in the south.

The programme set the night bombers of No.205 Group for the night of 24/25 October was for the full weight of their attack to be concentrated solely against the 15th Panzer Division leaguers, in the north. Double sorties enabled 84 medium bombers to operate over the battle area. As anticipated, the best targets were located in the locality of the Sidi Abd el Rahman track, in the northern sector, where the 15th Panzer Division were leaguering. Targets were found to be better dispersed than on the previous night, but fires were started. The enemy remarked on the 'continual bombing attacks during the night, heaviest against the northern sector.' Night-flying Hurricanes of No.73 Squadron were up, carrying out a total of 14 sorties on intruder and interception patrols. They missed however the night activity of enemy dive-bombers which scored the

enemy air forces' only real success of the battle. Either a shell or a bomb on a petrol lorry in one of the minefield gaps on XXX Corps front caused fire which involved some 25 lorries carrying petrol and ammunition. These provided an ideal landmark for both the enemy artillery and bombers, with the result that the whole Eighth Army offensive was held up on this part of the front. At a conference held in the early hours of 25 October, the Army asked that 'considerable measures should be taken by the R.A.F. to neutralise these night bombing attacks.' It was decided to intensify the raids on the enemy landing-grounds, not only in North Africa, but in Crete, as the raids had been carried out by Ju.88 aircraft based on that island and briefed for operations at forward airfields in North Africa. There would also be increased night-fighter patrols over the battle area and night-intruder patrols over the enemy forward air-bases.

Soon after dawn on 25 October, the 15th Panzer Division began a series of counter attacks by battle groups of from 20 to 40 tanks. The way in which this Panzer Division was committed piecemeal revealed more than anything the absence of Rommel's control, for his most favoured tactics as the Commander of an armoured force had always been the single concentrated attack. These small battle groups were broken up individually as they came in. They served merely to whittle away the enemy's tank strength and, by the end of the day's operations, the 15th Panzer Division had lost some three-quarters of its tank strength. It is ironical that until Rommel's return, when he followed the principle of the single concentrated blow and also brought up the 21st Panzer Division from the south and the 90th Light Division from their position along the coast, the targets presented to the light bombers were, generally speaking, poor. Although wasteful from the point of view of the land-fighting, the piecemeal attacks made by the 15th Panzer Division on 25 October did to a large extent defeat the bomber.

The best targets were found in the Deir el Abyad area, which was the main assembly area for the 15th Panzer Division and against which some 112 tons of bombs were dropped. Owing to the success of the enemy's bombers during the previous night, almost one quarter of the day's light bomber effort was directed against enemy forward landing-grounds. In most of the light bomber raids, almost one half of the escorting fighters carried one 500 lb. bomb, thus increasing the weight of the bombing attack very considerably. The fighter bomber which could operate efficiently in the dual capacity of a fighter and a bomber had shown the inherent weakness of the dive-bomber which was that of over-specialisation. An indication of the high degree of local air superiority achieved by the R.A.F. in the early stages of the battle is exemplified by the fact that No.208 Squadron Army Co-operation reconnaissance aircraft were able to operate without escort. This lack of fighter opposition was due to the fact that the German Air Force, at this time, had no more than 20 serviceable fighters. The enemy petrol supply situation was giving rise to much anxiety, as there now remained only 1.5 petrol consumption units. There was also an acute shortage of some kinds of ammunition. Rommel called at Rome on his way to North Africa and demanded that 'all Italian submarines and warships should immediately be transferred to the Supreme Command for the transporting of supplies for the Panzer Armee Afrika.' He arrived at Battle Headquarters

at 20.00 hours on 25 October and resumed command of the German-Italian Panzer Army.

That night, 25/26 October, all available Wellingtons of No.205 Group, assisted by flare-dropping Albacores of the Fleet Air Arm, continued their attacks, still concentrating the main weight of their bombing on the XXX Corps front and finding their best targets in the region of Tell el Aqqaqir. A total of 129 tons of bombs was dropped in the course of the night's operations of which 10 per cent was directed against landing grounds. Hurricanes of No.73 Squadron more than doubled their sortie rate by flying 30 sorties during the night. Several hostile aircraft were chased away from their objectives which appeared to be again the congested and vulnerable minefield gaps on the XXX Corps front. There was no repetition of the previous night's bombing attacks by the enemy. On the northern sector, the 26th Australian Brigade began the first phase of what eventually proved to be the most important Eighth Army manoeuvre of the whole battle. At midnight they attacked northwards to the sea and by dawn had gained a strongly defended and valuable vantage-point in the area of Tell el Eisa. The 51st Division also made local gains. In the southern sector XIII Corps carried out a limited operation to divert the enemy's attention. It succeeded in its main object which was to retain the 21st Panzer Division in the south, thus forcing the 15th Panzer Division to fight alone for an invaluable 48 hours during the most crucial opening stages of the battle.

Air policy for 26 October, the third day of the battle, was directed towards giving the maximum possible close-support to the Australians in the north and preventing the enemy from launching counter-attacks. A total of 120 light bombers dropped 80 tons of bombs on this small and vitally important area where the enemy, forming up for counter-attacks in their assembly areas, were dispersed before starting. Long-range Kittyhawks carried out three successful operations on 26 October, causing considerable damage to enemy transport and trucks in their rear areas. The cumulative losses from these attacks were considerable and eventually the enemy were forced to set up a system of permanent 'flak' posts along the coast road, and also institute a patrol of fighters. Another successful operation was carried out by 'tankbusters' of No.6 Squadron and No.7 S.A.A.F. Squadron which attacked a force of some 25 A.F.V.s, including a number of captured Eighth Army trucks, in the southern sector. They were credited with the destruction of four tanks, five armoured cars, one half-tracked vehicle and a lorry.

On 26 October there were signs that the enemy air force had been strengthened as strong fighter sweeps were carried out. Enemy bombers were also more active and Eighth Army reported six raids of which four were by fighter bombers. The W.D.A.F. considered 26 October to be their most successful day's air fighting. They claimed four Me.109's and three Ju.87's destroyed for the loss of seven fighters. Enemy records show that four S.E. fighters, two fighter bombers and four Stukas were destroyed. That same day a most serious deterioration in the Panzer Army supply situation was caused by the sinking of the 4870 tons tanker the Proserpina and the 5890 ton merchant vessel Tergeste. The Proserpina which was transporting 2500 tons of petrol to the Panzer Army was sunk by a mixed striking force of eight Beauforts of No.47 Squadron, five Bisleys of No.15 S.A.A.F. Squadron escorted by nine Beaufighters of

Nos. 252 and 272 Squadrons. In this single tanker's cargo was the equivalent of 17 days' airborne supplies of petrol. This sinking was not made without loss, as the attacking aircraft came under the fire, not only of the four escorting destroyers but of the shore batteries as well, and over one quarter of the attacking force was lost. Three torpedo-carrying Wellingtons of No. 38 Squadron sank the Tergeste in a dusk attack that same day when she was moored just outside Tobruk harbour. The enemy defences were taken completely by surprise. One Wellington was lost. That evening Rommel sent a report to the German War Ministry and the Italian Supreme Command in which he said, 'Now that the Proserpina has been burnt off Tobruk (the Tergeste had not yet been sunk) the Panzer Army has petrol for only two or three days' current consumption. Therefore it is impossible, at present, to initiate mobile operations by the Panzer and motorised troops, although this is most urgently necessary. If every possible method is not used forthwith to send us petrol, there is no prospect of success.' Shortage of fuel even affected the disposition of the enemy, for Rommel was reluctant to move the 21st Panzer Division up from the southern sector as he knew that once he had done so, the shortage of petrol would make it impossible for the division to be moved back, should the Eighth Army Commander decide to strike in that sector.

By the evening of 26 October, when the Eighth Army Commander held a conference at which he decided to regroup to form a reserve for future operations, it was clear that the first phase of the battle of El Alamein - Operation 'Lightfoot' - had come to an end. In spite of the way in which the enemy armour had been weakened, X Corps had still not managed to break out into open country. A pause was therefore needed for regrouping of the ground forces, during which the air force would become the main offensive weapon, until the land offensive could be resumed. It was during this period when the Eighth Army were least prepared to withstand an onslaught by the enemy that the air force made one of their most valuable contributions to the land battle by smashing a series of typical Rommel old-style counter attacks and also weakening still further the Panzer Army seaborne supply position. Very shortly after his arrival in North Africa, Rommel began the concentration of his armour and mobile reserves in the northern sector by ordering the 90th Light Division forward from the coast and moving the 21st Panzer Division up from the south by forced marches, through the night of 26/27 October. This meant that the optimum conditions for intensive bombing operations by the R.A.F. were being created. The move of the 21st Panzer Division was badly hampered by the night bombers of No. 205 Group, which were again operating over the battle area, and could not be completed until the morning. By this time the number of Wellingtons available for tactical bombing in the battle area had dropped to twenty-six. On the ground, night operations in the XXX Corps sector resulted in the capture of Kidney Ridge. Although there was some dispute at the time about the exact extent of the gains made, there is no doubt that a valuable success was scored, as it stung Rommel into launching the next day, 27 October, his big armoured counter attack in the old style which presented a series of splendid targets to the W.D.A.F. bombers.

The air policy laid down for 27 October was to attack 15th Panzer Division and 90th Light Division 'wherever the best targets were located.' The presence of the 21st Panzer Division in the northern part of the front was not

confirmed until later in the day. A total of nearly 200 light bombers attacked enemy concentrations in the Tell el Aqqair area, mostly within 3,000 yards of the Eighth Army's forward positions, using the Sidi Abd el Rahman track as a landmark. Forward formations of XXX Corps reported enthusiastically on the bombing. This major attack of Rommel's on 27 October was a failure. It was planned as a counter-attack in the old style, using all available tanks, both German and Italian, supported by artillery, anti-aircraft and Stukas. In addition to having their assembly areas bombed, the supporting dive-bomber attacks were broken up by U.S.A.A.F. Warhawks. By this, the fourth day of the battle, the enemy forces were in a critical plight. The 15th Panzer Division had lost two thirds of its tanks and certain units had been almost completely wiped out. Due to the recent sinking of supply ships, the move of the 21st Panzer Division to the northern sector and the fact that only 70 tons of fuel had been flown across on 26 October, the German Panzer Divisions - on whom must rest the main brunt of the fighting - had been reduced to a single consumption unit of petrol. As a result of the most urgent representations to Kesselring, it was promised that between 3 to 400 tons of petrol daily would be flown over for the Panzer Army 'until the next tanker's arrival.' A serious ammunition supply position could not be relieved from existing stocks in Tripoli 'because of the serious coastal shipping situation.'

Whilst the Eighth Army continued with the reorganisation of their forces for Operation 'Supercharge' - the code name for the new Army plan to break through the enemy's defensive position - during the night 27/28 October, No.205 Group pursued their policy of exerting the main pressure of the night bombing on close-support targets. A total of 67 aircraft operated, and direct hits on enemy transport were scored and also many near misses. Hurricanes of No.73 Squadron operated over the battle area and carried out intruder patrols over the Stuka base at Sidi Haneish.

Again on 28 October - the fifth day of the battle - 'when the enemy attempted to concentrate for the final attack, the R.A.F. once more intervened on a devastating scale. In two and a half hours seven light-bomber formations dropped 80 tons of bombs in his concentration area, measuring 3 miles by 2, and the enemy's attack was defeated even before he could complete his forming up.' A Panzer Army report confirmed this quotation, (1) and stated:-

'The enemy's air activity, still increasing in comparison with previous days, was again directed against the front-line troops in the northern sector. One division was attacked three times in a quarter of an hour by 18 heavy bombers. During the day, 11 heavy bombing attacks were carried out on 21st Panzer Division's area. In the southern sector, the enemy's so-called 'tankbusters' attacked our armoured reconnaissance troops at various times. No.33 Recce Unit reported that during the last six days it had lost 18 armoured cars through enemy fighter action. Our own air force, as on previous days, supported the defence by bold raids with all available forces; but

(1) Taken from a personal despatch from General Alexander to the Prime Minister.

it was much too weak numerically to bring any relief to the troops who were suffering severely under the vast English air superiority. Army therefore requested the C.-in-C. South to reinforce the air strength, especially with fighters.'

On this same day, 28 October, another severe blow was dealt the enemy's already sufficiently precarious petrol position by the sinking of the 2500 ton tanker, Luisiano. She was carrying 1,500 tons of fuel to the Panzer Army when she was sunk off Sapienza by two torpedo-carrying aircraft of No.69 Squadron based on Luqa, Malta. The strike involved an unescorted round trip of some 800 miles over a wholly sea-route and, apart from other considerations, was a remarkable feat of navigation. Measures recommended by the enemy to meet the critical supply position, which resulted from the loss of the tanker Luisiano and other ships, was for 8 to 10 submarines to carry ammunition, the use of all possible Italian aircraft, including civilian transport lines, and the transfer of another German transport Group from the Western front to Italy. G.O.C. Rome advised that 10 submarines would be sent from Sicily to Mersa Matruh, on 30 October, to transport 200 tons of ammunition, in short supply.

During the night 28/29 October, the enemy's wide dispersal reduced the value of the bombing of the Wellingtons and Albacores, and the results, generally speaking, were disappointing. It was during this night that the first preparatory attack for Operation 'Supercharge' was begun by XXX Corps. The 9th Australian Division attacked northwards at 22.00 hours, driving a narrow wedge into the enemy's positions which almost reached the coast road. The result was the 'cocked thumb' salient which was to have considerable influence on the battle. This almost encircled the 125th Panzer Grenadiers and Rommel was eventually to waste the greater part of his remaining force on effecting their release.

The enemy policy of wide dispersal against air attack was pursued the next day, 29 October. This caused poor targets to be presented to the light bombers which, throughout the morning, were diverted to attacks on enemy landing-grounds. It was not until 13.15 hours that a report was received by Air Support Control, from the Army, that the enemy were concentrating and the full bomber programme was put into operation. A high proportion of the attacking bombers was damaged by flak which was always most lethal when there was a lull in ground operations. Under such conditions the fighter bombers came into their own and for the first time in the battle the number of fighter-bomber sorties exceeded those made by the light bombers. Further highly successful attacks on the enemy's rear areas and lines of communication were made by Kittyhawks of No.250 Squadron fitted with long-range tanks. There was a significant trend in the enemy's air operations as the fighter bomber now appeared to be replacing the dive bomber for close support work. A slight relief in the petrol situation was afforded the Panzer Army by the way in which airborne supplies had been stepped up, so that the level had risen to two consumption units. 'Taking a long view, however,' says an enemy report, 'the situation was as critical as ever, because the main enemy attack was awaited and might begin any time.' Ammunition supplies, on the other hand, had fallen to 0.7 of establishment.

The night of 29/30 October, the Wellingtons and Albacores found some of their best targets in the battle area due possibly to the fact that Rommel had packed still more of his reserves into the vital northern sector. A heavy raid was also directed by Liberators and Halifaxes of Nos. 160 and 462 Squadrons against Maleme airfield, in Crete, with the object of disrupting the transport service of petrol and other vital supplies to the Panzer Army. This transport fleet was, however, an elusive target and no success comparable with that scored against the seaborne supplies was attained. (1)

On 30 October, the main air effort was directed towards giving close support to the Australians. It was planned by the Army that the Australians would attack north east towards the coast during the night and the R.A.F. accordingly agreed to give priority to targets opposite the Australians' salient. Dispersal of targets and a ground mist limited opportunities for light-bomber operations for the greater part of the day. Although the fighter-bomber effort was spread over the whole of the day, as targets presented themselves, the light-bomber attacks were timed to take place so that they would reach their maximum concentration just before dusk and as close as possible in time to the Australians' attack. A total of 150 light and fighter bombers dropped 85 tons of bombs in support of the Australians' attack. Owing to the proximity of good landmarks, such as the railway, it was possible to direct the bombing to within 1000 yards of the Australians who reported enthusiastically on the results. Beaufighters of No. 252 Squadron carried out a last-light attack on Ju. 52 transport aircraft on El Adem airfield, claiming one Ju. 52 destroyed. They then attacked a variety of targets on their way back to base, but lost three aircraft in a severe electrical storm. This was the climax of much interference with the enemy's supply system in rear areas by long-range fighters. As a result, the enemy gave orders for anti-aircraft posts to be set up along the main coast road. Later, a system of fighter patrols was also instituted.

During the night 30/31 October, the Australians struck north-east and then east from their salient. This attack caught the enemy at a time when the relief of the 21st Panzer Division by the Trieste was in progress. The Australians managed to cross the coast road, thus almost encircling the 125th Panzer Grenadiers. The arrival of 400 tons of petrol by destroyer and an increase of airborne supplies meant a further temporary increase in the enemy's petrol stocks. On the other hand there had been a marked deterioration in the supply position of all kinds of ammunition and some 20 Italian scows were pressed into use for the transportation of ammunition from Tobruk to Matruh.

By this time the battle had lasted a week. Owing to what the enemy termed the 'systematic attrition tactics' being practised by the Eighth Army, Rommel realised that his troops were in no position to prevent a break through, should the Eighth Army again launch a full-scale attack. He therefore gave orders for another position to be reconnoitred and prepared at Fuka. His reaction to the encirclement of 125th Panzer Grenadiers was violent.

(1) The enemy's Mediterranean air transport fleet was virtually annihilated in April 1943, towards the end of the campaigns in North Africa.

Although it still remained possible to withdraw them at night along the coastal strip, Rommel ordered the attack for their relief to be resumed. This was a critical period in the battle, for whilst the Eighth Army were still involved in extensive regrouping, in preparation for Operation 'Supercharge', they remained most vulnerable to further enemy counter attacks. Furthermore, the Australians were very tired, had sustained heavy casualties and had not yet fully consolidated their gains. Had Rommel been able to employ the whole of his remaining force - which was still considerable - in the single concentrated blow so characteristic of his tactics, it would have caught the Eighth Army off-balance, at a time of considerable weakness.

Practically the whole of the bombing for the night 30/31 October and the next day, in the battle area, and which amounted to 89 tons of bombs, was dropped on a very limited area in the northern sector, opposite the Australians, and from which the counter attack was expected. A small body of tanks - some 20 in all - did manage to break through down the road and join the 125th Panzer Grenadiers. To the Eighth Army Commander's viewpoint, however, this was advantageous, as the Panzers were now being drawn into the area which best suited his plans and the enemy were now being induced to waste their strength on counter-attacking the Australians. Bombing the enemy in the battle area during the night 31 October to 1 November was continued. Attacks were also resumed against landing-ground 14 where enemy fighter reinforcements and gliders had been located, while 15 heavy bombers attacked the Ju.52 air base at Maleme, starting fires and explosions. That night, torpedo-carrying Wellingtons of No. 38 Squadron Detachment attacked an enemy convoy consisting of 2 destroyers and a smaller vessel, thought to be a torpedo boat (the Ostia of 348 tons) which were escorting the 1464 ton S.S. Tripolino which was carrying fuel and ammunition to the Panzer Army. The Tripolino was hit by a torpedo and disappeared. The smaller vessel was sunk the next morning by a Beaufort of No. 47 Squadron.

On 1 November, Rommel made renewed attempts to relieve the 125th Panzer Grenadiers. It was a day of bitter fighting and Rommel, who was personally in charge of the operations, was on the field of battle for 10 hours. A pre-arranged Stuka attack, which was to support the enemy's main counter-attack, was broken up by No.112 Squadron, assisted by U.S.A.A.F. Warhawks of No.66 Squadron. This counter attack which Rommel was forced to launch without this strong force of some 30 dive bombers was a failure. Fighter bombers were very active and flew 179 effective sorties in support of the Australians. There was only a single raid by the light bombers due to the lack of suitable targets. It was a morning attack made at a time when the enemy were forming up for their counter attack on the Australians and 18 Bostons of No.12 S.A.A.F. Squadron dropped 68 x 250 lb. bombs. In spite of heavy and accurate A.A. gunfire the raid was considered to have been most successful. The enemy reported that, although the Eighth Army activity had slackened, air attacks continued 'undiminished both by day and night. The area of Sidi Abd el Rahman, the telegraph track, Point 28 and 125th Panzer Grenadiers were attacked 34 times during the day.' Owing to the critical supply position - the Panzer Army had been almost completely cut off from seaborne supplies of fuel and ammunition for the whole of the battle - it was decided as an emergency measure to employ two naval auxiliary vessels, the Zara of 1976 tons and the Brioni of 1987 tons. A Beaufort of No.47 Squadron sank the Zara

on the morning of 1 November and the Brioni was sunk at dusk the next day during an attack on Tobruk by U.S.A.A.F. Liberators.

The Eighth Army's final offensive for the battle of El Alamein - Operation 'Supercharge' - was launched at 01.05 hours on 2 November. As a planned operation, it followed closely the pattern of Operation 'Lightfoot', being supported by a very strong concentration of artillery, after which infantry would advance to open the way for the tanks through the enemy minefields. The most important respect in which Operation 'Supercharge' differed from Operation 'Lightfoot' was in the use of the air force. The whole of the medium bomber strength of No.205 Group was used for the softening up of the enemy's defences. These night-bomber operations lasted for seven hours, in the course of which 107 sorties were flown and 184 tons of bombs dropped, representing approximately 26 tons of H.E. an hour. Illumination was provided by Fleet Air Arm Albacores which located an abundance of targets, both in the battle area, and in the region of Ghazal Station. According to the enemy, as a result of a particularly heavy attack on the Afrika Korps Advanced Battle Headquarters, all telephone communications broke down and the Corps Commander was wounded by a splinter.

Between dusk 1 November and dusk 2 November, the whole of the available air strength was flung into the battle, at maximum effort, in support of Operation 'Supercharge'. The total weight of bombs dropped reached 352 tons - considerably more than double the weight for the first 24 hours of Operation 'Lightfoot'. Sorties totalled approximately one thousand, including the record total of 233 sorties made by the light bombers. At no time were the enemy dive bombers able to pierce the W.D.A.F. protective screen of fighters and on one occasion the Stukas were forced to jettison their bombs on their own forward positions. Spitfires were particularly active flying protective patrols over the Royals whose armoured cars had managed to pierce the enemy's defences and were operating against the enemy's supply echelons well to the enemy rear. The intensity of the bombing was such that, on one occasion, Eighth Army reported that, after a particularly successful raid by Bostons of No.12 S.A.A.F. Squadron, 200 of the enemy immediately surrendered.

On this day, 2 November, took place the largest clash of armoured forces of the whole battle, known as the battle of Tell el Aqqaqir. It was a bitterly contested fight and 9th Armoured Division suffered over 75 per cent casualties. But the enemy had suffered even more crippling losses and, by 17.30 hours, Afrika Korps reported that they had only 35 tanks left. The enemy reported that continuous day-and-night air attacks had been resumed against the hard-pressed troops in the northern sector. Their own air forces were too weak to give any effective relief to the ground forces 'who were suffering severely under the great British air superiority.' The enemy's reserves of petrol and ammunition had again become severely depleted and the increased demand on petrol, owing to the intensive fighting, had decreased the supply in the forward area to 1.7 units. Certainly three destroyers which carried between them 190 tons of ammunition had arrived in Tobruk, but on the other hand the Brioni with 255 tons of ammunition had been sunk and the day's expenditure had amounted to 450 tons.

'All things taken into consideration,' says an enemy appreciation of the situation, 'it had to be admitted that after a desperate 10-day struggle against an enemy superior on land and in the air, the Army was in no condition to prevent a further attempt at breaking through. A withdrawal to the Fuka position was therefore unavoidable, as all the minefields and fortifications in the northern sector of the Alamein front had been lost, and the country between the telegraph track and el Daba was not suitable for the construction of a firm line. The Army Commander, therefore decided to begin all preparations to withdraw slowly, fighting all the way, before the superior enemy pressure, from 3 November.'

The night-bomber force made 104 sorties and dropped 156 tons of bombs during the night 2/3 November. On 3 November occurred the heaviest close-support bombing of the campaign. A total of 112 tons of bombs was dropped in direct support of the land battle with a further 16 tons on landing grounds. Between dusk 2 November and dusk 3 November the total reached the peak figure of 364 tons. During the same period 772 fighter, 272 light bomber and 104 medium bomber sorties were flown, making a total of 1100 sorties. The fluidity of air power is well-exemplified by the events of 3 November. Soon after mid-day the news was received from returning aircraft that enemy convoys were crowding the main coast road: the retreat had begun. The whole weight of the air effort was switched immediately from the inland battle area to the coast road. Within the space of some four hours, 465 aircraft attacked enemy columns as they withdrew westwards, inflicting damage estimated as a total of 300 vehicles destroyed or damaged. The R.A.F. suffered correspondingly heavy losses due mainly to the defensive fire from the A.A. gun posts which had been set up along the main road and the enemy's fighter patrols. The day's total losses amounted to 24 aircraft destroyed and 13 damaged of which two-thirds were the obsolescent Hurricane. The enemy lost 10 aircraft, 3 of which were destroyed on the ground by the Germans themselves when preparing for the evacuation of their forward airfields. 'Tankbusters' were given a free hand in the southern sector of the front and operated without escort. These raids were brilliantly executed and resulted in an estimated total of 11 tanks, 30 lorries, three semi-tracked vehicles and one transporter destroyed or damaged.

After the Panzer Army's westwards retreat had already begun, a message was received from Adolf Hitler which ordered the battle to continue at Alamein. 'In your present situation,' he wrote, 'nothing can be thought of but to hold on, not to yield a step, and to throw every weapon and every warrior who can be spared in to the fight. You can show your troops no other road but that to victory or death.' Following the receipt of this message, Rommel cancelled his previous orders for withdrawal. The westward move of the rear-line and supply troops was stopped by installing posts commanded by officers along the coast road. As a result of this order the last stage of the battle was passed with the enemy in a state of utter confusion. Convoys which should have been helping with the withdrawal of stores were travelling empty. The Commander of the Afrika Korps, General von Thoma, disagreed entirely with Hitler's order to continue the stand at Alamein and is reported to have given orders for the withdrawal to continue throughout the night. Wellingtons and Albacores which carried out their heaviest raid of the campaign, operating

for 10 hours, making 124 sorties and dropping 187 tons of bombs attacked a series of splendid targets in the coastal area. They also reported 'vast masses of fires' thought to be the enemy destroying their stores before final evacuation of the El Alamein positions.

On the night of 3/4 November, the 51st Highland Division and a Brigade from the 4th Indian Division launched a final attack to break through the enemy's anti-tank gun screen. In spite of Hitler's order, the German-Italian Panzer Army could offer no further resistance for their defence had begun to disintegrate. By dawn the anti-tank gun screen had been pushed back and X Corps now poured round the end of it. Complete disaster now faced Rommel's forces and he signalled the Fuehrer asking for permission to carry out 'mobile warfare in which the enemy has to fight for every foot of ground.' Without waiting for a reply, Rommel ordered the retreat westwards to be resumed at 15.30 hours on 4 November. The W.D.A.F. fighters which operated over the coast road in the early morning of 4 October lost heavily and out of 60 Hurricanes and Kittyhawks 11 were shot down, either by A.A. gunfire or enemy fighter patrols. The best bombing targets were found, in the morning in the area of the Fuka crossing where fighter bombers attacked concentrations of enemy M.T. Over 100 light bombers attacked enemy transport along the coast road in the morning. By mid-day, however, targets in this area had thinned to such an extent that they were no longer considered suitable for the light bombers which were switched to Army targets in the northern sector. Meanwhile, the fighter bombers maintained their pressure on the main road. In all, they carried out 208 attacks which was a peak figure for fighter-bomber activity. The only Stuka attack carried out by the enemy was intercepted, their chief air activity being centred on defensive fighter patrols for the transport retreating westwards along the coast road.

That night the medium bombers of No.205 Group carried out 90 effective sorties against the enemy's retreating columns. 'Enemy bombers,' says a German report, 'carried out incessant night raids mainly on the coast road, causing delays and considerable damage among retreating road convoys.' It was the end of the battle of El Alamein and the last phase of the Eighth Army's operations against the Axis forces in North Africa was about to begin. The German-Italian Panzer Army had been crushingly defeated. Out of the original force of 238 tanks with which the German units had met the Eighth Army offensive on 23 October some 80 per cent had been destroyed while of the remaining 20 per cent many would soon be blown up along the roadside for lack of petrol. Only by abandoning their non-motorised units and almost the whole of their stores and heavy equipment would the remnants of the beaten force be able to make good its speedy retreat. All Rommel's plans for a 'fighting withdrawal platoon by platoon' to the new line at Fuka were now meaningless.

'We had lost the decisive battle of the African campaigns,' Rommel wrote. 'It was decisive because the defeat resulted in the loss of the major part of our infantry and of our motorised forces. The consequences defied estimation.... In future the battle on the ground will be preceded by the battle in the air. This will decide who will have to suffer under the operational and tactical disadvantages detailed above and who will, therefore, from the start be forced into tactical compromise.... As a result of the

British command of the air and hence of the sea in the Central Mediterranean..... the Army's supplies were hardly sufficient to enable it to eke out a bare existence even on quiet days.'

Conclusions

The battle of El Alamein was fought with the enemy air forces dominated throughout all phases of their operations. This gave the Eighth Army Commander a high degree of control over the tactical deployment of his forces which was denied the enemy. Had the enemy been able to carry out extensive aerial reconnaissance immediately prior to the battle, it is probable that the Eighth Army Cover Plan, which the Eighth Army Commander considered so important for the success of the offensive, would have been compromised at an early stage.

Between the end of Operation 'Lightfoot' and the launching of the final offensive, Operation 'Supercharge', there was a phase of extensive regrouping of the Eighth Army, during which they were particularly vulnerable to attack both from the enemy's ground and air forces. This coincided with the return of Field Marshal Rommel as Commander-in-Chief and the launching of the Panzer Army's heaviest counter-attacks of the whole battle. It was during this intermediate phase of the battle that the R. A. F. made their greatest contribution, in a close support role, to the success of the offensive, by so bombing the enemy in their assembly areas that, in certain cases, the counter-attacks were never able to develop. But for this, the Eighth Army offensive might have reached a condition of complete stalemate.

The handling of the air component at the battle of El Alamein introduced no new principles. It followed the - by now - familiar pattern of the concentration of almost the whole of the air effort in tactical support of the ground forces. There was the night bombing of the enemy leaguers by the Wellingtons, assisted by flare-dropping Albacores, supplemented by attacks on the enemy's forward landing-grounds and raids by Liberators and Halifaxes on bases in Crete. This was followed by the day bombing by the force of light bombers of enemy concentrations in their assembly areas, with the express intention of preventing enemy counter-attacks from developing. Daytime raids were also directed at the enemy's forward landing-grounds, particularly when conditions in the battle area were not favourable for operations by the light bombers. When targets on the battle front were of insufficient density for the light bombers, the momentum of the attack was maintained by the fighter bombers. Long-range fighters struck at the enemy's rear areas, finding particularly suitable targets along the coast road and railway, while at night special night-flying Hurricanes carried out intruder patrols over the enemy's forward landing-grounds, attacked road convoys and dumps, and flew offensive patrols over the inland battle area. The field fighter force, in addition to carrying out bombing raids, maintained the security of the light bomber formations together with a high degree of immunity from hostile air attack for friendly troops both in the front and rear areas. Meanwhile, aircraft of A.H.Q. Malta and No.201 Group sought out the enemy convoys with a high degree of success, sinking enemy shipping so close in to Tobruk that they were within range of shore-based batteries.

Towards the end of the battle, conditions favoured the employment of the fighter bomber so that it became the primary air weapon. The development of the fighter bomber had proved a sound policy. As a weapon it was both economical and flexible in its dual capacity. The Stuka, on the other hand, was proved expensive in fighter escort and both wasteful of machines and personnel, and at the battle of El Alamein it was finally eclipsed. A tacit admission of this fact was made by the enemy who employed the fighter bomber in increasing numbers.

The failure of the Axis air forces at El Alamein was complete. They were on the defensive throughout the battle and, in that lies perhaps the truest measure of their failure as an air force. Although outnumbered in the battle area by the W.D.A.F., the German Air Force nevertheless possessed a fighter force of Me.109's which, if correctly handled, might have threatened Allied air superiority. Again, as at Alam el Halfa, the German strategic force of long-range bombers was not used functionally but misemployed on escort and transport duties. The Luftwaffe's most important success in a sphere in which, incidentally, the R.A.F. were at their weakest, as was soon to be proved during the advance, was in their use of air transport. It is now plain from the facts revealed by enemy documents that the sinkings of enemy shipping in the Mediterranean had reduced the Panzer Army to such a plight that, had it not been for the air transport fleet of Ju.52 aircraft, the whole of the German-Italian Army would have been forced into surrender at an early stage in the battle. Throughout the 12 days of the battle of El Alamein, barely sufficient seaborne supplies of petrol and ammunition arrived for a single day's operations by the Panzer Army. On 23 October, however, the daily air lift of petrol from Greece was inaugurated and these were augmented to some extent by further supplies brought in by submarine and destroyers. Efforts to stop this daily traffic met with only very limited success. The trips were made mainly by night. El Adem, the chief air base for the Ju.52's, was at the limit of the endurance of the W.D.A.F. twin-engined fighters which had been borrowed from No.201 Naval Co-operation Group and were in any case carrying a very heavy burden of operational work on shipping strikes. Night bombing attacks were also carried out against the Ju.52 base in Crete, but with no outstanding success. Whilst the Eighth Army remained at El Alamein, therefore, this alternative air supply route still remained open to break the blockade at a time when the Panzer Army was virtually isolated from other sources of supply. This air lift of essential supplies for the Panzer Army, although insufficient to permit full-scale operations, did help to keep the army in being. It was a major feat of organisation on the part of the Germans and one of the outstanding lessons of the campaign.

At the battle of El Alamein co-operation with the Army reached a high level. This must be largely attributed to the influence of General Montgomery who, although he did not always give the air force the rôle it would have liked, nevertheless insisted on co-operation with the R.A.F. as being a matter of primary importance, when formerly it had been treated too frequently as a side issue. By narrowing down the target area to the vital sector in the north to the exclusion of all other targets, however inviting, this policy permitted the A.O.C. Western Desert Air Force to apply the principle of concentration of effort with great effect.

This had the result of achieving a high degree of economy of effort especially on the part of the Army, for by keeping the full weight of the air attacks to a key area, the counter-attacks by the enemy spearhead in which was concentrated the whole of the remaining armoured force, were drastically weakened and even broken before they could be launched.

The success of the Ju.88's in bombing the minefield gap, on the XXX Corps front, on the second night of the offensive, and the disorganisation and disruption of the offensive which resulted from it was something of a measure of the effect which the enemy air forces might have had on the Eighth Army had their bombers been able to operate at all freely. Leaving the question of the security of supply lines apart, in the battle zone the Eighth Army were assisted by approximately four times the air effort which the enemy air forces were able to give the Panzer Army.

The sinkings on the Panzer Army's supply route across the Mediterranean during the period immediately prior to and during the battle of El Alamein were due almost entirely to Royal Air Force strikes. It demonstrated how a small, experienced and courageous force, operating from favourable bases and in suitable weather conditions, could exercise sea power as effectively as a naval fleet, isolate an army from its continental sources of supply and, taken in conjunction with the day-and-night hammering of the enemy forces on the field of battle, create the most favourable conditions for a crushing land victory.

PART IV

THE PURSUIT FROM EL ALAMEIN
(4 NOVEMBER 1942 to 12 MAY 1943)

CHAPTER 9

THE EXPULSION OF THE ENEMY FORCES FROM EGYPT

(4 to 10 NOVEMBER 1942)

Operation 'Buster' - the Plan for an Advance from El Alamein.

Planning for an advance westwards from El Alamein had been undertaken as far back as early July 1942, at a time when the Eighth Army position at El Alamein was by no means assured. The plan was known as Operation 'Exalted' and revealed the Eighth Army's resilience in defeat. It was, however, premature, and it was not until five months later - after much preparation and hard fighting - that a battle of fixed positions was again to open out into a war of manoeuvre.

The July plan for a forward move is of interest as it proposed the inclusion of a bomber wing with three fighter wings and a combination of air and road transport. In the early stages of the advance, the bomber wing was only required to refuel forward. It would not move forward until the Bagush area - between Fuka and Mersa Matruh - had been secured. Similarly, it was intended to retain the advanced fighter force operating to capacity from its existing location until the Daba group of landing-grounds had been captured. In the light of later experience, this plan was proved basically more sound than the one finally adopted, for it placed greater emphasis on the use of air transport, the inclusion of a bomber wing in the striking force and the continuation of full-scale operations from existing locations until the Daba landing-grounds had been occupied.

On 11 October - twelve days before the Eighth Army launched their offensive at El Alamein - the W.D.A.F. plan for the move forward in support of the Eighth Army was circulated, under the code-name of Operation 'Buster'. It provided for the split of the air forces employed in the advance into two main components, Force 'A' and Force 'B'. Force 'A' was to operate in direct support of the Eighth Army, while Force 'B' was to act as a reserve 'to sustain the fighting strength of Force "A" by the transfer of aircraft and personnel and the exchange of squadrons, as required.' It was also to protect the lines of communication.

The Air Staff plan envisaged an advance as far as Tripoli, with Force 'B' moving forward one stage behind Force 'A', as far as the Tobruk area, and there halting until communications as far west as Benghazi had been organised. Three R.A.F., S. and T. columns would move forward with Force 'A' with a total of 144 load-carrying vehicles, making a total lift of approximately 360 tons. It continued to be an Army responsibility to carry stocks of fuel and explosives to within 25 to 40 miles of the landing-grounds from which the Squadrons would be operating. A detachment of 40 Hudson aircraft of No. 216 Group, with a total lift of 60 tons, was to be held available at Amiriya 'to ferry forward fuel, bombs, ammunition and other supplies needed in an emergency by Eighth Army in the Western Desert.' Another small detachment of transport aircraft, consisting of two Bombays and one Lodestar, would provide a regular daily service for passengers and freight

A.A.H.Q.W.D.
Advance from the
El Alamein
positions.
A.H.B./IIJ1/122/
33.

A.A.H.Q.W.D.
Operation
'Lightfoot'.
A.H.B./IIJ1/
122/11.

between the Delta, the rear areas and Force 'A'. Arrangements for supply dropping were also made and an Army dump was formed near Amiriya for this purpose.

Factors Governing the Composition of the Air Pursuit Force (Force 'A')

The two main factors governing the composition of the air component which was to go forward in direct support of the Eighth Army were:

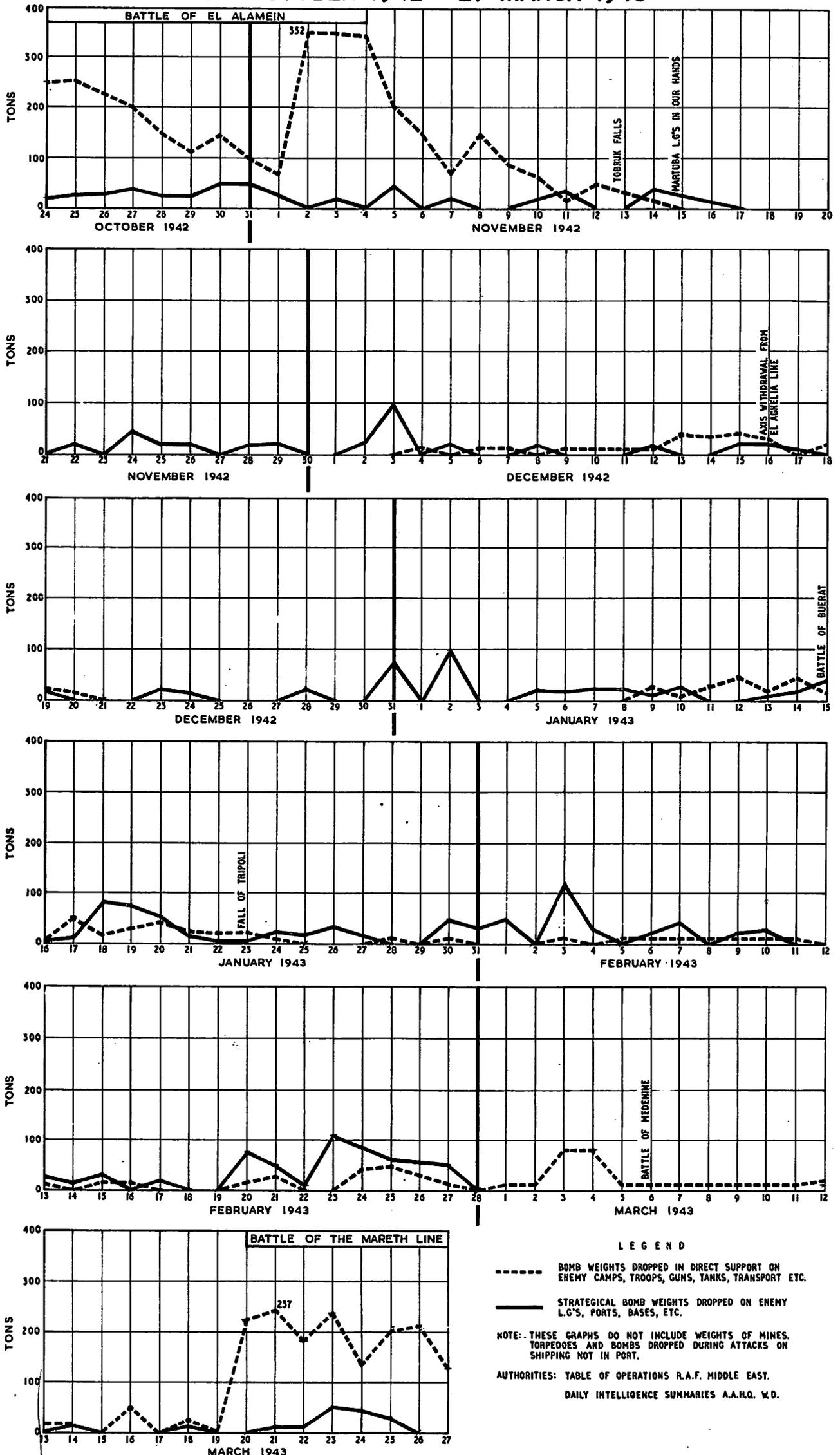
- (a) the supply problem, and
- (b) the likelihood that the enemy would strongly reinforce his air forces in North Africa.

The administrative problems facing the Eighth Army were immense, and it was on the Army (Q) Service that the main burden of supplying the Royal Air Force would fall. Distances, alone, were vast judged by European standards. By road from Alexandria to Tobruk was a journey of 430 miles, to Benghazi 740 miles, to Tripoli 1,400 miles and to Tunis nearly 2,000 miles. Almost the whole of this vast area was served by a single metalled road along which a modern army and air force must move its vehicles and supplies - a road moreover frequently mined or blown by the retreating enemy, damaged by bombing and shelling and with completely inadequate maintenance. Any movement off the coast road and along the desert routes for wheeled vehicles was, at the best, hazardous. It could quickly be made impassible by heavy rain - the end of the battle of El Alamein coincided with the beginning of the rainy season - while the very terrain itself with its wadis, its sand and salt marsh was frequently quite unsuitable for wheeled traffic. By far the greater part of the British military transport in use in the Desert had been designed solely for civilian use along well-maintained European roads, Lacking four-wheel drive, sufficient power, necessary springing and, above all, the extra low ratio of gears for the kind of rough travelling encountered in the Desert, it was quite inadequate for Desert travel. Port facilities along the route of the advance were scarce and would undoubtedly suffer severely from the demolitions carried out by a retreating enemy. The Desert itself offered no resources whatsoever and all supplies, including even water, would have to be transported. The supply of petrol - which will be treated more fully in a later Section - was another most serious problem, for the tins or 'flimsies' in which the petrol was carried were so light in structure that often as much as 30 per cent of the petrol was wasted in carriage. The transport aircraft facilities were quite inadequate, for the Royal Air Force could dispose of a mixed force of, at most, sixty transport aircraft for the swift moves involved by an advance along the North African coast, whereas the enemy had an homogeneous force, some five times as strong, available at bases in Crete and Greece.

Then there was the problem of strong enemy air reinforcement. Previous experience had made it most likely that the enemy's immediate reaction to defeat in Egypt would be a strong reinforcement of the Luftwaffe, in order to slow down the British advance. Their considerable air transport facilities and well-placed bases, which gave the enemy air forces exceptional flexibility, would enable such reinforcement to be speedily produced. In the planning, however, insufficient emphasis was placed on the disastrous

A.A.H.Q. W.D.
Record of
Operations
A.H.B./IIJ1/
122/69(A)

R.A.F. BOMB WEIGHTS DROPPED BY DESERT AIR FORCE 24 OCTOBER 1942 — 27 MARCH 1943



effect that conditions of retreat and the diversion of air reinforcements to counter 'Torch' would have on the Axis air forces. It was this mood of excessive caution, in which too great emphasis was placed on the fighter, which, in part at least, enabled the remnants of the beaten Panzer Army to make good their escape from El Alamein to Tunisia, in spite of the presence of a vastly superior opposing air force.

Furthermore, it was considered that bombing targets, during the advance, would be more suitable for attack by fighter bombers than light bombers, while difficulties of supply would preclude the possibility of maintaining a light-bomber force right forward, until adequate communications had been established. Force 'A' was therefore planned to consist entirely of fighters and fighter bombers, which meant that a high proportion of the hitting power of the air component had to be sacrificed to mobility.

The Inadequacy of No. 216 Group's Fleet of Transport Aircraft

In September 1942, it had been decided to add to the functions of No. 216 (Ferry) Group and on 9 September the group was reformed as an Air Transport and Ferry Group, under Air Commodore Whitney W. Straight. The available aircraft, together with all that could be gathered from other units in the Command, were formed into a Wing and based at Amiriya, on the Alexandria-Cairo Road.

At the beginning of the Western Desert offensive, the total available strength of the Wing was 45 Hudsons, 14 Bombays and three D.C.3's. Apart from ferry duties, the main functions of No. 216 Group were the transportation of urgently-needed stores, casualties, personnel and mail. For a period of static warfare, such as had preceded the battle of El Alamein, a fleet of some sixty transport aircraft had been proved adequate. Once the pursuit began, necessitating quick moves to new air bases, however, the Group's resources were insufficient. In the early stages of the advance, moves of the W.D.A.F. air pursuit force were slowed down to the pace of M.T. convoys moving along the congested coast road and frequently held up for what the Army authorities considered more important operational traffic. It was not until the latter part of November, when American Dakotas with their infinitely better freight-carrying capabilities had been made available, and the Eighth Army Commander had given the necessary degree of priority to W.D.A.F. road convoys, that matters improved.

Even with the sixty transport aircraft of No. 216 Group available, it is surprising that, prior to the battle, there was no pre-arranged airlift planned for the Royal Air Force. At the end of the battle of El Alamein, practically the whole of the Group's strength in aircraft was concentrated at Amiriya for the purpose of ferrying forward and dropping urgently-needed supplies for the Eighth Army. In the early stages of the advance these aircraft were employed to only a minute fraction of capacity and there can be little doubt that they could have been used to far greater advantage in providing the air pursuit force with an organised air lift.

Diary of R.A.F.
Operations in
The Middle East
A.H.B./ILJ1/102/
18 and No. 216
Group O.R.B.

Plans for Advance Influenced by Malta's Desperate Supply Position

A consideration which exerted a profound influence on both the Army and Air plans for the advance was the imminent exhaustion of Malta's reserves of petrol and food. Operation 'Pedestal', the August convoy for the relief of Malta, had been only partially successful, and soon the supply position on the island had become extremely grave. Towards the end of September 1942, the Governor General reported that Malta's civil population had been reduced to a ration with a calory value of approximately 1700 for men between the ages of 16 and 60 and 1500 for the remainder of the population. This was considered to be a dangerously low diet. Only by using wheat conserved for the next year's seed crop would it be possible to issue flour for the December bread ration, while some of the most important rationed commodities, such as preserved meat and edible oil, would be wholly exhausted by that month. The 22 November would see all current stocks of petrol used up and the grave decision would then have to be made to fall back on the Fortress Reserve which would last for merely another three weeks. It was therefore plainly a matter of the utmost urgency that Malta should be relieved at the earliest possible moment.

The shipping losses sustained during Operation 'Pedestal' had been so serious - apart from naval losses, only five merchant ships arrived out of a convoy of 14 - that it was out of the question to attempt any convoy operations from the west while the enemy air forces still commanded the Sicilian Narrows. On the other hand, the passage of a convoy from Alexandria was only considered practicable if the Royal Air Force controlled the Martuba-Derna group of airfields on the Cyrenaican hump, from which a Malta-bound convoy could be afforded fighter protection until the ships came within range of Malta-based fighters.

An east-to-west convoy to Malta, known by the code-name of 'Operation 'Stoneage'', was planned to reach the island by 20 November. This set both the Air and Army Commanders the problem of the occupation of the Martuba-Derna group of airfields in time to afford the convoy fighter protection for 18 November at the latest, and postulated an advance of some 400 miles from the end of the battle of El Alamein, the clearance of mines and booby-traps from the airfields and their repair and occupation by the W.D.A.F. The 'race for the Martubas', as it came to be known, was one of the most significant features of the expulsion of the Panzer Army from Egypt. Not only did it affect the timetable set the Eighth Army and the W.D.A.F. for the pursuit, but it involved the whole question of the survival of Malta as a British air and naval base at a time when its strategic importance had been immeasurably enhanced by the Allied invasion of French North-West Africa.

The Importance of Landing Ground Construction.

It was obvious that the speed of the advance from El Alamein would be governed to a very large extent by the rate at which airfields could not merely be captured, but cleared of mines, repaired and made generally fit for operational use. Prior to the battle, therefore, plans were made for a Royal Air Force reconnaissance party, in W/T communication with the Advanced Air Headquarters, together with a Royal Engineers construction party, to be with the forward troops and ensure the immediate repair of the

Papers of the
Middle East
Defence Com-
mittee Part III
A.H.B./IIJ1/
183/122(C)

Record of Operations
A.H.B./IIJ1/122/
69(A)

(84234) 396

reoccupied landing-grounds. The Chief Engineer Eighth Army also arranged for the Sappers, who were with the forward Divisions, 'to treat the testing and clearance of mines as a matter of urgent priority.'

The advance ground parties of the squadrons, and their controlling formations, were ready to move as soon as reports were received from the reconnaissance party, while the air parties were prepared to fly in as soon as the ground parties had been installed. Supply columns, their vehicles already loaded, were held in the forward areas ready to ferry petrol, ammunition and other supplies to the new airfields.

The Composition of Force 'A' - the W.D.A.F. Air Pursuit Force

The original plan for the composition of Force 'A', the tactical air support component going forward with the Eighth Army was for No. 211 Group to operate three Fighter Wings - one of Kittyhawks (No. 239 Wing), one of Spitfires (No. 244 Wing) and one of Hurricanes (No. 243 Wing). However, the strengthening of the enemy fighter force, with the prospect that the advance of the Eighth Army might be held up by air attack, prompted the replacement of the Hurricane Wing (No. 243 Wing) by the 57th Fighter Group, U.S.A.A.F. (Kittyhawk II) and the addition of a Kittyhawk Wing (No. 233 Wing - Kittyhawk F.B.).

At the beginning of the pursuit, the composition of Force 'A' was:-

No. 211 Fighter Group

<u>No. 239 Wing</u> (Kittyhawk F/B)	<u>No. 244 Wing</u> (Spitfire Hurricanes)	<u>57th Fighter</u> <u>Group U.S.A.A.F.</u> (Kittyhawk II)	<u>No. 233 Wing</u> (Kittyhawk, F/B., Tomahawk)
No. 3 Sqn. R.A.A.F.	No. 73 Sqn. (Nightflying Hurricanes)	64th Fighter Sqn.	No. 2 Sqn. S.A.A.F.
No. 112 Squadron	No. 92 Squadron	65th do. do.	No. 4 do. do.
No. 250 do.	No. 145 do.		No. 5 do. do.
No. 450 R.A.A.F. 66th Squadron U.S.A.A.F.			No. 260 Squadron

No anti-tank aircraft were included in Force 'A', but No. 212 Group which operated Force 'B', was required to hold one Flight at readiness to operate from the forward area. Extensive reconnaissance requirements were anticipated during the advance, and No. 285 Wing was to be kept as close as possible to Advanced Air H.Q. Western Desert, No. 40 S.A.A.F. Wing being the Tactical Recce Squadron moving forward.

The two Hurricane Wings, No. 7 S.A.A.F. Wing and No. 243 Wing remained with Force 'B' under the control of No. 212 Group. The two light-bomber wings, No. 3 Wing S.A.A.F. and No. 232 Wing - to which was attached the 12th Medium Bombardment Group U.S.A.A.F. - together with the so-called 'Porteous' Wing of 'Tankbusters' and No. 216 Group's Air Transport Force of Hudsons and Bombays also remained in the rear.

Record of Operations A.H.B./
IIJ1/122/69(A),
Table of Operations A.H.B./
IIJ1/31/1

The General Situation at the Beginning of the Pursuit

C.-in-C.'s
Despatch.

Panzer Army
Strength Return
Cabinet Office.

C.-in-C.'s
Despatch.

At the Battle of El Alamein, the Axis forces had sustained a most crushing defeat. (1) Some 75,000 of the enemy had fallen casualties in the battle in killed, wounded and prisoners of war, including one German and nine Italian Generals. Rather less than one-third of the enemy force had managed to make good their escape. Of 600 enemy tanks, 450 had been abandoned on the field of battle and over 1,000 guns were either destroyed or captured. Out of 370 tanks the Afrika Korps had lost all but 40 and within two days this figure had dropped to eleven. The Eighth Army had lost 13,500 killed, wounded and missing. Of these 58 per cent were troops from the United Kingdom. The total battle casualties in tanks were 430, but only 150 were beyond repair, and 100 guns had been destroyed. In spite of the Eighth Army's heavy tank losses - they had ended the battle with the tremendous advantage of still being in possession of the battlefield - an indication of their overwhelming superiority in armour is revealed by the fact that they could still put 600 tanks in the field against not more than 40 German. Indeed, the Eighth Army Commander's main problem now was not to find the troops and equipment with which to oppose what remained of the enemy, but the administrative one of supply.

With the exception of the handling of their air transport fleet, with which, by continuing an unbroken airlift of supplies to the Panzer Army throughout the battle of El Alamein, the Luftwaffe had scored an outstanding success, the Axis air forces - and for all practical purposes this means the Luftwaffe - had been dominated in all phases of their activity, since the R.A.F. air offensive on 19 October. In spite of the arrival of air reinforcements - some from as far afield as Russia - the enemy air forces had been neutralised to such an extent that, in the early days of the pursuit, although the congestion of the Eighth Army as they advanced along the coast road was likened to Derby Day at Epsom, they were never subjected to hostile air attack.

Axis Air Operations D.D.I. 3.
A.H.B./IIM/63.

Before Rommel had finally decided on retreat, the inevitability of the collapse of the Panzer Army had been foreseen by the Luftwaffe, so that as early as 2 November they had begun to retire from their most advanced fighter landing-grounds and to destroy unserviceable aircraft. When planning Operation 'Buster', the effect of the W.D.A.F.'s crushing air offensive, the shortage of petrol and other urgently-needed supplies, the confusion and drop in serviceability due to the Luftwaffe's withdrawal to new bases and the shock resulting from the opening by the Allies of a second front in North Africa, had not been fully evaluated. It was feared that the enemy air forces might still act as an effective rearguard and hold up the advancing Eighth Army. Such a mood of caution was perhaps understandable when faced by a resourceful enemy. Yet,

(1) 'The only forces which retained any fighting strength were the remnants of the 90th Light Division, the Afrika Korps' two divisions - now reduced to the strength of small combat groups, the Panzer Grenadier Regiment Africa and a few quickly scratched together German units, the remains of the 164th Light Division. Tanks, heavy A.A. guns, heavy and light artillery, all had sustained such frightful losses at El Alamein that there was nothing but a few remnants left.' 'The Rommel Papers.'

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now - if ever - was the time to run legitimate risks, for the price presented was nothing less than the total annihilation of what remained of the Axis Panzer Army in Libya.

Short of petrol, decimated in the recent fighting and disheartened to the point of demoralisation, the Luftwaffe were evacuating their bases in Egypt in considerable disorder, meanwhile trying to salvage as much as possible from the disaster. On the other hand, the W.D.A.F., in spite of a long period of intensive operations which had subjected the whole force to severe strain, was left at the end of the battle with its operational efficiency unimpaired, while morale and confidence had never been higher.

From the tactical point of view, the general situation at the end of the battle of El Alamein was that, although the enemy were abandoning the greater part of their stores and heavy equipment and sacrificing their non-motorised troops in order to help with the speed of the withdrawal, it was still possible to reach and destroy these remnants of the Panzer Army, either by outflanking them on the ground, with a sufficiently strong armoured force, or else by the weight of concentrated day-and-night air attack. As a corollary to this, there was the possibility that 'round-the-clock' bombing might create such havoc and demoralisation among the retreating enemy that the Eighth Army's main pursuit force would be able to catch up and effect the 'coup de grace'.

The Eighth Army Commander's Plan for the Pursuit

There is no evidence that the Eighth Army Commander envisaged the kind of text-book situation which arose directly after the battle of El Alamein when, with the enemy in the first stages of their precipitate and disorganised withdrawal and still within easy range of the W.D.A.F.'s existing bases in Egypt, the concentrated use of air power might have immobilised and eventually led to the utter destruction of the balance of Rommel's force. How to accomplish that earliest and most difficult phase of the retreat which involved the regrouping of his crushed and partly demoralised army in the face of a powerful and efficient opposing air force, which could operate both by night and by day, must have been Rommel's most pressing problem. As it so happened, the full situation was never allowed to develop fully, for during this period of acute crisis in the fortunes of the German-Italian Panzer Army nothing like the full bombing momentum of the W.D.A.F. was ever achieved.

Primarily, the fault was one of planning. There existed the most detailed army and air plans for the duration of the battle and for the pursuit, but there would appear to have been no specific mention or consideration of this immensely important and vital period of overlap, when the beaten Panzer Army were pulling out from the field of battle and the bombers were still able to operate from their permanent bases in Egypt.

The Eighth Army Commander's own plans for the pursuit are of particular interest, as he did not appear to have envisaged the possibility that, during this interim period of overlap, the air force and not the army would be the primary weapon at his disposal for sealing of the enemy retreat. The air force was required chiefly to provide

Field Marshal
Montgomery:
'El Alamein to
the Sangro.'

~~fighter cover to the light armoured forces operating in the van of the pursuit and, by their bombing, increase the enemy's confusion.~~ There appears to have been little or no appreciation of the fact that, just as 'round-the-clock' bombing had been one of the main factors in stopping Rommel's advance towards the Delta in July, and again during the offensive of late August 1942, so, with tables turned completely, concentrated air attack could present the pursuing armour with the accomplished fact of what remained of the battered Panzer Army wholly immobilised along the coast road.

According to the Eighth Army Commander, the three major considerations after the battle were:-

- (a) A drive by the Eighth Army to outflank Rommel's remaining forces.
- (b) Establish the Desert Air force on forward landing-grounds, and,
- (c) Get the port of Tobruk as early as possible and so ease the supply situation.

As a corollary to (b), the air force was to act, 'in conjunction with the armoured cars, as the long-range hitting weapon and greatly increase the confusion of the enemy's withdrawal; at the same time fighter cover could be given to the light forces operating in the van of the pursuit. In the broader picture, it was urgent to establish our air bases firmly in Cyrenaica, on airfields from which they could dominate the Central Mediterranean, the Libyan ports and Rommel's long lines of communication along the coast to Benghazi and Tripoli. The immediate object was to operate from the fields in the Egyptian frontier area from which Tobruk could be covered. More important, was the Martuba group of airfields, in the Jebel el Akdar, whence the Malta convoys could be safely escorted.'

It is seen, therefore, that the role assigned to the air force, during the critical period immediately following the break-through, was a purely subsidiary, one, at a time when the air force should have been regarded as the primary long-range weapon for immobilising the retreating enemy. The result was that fighter cover was being provided for 'the light forces operating in the van of the pursuit' at a time when every single available fighter was needed, either for fighter bombing, or else to act as escort to the light bombers.

The A.O.C.-in-C.'s Despatch of 5 November 1942 to C.A.S.

Even the Air Commanders themselves would appear to have missed the full significance of the opportunity which the collapse of the German-Italian Panzer Army on the field of battle would probably offer them to turn defeat into rout. The emphasis was on getting 'the fighters right forward quickly in long bounds' and not on the final sledge-hammer offensive from the air which would bring the last remnants of the Panzer Army to a standstill before they had managed to make good their escape from Egypt.

'Have just returned from the Desert,' the A.O.C.-in-C. wrote to the C.A.S., in a despatch dated 5 November, 'where advance parties of fighter squadrons are already on road and, with Army help, hope to be on

Dhaba aerodromes to-morrow. Have seen nearly all the squadrons in Western Desert, 201 and 205 Groups at least once in last few days. They are in magnificent form and out to kill.

Following summarises situation:

This has been and still is, to a certain extent a battle of wits. No doubt that campaign against enemy fighter force which began on October 9th has been effective. Coningham has resisted temptation to accept early successes as decisive and has consistently directed proportion of his effort to keeping the enemy air down. It is this, coupled with the diversionary effect of the attacks on shipping, which have nullified effect of enemy air reinforcements. The problem now is to get the fighters right forward quickly in long bounds. This is partly an Army problem and partly administrative. I am satisfied that the administrative arrangements, based on previous experience, are ready. Coningham and I have repeatedly emphasised importance of long swift moves to Army and am hopeful we shall get what we want. I think it is realised that this is a time when big chances must be taken. Co-operation between fighters and bombers and between British and Americans in Desert is first class and the operational organisation is working like clockwork, with excellent mutual confidence. Hurricane squadrons doing magnificently loyal work but are, of course, completely outclassed and it is hard to have to tell them they cannot have modern aircraft yet....

A.O.C.-in-C.
Correspondence
with Prime
Minister, etc.
Part V.
A.H.B./IIJ1/
183/27(E)

In general, situation is very satisfactory and we should be able to, as indeed we must, maintain present maximum effort. We are all determined not to let the enemy get his tail up on the ground or in the air and if we can get forward in long and rapid stages we should be able to clean up the job.'

The Enemy Retreat to Fuka on 5 November

'After breaking contact with the enemy at nightfall,' (on 4 November) says the official German Narrative, 'the Army carried out its retreat according to plan, despite continual heavy air attacks. The enemy did not immediately follow up on a wide front.'

The night-bombing of the enemy, as they retreated westwards along the Fuka-Daba road, was carried out during the night 4/5 November by 52 Wellingtons of No. 205 Group which totalled 73 sorties. A force of nine Halifax aircraft which would have added considerably to the weight of the attack were unfortunately sent on an abortive raid on the JU. 52 base at Crete. The majority of the attacks by the Wellingtons were made slightly to the east of Fuka, where tightly-packed and badly-dispersed vehicles were located and bombed. Large numbers of M.T. were seen north of the road and between the road and the railway, while others were moving along the road itself. Beaches were crowded with M.T. and possibly tanks, and a large number of vehicles, or possibly tanks, was reported by the railway at Galal. It was in this area that the Wellingtons which returned on their second sorties found their best targets 'enormous quantities of M.T. being illuminated on and off the road. Large numbers were seen moving westwards along the road and a few eastward.'

No. 205 Group
O.R.B.

There is no doubt that in the course of these raids considerable havoc was caused among the retreating enemy columns. The enemy themselves spoke of the 'incessant raids, mainly on the coast road, causing delays and considerable damage among the retreating convoys.' Returning crews reported how Daba itself had been seen as a sheet of flame, 'there being so many fires that they merged into one huge mass.' This conflagration at Daba may be attributed partly to the fact that the enemy was destroying vast dumps of stores in this very important forward supply centre.

Once the enemy line had shown signs of disintegration, Rommel had cast around for alternative defensive position and considered that he had found one at Fuka. There the coast road passes up a 300 foot escarpment which is otherwise almost impassable. It was at Fuka, too, that the Duce had ordered a fight to the last man. The Eighth Army pursuit force consisted of X Corps which comprised the 1st, 7th and 10th Armoured Divisions. The 1st and 10th Armoured Divisions, on the morning of 5 November, were directed on Daba and the 7th Armoured Division on Fuka. The Eighth Army Commander, who planned to cut off the retreating enemy by swinging north to cut the coast road at the bottlenecks of Fuka and Matruh, also ordered the 2nd New Zealand Division on Fuka, the Division passing from XXX to X Corps.

C.-in-C.'s
Despatch and
'El Alamein to
the Sangro'

The ground forces could either follow along the line of the coast road and railway and try to overwhelm the enemy rearguard, which in this case consisted of the very able and experienced 90th Light Division, or else, by striking across the desert over a circuitous and difficult route, endeavour to cut the coast road and so outflank the greater part of the retreating enemy forces. The latter - 'the hook towards the coast' - constituted the well-tried and by now almost traditional tactics of an armoured force in the desert. Bearing in mind the German ability in defence and the lethal nature of their anti-tank gun screen, there was little likelihood that direct pursuit along the coast road would offer much prospect of success. Too frequently in the Desert Campaigns had Commanders on both sides made the mistake of pitting armour against guns.

The outflanking movement to the coast had the inherent defects mentioned above: the route was frequently circuitous and the terrain difficult, with the additional risk - November was the beginning of the rainy period - that, within the space of a few hours rain of sub-tropical violence could transfer the Desert tracks into an impassable morass. Certainly travel across the Desert, particularly for A.F.V.s, had the great advantage of permitting vehicles to advance on a wide front, but this was only possible where both the terrain and the weather were favourable. It is readily demonstrable that, generally speaking, traffic using the Desert as a highway were at a grave disadvantage compared with that which confined itself to the coast road as, in spite of the hazards of air attack and Commando raids, this single metalled road continued to be the main artery serving the Panzer Army.

Whichever plan of pursuit was adopted by the Eighth Army Commander - the frontal pursuit which involved the enemy's known skill in defence with the formidable 88 mm guns used as an anti-tank weapon, advance across the desert with the hazards of adverse terrain and weather, or a combination of both - the one certainty was that, given reasonable weather and range, the enemy could be reached by

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air assault. Again the primary offensive weapon at the disposal of the Eighth Army Commander was air power.

On First Day of Pursuit (5 November) Main Task of Fighter Force to Protect Forward Troops

In spite of the pressing need for finishing off the demoralisation and defeat of the Panzer Army with the most intense bombing programme of which all aircraft were capable and whilst the enemy still remained within reach of the permanent bases in Egypt, throughout the first day of the advance the main fighter task was 'providing air protection over advanced forward elements of land forces.' The War Diary of No. 2 Air Support Control is most explicit on the subject: 'Bombing was early directed on Fuka railway crossing, but by 10.30 hours first priority given to providing cover over 2nd New Zealand Division at Fuka and bombing was suspended.' An early report at 02.45 hours from the R.A.F. to Main Eighth Army H.Q. had informed them that the 'main road from Fuka to Daba is a solid mass, head to tail,' pointing - as did the military situation - to the fact that the first day of the pursuit would provide splendid targets.

Eighth Army War Diary.

At 10.00 hours there was a wireless message from the B.G.S. to the Army Commander pointing out that 'the enemy transport now extends from almost east of Fuka to Matruh. New Zealand Division will be too late' and suggesting that 'R.A.F. reduce their fighter cover over New Zealand Division in order to release them for offensive operations against enemy M.T.' A further message stated 'No answer yet received from Army Commander. TOR 12.50 hours.' By the time this signal had been received, only two raids by light bombers had been carried out by a total of 36 Bostons and Baltimores which dropped a total of 189 x 250 lb. bombs on the retreating enemy columns. Cloud hampered observation of results, but direct hits and near misses were scored. To revise a day's bomber programme at short notice, with all its complex briefing and timing of fighter escorts, was an extremely difficult task. Three further attacks were made by the light bombers in the course of the afternoon by 53 aircraft (excluding escorts). They comprised 17 Baltimores of No. 223 Squadron, 18 Bostons of No. 12 S.A.A.F. and 18 B.25 Mitchells of Nos. 82, 83 and 434 Squadrons U.S.A.A.F. Many direct hits and near misses were scored. One of the outstanding features of these attacks was the intense and heavy A.A. barrage which the enemy put up along the main road from Fuka to Bagush. In the first raid seven Mitchells were holed; in the second two Baltimores collided and were destroyed; and in the third one Boston was brought down by A.A. gunfire near Daba. Intelligence sources attributed this to the fact that the A.A. defences for the protection of the main road used by the retreating Panzer Army had been reinforced by guns formerly used in the defence of the Daba L.G.S. This was the last time the light bombers were to operate in anything like strength during this phase of the pursuit.

No. 3 Wing S.A.A.F. O.R.B.

A.A.H.Q.W.D. Daily Int. Sum. No. 273.

As has been mentioned, the main fighter task on 5 November was the protection of our forward troops, patrols being maintained in the Fuka - Sidi Haneish area. The enemy fighters showed an increase in offensive spirit and attempted throughout the day to interfere with the patrolling aircraft and four Me. 109's were claimed as shot down for the loss of one Spitfire. Enemy records show two Me. 109's shot down and one Me. 111. The enemy themselves

A.A.H.Q.W.D. Daily Int. Sums.

A.H.B.6 Records.

destroyed 14 of their own aircraft on the ground - eight of them fighters.) Fighter-bombers flew a total of 55 sorties against good targets along the main road in the Daba-Fuka area, causing many fires and explosions. (1) Nearly all these raids encountered enemy fighters protecting this vital stretch of the coast road.

A.A.H.Q.W.D.
War Diary.

Main Eighth
Army War Diary.

No. 239 Wing
O.R.B.

Western Desert
Operations
Pt. V.

At 12.00 hours on 5 November Operation 'Buster' was put into effect when a signal was circulated by A.A.H.Q.W.D. for the 'A' Parties of the Fighter Wings to go forward to Daba. By 19.00 hours that evening, 9th Australian Division were in a position to signal to Main H.Q. Eighth Army that L.G.s 105 and 106, at Daba and Sidi Abd el Rahman were not only reported clear of mines, but that the R.A.F. were already in occupation. On the morning of 5 November a signal from Tac to Main H.Q. Eighth Army called forward the mobile landing-ground construction parties to Sidi Abd el Rahman. The landing ground at Sidi Abd el Rahman (L.G. 106) was found in good condition, but L.G. 105 in the Daba area was found to be unserviceable owing to the deep tracks left behind by tanks and guns which had crossed it during a heavy fall of rain. Squadrons arriving reported that, in their haste, the enemy had not merely left numbers of aircraft behind which required very slight maintenance to make them flyable, but had abandoned nine brand new Me. 109's, on trucks, in Gazal Station.

Besides the priority given to the fighters for the protection of forward units, other factors which contributed to the drop in the sortie rate of both light bombers and fighter bombers was the obscurity of the bomblines and the preparations for the advance which, in the case of certain squadrons, held up air operations. The three light bomber Wings (Nos. 3 S.A.A.F., 232 Wings and the 12th Bombardment Group U.S.A.A.F.) attributed the fact that so few calls were made on their aircraft during the day to the fact that the fluid Army situation made the target bomblines position obscure.

No. 3 S.A.A.F.
Wing O.R.B.

'From the point of view of the light bombers,' says No. 3 Wing S.A.A.F. O.R.B., 'this great retreat by Rommel was exasperating. Though the South African Armoured Cars and the Royals, keeping southward of the main road made great sweeps westward to cut off the defeated enemy, the fact that so much of his M.T. was hourly, though slowly, getting out of range and that the bomblines, having regard to our own advancing columns made the target position obscure, meant a diminishing amount of work for the air and ground crews of 3 and 232 Wings.'

In addition to the Royals and the South Africans, who were operating 'out in the blue' successfully harassing the enemy rear lines of communication, there was uncertainty about the whereabouts of the New Zealanders. X Corps reported to Main Eighth Army H.Q. that, owing to communications difficulties, the nearest location they were able to give the 2nd New Zealand Division was 'in squares 7830 and

(1) 'There was wild confusion (5 November) on the coast road between Fuka and Mersa Matruih. Vehicle columns, their lorries full of stragglers, jammed up and choked the whole road, while overhead the R.A.F. reigned supreme, flying one attack after the other against every worthwhile target.... Shortly afterwards two bombing attacks were made on the Panzer Army's H.Q. which the British had apparently located through its wireless traffic. Westphal (Rommel's Chief of Staff) and I lay in a slit-trench and let the carpet of bombs pass over. There was little damage.' 'The Rommel Papers'.

Squadron
O.R.B.s.

7930', or an area around Fuka covering some 70 square miles. The R.A.F.'s eagerness to keep pace with the rapidly advancing Eighth Army units also had its effect on operations. No. 213 Squadron (Hurricanes) reported that, throughout 5 November, there was no operational flying 'preparations for a move being afoot', while No. 80 Squadron, also Hurricanes, noted 'readiness from 05.45 hours - only one operation carried out to-day.'

Enemy Decision to Abandon Fuka - 5 November

German-Italian
Forces in Africa
German Official
War Narrative.
Cabinet Office
A.L. 743.

The crushing defeat of the German-Italian Panzer Army and the sudden collapse of the line at El Alamein was followed for a time by complete confusion. Enemy records relate how, on the morning of 5 November, X Corps had reached an area some 45 kms. to the south of Daba but, owing to the lack of petrol, ammunition and water, was temporarily unable to retreat any further. By about 08.00 hours, the main body of the 90th Light Division had reached the Fuka area and had taken up defensive positions there. But only two of XXI Corps' infantry battalions and two artillery regiments had reached Fuka, while XX Corps were still rounding up the scattered remnants of its three Divisions in the area to the west of Fuka. Because XX Corps was not in the area to which it had been allotted to protect Afrika Korps' south flank, the German armour was outflanked. Afrika Korps decided to launch a counterattack with 21st Panzer Division about midday to restore the situation, but this intention had to be abandoned 'because the enemy pressure on the front had greatly increased and the petrol situation did not permit any counter attacks.' Later as will be seen owing to the shortage of petrol, the 21st Panzer Division was completely immobilised and, as a result, lost almost the whole of its armoured strength and heavy guns.

The enemy forces in and behind the Fuka positions were extremely low in strength. The 90th Light Division, for instance, comprised three weak regiments, one artillery regiment and stragglers of 164th Light Division which had been almost annihilated in the recent fighting. Many of the Italian troops which had escaped from the battlefield were 'moving west without orders, partly on the coast road and partly in a disorganised rabble across the desert.' The Panzer Army sent a very sharply worded order to the three Italian Corps to establish halt posts, in order to stop the rout, and bring the troops to their allotted areas. At this time the Afrika Korps consisted merely of 15th Panzer Division with 8 tanks, 200 riflemen, 4 anti-tank guns and 12 field guns and 21st Panzer Division had 30 tanks, 3 rifle battalions with 400 men between them, 16 anti-tank guns and 25 field guns, and these were accompanied by some 500 stragglers from 164th Light Division. Indeed, the position was so critical that, at 14.00 hours, Afrika Korps reported, 'Positions can be held to-day, but an outflanking movement is probable, then a withdrawal will be impossible. We propose therefore to withdraw Afrika Korps....'

Enemy reports commented on the R.A.F.'s incessant night raids, mainly on the coast road, causing delays and considerable damage among the retreating convoys. It was noted that the daytime activity by the W.D.A.F. was less than on the two previous days. The move of the Axis Air Forces to landing-grounds in the rear had a marked effect on operations, preventing them from putting any but small forces into the battle. The destruction of aircraft revealed signs of panic. On 5 November 14 aircraft were destroyed on the ground by

Luftwaffe personnel one as far back as Gambut, in Cyrenaica. This brought the total destroyed in this way since 2 November to 33.

The enemy supply positions had reached a climax. Afrika Korps reported that the two German armoured divisions had such small petrol supplies that only one of them could carry out its withdrawal. '21st Panzer Division had to stay in the area south of Qasaba, about 60 kms. forward of the new line, in spite of the enemy's obvious outflanking movements. If the enemy realised this before the division received the necessary petrol, the loss of much of the division and possibly its complete loss would have to be faced.' Supplies of ammunition were also perilously short 'following on the withdrawal preparations set in train in the forward areas and their cancellation by the counter-order on 3 November.... The ammunition dumped in the Mersa Matruh area was sufficient for an action of short duration only.'

Wireless instructions were received from the Duce on the evening of 5 November gave the Army 'carte blanche' to withdraw to the Mersa Matruh positions. He held, however, that a 'prolonged delaying action in the Mersa Matruh area was vitally necessary to gain time to continue constructing the Sollum-Halfaya positions.' On 5 November, therefore, all question of holding a defensive position at Fuka, which had been the basis of Rommel's fighting withdrawal, had to be abandoned.

The Tactical Use of Heavy Bombers-Night 5/6 November

Bi-Weekly Opsum
No. 71. Middle
East Air Staff
Ops. Records and
No. 205 Group
O.R.B.

Aircraft of No. 205 Group excelled themselves, on the night of 5/6 November, by dropping 150 tons of bombs on the retreating enemy forces. For the first time in the Desert Campaigns heavy bombers were used tactically in support of the Eighth Army as 11 Halifax II aircraft of No. 462 Squadron took part in the night's operations for which the briefing was, 'the Fuka-Haneish Road, is packed with retreating M.T. etc.' Eleven Halifax, eighty-two Wellington and nine Albacore sorties were carried out over a seven hour period, twenty-one Wellingtons making double sorties. Although targets were not as closely packed as on the previous nights, many direct hits were scored and over 30 fires were started. The weather was poor at first, there being 10/10ths, cloud at 7/8000 feet and some aircraft ran into rain storms. This was the first signs of a deterioration in the weather which, with rain of cloud-burst intensity, was to flood airfields, transform the desert into a morass and bring the pursuit force to a standstill. Albacores illuminated and pilots reported that fires were already burning when their aircraft arrived over the targets and were probably due to the enemy burning stores, although night-flying Hurricanes of No. 73 Squadron had been active in the same area. On the whole the A.A. opposition was not as heavy as had been anticipated. At Matruh nine heavy guns, six light guns and six searchlights were reported - these were very active and fairly accurate. One Halifax was burnt out due to a 40 lb. bomb, which had hung up, exploding when the aircraft landed. There were no casualties.

No. 205 Group
O.R.B. and
Squadrons.

No. 73 Squadron's 'Gala Night' - 5/6 November

In anticipation of the enemy retreat along the coast road, No. 73 Squadron which had been operating night-flying Hurricanes to very good effect throughout the battle, had fitted all aircraft with long-range tanks. In contrast to the aircraft of No. 205 Group - possibly because they

No. 73 Squadron
O.R.B.

operated rather further to the west and at a lower altitude - they found most rewarding targets and the Squadron War Diary describes the night's operations as a 'gala night'. Attacks were made at dusk and dawn. Twelve aircraft which operated in pairs arrived in the Garawla-Fuka area just before dusk and 'straffed hundreds of M.T. on the roads, many carrying troops. Heavy and light A.A. also intense Breda fire was encountered - various gun positions were straffed and at least one Breda silenced.' Operations at dawn 6 November were disappointing. Everything as far as Fuka was found to be quiet and the comment was made that 'our army has pushed on so rapidly that it was impossible to distinguish enemy troops near Garawla'. In addition to these dusk and dawn patrols, two Hurricanes patrolled the main road area, as far as Sidi Haneish, to ward off any enemy low-level attacks which might be made on the advanced Eighth Army units, but no hostile aircraft were encountered.

'Rain and 8/10ths Cloud from Fuka to Sidi Barani' -
6 November

The conditions of cloud and occasional rain squalls which had impeded air operations during the night of 5/6 November developed into a torrential downpour which quickly transformed the dry desert tracks into quagmires and rendered the fair-weather landing grounds in the desert temporarily unserviceable. By 09.00 hours, on 6 November, returning fighters reported 'cloud and rain conditions Daba and Westwards'. By 10.30 hours a report was received from No. 211 Group that L.G.s 105, 106 and 25 were flooded and that, as this most probably applied to all landing-grounds in the Daba area, orders were given that no aircraft were to move forward without permission. Further reports received during the day by A.A.H.Q.W.D. revealed the disheartening fact that bad weather with heavy rain and extremely poor conditions of visibility, with 8/10ths cloud, covered the whole area from Fuka to Sidi Barrani. Along these vital 120 miles of coast road, therefore, which held what remained of the Panzer Army, the weather conditions had spread a tremendously effective protective screen, disorganising the whole of the W.D.A.F. bomber operations.

A.A.H.Q.W.D.
War Diary.

Apart from the dawn low-level attacks against M.T. in the Sidi Haneish and Qasaba areas carried out by the Hurricanes of No. 73 Squadron, there were no offensive sorties against ground targets until 13.30 hours. Up to that time, all the fighter sorties - over 120 in number - were carried out by aircraft providing cover to the Eighth Army's forward troops and in reconnaissance over the flooded airfields. Owing to heavy rain and bad visibility, a number of aircraft were forced to return to base. No enemy aircraft were sighted and no enemy air activity was reported throughout the day.

A.A.H.Q.W.D.
Daily Int. Sums
and M.E. Opsum
No. 71.

An interesting reference is made to events on 6 November by No. 2 A.S.C. in their War Diary:-

No. 2 A.S.C.
War Diary.
Cabinet Office
Archives.

'Fighters provided cover over most westerly troops, but as large column of M.T. were seen by this cover leaving Matruh, two bomber raids were directed on mine-field gap N.E. of Charing X with good effect. Rain and cloud limited operations. Little information from G. Ops. or Tac. Army.... Some Wing "A" Parties moved up to Daba L.G.s, but rain prevented L.G.s from being used.'

Nos. 250 and 450
Squadron
O.R.B.s.

A. A. F. Q. W. D.
Daily Int.
Sums.

It was not until 13.30 hours that the air offensive against the retreating enemy was resumed, when six Kittyhawks of No. 250 Squadron made a low-level machine-gunning attack against enemy M.T. along the Sidi-Barrani-Matruh Road, claiming 36 trucks damaged, three vehicles in flames and a petrol dump destroyed. Many casualties were also inflicted on enemy troops riding in trucks. The Kittyhawks encountered very bad flying conditions, with heavy rainstorms and one aircraft was forced to turn back. A quarter of an hour later, 12 Kittyhawks of No. 450 Squadron (R.A.A.F.), despatched on a long-range strafing patrol to the same target, were prevented by low cloud and rain from carrying out any attacks. Eight Warhawks of No. 64 Squadron U.S.A.A.F. managed to get through. They located some 500 enemy vehicles in the Charing X area, some eight miles to the south-west of Matruh and machine-gunned them to very good effect. The next raid, this time by eight Warhawks of No. 66 Squadron, proved abortive, as they were forced to return by the weather. The third and last U.S.A.A.F. attack was made by eight Warhawks of No. 65 Squadron U.S.A.A.F. which machine-gunned what was described as 'a solid stream of traffic moving along the road to the west of Matruh.' Claims were made of six lorries blown up, nine damaged and a machine-gun silenced. Later still, six Kittyhawks of No. 112 Squadron, carrying 8 x 40lb. bombs, caught the retreating enemy columns when they were some 30 miles to the west of Matruh and, with their bombing and low-level attacks, destroyed or damaged some 20 M.T. Throughout 6 November many Squadrons were waiting for the order to move which did not arrive until that evening, owing to the widespread flooding of the Daba landing grounds.

No. 223 Squadron
O.R.B.

Only five unescorted light bomber sorties could be carried out against this superb target of all arms as they left Matruh, owing to the continued preoccupation of the fighter force with protective patrols over our forward troops, at a time when the enemy air force were conspicuous by their absence, and the delays in the move forward of the fighter force entailed by the flooding of the Daba landing grounds. Meanwhile the light bombers of No. 3 S.A.A.F. Wing were idle. The five unescorted sorties were carried out by aircraft of No. 232 Wing using cloud as cover. The target was described as a 'continuous convoy of retreating enemy M.T. leaving Matruh and extending for miles along the road.' The aircraft which took part in the raid comprised three Baltimores of No. 55 Squadron and two of No. 223 Squadron. The nature of the attacks, which involved entering cloud for cover as soon as bombs had been released, precluded observation of any results of the bombing. One aircraft of No. 55 Squadron was lost, probably due to A.A. gunfire.

Lloyds List of
Enemy Shipping
Losses and M.E.
Weekly Int.
Sum. Vol. 8.

Meanwhile raids by U.S.A.A.F. heavy bombers accounted for a further 10,500 tons of enemy shipping in Benghazi and Tobruk harbours. The attack against Benghazi was carried out by 21 Liberators on the evening of the 6 November when the Portofino a tanker of 6424 tons, which had already been damaged by air attack, was set on fire, and the auxiliary vessel the Mars of 369 tons was also sunk. The third vessel, the Etiopia of 2153 tons was sunk at Tobruk in the course of an afternoon raid by five Fortresses in which damage was caused to other shipping in the port, including a submarine.

Panic Among the Afrika Korps at Mersa Matruh - 6 November

Only now that enemy war diaries are available is it possible to realise the extent of the opportunity presented to the W.D.A.F. on 6 November and which, for various reasons, was missed.

Afrika Korps War
Diary. A.H.B.6
Trans. No.
VII/100/2.

'Army Headquarters,' says an entry in the Afrika Korps War Diary on 6 November, 'gave information regarding blocked roads and flooded areas south-west of Mersa Matruh. Airfields in the Mersa Matruh region were to be scoured for fuel supplies. As a result of the abrupt abandonment of the territory east of Mersa Matruh the heavy convoy traffic surging back from this area became jammed in the fortress town. The confusion was increased by rain which fell during the morning and by mines laid at the sides of the roads. It was almost impossible for convoys and single vehicles to make any headway. In addition, the irresponsibility of officers of all ranks and the ill-considered decision they took gave rise to unrest and to some extent panic. Thus, vehicles on or near the road were set on fire and guns were wrecked or abandoned for lack of gun tractors. Many vehicles had left their units and were driven to the rear without orders. Convoys became disorganised.. '(1)

The enemy themselves commented on the fact that the W.D.A.F. were not out in very great strength on 6 November due, as they thought, to 'the longer distances to be flown'. Unfortunately, in spite of all this chaos at Matruh, not a single bombingraid was directed against the town.

Official German
Narrative and
Cabinet Office
Notes,

In the meantime, the 21st Panzer Division with 40 out of the 48 tanks now left to the Panzer Divisions, was immobilised in the area to the south-west of Qasaba and still more than 20 miles from Matruh. The Afrika Korps H.Q. considered this halt to be highly dangerous and urged the Division 'to move if it were at all possible', but 'owing to lack of fuel the division remained where it was.' In this very vulnerable situation, 21st Panzer Division were attacked by 22nd Armoured Brigade of the 7th Armoured Division. They formed a semi-circle round the enemy tanks and picked them off one by one, themselves losing only one tank burnt out and two damaged.

The 21st Panzer Division sustained very heavy casualties during the fighting on 6 November - 22nd Armoured Brigade claimed 25 tanks destroyed - and by the evening, as no appreciable quantity of petrol had arrived, the grave decision was taken to blow up the remaining tanks, together with some other vehicles, and to use the wheeled vehicles to break through towards Matruh. During this withdrawal, which took place on the night 6/7 November, the 21st Panzer Division

- (1) 'Conditions on the road (6 November) were indescribable. Columns in complete disorder - partly of German, partly of Italian vehicles - choked the road between the minefields. Rarely was there any movement forward and then everything soon jammed up again. Many vehicles were on tow and there was an acute shortage of petrol, for the retreat had considerably increased consumption.... During that day, we succeeded in forming a fairly firm front and beat off all enemy attacks. Although the enemy must have been aware of our weakness, he still continued to operate with great caution.' 'The Rommel Papers'

Pz. Army Daily Report
to G.H.Q. 23 Oct. 42.
Appendices to Pz. Army
Afrika War Diary
AL 981.

Afrika Korps War
Diary. A.H.B.6
Trans.

lost still more vehicles in the deep mud to the south east of Matruh, where the ground had been turned into a quagmire by the heavy rains. On 23 October, the enemy tank strength was 537 (238 German and 299 Italian). By 6 November, the second day of the pursuit, the Italian armoured strength had been eliminated entirely, while the Afrika Korps, after the disaster to the 21st Panzer Division at Qasaba, could muster only 12 tanks (15th Panzer Division eight and 21st Panzer Division four). The German-Italian Panzer Army had been reduced to some 2 per cent of its original tank strength at the opening of the battle of El Alamein, and it is no exaggeration to say that, on 6 November, it no longer existed as an effective fighting force. Rommel's much-vaunted Panzer Army which had advanced with such elation and confidence after the fall of Tobruk was now at the nadir of its strength and efficiency. Only the speed of the enemy's withdrawal made at the expense of the abandonment of nearly all its tanks and heavy weapons, the intervention of the weather, the slowness of the Eighth Army in getting forward and the diversion of the W.D.A.F. from what was - temporarily, at least - its pre-eminently important role of concentrated bombing saved what remained of the routed and demoralised enemy from complete disaster.

The Enemy's Critical Supply Position - 6 November

The complete immobilisation of 21st Panzer Division on 6 November for lack of petrol and the consequent destruction of almost the whole of their armour was the climax of a grave supply situation which had had a crippling effect on the Panzer Army throughout the battle of El Alamein. There was every likelihood that - as had happened with the Eighth Army in July - by falling back on their bases and shortening their lines of communication, the Panzer Army would find the supply position eased. However, so great was the disorganisation in the rear, particularly at Matruh, that the supply columns were unable to get forward with the fuel that was available.

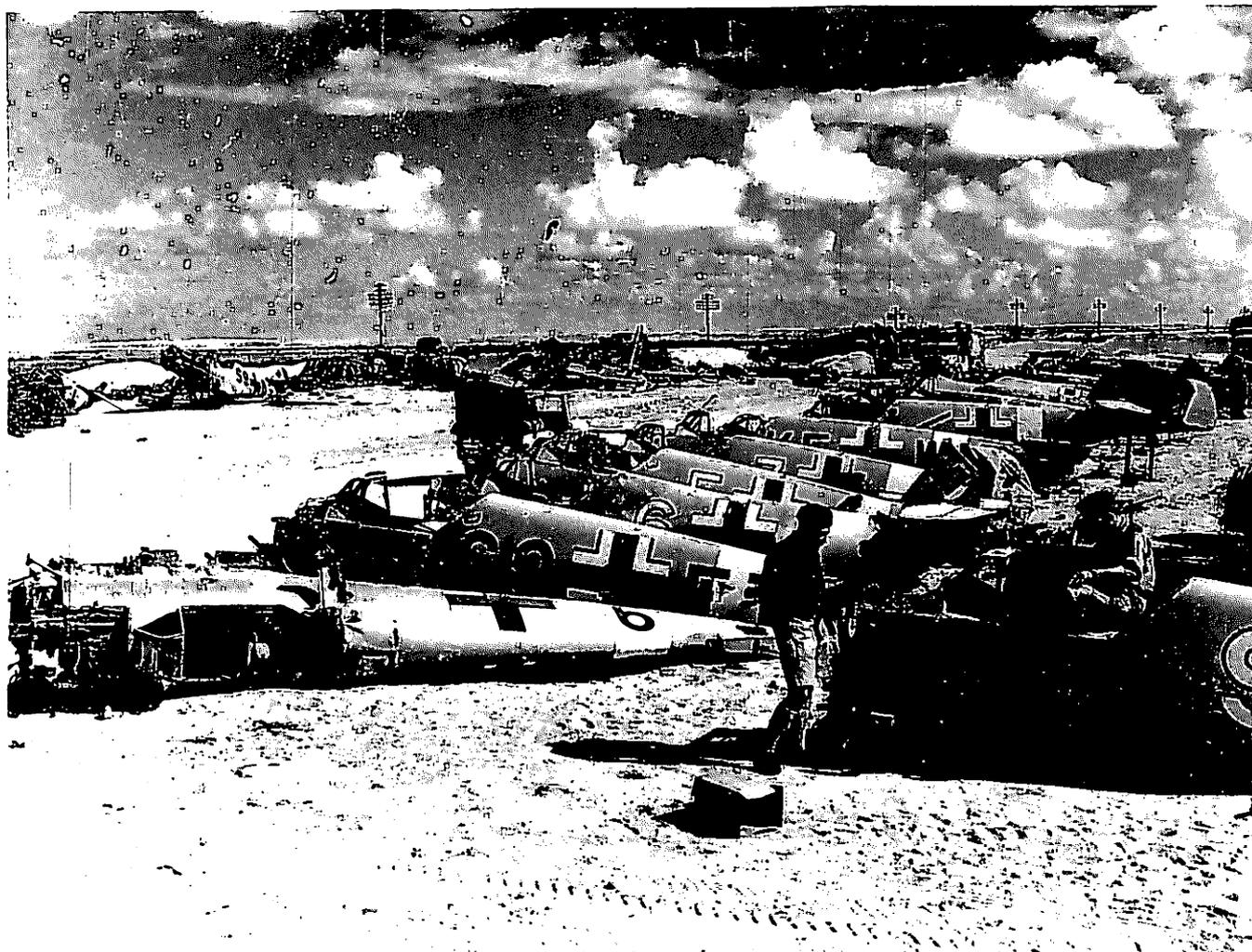
'On 3 November,' says an extract from the Chief Panzer Army Supply Officer's Report, 'after the course of the Alamein fighting had made it obvious that the enemy was too strong for us and that we would have to withdraw, the Panzer Army QMG took preliminary steps to arrange the withdrawal. If these steps could have been carried out as planned, a vast quantity of equipment and supplies could have been saved. On 4 November, however, a counter order arrived (as a result of Hitler's "Victory or Death" message) cancelling all the measures already taken. All MT columns which had already been instructed to withdraw fully loaded were now sent back empty to bring up more supplies. Then, on 5 November, fresh orders were issued to prepare for a withdrawal. There was now not enough empty MT in Matruh to take back all the supplies, and so a great deal of important equipment and supplies had to be destroyed. Some wounded and POW also had to be left behind in Matruh. The effect of order and counter order was most disastrous in this case....'

Throughout the withdrawal, columns had to push their way forward to the fighting troops against the main stream of traffic with essential supplies.... Petrol became a question of life and death to the Army... Casualties on the withdrawal have not been finally estimated yet, but it is obvious that losses in men and M.T.

Pz-Armee Afrika
Misc. Supply
Messages. Cabinet
Office Archives
AL866.



Derelict enemy tanks and vehicles on the coast road near
Matruh



The 'graveyard' of enemy aircraft on the airfield at Daba

have been considerable, particularly through low-flying air attacks by English light bombers....'(1)

A.H.B.6 Records.

Official German War Narrative.

The Panzer Army supply situation was also made more critical by the U.S.A.A.F. heavy-bomber raids on Benghazi and Tobruk on 6 November when, as has already been described, the three ships, the Portofino, Etiopia and Mars were sunk. The Portofino contained 2,000 cubic metres of petrol when she was set on fire, and she was still burning when Eighth Army troops entered Benghazi on 20 November. The loss of this petrol was a severe blow as it represented, at a moderate estimate, a week's airlift of petrol from Crete. Owing to the imminent exhaustion of the Panzer Army's fuel supplies in the forward area, Rommel wished Kesselring to have 300 cubic metres flown forward from the Tobruk-Benghazi area on 7 November. In addition, therefore, to the wasteful expedient of flying fuel over from Crete to North Africa, it was now necessary to have it ferried forward by air. This involved the cumbersome Ju. 52's in considerable risk and several were shot down on the following day.

Rommel's Intention to Make a Temporary Stand at Matruh - 6 November

By now the Panzer Army was in such a very bad state, by reason of its low strength, lack of petrol and motor transport that there no longer remained any possibility of its being able to launch an effective counter-attack against the Eighth Army's outflanking movements. The crippling losses inflicted on 21st Panzer Division and reports that a pursuing force of tanks and armoured cars were across the Siwa track to the south west of Matruh precluded any idea of a sustained defence of Matruh. Nevertheless, Rommel considered that, as yet, the threat was not sufficiently pressing to entail the immediate evacuation of the town. He decided to stay there for as long as possible so as to gain time to organise the Sollum front and halt and reorganise the retreating troops. Faced with the complete disintegration of what remained of his army, it remains one of the most impressive military feats of Rommel's career that he refused to be stampeded into precipitate action at Matruh and began the careful rebuilding and reorganisation of his forces. General Lungerhausen was given the task of reforming the scattered units of the entire army in Sollum. He was also made responsible for seeing that all the transport which had fled to the frontier area during the withdrawal was made available for carrying fuel supplies. The decision to make a temporary stand at Matruh was complicated by the fact that, in the confusion and panic, food and ammunition dumps had been destroyed and, what was even more serious, even the water points. In addition, the stocks of fuel which had been allocated to the Afrika Korps from the fuel dumps there had been pillaged and used up by the transport streaming to the rear.

Afrika Korps War Diary.

Aircraft Abandoned on L.G.s at Daba.

Evidence of the Luftwaffe's precipitate withdrawal and the complete breakdown of their organisation during this early phase of the retreat was provided at the very first airfield to be inspected at El Daba which, in the words of the official report, was found to be 'cluttered up with aircraft, many of them intact and flyable.' A rich yield of

(1) Fighter Bombers.

Historical
Record of Air-
craft Technical
Intelligence in
the Med. Theatre
A.H.B.IIM/A36/2H

new information was provided the Technical Intelligence Officers. Several specimens of the new Me. 109G series, with Daimler Benz 605 engines and examples of the Ju. 87 D series, with increased bomb-carrying capacity and greatly increased armour protection, were found. There were also good specimens of Italian aircraft and several German gliders, in reasonable condition. However, in spite of stringent orders to the contrary, much irreparable damage was done and valuable information lost due to the activities of souvenir hunters, both R.A.F. and army.

Eighth Army
War Diary.

At this period, arrangements for the adequate salvaging and safeguarding of the vast amount of stores and valuable equipment abandoned by the enemy were quite inadequate. Furthermore, there were some surprising lapses. Three days after the battle of El Alamein, when the enemy were very many miles from the battlefield, all abandoned enemy tanks were still being blown up by the Engineers, as no-one had thought of cancelling the original order. It was not until 7 November that Main H.Q. Eighth Army circulated the order that, 'in view of changed conditions, all enemy equipment will be salvaged and not (R) NOT destroyed.'

Night-Bombing Operations 6/7 November

No. 205 Group
O.R.B. and
Appendices and
H.Q.R.A.F.M.E.
Opsums.

The strange immunity from bombing which the enemy forces had enjoyed at Matruh on 6 November was maintained that night throughout the bombing operations by aircraft of No. 205 Group. The briefing stated that 'the enemy is making a desperate bid to escape encirclement. It is expected our A/C will be called upon to attack tanks and M.T. on the road between Mersa Matruh and Sidi Barrani.' The excellent targets in the Matruh area, comprising the night-leaguers of the remnants of the Afrika Korps, were missed, probably due to the fact that bad weather was encountered en route and the No. 201 Group Albacores were not available for flare-dropping. Eight Halifaxes and 47 Wellingtons from all Squadrons operated between 01.05 hours and 04.15 hours, dropping some 84 tons of bombs. Weather was poor with widespread electrical storms and 5/10ths to 8/10ths cloud in the target area.

Official German
Narrative.

The best targets were located at Buq Buq, on the escarpment at Sollum and the junction of the coast road and the Halfaya Pass. In spite of the adverse weather conditions, the bombing was good. The majority of the bombs burst among vehicles, scoring many direct hits. About 30 fires, including petrol fires, were started. These were the first of the raids on the Halfaya Pass where further opportunities were lost at a later date for the use of concentrated air power to block the enemy's escape. At Sollum half-a-dozen heavy guns were active, but all aircraft managed to escape damage. The enemy referred to 'the continual day and night bombing attacks on the coast road (mainly between Barrani and Sollum), the Sollum and Halfaya Pass roads and supply bases in the rear areas. The steamer Etiopia was set on fire in Tobruk harbour. Also enemy naval forces fired on the Sollum and Halfaya Pass Roads.'

No. 73 Squadron
O.R.B.

The first long-range patrol of night-flying Hurricanes of No. 73 Squadron encountered such heavy rain cloud before reaching Daba that they were forced to return to base. Another patrol, which had taken off to prevent the enemy from attacking congested transport on the main road, had to be recalled. By dawn, however, the weather had cleared sufficiently for 6 aircraft to carry out a layer patrol from

Sidi Haneish to Matruh. This went off without incident. A dawn attack was made on Maleme airfield, Crete which was being used extensively by the Ju. 52 transport service to North Africa. Some 12 tons of bombs burst on the landing-ground, but no other results were visible. A total of seven A.S.V. Wellingtons, five carrying bombs, searched for enemy shipping between Crete and Cyrenaica, but made no sightings.

Fighters Continue Protective Role Over Forward Troops -
7 November

Weather again severely hampered air operations on 7 November. There were no light-bomber sorties. The fighter sorties numbered 137 and again were predominantly in protection of forward troops. Only two fighter-bomber raids, involving 14 Kittyhawks, were carried out and these do not appear to have scored any marked success. Twelve P.40's despatched to bomb retreating enemy transport to the west of Sidi Barrani were unable to locate the target owing to low cloud. An early Strat/R reported a continuous stream west of enemy M.T. along the Barrani-Sollum road. Twelve Kittyhawks and 12 P.40's of No. 250 Squadron and No. 66 Squadron U.S.A.A.F. carried out low-level machine-gunning attacks against large numbers of enemy M.T. in this area with conspicuous success, starting many fires. Spitfires of No. 601 Squadron - eight in number - machine-gunned some 40 enemy aircraft on Sidi Barrani L.G. and then went on to attack enemy M.T. in the area.

Squadron
O.R.B.s and
Opsums.

The day's most important successes were gained against enemy aircraft. In the morning, six Spitfires patrolling the Matruh/Barrani area encountered nine Ju. 87's, escorted by nine Me. 109's, and in the ensuing action six dive-bombers and three fighters were claimed as destroyed. One of the Spitfires forced-landed to the east of Matruh. No. 250 Squadron Kittyhawks, which had moved to Daba late the previous evening, were returning from the low-level machine-gunning attacks on enemy M.T. mentioned earlier, when they ran into a formation of five Ju. 52's ferrying petrol to the forward area, and claimed three of them shot down. Shortly after this encounter the Kittyhawks met a formation of escorted Ju. 87's, but this time the engagement resulted in the loss of two Kittyhawks and their pilots. U.S.A.A.F. Warhawks claimed a further two Ju. 52's, probably from the same formation as that encountered by the Kittyhawks. Enemy records show their losses as three Ju. 52's, one Me. 109, and one Ju. 87.

Squadron
O.R.B.s and
Opsums.

A.H.B.6 Records

The Pursuit is Brought to a Temporary Halt by the Rains -
7 November

Not only did the rains - described by the enemy as of 'cloudburst intensity' - severely hamper the move forward of the fighter squadrons to the Daba L.G.s. Their effect on the Eighth Army's pursuit force was catastrophic. The 7th Armoured Division, whose 22nd Armoured Brigade had fought such an effective action against the immobilised 21st Panzer Division east of Matruh on 6 November, had the mortifying experience of being within sight of the enemy on 7 November and being themselves, in turn, completely immobilised for want of petrol. The supply echelons which consisted of civilian pattern 3-ton lorries became completely bogged down in the desert. The 1st Armoured Division which, by advancing across the desert in an out-flanking movement to the south had drawn level with Matruh and was well on the way to cutting the coast road, was in an identical predicament. The New Zealand Division reported that, after a night of torrential rain, all

Cabinet Office
Narrative.

C.-in-C.'s
Despatch.

vehicles were bogged. The supply columns could not get through and the whole day was spent extricating the vehicles on to firm ground. The desert had become a morass in which tracked vehicles could move only very slowly and wheeled transport was completely bogged. The whole conception of the pursuit plan which had been to make a series of out-flanking movements through the desert was thus completely stultified. The enemy took the opportunity of dive-bombing units of 1st Armoured Division whilst their trucks were immobilised in the soft ground. A battery reported the loss of a field gun and a truck, with two killed and six wounded. The enemy claimed the destruction of four tanks and other vehicles.

Rommel's Decision to Evacuate Matruh - 7 November

Enemy reports state that aerial reconnaissance on the morning of 7 November established that British armoured cars were on high ground no more than 10 miles from the Afrika Korps H.Q., while some 16 miles to the south west - also on high ground - was a force comprising some 150 vehicles. Between was a sea of mud. It was obvious, however, that such abnormal weather conditions in the desert could only give a temporary respite. Rommel, who arrived at the Battle H.Q. at 09.00 hours to discuss future plans, realised that with the Eighth Army as close as it was, it was now necessary to accelerate the evacuation of Matruh, and he decided to continue the retreat during the night of 7/8 November or on 8 November, at the latest. The 15th Panzer Division, which carried out a reconnaissance of the route planned for the movement, found that the ground to the west was impassable owing to mud. Withdrawal was now only possible along the line of the coast road and the railway which left them very vulnerable to air attack.

The German Appreciation of the Situation for 7 November stated:-

'The Panzer Army, with the weak forces now available, was not in a position to hold Mersa Matruh and the area south west of it any longer and also it was to be expected that its southern flank would be turned on the 8th. The Army Commander therefore decided to carry out a fighting withdrawal about 70 km. westwards on the 8th. The soft state of the ground after the rain, the serious petrol shortage and the uncertainty of supplies forbade any large-scale movement off the coast road. Afrika Korps was therefore ordered to withdraw at once along the coast road, with Voss Group which was instructed to co-operate with it, and to make for Sidi Barrani.'

The enemy petrol shortage was so serious that only the continued transport of fuel by air enabled the divisions to retreat and saved them from encirclement.

Night Bombing Attacks Concentrated on Area 'Local to Halfaya and Sollum Passes' - Night 7/8 November

During the night 7/8 November, having destroyed the railways installations and wells and mined landing-grounds and important points on the roads, the enemy evacuated Matruh and resumed their retreat towards the frontier. 'The maximum disruption of traffic in the Halfaya Pass area' was called for in the signal to No. 205 Group from A.A.H.Q.W.D. where, in the words of an enemy report, 'the vast tide of thousands of retreating second-line and supply

Official German
Narrative and
Afrika Korps
War Diary.

A.A.H.Q.W.D.
War Diary and
No. 205 Group
Appendices.

vehicles stretched for 40 kms. east from the Sollum and Halfaya zigzags.' The bomblines were not to be east of 56 grid, near Bug Bug and the maximum concentration of attack, it was stipulated, was 'to be local to Halfaya and Sollum Passes'.

Now that the bomblines had definitely passed out of range of the Albacores, the Wellingtons were dependent on their own efforts for illumination and were required to carry 'maximum flares'.

No. 148 Squadron
O.R.B.

'All aircraft,' says an entry in No. 148 Squadron O.R.B., 'returned safely from a successful operation which might have achieved greater success had the aircraft not illuminated their own targets. This was due to rapid retreat of the enemy columns making flare-dropping by Albacores impossible owing to target being beyond their range.'

No. 104 Squadron
O.R.B.

It is unfortunate that the briefing did not specifically mention that, as well as destroying M.T., an especial effort should be made to disrupt the enemy retreat by bombing the pass itself. The huge crater blown by the enemy on 10 November, at the foot of Sollum Pass, caused the advancing Eighth Army very considerable delay and the congestion was such that special air protection was requested and provided. The two Wellingtons of No. 104 Squadron which carried 4000 lb. bombs would have been very suitable for the task of 'road-busting'. One, however, dropped its bomb on M.T. in a wadi and the other 'half way up the pass and just west of the road.' A concerted attack on the pass by a specially detailed force - the Halifaxes were carrying over 3 tons of H.E. each and came down to a sufficiently low level to machine-gun transport - by blocking it, would have had a considerable effect on the speed of the enemy's retreat into Cyrenaica, for the pass was a bottleneck through which Rommel's force, with their vast numbers of transport estimated at some 10,000 vehicles, must inevitably make their exit from Egypt.

Panzer Army
Doc.

No. 205 Group
O.R.B. and
Opsums.

A total of 44 Wellingtons and 8 Halifaxes operated. They dropped 86 tons of bombs in $4\frac{3}{4}$ hours or at a rate of approximately 18 tons per hour. The only opposition encountered was at Sollum and consisted of $4/5$ heavy guns, a few light guns and five searchlights. Reports spoke of 'masses of tanks and M.T.' having been located. They were badly dispersed in groups of about fifty. Twelve direct hits were claimed and 30 fires, 6 of these being large ones. The enemy referred to the disorganisation caused by these night-bombing attacks in the following terms:(1)

(1) 'That night (7/8 November) enemy bombers flew non-stop attacks against the Sollum-Halfaya position. At that time the two burning problems of our retreat were, firstly, whether we should be able to get our columns through the passes soon enough, and secondly, our petrol supply. So long as these enormous columns were still jammed up on this side of the passes, the motorised combat groups would have to go on trying, by every means open to them, to delay the enemy. Next morning, there was still a 25-mile queue of vehicles waiting to get through the passes. Traffic had moved very slowly during the night, as a result of the incessant attacks of the R.A.F.' 'The Rommel Papers'

Official German
Narrative.

'The vast tide of thousands of retreating second-line and supply vehicles, stretching 40 kms. east from the Sollum and Halfaya zigzags, on the coast road, could move only slowly during the night, because of the incessant enemy air attacks.'

H.Q. M.E.
Opsum No. 72.

Hurricanes of No. 73 Squadron patrolled over the forward area without incident and eight Wellingtons searched for enemy shipping to the east and west of Crete, but made no sightings.

The Passes at Halfaya and Sollum Blocked by Air Action -
8 November

As has already been mentioned, after Fuka and Matruh, the next opportunity presented to the W.D.A.F. to inflict decisive damage and casualties on the retreating enemy forces occurred at the passes of Halfaya and Sollum. Evidence of the superb targets afforded at these bottlenecks at this time is contained in P.R.U. photographs and in enemy documents.

Afrika Korps
War Diary.

'The Q.M.G. came to Army Battle H.Q. just west of Buq Buq to report on the supply position. He told the Army Commander that an unending chain of thousands of vehicles was moving towards the Sollum zigzags and it would take over two days to get these vehicles over the pass. (1)

M.E. Opsums and
Daily Int.
Reports.

In all, 130 fighter sorties were flown on 8 November. Of these 60 per cent were flown either in protection of the forward land formations and the navy - there were 20 sorties flown over ships en route to Matruh - and on armed reconnaissance, and the remainder in fighter-bomber or low-level machine-gunning attacks against enemy transport. The fighter squadrons operated from landing-grounds in the Maaten Bagush area. There were no light bomber sorties.

No. 2 Air Support
Support Control
War Diary.

After the glowing reports of the congestion at Halfaya and Sollum brought back by the No. 205 Group bombers returning from raids on the previous night, it is surprising that the first three missions of the day in which 25 Kittyhawks and Spitfires took part were purely on reconnaissance. They reported that, from 10 miles east of Halfaya, enemy convoys were nose-to-tail and that, at the foot of the pass, there was a concentration of 1500 M.T.

- (1) 'All that day (8 November) powerful formations of British bombers and close-support aircraft attacked the coast road and inflicted serious casualties on our columns.... The Quartermaster brought us a report from the frontier. Apparently, a vast column of vehicles, thirty to forty miles long, was jammed up this side of the Halfaya and Sollum passes, and the retreat over the hills, which lay under continual R.A.F. low-flying and bomber attacks, was probably going to take a week. It was very unlikely that the enemy would grant us all that grace, so I gave order for movement through the passes to be speeded up by co-opting large numbers of officers for traffic control duties. Driving was to continue day and night, regardless of bombing and low-flying aircraft. A.A. barrages over the area had already been ordered. The Luftwaffe commander had meanwhile informed me that German fighters were up over the threatened area.' 'The Rommel Papers.'

Main Eighth
Army War Diary
and P.R.U.
Report.

It was not until mid-morning that 12 Kittyhawks of No. 450 (R.A.A.F.) Squadron, operating from L.G. 106, bombed M.T. along the coast road where concentrations stretched the whole distance from Buq Buq to Sollum. Unfortunately only four of the bombs were seen to burst and many of them hung up. Next, 12 Warhawks of No. 66 Squadron U.S.A.A.F. bombed and strafed M.T. along the same stretch of road starting two fires. The next raid, in the early afternoon, by 12 Kittybombers of No. 112 Squadron and 6 Kittyhawks of No. 250 Squadron was outstandingly successful. They caused considerable havoc among M.T. near Sollum, claiming nearly 50 M.T. destroyed or damaged. A further 25/30 damaged and destroyed M.T. were claimed as a result of a raid by 12 Warhawks of No. 66 Squadron U.S.A.A.F.

Afrika Korps
War Diary.

As a result of these attacks, Rommel was notified at 15.00 hours that the Sollum and Halfaya Pass roads were badly blocked, and it was proposed that the Afrika Korps should make a detour through the desert via Bir Habata, some 40 kms. to the south of Buq Buq. No. 3 Recce Unit which had been sent to survey the terrain returned with the report that the detour would require four units more of petrol than the road route. Owing to the difficult supply situation, the Afrika Korps was most anxious to avoid this detour. By 17.00 hours reports were still arriving that 'the Pass roads were blocked and that traffic was frequently held up by air attacks. However, it was anticipated that these roads would be cleared by the following day.⁽¹⁾ Afrika Korps therefore asked permission to proceed along the pass roads on 9 November provided conditions for traffic were favourable.'

Official German
War Narrative.

'In accordance with the Army Commander's personal instructions,' says another report, 'numerous officer control posts and aid posts were installed at the zig-zags, and towards evening the flow of traffic continued up the passes and went on without any hitches. The majority of the second-line and supply M.T. were expected to be through by noon the following day. It would thus be possible, considering the fuel shortage and the necessity for sparing the vehicles (Many of which had to be towed) to send Afrika Korps up the zig-zags instead of round the difficult Habata route.... Only enemy air reconnaissances in the forward area.

- (1) 'Our columns were now flowing comparatively smoothly over the passes - as I saw for myself that evening (8 November). Traffic was being controlled by numerous officer-manned traffic posts and control teams. There was now a hope that all the lorry columns would be across by midday on 9 November, which would enable the Afrika Korps to use the road. With petrol so short and many vehicles on tow, this would mean a great easing of the situation.... On the morning of the 9 November, there were about a thousand of our vehicles left on the coastal plain east of the pass. The move through the passes had gone off more quickly than we had expected. Several low-flying attacks were made on our columns again during the morning and my escort vehicles did not escape unscathed, although the damage was not serious. I notified Bayerlein that the Afrika Korps would, after all, be able to use the coast road over the passes. In view of the improved situation on the Sollum Pass, I also gave orders for the area west of Sidi Barrani to be evacuated.' 'The Rommel Papers.'

Despite strong fighter and anti-aircraft protection, enemy bombers and dive-bombers (fighter bombers) continually attacked the rear areas, concentrating on the roads up the passes.'

The R.A.F.'s Transport and Supply Difficulties

Meanwhile the air pursuit force - Force 'A' - of the W.D.A.F. was labouring under the greatest difficulties and was having the mortifying experience of seeing the enemy drawing steadily out of range. By 8 November the full tragedy of the rains of the preceding two days had become fully apparent. None of the advanced desert landing-grounds was weather-proof, so that the torrential rains quickly made them unserviceable. In a number of instances, after the surface water had drained away, tanks and guns had traversed the airfields leaving behind deeply-pitted ruts which had to be filled in before the landing-grounds could be used. Inevitably, with the speed of the enemy's retreat, such landing grounds were frequently too far in the rear before labour and equipment were available for their repair.

The W.D.A.F. advance parties and supply echelons were themselves seriously delayed by the phenomenal amount of traffic the coast road was carrying. Parties took days for journeys which, under normal conditions, should have lasted for a matter of hours. The desert landing-grounds were approached by tracks which tended to disintegrate after the rain and along these progress was even slower, as the trucks, heavily-laden with supplies such as bombs and petrol, frequently sank up to their axles. The tracks over the escarpment leading to the desert landing-grounds at Sidi Haneish were particularly bad in this respect and frequently collapsed under the heavy loads. Breakdowns of the M.T. were numerous and these, in turn, occasioned further delays. These were tasks for which the civilian-type transport, designed and constructed for well-maintained metalled roads, were wholly unsuitable.

Although the enemy mining of landing-grounds was, at the outset, haphazard and, with ploughing, reached nothing like the perfection of technique of the later stages of the advance, nevertheless it meant that all landing-grounds had to be checked for mines before they could be used. An unexpected result of the extensive flooding was that there was an acute shortage of water. The wells had been contaminated by the enemy and, for a time, it was impossible to locate the leaks in the damaged pipeline as it was itself submerged, while many of the convoys bringing supplies forward were stuck in the glutinous mud. All the Bombays of No. 216 Squadron were kept very busy transporting water forward to L.G. 75.

In spite of all these difficulties, the W.D.A.F. made good progress and Main Eighth Army H.Q. War Diary contains the following entry:

'From G2. R.A.F. petrol vehicles, about 50 of them, are now leading the advance. Have formed off road at Kilo 70 and are heading for Mischeifa.'

The Occupation of Mersa Matruh - Morning of 8 November

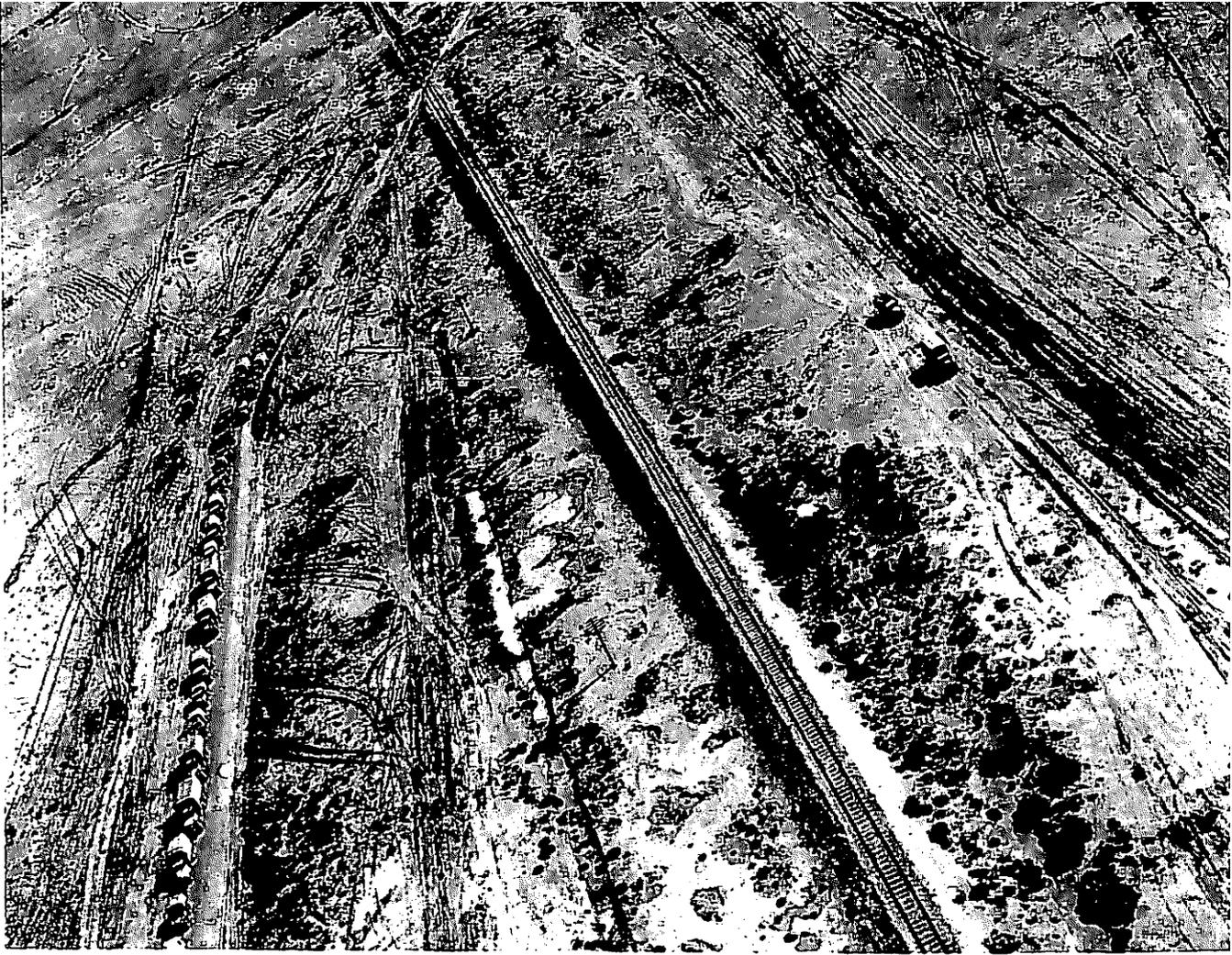
Improved weather conditions on the morning of 8 November enabled the Eighth Army's X Corps to move forward and, at 09.00 hours, Mersa Matruh was occupied after a four-day

Squadron
O.R.B.s.

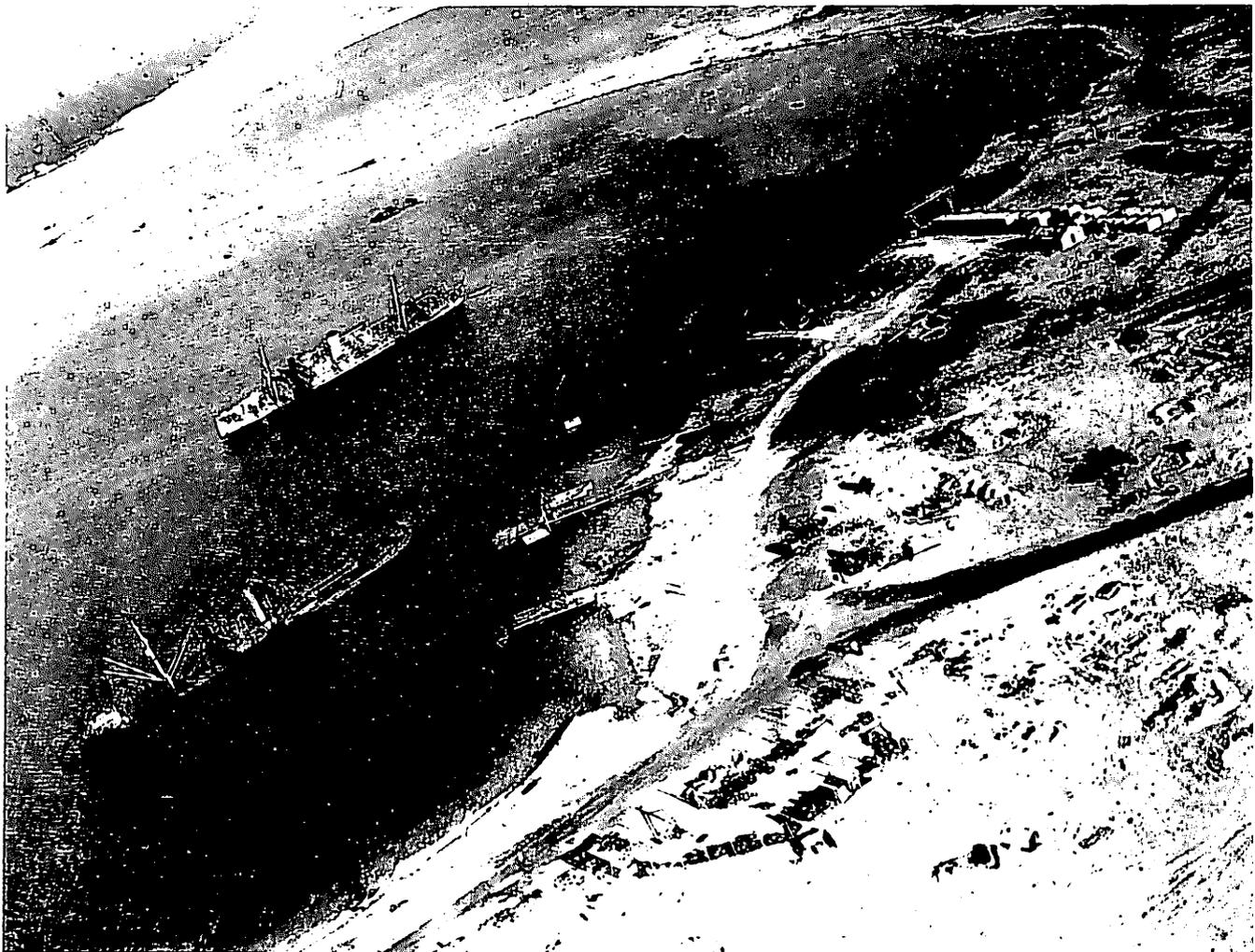
No. 216 Squadron
O.R.B.

Main Eighth Army
War Diary

Main Eighth Army
Cositrep.
A.H.B./11J1/162/3.



Eighth Army transport moving westwards along the coast road.



Mersa Matruh after its recapture

Main Eighth Army
War Diary

advance covering 130 miles. Although both approach roads had been blocked and mined, the harbour was found to be in perfect order 'but for enemy wrecks from our air bombing.' An unavailing search was made for uncontaminated water and new borings were accordingly started. Minesweepers entered the port on the same day, and although there had been no demolitions, unloading could not start until 11 November owing to the mines.

Notes on
Maintenance of
Eighth Army
Supporting
Royal Air Force.
Cabinet Office
Archives.

The railway had been extensively damaged. Westwards to Daba, through the battlefield area, heavy work was necessary due to our bombing and shelling, the enemy's demolitions and the construction of many dugouts in the railway embankment. West of Daba, to Matruh, the damage was of a comparatively minor nature, such as track demolitions and the removal of points and crossings. Teller mines had also been planted in the track and this necessitated the examination of every yard. In spite of this, the railroad to Daba was open and operating by 9 November and as far as Matruh by 14 November. This proved a most important factor in ferrying supplies forward.

The Invasion of French North-West Africa - 8 November

On 8 November, four days after the end of the battle at El Alamein, the Anglo-American Expeditionary Force under General Eisenhower landed in French North Africa. The co-relation between these events was close and had been well-timed. The victory in Egypt had an immediate and profound effect on French and Spanish opinion and was of great importance to the success of the invasion. Had the French in North Africa been encouraged by a failure of the Eighth Army at El Alamein to offer a really determined resistance to the invading forces, and had General Franco been swung thereby from a position of pro-Axis neutrality to full co-operation, Operation 'Torch' might well have ended in disaster.

Admiral Weichold
'Axis Naval
Policy and Ops.
in the Med.'

The Allied plans for the invasion had been kept so well that the German Naval Staff were later forced to admit that they had been 'completely outwitted in the Intelligence game'. It was not until the night of 5/6 November that the Axis received its first intimation of the start of a large-scale operation in the Mediterranean, when reports were obtained from observation posts on the Spanish coast that several large-scale convoys had passed through the Strait of Gibraltar and that British naval forces had sailed from their base there on an easterly course. The German Naval Staff's immediate assumption was that a landing in Tripolitania was threatened. Their Intelligence later had the humiliating experience of learning from a B.B.C. announcement, early on the morning of 8 November, that the landings had, in point of fact, been made in French North Africa. The enemy's own embittered comment was that the vast armada, which made up Operation 'Torch', must have 'sailed under a lucky star.' Part of the almost unbelievable immunity of these mammoth operations from air or sea attack - only one transport was sunk and even the enemy themselves were uncertain how it happened - was undoubtedly due to the fact that the major offensive in the Western Desert had concentrated attention on that area.

Suddenly faced with a war on two fronts in North Africa and a completely altered strategic situation in the Mediterranean, the enemy reaction was prompt and forceful. The speed with which large-scale moves of Luftwaffe units were made in response to the Allied landings provide an object lesson in the strategic mobility of air power. Furthermore, they demonstrate graphically the threat under which the Air Commanders in the Middle East had laboured that the enemy,

working on internal lines of communication, might suddenly decide to reinforce their air strength in that theatre. The fear that had haunted the minds of the Air Commanders that the enemy might suddenly introduce a technically superior aircraft was realised when the F.W. 190 arrived in North Africa. Fortunately, the enemy High Command had postponed this build-up in the Mediterranean until too late, but it reveals how precarious had been the air superiority won by the aircraft of Middle East Command, when so much of their air strength had been based on the obsolescent Hurricane.

Four Gruppen of L.R.B.s were moved to bases in Sicily and at Grosseto, in Italy, from as far distant as North Norway. The shift from Banuk and Nautsi - 300 miles to the north of the Arctic Circle - to Comiso and Catania, in Sicily, involved a move of some 2,000 miles. This transfer took from five to nine days, though one Staffel claimed to have made the transfer in 48 hours and other aircraft managed the trip in three days. Units were also moved from Holland, Belgium and Northern France to airfields in southern France and from the Orel front in Russia, and Weimar in Germany, to Bizerta. A quick redistribution of enemy air strength within the Mediterranean theatre was also made. Just before the landings, parts of 2 Gruppen (one of L.R.B.s and one of T.E.F.s) were transferred from Greece and Crete to Sicily. After the landings, parts of another Gruppe of L.R.B.s were ordered from Greece to Sicily and parts of a T.E.F. Gruppe and a long-range Reconnaissance Staffel from Crete to Sicily.

Although the overall strength of the Luftwaffe, in the Mediterranean theatre, was greatly increased, as a result of Operation 'Torch', the forces available to support the Panzer Army operations in the Western Desert were reduced still further. This accounts, in part, for the antithesis that, while the Air Officer Commanding Western Desert Air Force anticipated increased air opposition during the advance from El Alamein, the opposition encountered - at least during the early part of the advance - was negligible.

From the point of view of Middle East Command, the effect of 'Torch' had been felt for some time. Preparations for the invasion had been proceeding for months - it is significant that plans had been formulated in July, when British fortunes in the Western Desert were at their lowest - and the reinforcement programme for the Middle East had been subordinated to the requirements of 'Torch', with the result that the rearming of the W.D.A.F. squadrons with more modern types of aircraft had had to be postponed. One measure which had an immediate and relatively important effect on air operations in the Western Desert was the transfer of No. 272 Beaufighter Squadron, which was on loan from No. 201 Naval Co-operation Group, to Malta. No. 272 Squadron despatched 16 aircraft to Malta on 6 November and No. 252 Squadron reverted to coastal duties chiefly convoy escort work. Although No. 272 Squadron carried out most successful strikes against the important enemy air base at El Aouina, outside Tunis, their services would have been invaluable for action against the retreating enemy columns. Perhaps the most serious gap in the composition of the air pursuit force was the lack of Beaufighters for long-range work against the retreating enemy columns. It was not until 6 December that No. 252 Squadron resumed their strikes against enemy road convoys, and by this time the targets had shifted as far west as Sirte. A steady drain on

The German Air Force in Maps and Diagrams (A.P. 3038), 'Decline and Fall of the German Air Force' and A.H.B.6 Records

No. 252 and 272 Squadron O.R.B.s and A.O.C. -in-C. Part IV Malta. A.H.B./IIJ1/183/160(D)

No. 205 Group
O.R.B.

No. 205 Group's Wellington force was also made by the diversion of small detachments of from 4 to 6 aircraft to Malta.

Enemy Reports of 'Severe Losses' at Sollum and Halfaya Passes
Night 8/9 November

Again on the night of 8/9 November there was no specific mention of any attempt to block the passes at Halfaya and Sollum for the night-bombing programme for No. 205 Group aircraft. The W.D.A.F. Signal to No. 205 Group stated:

'Target for Wellingtons 8/9 November. Enemy concentration M.T. Halfaya Sollum area. Heavy rain has hindered rapid movement forward of our armoured forces. Concentrations area specified confirmed by reconnaissance.'

No. 205 Group's own briefing was more precise:

'M.T. on the road in Halfaya Pass, Sollum Zig Zag Hill, Capuzzo-Bardia Road.'

A total of 47 Wellingtons and 5 Halifaxes operated, centring their attacks on the coast-road bottleneck around Sollum and Halfaya Passes. The weather was good and the opposition consisted, as previously, of six heavy guns and some light A.A. A total of 75 tons of bombs was dropped in under five hours. Returning aircraft reported that the concentrations of M.T. were not as large as on the previous night. Between 45 and 50 fires were started, the majority being on the roads between Halfaya and Sollum. Several aircraft carried out low-level machine-gunning attacks. The two aircraft of No. 104 Squadron which carried 4,000 lb. bombs, dropped them 'on clusters of M.T. on top of escarpment at Sollum.'

No. 104
Squadron O.R.B.

According to the enemy, these raids were particularly successful:-

'During the night, the enemy did not follow up on 90 Light Division front; but the heavy enemy air attacks on the coast road and Sollum-Halfaya Pass continued. The troops suffered severe losses, especially in Afrika Pz. Gren. Regt.'

and again:

'The traffic on the two pass roads was much delayed by continual air attacks during the night and was still in progress after daybreak. The number of vehicles has by now (morning 9 November) considerably decreased.'

Improved Weather Conditions Enables X Corps to Accelerate Pursuit - 9 November

By 09.00 hours on 9 November, the ground in the desert had dried to such an extent that the Eighth Army's X Corps was able to move forward much more quickly. It was clear that the continuous outflanking movements were forcing the enemy to evacuate Egypt, without making a stand at the frontier. The last day the Panzer Army was to spend in Egypt was by no means an auspicious one, for it was only by the greatest of good fortune that Rommel's forces escaped complete encirclement. With the improvement in the weather, Eighth Army tanks and armoured cars were able to accelerate the pursuit. They succeeded in outflanking and cutting off

A.A.H.Q.W.D.
Main Eighth
Army Cositreps.
A.H.B./IIJ1/
162/3.

Afrika Korps War
Diary.

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part of the German rearguard and inflicting heavy losses. On the same day an Italian battalion of XXI Corps was attacked and scattered by no more than five British armoured cars. Such was the poor fighting value of the Italians at that time that the majority were withdrawn and put on the task of constructing a defended position at Marsa Brega, almost on the Tripolitanian frontier.

On 9 November, what was left of the Afrika Korps moved up the Sollum and Halfaya Passes into Cyrenaica. When 15th Panzer Division moved in the afternoon, it reported delays 'owing to interference by enemy fighter bombers and bombers which made isolated attacks'. The Afrika Korps H.Q. reached the highest level of the Sollum Pass just before dark, while the bulk of the 21st Panzer Division did not get through the Pass until after nightfall. The enemy reported at 22.00 hours that 'heavy bombing attacks were being made on the troops, convoys and headquarters concentrated in the Capuzzo area. 21st Panzer Division was beginning to pass through Capuzzo at the time and halted until the attacks ended.'

A.A.H.Q.W.D.
War Diary

When the 'A' Parties of the air pursuit force reached Sidi Haneish, they found - as had happened at Daba - that many of the landing-grounds had been badly damaged by battle movement and awaited levelling operations before they could be used. In spite of this, W.D.A.F. fighters managed to fly 127 sorties from these most advanced landing-grounds. Almost a quarter of these sorties were made by Spitfires of Nos. 601, 145 and 42 Squadrons on armed reconnaissance in order to locate 7th Armoured Division which, the previous day, whilst due south of the enemy rearguard, had been directed on to the frontier, some 90 miles distant. The Division was eventually located in the desert almost due south of Buq Buq. Whilst carrying out this search, the Spitfires attacked a number of small detachments of enemy transport and a total of 20 vehicles were claimed as destroyed or damaged.

Cabinet Office
Notes

Dawn reconnaissance by 11 Kittyhawks of No. 112 Squadron established the fact that enemy transport still jammed the pass on the frontier and the road towards Bardia. This news was followed by the first light-bomber raid since the unescorted raid of 6 November. A target described as 'nose-to-tail transport between the Halfaya and Sollum Passes' was bombed by 12 Bostons of No. 12 S.A.A.F. Squadron. It must have been one of the most spectacular targets of the campaign, for the estimate was of '750/1000 closely-packed M.T.' One very large and three small fires were started and some five direct hits were scored. Later that afternoon the only fighter-bomber raid of the day was carried out by 26 Kittyhawks of No. 3 R.A.A.F. Squadron and Nos. 250 and 112 Squadrons. Closely-packed enemy transport at the head and foot of the Halfaya Pass was bombed with good results, a number of 500 lb. bombs scoring direct hits 'right among the M.T.', a number of which, including a troop carrier, were blown clean over the side of the pass. Immediately after the bombing, the formation was attacked by two yellow-nosed Me. 109F's and one Me. 202 and one Me. 109 was destroyed without loss.

A.A.H.Q.W.D.
Daily Int.
Sum and
Squadron O.R.B.s

Squadron
O.R.B.s.

The third and last bombing attack on the pass was made by 24 Bostons of No. 24 Squadron S.A.A.F. According to the escorting fighters, bombing was very accurate and resulted in a number of fires, one of them very large. A patrol of eight Me. 109's attacked, shooting down one Kittyhawk of

No. 450 Squadron (R.A.A.F.). In addition to these offensive patrols by both German and Italian fighters, six heavy A.A. guns sited on the plateau at the top of the escarpment and numerous light A.A. guns were very active.

By this stage of the pursuit, the effects of the quick advance, the ever-lengthening lines of communication and the delays occasioned to the supply columns by the weather and road congestion were beginning to be felt acutely. There was a shortage of supplies of all kinds, but particularly water and petrol and the transport aircraft of No. 216 Group were kept busy ferrying supplies forward. In spite of their experience of the desert and warnings issued in orders, many airmen had failed to carry their water bottles. Nevertheless, the pace of the advance was heartening. By the evening, ground parties from the squadrons were already on their way from Sidi Haneish to still more advanced landing-grounds. An advance party from No. 3 R.A.A.F. Squadron, moving up from L.G. 101 to L.G. 76 (from Sidi Haneish to the area of Sidi Barrani) were stopped by an Eighth Army armoured column and advised to delay the journey until the enemy had been driven out of Sidi Barrani. In spite of being attacked by low-flying Me. 109's, the Flight managed to occupy L.G. 76 the following day.

No. 3 R.A.A.F.
Squadron O.R.B.

The Afrika Korps Heavily Bombed as They Withdrew Over the Passes into Cyrenaica - Night 9/10 November

During the night 9/10 November the Afrika Korps finally quitted Egypt and were subjected to heavy bombing as they negotiated the passes. Since the end of the battle the main weight of the air offensive had been sustained by the Wellingtons and Halifaxes of No. 205 Group and, during the first few days, with the help of the flare-dropping Albacores. Wellingtons of all Squadrons, totalling 48 aircraft, and four Halifaxes of No. 462 Squadron R.A.A.F. dropped 70 tons of bombs in 4½ hours. M.T. was found to be badly dispersed and concentrations around Sollum and Capuzzo were attacked, starting at least 25 fires while an explosion at Capuzzo was seen to hurl M.T. into the air.

No. 205 O.R.B.
and M.E. Opsums.

The effect of these particular night-bombing raids on the enemy appeared, from enemy reports, to have been very considerable:

Official German
Narrative

'The enemy bombing and dive-bombing attacks continued day and night. The previous night the Capuzzo area alone had been under attack for 5 hours on end by hundreds of enemy night bombers.'

and again:

Afrika Korps
War Diary

'The enemy made heavy bombing attacks on the troops, convoys and headquarters concentrated in the Capuzzo area. 21st Panzer Division was beginning to pass through Capuzzo at the time and halted until the attack ended.'

This was where the Albacore aircraft - slow-moving, with excellent vision and crews practised in pathfinding technique - would have been invaluable. As has been seen, targets were now well out of reach of the Albacores as these raids to the frontier involved a round trip of some 900 miles.

No. 73 Squadron
O.R.B.

Night-flying Hurricanes also carried out sorties from their base at L.G. 13 (Sidi Haneish) as far west as Sidi Barrani in order to prevent the enemy from making low-level attacks on Eighth Army units which were crowding the main road. There was no enemy air activity.

7th Armoured Division Cross the Frontier at Maddalena -
10 November

Official German
War Narrative

By early morning on 10 November, in spite of the delays occasioned by the night bombing, the whole of the Afrika Korps had managed to cross the frontier into Cyrenaica and had taken up positions to the west and north west of Capuzzo. Only the enemy rearguard consisting of the 90th Light Division, the Afrika Panzer Grenadier Regiment and Nos. 3 and 580 Recce Units were still to the east of the wire, in the area of Buq Buq. The 7th Armoured Division, which had been working in a wide outflanking movement through the desert to the south, crossed the frontier at Maddalena, some 60 miles to the south of the main enemy forces. Direct contact with the enemy was maintained by 2nd New Zealand Division, which, after occupying Sidi Barrani, continued to move along the coast road, followed by 1st Armoured Division.

Main Eighth Army
Cositrep.
A.H.B./IIJ1/
162/3.

Afrika Korps
War Diary

There were no air attacks by the W.D.A.F. against enemy transport on the pass roads during the morning and this enabled the traffic to go through more quickly than had been expected. The tail of the 90th Light Division went over the pass at 16.30 hours and by evening - at 21.25 hours to be precise - the pass roads were successfully demolished. The enemy evacuation of Egypt, involving the most perilous phase of the retreat and a journey of some 250 miles, had been accomplished in under a week from the end of the battle of El Alamein, constantly under the threat of encirclement by the Eighth Army and of paralysing losses from air attack.

H.Q. M.E. Table
of Operations

The last opportunity for the day bombers to hit hard at the enemy as they passed through the bottlenecks of the Halfaya and Sollum Passes occurred on 10 November. However, for the first time since the air offensive of 19 October which precluded the battle of El Alamein, there were no fighter or light bomber attacks against the enemy. Out of a total of 145 fighter sorties, only 24 were employed on ground attack of any kind. This was a low-level machine-gunning attack by 12 Kittyhawks of No. 260 Squadron and 12 Kittyhawks of No. 2 S.A.A.F. Squadron which operated from L.G. 75, to the south west of Sidi Barrani. They swept the Tobruk-Bardia road and attacked some 300 enemy transport. Small enemy fighter patrols were encountered and, in the ensuing combat one Me. 109 and one Mc. 202 were shot down for the loss of one Kittyhawk.

The balance of the air activity on this day was defensive. Spitfires of Nos. 92 and 145 Squadrons searched for 7th Armoured Division, still lost in the desert, and eventually located them near Maddalena. Further patrols over the 7th Armoured Division were then carried out by 16 Kittyhawks of No. 3 R.A.A.F. Squadron and No. 112 Squadron and 12 Warhawks of No. 66 Squadron U.S.A.A.F. Spitfires of No. 601 Squadron also patrolled over the New Zealanders in the Sidi Barrani area, one Spitfire being shot down by an enemy fighter. Offensive sweeps were made by Warhawks of Nos. 64 and 65 Squadrons U.S.A.A.F. without incident. Another defensive liability undertaken by the W.D.A.F. was to provide a continuous escort for a convoy to Matruh between 06.30 and 12.00 hours. By 10 November the greater part of

No. 2 A.A.S.C.
War Diary

the advanced fighter force had begun to concentrate at the Mischeifa landing-grounds, to the south and south east of Sidi Barrani.

Official German
War Narrative

In their attempt to hold up the advance of 7th Armoured Division until the last of their rearguard had successfully negotiated the passes on the frontier, the Luftwaffe carried out two low-level attacks. Their most spectacular raid of the day, however, and from their own point of view of the whole pursuit, was a dive-bombing attack against No. 3 Recce Unit which was waiting and resting near Sidi Omar. They were probably mistaken for No. 7 Armoured Division which were operating close to the frontier but further to the south. The loss of vehicles inflicted on No. 3 Recce Unit was so heavy that they were completely immobilised. In itself this is an indication of the outstanding results which might have been achieved had the W.D.A.F. been able to concentrate all their air effort on delaying the enemy on the passes.

Low Scale of Enemy Air Activity - 4 to 10 November

Axis Air
Operations
A.H.B./IIJ1/63
and 'Rise and
Fall of the
German Air
Force.'
(A.M.P. 248)

A.H.B.6 Records

During this initial phase of the retreat, the scale of the enemy air effort dropped to an extremely low level. Fighter sorties numbered no more than 40 a day while frequently the Luftwaffe were unable to operate a single dive-bomber. In addition to battle losses, shortage of petrol and the diversion of air reinforcements to Tunisia, the enforced retirement to new bases caused considerable disorganisation. This was in marked contrast to the controlled and well-ordered retreat which the W.D.A.F. had carried out in June from Gazala, which went with the smoothness of a planned operation, the air force falling back, stage by stage, to landing-grounds which had been stocked in advance with fuel and bombs. Between the time the Luftwaffe began to pull out of their bases in Egypt, on 2 November, and time when the Afrika Korps crossed the frontier, on 10 November, 40 aircraft and 2 gliders were destroyed on the ground. During the following two days a further 23 aircraft and 3 gliders were added to the list. Numbers of flyable aircraft were abandoned intact and others were captured, still crated up, on trucks.

Throughout this period, the advancing Eighth Army presented an unbroken series of magnificent targets, particularly where its thousands of vehicles packed the main road for days on end. Nor were the enemy air forces able to take any significant part in protecting their own troops. On 9 November, Me. 109's did start protective patrols in the area of the passes, but their success was negligible. A striking feature was the absence of any night-fighter activity to oppose the heavy night-bombing attacks by the No. 205 Group aircraft.

Tactical Reconnaissance

Nos. 40 S.A.A.F.
and 280 Squadron
O.R.B.s.

The Tactical Reconnaissance requirements for X Corps were carried out by No. 40 S.A.A.F. Squadron. No. 208 Squadron, which had done such distinguished work throughout the battle of El Alamein, was left still attached to XIII Corps which had the task of clearing up the battlefield. For a few days the squadron was nominally under the control of XXX Corps, and then XIII Corps, when a few sorties were completed searching for isolated groups of the enemy in the southern area of the battlefield. On 8 November, No. 208 Squadron ceased to operate and, whilst being held in reserve, was withdrawn for training. This ended the Squadron's close partnership with the Eighth Army in the desert.

No. 6 'Tankbuster' Squadron Left in Rear

In spite of the exceptional opportunities provided by the precipitate withdrawal of the enemy forces for 'Tankbusting' aircraft (Hurricane IID's fitted with 40 mm. cannon), no employment was found for No. 6 Squadron during this phase of the advance. The vulnerability of these aircraft to light A.A. and difficulties of maintenance probably accounted for the fact that these aircraft were not called forward to join 'A' Force. Although the most experienced Squadron in the W.D.A.F. in the technique of low-level attacks, the aircraft were considered too specialised for a force which had so many tasks to perform. It seems nevertheless regrettable that the squadron was never called upon to show its mettle against what must have been at times a plethora of targets.

Although brought forward to an advanced landing-ground, on 5 November, the squadron was not called upon to perform any operational duties. Various warnings were given for aircraft to stand by, but nothing materialised, so that during this period up to 10 November this brilliant and experienced squadron did not carry out a single operational sortie. Feeling on the subject evidently ran high in the Squadron, for on 28 November an Extraordinary General Meeting was held in the Officers' Mess - possibly unique of its kind and indicative of the spirit of the Desert Squadrons - 'to consider measures to withstand the general feeling of restlessness and disappointment amongst pilots, and other ranks, resulting from present inactivity.'

No. 6 Squadron
O.R.B.

The Work of No. 201 Group

By the end of the battle of El Alamein, No. 201 Group's most successful work in the interdiction of supplies to the Panzer Army had been accomplished. Once the retreat westwards had begun, enemy shipping was diverted from Tobruk to Benghazi, on a route that was well out-of-range of No. 201 Group's aircraft. Subsequently activity moved further and further west as the Panzer Army withdrew towards Tunisia. Satisfaction was still to be obtained from the fact that the virtual elimination of 21st Panzer Division as an armoured force, on 6 November, and all the recurrent crises of supplies which dogged the Panzer Army in their retreat, were due to the relentless war which the Group, together with Malta, the Navy and, latterly, the U.S.A.A.F. heavy bombers, had waged - and were still continuing to wage - against the enemy's supply lines.

Proposal to Appoint the Air Officer Commanding-in-Chief, Middle East as Vice-Chief of Air Staff - 7 November

On 7 November 1942, Air Marshal Tedder was notified that he had been selected for the post of Vice-Chief of Air Staff and that Air Marshal Sir Sholto Douglas had been designated as his successor, as Air Officer Commanding-in-Chief Middle East.

The next day, 8 November, Air Marshal Tedder sent a signal to the Secretary of State asking that no change should be made until the end of the year. He felt, he said, that although the enemy had received a smashing blow, the campaign could not be considered as decisive until the Eighth Army had advanced past El Agheila. 'We have already reached there twice and failed because we reached there too late. The vital thing now is at all costs to keep up the momentum of the advance.'

A.O.C.-in-C.
Correspondence
with the P.M.,
Secretary of
State etc.
A.H.B./IIJ1/
183/27(E)

It was not until 11 January 1943 that the A.O.C.-in-C. Middle East - by that time promoted Air Chief Marshal - relinquished his command in the Middle East to Sir Sholto Douglas. By that time he had been released from his prospective duties as Vice-Chief of Air Staff and had begun the task of forming the Mediterranean Air Command.

Failure to Use No. 216 Group Transport Aircraft to Capacity During Enemy's Retreat to the Frontier

Nos. 173, 216,
217 and 267
Squadron O.R.D.s

In the six days following the battle, the 60-odd transport and communications aircraft of No. 216 Group, the majority of which had been called forward to the advanced base at Amiriya to ferry forward urgently-needed supplies to the Eighth Army, carried out only 50 trips to the Western Desert, and these were predominantly routine mail runs and flights by communications aircraft. Assuming an average of one sortie a day by each aircraft - a very moderate estimate, as the distances flown at the beginning of the pursuit were naturally short - this transport fleet could have carried out six or seven times that number of sorties.

Although weather conditions hampered operations, this by no means accounts for the fact that, in these critical first few days of the advance, the four communications and transport Squadrons (Nos. 173, 216, 217 and 267) were not being used to anything like capacity. The aircraft were kept standing by, waiting for requests for supply dropping and the ferrying forward of supplies when squadrons were edging forward along the main road at the speed of the slowest three-ton lorry. This is all the more surprising, as the Germans had already shown the way for the use of an air transport fleet as a routine part of any movement of their air force and, in so doing, they accepted the hazards of such operations.

A.O.C.-in-C.
Correspondence
with P.M. Part V.

Plans for the use of transport aircraft for the move forward of the air pursuit force were slow in being formulated. They should have ante-dated the planning for the battle. On 6 November, a message was sent from the C.A.S. to the A.O.C.-in-C. Middle East asking if he was 'free to call in, if you need them, all available British and American civil and military transport aircraft for the pursuit of the enemy.' In reply to a further series of questions, the A.O.C.-in-C. replied, on 7 November, that there were approximately 40 American-manned military and civil transport aircraft in the Command, of which about 30 were serviceable. General Maxwell had been asked to place as many of these aircraft as possible at the disposal of the A.O.C.-in-C. As the General was not in control of these aircraft in Africa, he had passed on the request to the U.S.A.A.F. Wing of Air Transport Command in Africa and had also signalled Washington. Arrangements had also been completed for all the available civil aircraft in the Middle East to be placed at the disposal of the A.O.C.-in-C. 'when required for carriage of supplies westward, leaving only flying boats and minimum number of essential communications services running.'

The Drop in the W.D.A.F. Bombing Operations After the Battle of El Alamein

A conspicuous feature of this early phase of the pursuit of Rommel's forces was the failure of the W.D.A.F. to keep up the momentum of their bombing which had maintained such a consistently high level throughout the battle of

Opsums

Alamein. Air history can hardly record a more favourable and rewarding situation for concentrated air attack than was presented by the retreating enemy forces which packed the coast road and the passes for days on end with thousands of vehicles. Directly after the battle there followed a precipitous fall in light bomber activity. On 3 November, there was a peak sortie rate of 273 light bomber sorties. This was followed by 183 on the 4th (the last day of the battle), 89 on the 5th, 5 unescorted on the 6th, none on the 7th and 8th, 30 on the 9th and from 10 to 25 November there were no operations. The sorties by fighter bombers fell from 208 on the 4th to 78 on the 5th, none on the 6th, 14 on the 7th, 42 on the 8th, 18 on the 9th and none on the 10th. Thus, during the first 6 days of the advance, bombing activity was reduced to a daily average of 20 light-bomber and 25 fighter-bomber sorties.

The rains of 6 and 7 November certainly had disastrous results not only in cutting down air activity, but also in disorganising the move forward of Force 'A'. Nevertheless, there is no evidence that even if the weather had continued favourable, the bombing of the retreating enemy would have continued on a major scale sufficient to have a decisive effect on ground operations. The three main considerations which ruled against this were:-

- (a) The subsidiary, protective role assigned to the air force.
- (b) The fluid ground situation, and,
- (c) the premature move of Force 'A' from their permanent bases.

In the planning of Operations 'Lightfoot', 'Supercharge' and 'Buster' there is evident no appreciation of the fact that, in between the end of the battle of fixed positions and the beginning of a war of manoeuvre there would follow a period when the retreating enemy columns, numbering some 10,000 vehicles, would present a series of magnificent targets for the bombers and, what is most important, whilst still within range of the W.D.A.F. aircraft operating from their existing air bases, in Egypt. There is most detailed and careful planning for the battle and for the pursuit, without any mention of the potentialities presented by this period of overlap when a disorganised and inevitably, to some extent, demoralised enemy would be disengaging themselves from the battlefield.

In his plans the Army Commander did not appear to have envisaged the fact that, during this interim period, the air force and not the army would probably be the primary weapon for sealing off the enemy's retreat. The air force was required to provide 'fighter cover to the light forces operating in the van of the pursuit' and 'in conjunction with Armoured Cars could act as our long range hitting weapon and greatly increase the confusion of the enemy's withdrawal.' No reference is made in these plans to the likelihood that concentrated air attack, under the favourable conditions obtaining at the end of the battle, could present the Eighth Army with the accomplished fact of the battered and demoralised remnants of the Panzer Army which had managed to make good their escape from the battlefield immobilised along the coast road. Instead of concentrating on an intensive bombing programme, the potential striking power of the air force - which at this time was highly developed - was

largely dissipated in providing air cover for the army at a time when the threat from the enemy air force was negligible.

It was not the first time, in the Desert, that the full impact of air power had been largely neutralised through a fluid ground situation. No air Commander could take the responsibility for giving orders for concentrated bombing whilst the Army themselves were doubtful about the presence of their advanced units in the target area. The situation had indeed arisen when the concentrated use of air power was called for, as the primary offensive weapon, and not pursuit by light armoured forces which, by reason of their own limited hitting power, could never force a major decision.

The exact timing of the order for the pursuit to begin, with all the attendant disorganisation which inevitably followed a move of an air force, was one of the Air Commander's most difficult problems. In retrospect, it would appear to have been distinctly advantageous to have delayed putting Operation 'Buster' into effect for at least 24 hours and continued attacking the enemy with maximum effort from existing bases in Egypt. In the event, the squadrons of Force 'A' were preoccupied with their eagerness to press forward and be in the van of the pursuit at the very time when they should have been sustaining the most intensive air effort of which they were capable against the retreating and disorganised enemy columns. However efficient the 'A' and 'B' Party system for leap-frogging their way forward, a drop in operational effectiveness was bound to occur, once the move to new bases began. And so, when every fighter should have been helping to sustain the bombing offensive, many were standing by waiting for orders to move and, of those that did operate, a large proportion were absorbed in the task of providing air cover to forward army units. The result was that the day-bombing offensive was cut severely at a time when it should have been exerting the maximum possible pressure on the enemy as they pulled out from the battlefield. Ironically enough, it was the strategic night-bombing force of No. 205 Group, and not the tactical air force of the W.D.A.F., which sustained the bombing offensive and wrought the greatest havoc among the retreating enemy columns.

Summary

The plan for the move forward of the W.D.A.F. in support of the Eighth Army, after the battle of EL Alamein, was prepared contemporaneously with the plan for the battle itself and was known as Operation 'Buster'. The basic principle of the plan was that the air forces employed in the advance were split into two main components, Force 'A' and Force 'B', Force 'A' was to operate in direct support of the Eighth Army, while Force 'B' was to act as a reserve and protect lines of communication. Light bombers were excluded from the advance pursuit force, as it was considered that targets would prove more suitable for fighter bombers and supply difficulties would preclude the possibility of maintaining a light-bomber force right forward, until adequate communications had been established. The provisioning of the Royal Air Force, to within 25 to 40 miles of the landing grounds from which the squadrons would be operating continued to be an Army responsibility. Some 40 aircraft of No. 216 Transport and Ferry Group were made available as a supplementary means of transport for Eighth Army. At this stage, however, no specific arrangements were made for an airlift involving self-contained Royal Air Force units, while the potentialities for the use of civilian and U.S.A.A.F. aircraft to assist the

swift moves forward of the air force were also missed in the planning stage.

This air pursuit force, known as Force 'A', and which was to operate under No. 211 Fighter Group, comprised No. 239 Wing (five Kittyhawk F/B Squadrons), No. 244 Wing (three Spitfire and one Hurricane Squadron), No. 233 Wing (three Kittyhawk and one Tomahawk Squadron) and No. 57 Fighter Group U.S.A.A.F. (two Kittyhawk Squadrons). For Army Co-operation with X Corps, the Eighth Army pursuit force, there was No. 40 Squadron S.A.A.F., while for Strategic Reconnaissance work there was No. 1437 Strat/R Flight. Force 'A' therefore comprised 15 S.E. Offensive Fighter Squadrons, supported by one Squadron and one Flight for Reconnaissance. Primarily it was a defensive force for close-support defensive work in support of the Eighth Army and one in which hitting power had been sacrificed - performance - to mobility.

The main factors governing the composition of Force 'A' were the supply problem and the likelihood that the enemy would strongly reinforce his air forces in North Africa. The administrative task of supplying a whole modern army and air force in a major offensive campaign and limited by the poor road, port and rail facilities of the stretch of North African littoral bordering on the Libyan Desert was the most pressing problem of the advance. Not only were the communications facilities quite inadequate in themselves, but they had sustained - and probably would continue to sustain - severe battle damage, while the retreating enemy would extend the damage with demolitions and hinder the pursuit force by extensive mining.

Once the pursuit had begun, it was considered most likely that the enemy's first reaction would be to reinforce their air forces in North Africa with the intention of holding up the advancing Eighth Army. Throughout the campaigns in the Western Desert, this had been the ever-present threat in the mind of the Air Commanders from an enemy which had the incalculable strategic advantage of working on internal lines of communication, from his main bases in Europe. To balance this, however, the demands of the Russian front and the West had stretched the Luftwaffe to the limit; the naval and air war against the enemy's lines of communication had placed severe limitations on the size of the force they could operate in North Africa; while the invasion of French North-West Africa, scheduled for 8 November, would obviously exert a profound influence on the extent to which enemy air reinforcements could be spared for the support of the Panzer Army.

Another factor which had a profound influence on both army and air plans for the advance was Malta's desperate supply position. Stocks of food for the civil population were nearing exhaustion and, by the third week of November, the grave step would have to be taken of falling back on the Fortress Reserve of petrol. Only by controlling the Martuba-Derna group of airfields on the Cyrenaican 'hump' would it be possible to pass another convoy through to Malta. Operation 'Stoneage', an east-to-west convoy, was planned to reach the island by 20 November. This set both the Army and the Air Commanders the task of occupying the Martubas by 18 November, at the latest, involving an advance of 400 miles in under a fortnight.

Neither Army nor Air plans for the pursuit envisaged the kind of situation which arose directly after the battle

when, with the enemy in the first stages of a forced retreat, after a shattering defeat, and whilst still within range of the W.D.A.F.'s existing bases, the concentrated use of air power might cause such demoralisation and congestion along the coast road as to leave them an easy prey to the advancing Eighth Army. In his plans, the Army Commander did not appear to contemplate the possibility that, during this interim period, whilst the enemy were pulling out from the battlefield behind the inevitable screen of anti-tank guns, the air force and not the army would be the primary weapon at his disposal for sealing off the enemy's retreat.

The rôle allocated to the air force was a subsidiary one. They were required to provide air cover for the light armoured forces operating in the van of the pursuit and, in conjunction with the armoured cars, 'greatly increase the confusion of the enemy's withdrawal.' The A.O.C.-in-C. himself laid the greatest emphasis on getting 'the fighters right forward quickly in long bounds' and made no mention of the possibility, latent in the situation, that the maximum concentration of air power, sustained whilst the battered and disorganised remnants of the Panzer Army were still within range of the light bombers, on their permanent bases, might result in the annihilation of the enemy, whilst still in Egypt. In the planning of the advance it would appear that this possibility was missed by both Army and Air Commanders.

The overwhelming defeat of the German-Italian Panzer Army at El Alamein had left Rommel with rather less than one-third of his shattered Panzer Army and under 10 per cent of the original German tank strength. The Italians - those of them which had escaped rounding up on the field of battle - had no longer any fighting value. The Eighth Army had been left in control of the battlefield and were in a position to put nearly 600 tanks in the field against not more than 30 German. Indeed, the Eighth Army Commander's problem was not where to find the troops and equipment to oppose the beaten enemy, but how to reach such enemy forces effectively, before they had made good their escape by abandoning the greater part of their heavy equipment. Direct pursuit would encounter mines, demolitions and the inevitable screen of 88-mm. anti-tank guns. An outflanking movement through the desert meant that the enemy Commander, with good reconnaissance, could time his retreat in successive stages in such a way as to be always one step ahead of his pursuers. The primary weapon at the disposal of the Eighth Army Commander at least during this phase of the retreat, would be the bomber.

The enemy air forces in North Africa, at the end of the battle of El Alamein, were in an even worse condition than the Panzer Army. In addition to the heavy losses which had been sustained during the battle, the constant pressure of operations had reduced the number of serviceable aircraft to a very low figure. The Allied landings in French North Africa had caused a diversion of air strength in the Mediterranean, and reinforcements, to that area. Furthermore, the retreat to new bases, which had begun even before the end of the land battle, caused disorganisation, together with an element of demoralisation. The W.D.A.F., on the other hand, in spite of the strain imposed by the heavy scale of air operations were still able to maintain a high level of operational efficiency. The force's real weakness was in its lack of an adequate air transport fleet. The speed of the strategic moves entailed by the fast-moving land battle, which had again opened out into a war of manoeuvre, had been reduced to the rate of progress of civilian-type road transport.

The bombing during the night 4/5 November by 52 Wellingtons of No. 205 Group, which carried out 73 sorties, caused 'delays and considerable damage among the retreating convoys.' The best targets were located slightly to the east of Fuka, where tightly-packed and badly-dispersed vehicles were located and bombed. During second sorties by Wellingtons, great havoc was also caused around the railway at Galal. Daba was seen to be a mass of flames, due mainly to the destruction of supply dumps by the retreating enemy.

Owing to the air mastery gained by the W.D.A.F. over their opponents, the enemy forces were compelled to make their main withdrawals by night. Although the R.A.F. informed the Eighth Army H.Q. at 02.45 hours that 'the main road from Fuka to Daba is a solid mass, head to tail', dawn reconnaissance on the morning of 5 November revealed little or no movement of the enemy forces either on the coast road or along the desert tracks.

X Corps - the Eighth Army's pursuit force - consisted of the 1st, 7th and 10th Armoured Divisions. The 1st and 10th Armoured Divisions were directed on Daba and the 7th Armoured Division on Fuka. The New Zealand Division also moved off at dawn on 5 November on its way to Fuka, and at the same time passed from XXX to X Corps.

At this stage in the pursuit, the W.D.A.F.'s main commitment was to provide fighter cover for the advanced elements of the Eighth Army and the expected crushing blow, with concentrated air attack, against the retreating enemy columns, was not realised. On 5 November, the light bombers flew a total of 89 sorties - only one third of the peak sortie rate achieved by them on 3 November, when Operation 'Supercharge' was launched. Fighter bomber sorties were only 78 compared with 208 on the previous day. The light bomber attacks directed against the enemy columns along the main road encountered heavy A.A. gunfire from Fuka to Bagush. This was probably due to the fact that the enemy A.A. defences in this area had been reinforced by guns which had formerly been used for the defence of the Daba landing-grounds. 5 November was the last time the light bombers were to operate in anything like strength, during this phase of the pursuit. The fall in bomber operations on 5 November was due primarily to the fact that first priority for the fighter force was given to providing air cover over the New Zealand Division, at Fuka. Contributory factors were the fluid ground position, which made the bomblines position obscure, and the fact that the squadrons of Force 'A' were to some extent preoccupied with the move forward.

It had been Rommel's intention to make a stand at Fuka, but the weakness of his force and the outflanking movement carried out by the Eighth Army made this impossible. At 14.00 hours, 5 November Afrika Korps reported 'Positions can be held to-day, but an outflanking movement is probable. Then a withdrawal will be impossible, we propose, therefore, to withdraw Afrika Korps.' That night, 5/6 November, the retreat to Mersa Matruih began. The limiting factor for the enemy forces during this withdrawal was lack of petrol and it was soon evident that only if petrol was made available would 21 Panzer Division be able to complete its withdrawal. No. 205 Group carried out a very heavy night raid in the course of which 150 tons of bombs were dropped. This was the first time that heavy bombers were used in a tactical role in direct support of the army as, in addition to the 61 Wellingtons which took part in the night's

operations, there were 11 Halifax aircraft of No. 462 Squadron R.A.A.F. Albacores of No. 826 Squadron F.A.A. also co-operated. The weather was poor with considerable cloud. This was the first sign of a deterioration in the weather which was to have such a marked effect on both ground and air operations for the next few days and do more than anything else to help Rommel withdraw his battered and demoralised forces from Egypt. Compared with the previous night, targets were not as concentrated. Nevertheless, the raids started numerous fires and considerable havoc was caused. No. 73 Squadron, which had fitted long-range tanks to their night-flying Hurricanes, had what they described as 'a gala night', attacking enemy transport from a low level, mainly in the Garawla-Fuka area. Aircraft from the same squadron also carried out protective patrols over the advanced Eighth Army units to prevent the enemy from making low-level attacks.

The rain which had been falling intermittently throughout the night 5/6 November became 'a torrential downpour of cloudburst intensity' during 6 November. By mid-morning No. 211 Group reported the flooding of the Daba landing-grounds and all further movement forward of the fighter squadrons was stopped. The bad weather, with 8/10ths cloud and poor visibility, blanketed the whole Fuka to Barrani area, where the coast road carried the vast tide of retreating enemy transport. In spite of the appalling weather conditions, 175 fighter sorties were carried out, the main pre-occupation being to provide protection for 7th Armoured Division and also reconnaissance over the flooded forward airfields.

The bombing carried out amounted to five unescorted raids by light bombers of No. 3 Wing (S.A.A.F.), which used cloud as cover, and a fighter-bomber raid by 6 Kittyhawks of No. 112 Squadron. These operations against the enemy ground troops were augmented by low-level attacks carried out by a total of 22 fighters - 16 of them being U.S.A.A.F. Kittyhawks. The target, in all cases, was 'a solid stream of traffic' leaving Matruh. In spite of the relatively light scale of these attacks, a very considerable amount of damage and disorganisation were caused among the retreating enemy columns. From German War Diaries, it is now known what a superb opportunity was missed, on 6 November, by the failure of the W.D.A.F. to bomb Matruh. The enemy's sudden and rapid retreat caused the very heavy convoy traffic to become jammed in the town. Rain and mines at the side of the road made the confusion worse and led to conditions of panic. Vehicles on or near the road were set on fire and guns were wrecked or abandoned. Many of the German truck drivers drove to the rear without orders and convoys became completely disorganised, so that delivery of supplies to the Afrika Korps became impossible.

Mainly as a result of the confusion at Matruh, the remnants of 21st Panzer Division, which had been immobilised the previous night near Qasaba owing to petrol shortage, were caught up by elements of the 7th Armoured Division and attacked on the morning of 6 November. The grave decision was taken by 21st Panzer Division to blow up all their tanks, together with a number of other vehicles, and to use the wheeled vehicles to break through towards Matruh. In the course of this hurried retreat, still more vehicles had to be abandoned in the deep mud, to the south-east of Matruh. This catastrophe left the Afrika Korps with only 11 tanks out of a force of over 270 with which they had begun the battle of El Alamein. By this time the whole of the Italian armour had been annihilated, so that it is no exaggeration to say

that the German-Italian Panzer Army no longer existed as an armoured force and, what is more, was in a state of demoralisation where retreat had degenerated into a rout. Unhappily the break in the weather, combined with the lack of a unified Army-Air plan to concentrate every available aircraft in intensive ground attacks against the enemy, to the exclusion of almost all other activity, gave the routed remnants of the Afrika Korps the necessary respite for recovery of discipline and morale.

The 6 November also saw two severe blows struck at the enemy's already sufficiently precarious supply situation. A heavy attack by 21 Liberators of the U.S.A.A.F. on the port of Benghazi set the 6424 ton tanker Portofino on fire. This resulted in the destruction of 2000 cubic metres of petrol, or a week's supply for the whole of the Panzer Army. The Mars, a naval auxiliary vessel, was also sunk and severe damage was caused to naval installations. That same afternoon, a further attack by U.S.A.A.F. heavy bombers - in this case five Fortresses - set the 2153 ton M.V. the Etiopia on fire. Owing to these losses, the complete exhaustion of all supplies of fuel in the forward area was threatened. Kesselring was accordingly urgently requested by Rommel to have 300 cubic metres flown forward.

After the panic and confusion at Matruh, the enemy Commander took immediate steps to get some kind of order into what still remained to him of his decimated forces. It was one of the boldest steps of Rommel's career. Although the Eighth Army, with vastly superior forces, were hard on his heels and only temporarily held up by the collapse in the weather, and in spite of the fact that all food and ammunition dumps and even the water points at Matruh, had been destroyed in the panic-stricken flight, he decided to halt his forces temporarily there and reorganise the routed remnants of his army.

Evidence of the enemy's panic-stricken flight was afforded the W.D.A.F. units when they reached the Daba area, where they found the landing grounds there 'cluttered up with aircraft, many of them intact and flyable.' A rich yield of new information was obtained from the abandoned aircraft; but much irreparable damage was caused by the souvenir-hunting propensities of both R.A.F. and Army personnel.

The strange immunity from bombing of the enemy forces in Matruh was continued throughout the night of 6/7 November. The Afrika Korps' night leaguers in that area were missed, possibly due to the fact that the briefing centred attention on the Matruh-Barrani road and the services of the Albacores for flare-dropping and path-finding were not available, as targets were by now out of range of these aircraft. The weather, also, was most unfavourable, severe electrical storms and dense cloud being encountered in the target area. Fires were started among enemy vehicles at Buq Buq, on the escarpment at Sollum and at the junction of the coast road and the Halfaya Pass, where later the night bombers were to inflict their heaviest losses on the enemy convoys.

On 7 November, low cloud and heavy rain in the Fuka-Matruh area again limited operations. There were no light-bomber sorties. Fighter sorties totalled 137, and priority was still given to operations in protection of the advanced Eighth Army units. Only two fighter-bomber raids took place. However, a number of most successful low-level machine-gunning attacks were carried out along the

Barrani-Sollum road by some 30-odd Spitfires, Kittyhawks and Warhawks. Unfortunately, the best targets in the Sollum-Halfaya area, where enemy transport was nose-to-tail, escaped attack. A success was scored against a formation of nine Stukas, escorted by nine Me. 109's and six dive-bombers and three fighters were claimed as destroyed. In other operations, Kittyhawks of No. 250 Squadron and Warhawks of the 66th Squadron U.S.A.A.F. shot down five Ju. 52's which were ferrying forward the urgently-needed petrol for the Panzer Army.

On 7 November, advanced armoured units of the Eighth Army's pursuit force experienced the extreme mortification of finding themselves marooned on high ground to the south of Matruh at a distance of no more than ten miles from the Afrika Korps Battle H.Q. Between lay a sea of mud, for the torrential rains had converted the desert into a quagmire. The supply echelons, which consisted almost entirely of the civilian-type 3-ton lorries, had become bogged down, and the Eighth Army tanks had been reduced to the predicament of the 21st Panzer Division and had run out of petrol. Rommel saw that the flooding of the desert afforded only a temporary relief and that, with the pursuing force so hard on his heels, he would have to resume the retreat. He therefore gave orders for the Afrika Korps to withdraw along the coast road.

During the night 7/8 November, the enemy began the evacuation of Matruh and resumed their flight towards the frontier. That night the bombers of No. 205 Group found superlative targets in the Halfaya-Sollum area. 'The vast tide of retreating second-line and supply vehicles,' says an enemy report, 'stretching 40 kms. east from the Sollum and Halfaya zigzags, on the coast road, could move only slowly during the night because of the incessant air attacks.' The pass at Sollum was protected by 4/5 heavy guns, a few light guns and 5 searchlights. There is no evidence that the enemy used night-fighters to protect their convoys. Reports brought back spoke of masses of enemy M.T. having been located. They were badly dispersed and the bombing caused very considerable damage. Unfortunately there were no Albacores available for flare-dropping and in the briefing no instructions were given for an all-out attempt to block the passes, although two Wellingtons carried 4,000 lb. bombs.

After the failure to carry out a programme of concentrated bombing, whilst the transport of a thoroughly demoralised enemy were jammed in Matruh, the next great opportunity for air power to exert a decisive influence on the course of events on the ground occurred on the frontier between Egypt and Cyrenaica, on the Halfaya and Sollum Passes. After the success of the night bombers, dawn reconnaissance on 8 November presented the astonishing picture of a solid stream of traffic stretching from 10 miles to the east of Halfaya, while, at the foot of the pass itself, there was massed a huge concentration estimated to amount to some 1,500 enemy vehicles. Surprising as this figure is, it is in all likelihood an under-estimate, for even after the débâcle at Alamein the Panzer Army could muster some 10,000 German M.T.

In spite of this superlative target, the first three of the day's missions, comprising some 25 fighters, were expended on reconnaissance. It was not until mid-morning that the first offensive operation against ground targets take place. Out of 130 fighter sorties flown on 8 November, 60 per cent was devoted to providing air cover to the army and the navy (who were running convoys into Matruh), while the balance of 40 per cent was taken up in fighter-bomber or

low-level attacks against enemy convoys. There were no light bomber sorties. As a result, however, of no more than 48 attacks by W.D.A.F. fighters against ground targets, Rommel was notified at 15.00 hours, that both the Halfaya and Sollum roads were badly blocked. Again because of the dispersal of air effort against a plurality of targets and on varying duties, the impetus of the heavy night-bombing was never kept up. Gradually the enemy managed to clear the passes of wrecked vehicles and the evacuation of Egypt continued.

At 09.00 hours, on 8 November after a 4-day advance covering 140 miles, Eighth Army forces occupied Mersa Matruh. That same day, the Anglo-American expeditionary force landed in French North-West Africa. There is no doubt that a major part of the success of Operation 'Torch' was directly due to the victory at El Alamein. The attention of the enemy had been rivetted on the eastern Mediterranean, thus permitting the vast armada to reach North Africa almost unscathed and unobserved. In addition, success in the Western Desert had swung both France and Spain in favour of the Allies. Nevertheless, advantages were not wholly on the side of the 'Torch' invaders. Alterations in the strategic balance of the enemy air forces in the Mediterranean took place which were very much to the advantage of Middle East Command. The air reinforcements which had begun to arrive in the Mediterranean theatre prior to the landings and which had had the effect on Force 'A' of reducing it wholly to a fighter component, were diverted to the central basin to oppose the new landings. A quick redistribution of enemy air strength from Greece and Crete to Sicily was carried out, involving parts of 4 Gruppe of L.R.B.s and T.E.F.s. Furthermore, the reinforcements to strengthen the Panzer Army were diverted to Tunisia, while their desperately difficult supply position was weakened still further as the new sea route to Tunisia was given priority.

Bombing of the retreating enemy columns continued throughout the night 8/9 November. Attacks again centred round the passes on the frontier at Sollum and Halfaya. Pilots found that by this time the weather had much improved and visibility was excellent. A total of 75 tons of bombs was dropped by 47 Wellingtons and 5 Halifax aircraft, and some 50 fires were started. Several of the aircraft carried out low-level machine-gunning attacks. These particular night operations appear to have affected the enemy very seriously. They reported severe losses to troops - particularly the Afrika Panzer Grenadier Regiment - as a result of the heavy air attacks, and traffic over the passes of Sollum and Halfaya was much delayed by the continual air attacks which were still in progress after daybreak.

The improvement in the weather conditions, noted by the crews of the night bombers, was maintained during 9 November and both the Army's X Corps and Force 'A' of the W.D.A.F. were able to accelerate the speed of their advance. Unfortunately, many of the landing grounds at Sidi Haneish, to which the advancing fighter squadrons moved, were found to be unserviceable as they had been crossed in wet weather by tanks and guns. A total of 127 fighter sorties was flown on 9 November, 39 of which were carried out by Spitfires of 3 squadrons to try and locate and then afford protection to 7th Armoured Division. The Division was eventually located in the desert to the south of Buq Buq. It is not at all clear why, instead of being brought in a north-westerly direction to challenge the enemy on the coast road, the 7th Armoured Division was directed to continue due west,

with the result that the frontier was not crossed until the next day, at Maddelena, some 60 miles to the south of the main enemy force which were thus able to withdraw across the frontier unopposed except by air attack.

Dawn reconnaissance on 9 November established the fact that enemy transport still jammed the passes on the frontier. Bostons of No. 3 S.A.A.F. Wing managed to operate, using Sidi Haneish as a forward landing-ground. They carried out two raids - the first operations since 6 November - using 12 aircraft in each, escorted by fighters, against nose-to-tail transport in the Halfaya-Sollum area. The only fighter-bomber raid was made by a force of 26 Kittyhawks against a congested convoy at the top of the Halfaya Pass. The 500 lb. bombs did considerable damage, flinging a number of vehicles, including a troop-carrier, over the side. Enemy fighter patrols endeavoured to interfere and hinder the attackers, but without success. These raids, however, although most successful, were not sufficiently concentrated or prolonged to block the enemy retreat over the passes.

The Panzer Army's weakness at this time is exemplified by the fact that they had only 4 per cent of their original strength in tanks left. No more than five British armoured cars routed and then rounded up a battalion of the Italian XXI Corps and part of the 90th Light Division was cut off and sustained heavy casualties. The 90th Light Division, the 15th Panzer Division, the 21st Panzer Division and 164th Light Division between them could muster not more than 3,700 men. The value of the Italian troops was negligible, and large numbers were drafted to the rear and put on the task of constructing defences on the Marsa Brega line.

In spite of the delays occasioned by the bombing attacks carried out by the W.D.A.F. on 9 November, the greater part of the Afrika Korps, together with their Battle H.Q., were over the passes by nightfall. However, the heavy and sustained attacks by No. 205 Group's night bombers, which were mainly directed against convoys and enemy headquarters in the Capuzzo area, caused 21st Panzer Division to halt and wait until the raids had ended. In these particular night operations a total of 48 Wellingtons and 4 Halifaxes dropped 70 tons of bombs in 4½ hours. Enemy transport was found to be badly dispersed and excellent targets were located. The effectiveness of these particular raids is shown by the fact that the enemy reports speak of the Capuzzo area alone being under attack for five hours on end by 'hundreds of enemy night bombers'.

On 10 November, Sidi Barrani was occupied by 2nd New Zealand Division and the last of the Afrika Korps, together with the enemy rearguard, moved over the passes into Cyrenaica. The enemy reported having 'demolished the pass roads at 21.25 hours.' This last stage of the enemy evacuation from Egypt, when they were still most vulnerable to air attack, was completed almost entirely without interference from the W.D.A.F. For the first time since before the battle of El Alamein, neither fighter bombers nor light bombers operated and out of a total of 145 fighter sorties, only 12 were employed on ground attack of any kind. All but eight per cent of the air effort on this day was expended on flying protective patrols over forward Eighth Army units and over a convoy to Matruh or on reconnaissance. The enemy air force, however, showed more offensive spirit than had been apparent for several days past. Two fighter-bomber and low-level strafing attacks were directed against 7th Armoured Division which, following their wide outflanking

movement to the south, were located in the desert some 60 miles from the enemy's main force. On 10 November, the fighter squadrons of Force 'A' had begun to concentrate on the landing-grounds in the Mischeifa area, to the south and south-east of Sidi Barrani.

Conclusions

A study of military operations in the Western Desert, in 1942, throws up two major problems. The first problem is how did General Auchinleck manage to stabilise the Eighth Army at El Alamein, in early July, in the face of his confident and victorious opponents. The second problem is how it was that Rommel managed to extricate the remnants of his Panzer Army from the field of battle, at El Alamein and, within less than a week, successfully evacuate them from Egypt along a single coast road when pursued by a much stronger and better-equipped force. It is believed that, basically, the solution to both these problems lay in the handling of air power. Ignoring the question of supplies and exhaustion of the enemy force, it was primarily the use of concentrated 'round-the-clock' bombing which permitted the Eighth Army to reorganise and consolidate at El Alamein. Conversely, it was a failure to sustain the momentum of day-and-night bombing, after the enemy's 'débâcle' at El Alamein which finally permitted the demoralised remnants of the Panzer Army to disengage themselves from the field of battle and make good their escape across the passes into Cyrenaica. At this time the principle of the concentration of force which had been learnt in such a hard school in the Western Desert had been - if not forgotten - then overlooked. Thus it was that one of air history's most salient opportunities for sealing a victory on land by the concentrated use of air power was missed.

The Eighth Army Commander allocated to the air force a secondary protective role over his forward troops at a time when - in the earliest stage of the pursuit, at least - the air force should have been the primary weapon for sustaining the offensive against a fleeing enemy. There is evidence of over-insurance against the air threat from the enemy which, in the event, proved to be negligible. There was also a failure to make adequate use of the available air transport fleet for the move forward of W.D.A.F. units. From this misconception of the potentialities of air power derived the primary mistake which was to plan for the pursuit of the enemy and not their annihilation. The air force employed for day operations during this phase of the pursuit was too light to be effective in any but a protective and harassing rôle. Superhuman steps in the way of administration should have been made to get at least part of the light-bomber force forward and in operational use. As it happened, the 'round-the-clock' bombing of the enemy, which had been proved a battle-winning factor of the first magnitude, could not be sustained, and much of the bombing potential of the force was lying idle at a time of magnificent opportunity.

Although the weather intervened on 6 and 7 November in favour of the retreating enemy, it would be an oversimplification of the problem to make that the basic reason for the enemy's escape. On the first day of the enemy's retreat, 5 November, the weather was good. The escaping enemy forces were no further west than Fuka, where they had to negotiate a difficult escarpment, and still remained within escorted range of the light-bomber force, and yet the light bombers were not used to anything like capacity.

The root cause of the failure to keep up the momentum of the day-bombing offensive during the first day of the pursuit was the diversion of the greater part of the fighter force from offensive duties in order to protect the ground troops against the possibility of enemy air attack which, as it so happened, never materialised.

The second outstanding opportunity for the air force to make a decisive contribution to the land battle was missed on 6 and 7 November, at Matruh, when intensive bombing of demoralised enemy forces jammed in the town, taken in conjunction with the annihilation by the Eighth Army of 21st Panzer Division's armour, at Qasaba, would probably have resulted in the end of the Panzer Army, as a fighting force. Unhappily, the adverse weather conditions, together with the lack of a unified plan to concentrate every available aircraft on ground attacks against the enemy, to the exclusion of all other activities, gave the enemy forces the necessary respite for the reorganisation of their demoralised and scattered troops.

The third chance was missed on the frontier, at Sollum and Halfaya. There, a series of superlative targets was offered throughout 9 and 10 November on the passes, in the tremendous concentration of enemy transport at the foot of the Halfaya Pass and in the vast traffic jam which extended eastward for miles along the coast road, as far as Buq Duq. No more favourable conditions for concentrated air attack against ground targets could be imagined. The extensive flooding of forward airfields had certainly gravely impeded the move forward of the squadrons composing the W.D.A.F. pursuit force, Force 'A'. Nevertheless, what air effort there was available still remained diffused, and the priority given for the fighter cover for the Eighth Army units operating in the van weighed heavily on the W.D.A.F. Air attack, when sufficiently heavy, did manage to block the passes, but not for long enough to enable the Eighth Army to catch up and effect the coup de grace.

However, if air power was not used in a concentrated attempt to crush what remained of the Panzer Army before it had finally managed to quit Egypt, at least fulfilled effectively the task allotted to it of keeping pace with the swift advance of the Eighth Army's pursuit force, providing these advanced units with air cover and also helping them to harass the enemy. Throughout this phase of the advance, when a whole modern army with its thousands of vehicles crowded the main road, providing a magnificent series of targets for air attack, they enjoyed a very high degree of immunity. Thanks to their excellent organisation to ensure the complete mobility of units, squadrons of the W.D.A.F. pursuit force not only managed to keep pace with the Army's advance, but at times were even reported to be leading it.

An innovation during this period was the use of the Halifax heavy bomber for night operations in direct support of the Army. The combined Wellington-Halifax onslaught was the most conspicuous feature of this phase of the advance, and whilst the Army were mainly out of direct contact with the retreating enemy and the W.D.A.F. fighters were chiefly preoccupied with giving cover to the Army, the No. 205 Group force of night bombers did superlative work in hampering - and for a time even halting - the enemy retreat. It is indeed a curious fact that these No. 205 Group bombers, which were essentially a strategic force, were at this time excelling the W.D.A.F. and even the Eighth Army itself, as a retreating enemy. Unfortunately, the level of the night

bombing was affected adversely by the fact that the Albatrosses, owing to limited range, were not available to do the path-finding and illumination of targets. Moreover the ability to hit hard at the enemy, from the air, was restricted by the weakness of the Wellington force and also by the diversion of the Beaufighters to other duties. On the credit side, Operation 'Torch' succeeded effectively in diverting enemy air and ground reinforcements from the Panzer Army to the 5th Panzer Army, in Tunisia.

CHAPTER 10

THE CAPTURE OF CYRENAICA AND THE ACTION AT EL AGHEILLA

(10 NOVEMBER TO 13 DECEMBER 1942)

The Enemy Decision to Evacuate Cyrenaica and Retreat to Prepared Positions at Marsa Brega

Once his forces had evacuated Egypt, Rommel saw that, with the Eighth Army following up on a wide front in such superior strength, he would be unable to hold the next delaying positions at Tobruk and Gazala for very long. His forces were barely sufficient to withstand a frontal attack. The tactics employed by the Eighth Army Commander - the wide outflanking movement to the south - meant that these positions would be opened up, one by one, from the rear. Rommel foresaw that the Eighth Army Commander might extend this policy. Instead of following up the coastline, around the Cyrenaican 'hump', Rommel concluded that General Montgomery would take advantage of the configuration of the country and strike across the Jebel el Akhdar towards the Benghazi-Agedabia area. Such tactics had already been proved successful in the winter offensive of 1941-1942 (Operation 'Crusader'). In this way, the whole of Cyrenaica could be cleared, leaving any garrisons to the east of Marsa Brega - which offered the enemy Commander, in his opinion, the only favourable position for defence - to fall an easy prey to the advancing Eighth Army.

German Official
War Narrative
Cabinet Office
Archives. A.L.
743.

Another important factor which influenced Rommel's decision not to defend Cyrenaica was the critical supply position, particularly of petrol. Although there were 1400 tons of petrol stored at the port of Benghazi, the heavy losses sustained by the MT convoys by air action and the need to transport sick and wounded back to the rear meant that these supplies could not be brought forward in time. It was still necessary, therefore, for the Panzer Army to rely on airborne supplies. This combination of circumstances - the weakness of the Axis forces, the threat of an Eighth Army thrust across Cyrenaica and the hazardous supply position - caused Rommel to decide, on 10 November, to withdraw his forces to the Marsa Brega positions, almost on the Tripolitanian frontier. It was a fateful decision for the enemy Commander to take, for he thereby sacrificed everything he had fought for in the Western Desert.

Main Weight of Night Bombing Diverted to Tobruk - Night 10/11 November

On the night 10/11 November, for the first time since before the battle of El Alamein, the main weight of the night-bombing force was diverted from targets in direct support of the land forces to the bombing of a strategic target, the port of Tobruk. The attack was carried out by 22 Wellingtons and 4 Halifax aircraft which found the port crowded with shipping, no doubt preparatory to the evacuation of the port. The results of the raid were difficult to assess, as a number of the largest fires were probably due to the destruction of store-dumps by the enemy. In spite of the surprise nature of the raid, the A.A. defences were most efficient and were described by some crews as being 'worse than ever'. One Halifax aircraft was shot down by A.A. gunfire.

No.205 Group
O.R.B. and M.E.
Int. Sums.

A small force of seven aircraft maintained the night air offensive against the retreating enemy. They found that targets had shifted, as was expected, westwards from the passes to the Gazala and Tmimi area. Crews reported that the entire length of road was crowded with enemy transport and 'wished that more aircraft had been put on this target.' One Wellington was lost during this operation. Further 'anti-strafting patrols' were carried out by Hurricanes of No.73 Squadron, in order to prevent hostile aircraft from attacking the main road in the vicinity of Sidi Barrani. There were no incidents.

No.73 Squadron
O.R.B.

The Enemy's Final Evacuation of Egypt and the Capture of Halfaya Pass - 11 November

Although the main enemy force had managed to cross the frontier by 10 November, a small rearguard was left holding the pass. During the night 10/11 November, the pass was captured by 4th Light Armoured Brigade and two Companies of a New Zealand Battalion. There is no evidence that the enemy offered any strenuous resistance, although the official German version states that 'at dawn, the enemy attacked Halfaya Pass position from the east and south east and sent a strong force of tanks against the troops there who were withdrawing according to instructions. A regiment of Pistoia Division and three batteries of German army artillery were overrun.' The capture of Halfaya Pass meant that all enemy resistance east of the wire had ceased and that Egypt had been finally cleared. Forward elements of 7th Armoured Division, in their northward advance from Maddalena and 2nd New Zealand Division which had been moving due east along the coast road, made contact on the morning of 11 November, on the frontier. The 7th Armoured Division proceeded, without opposition, to Capuzzo.

Main Eighth Army
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A.H.B./IIJ1/
162/3.

Official German
Narrative.

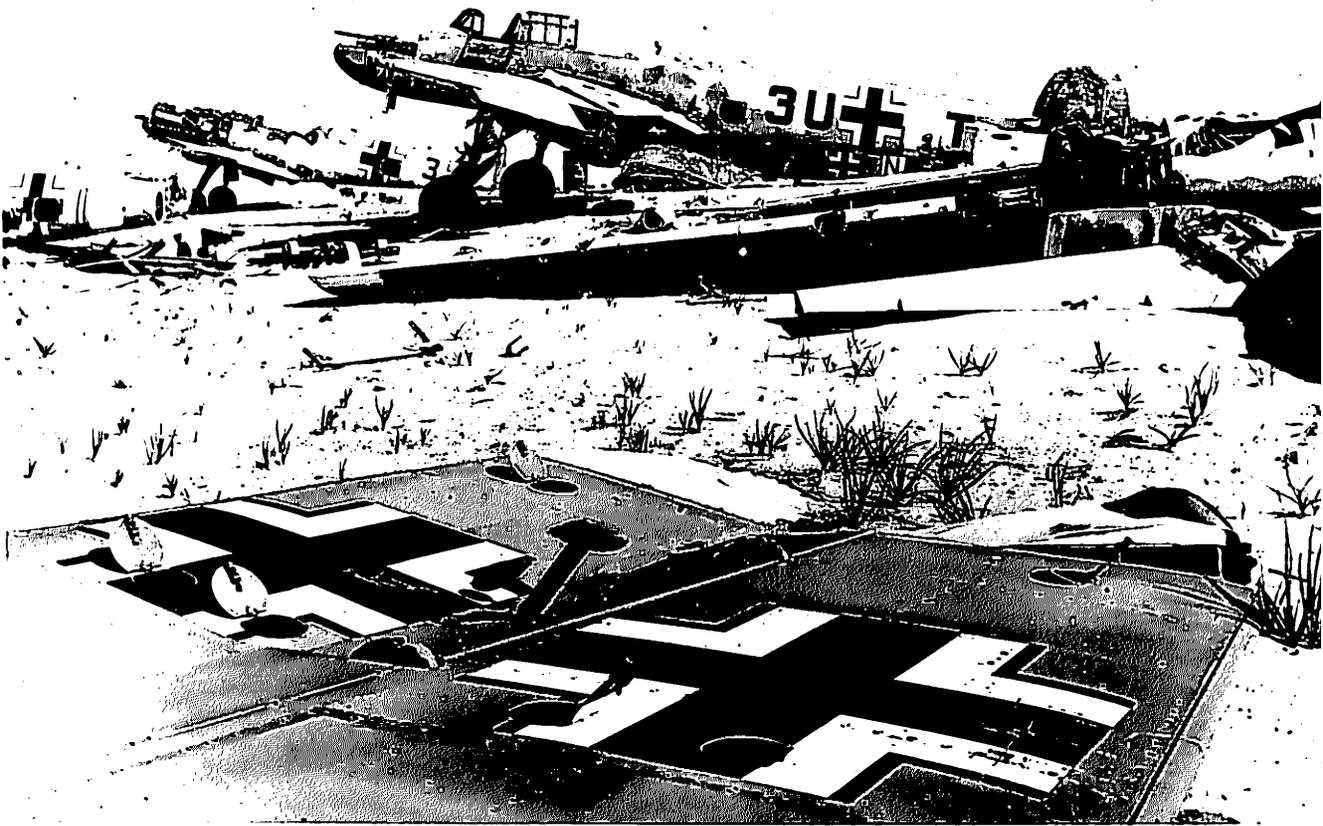
The Eighth Army's speedy advance and the surprise breakthrough at Halfaya had, according to a German report, placed the Panzer Army in an extremely critical position on the morning of 11 November, as at that time a large number of rear-line and non-motorised units were still between Bardia and Tobruk. It was only a supply of petrol which arrived at the last minute, supplemented by supplies of aviation spirit retrieved from the evacuated landing grounds, which enabled the whole of the Army to withdraw.

When 4th Armoured Brigade reached the bottom of Sollum Hill, they found that the enemy had carried out extensive demolitions and left a huge crater which soon caused tremendous traffic congestion at the foot of the pass. It proved how effectively the enemy retreat could have been hampered had bombing effectively damaged the pass roads. The bottleneck conditions constituted a very obvious danger from hostile air attack and Main Eighth Army H.Q. arranged through Air Support Control for fighter protection to be provided.

Main Eighth Army
War Diary.

On 11 November the W.D.A.F. had their most successful and effective day's fighting. The A.O.C.'s view was that this did not mean increased enemy air activity, but that 'the retreating enemy air forces had been caught up, in the Tobruk area, by the speed of our advance and brought to battle.' In the early morning, 11 Kittyhawks of No.2 S.A.A.F. Squadron, on a reconnaissance of the Gambut-Bardia area, encountered 15 Ju.87's, escorted by six Me.109's, some 20 miles to the south of Sollum. In the ensuing combat, claims were made of eight Ju.87's shot down for the loss of two Kittyhawks. Shortly afterwards, 12 Warhawks of the

Squadron O.R.B.s
and A.A.H.Q.W.D.
Daily Int. Sums.



Derelict Me. 110's on a landing-ground near Sollum



Eighth Army convoys moving up through the Halfaya Pass.

65th Squadron U.S.A.A.F., with 4 Warhawks of the 64th Squadron U.S.A.A.F., whilst on a low-level attack in the Gambut area, met the remainder of the Stuka formation, as they were about to land at Gambut and claimed three Ju.87's shot down for the loss of one Warhawk.

A total of 43 Kittyhawks and Tomahawks of Nos.2, 4 and 5 S.A.A.F. Squadrons and No.280 Squadron - the majority of them carrying bombs - carried out a heavy fighter bomber raid against Gambut airfield with the intention of forcing the enemy to evacuate. The enemy reaction to this move was surprisingly vigorous. Their fighters forced a number of the raiding aircraft to jettison their bombs. The earlier success of No.2 Squadron S.A.A.F. was marred by having 6 aircraft put out of action, two being shot down, two so badly damaged that they had to crash-land and two others rendered Cat.II. In the various engagements on 11 November claims were made of one Me.109, one Ju.88, one Ju.52 and one Fieseler Storch destroyed. Enemy records which appear - perhaps understandably - muddled for this date show 3 dive-bombers and three Ju.52's shot down by fighters, to which must be added 15 aircraft and 3 gliders destroyed, on the ground, by their own troops. The majority of these aircraft were destroyed prior to the evacuation of the airfields at Tobruk and Gambut, but it is interesting to note that a number of Me.109's were destroyed as far back as the Martubas.

A.H.B.6 Records.

Whatever the success of this raid against the airfield at Gambut in material damage inflicted on enemy aircraft, it did have the desired effect of forcing the Luftwaffe to evacuate the airfield there and already there were signs that they were falling back on the Martubas, another 150 miles to the rear. This augured well for Operation 'Stoneage', the east to west convoy to Malta. The loss of Gambut also had the effect of dislocating the enemy's air-lift of petrol forward from Benghazi to Tobruk, as it was being used as the main air base for this purpose.

H.Q. M.E. Table
of Operations.
A.H.B./IIJ1/
31/1.

Altogether, the fighters of the W.D.A.F. carried out 161 sorties on 11 November. The number of ground attacks made by fighters and fighter-bombers was the heaviest since the battle and totalled 72 of which 49 were bombing attacks. Some of the most rewarding targets were found along the Trigh Capuzzo, the desert road connecting Capuzzo and El Adem.

War Diary Main
H.Q. Eighth Army.

With the rapid evacuation of the frontier area and the report that the enemy were destroying stores on Gambut airfields, prior to a withdrawal to bases further to the west, the Mischeifa landing grounds looked like being too far to the rear. Already the R.A.F.'s eyes were on the Martubas in anticipation of the Malta convoy. By 10 November, therefore, even before the enemy had finally quitted Egypt, Squadron 'A' Parties had left L.G.75 and the area round Mischeifa for Sidi Azeiz, across the frontier. Avoiding the main road, they struck across the Desert and by 09.15 hours on 11 November, Main H.Q. Eighth Army were advising X Corps that 'R.A.F. advance parties and convoys now proceeding Azeiz via Khamsa. Report soonest when L.G.s secured.' The enemy garrison at Halfaya had been captured only a few hours before and the desert routes in the Sidi Azeiz area, to which the Squadron advance parties were proceeding, were still packed with retreating enemy transport.

No.205 Group Bombers Attack Enemy M.T. Between Gazala and Tobruk - Night 11-12 November

By this time, a week after the beginning of the enemy retreat, targets had moved so rapidly towards the west that the raiding Wellingtons of No.205 Group were being required to make a round trip of about one thousand miles in order to reach the enemy. A total of 39 Wellingtons and 3 Halifax aircraft bombed enemy transport along the Gazala-Tobruk road. For the most part targets were thin and only 14 fires were counted. Crews of returning aircraft reported that the port of Tobruk was ablaze with as many as one hundred separate fires raging, where the enemy were preparing for evacuation. The weather, which was good at first, deteriorated after midnight to 6 to 8/10ths cloud at 2,000 feet. This was the first intimation of yet another spell of heavy rains which was soon to hamper the pursuing force by flooding desert tracks and rendering landing-grounds unserviceable.

The Enemy Evacuation of Tobruk - 12 November

Owing to the constant pressure exerted by the Eighth Army against the enemy rearguard and the threat of encirclement by the outflanking forces, the enemy were compelled to continue their retreat, with little or no chance of making a stand further east than Marsa Brega. In spite of the enormous prestige value of the port of Tobruk - the advance of the W.D.A.F. had nullified its value as a port of supply - Rommel decided to relinquish it without a struggle. The way in which the supply and rear-line troops, retreating from Tobruk, were piling up in the Gazala defile meant that the Panzer Army had to hold a line at El Adem and Tobruk until the evening of 12 November. Unfortunately, however, the heavy rains which flooded the desert prevented the pursuit force from taking advantage of the situation. Again the weather had brought almost a whole army to a standstill. Whilst the floods were at their worst, movement off the main roads was practically impossible, while progress along the Via Balbia, the coast road, was badly impeded by the heavy mining which the enemy had carried out. Furthermore, the enemy's supply of petrol had temporarily improved by the flying over of 120 cubic units to Derna.

4th Light Armoured Brigade, which had reached the head of the Halfaya Pass shortly after dawn, moved west along the Trigh Capuzzo, clearing the important airfield bases at Sidi Azeiz, Gambut and Sidi Rezegh, en route. They were later held up by the enemy rearguard at El Adem. The 2nd New Zealand Division occupied first Sollum and later Bardia, where they took a number of Italian prisoners.

W.D.A.F. Air Activity 12 November Almost Wholly Confined to Ground Attacks

In spite of the unfavourable weather conditions on 12 November, the W.D.A.F. were very active and a total of 194 sorties was flown by long-range fighters operating from Misheifa. Although there were only 4 fighter-bomber attacks, almost all the fighters operating carried out low-level attacks on the retreating enemy columns on the road to the west of Tobruk. Beginning with a dawn attack by 12 Hurricanes of No.73 Squadron, raids were kept up steadily throughout the day, with considerable success. The enemy's own comment on the day's air operations was that 'no enemy (light) bombers attacked us during the day, but the enemy

No.205 Group
O.R.B.

Main Eighth
Army Cositrep.
A.H.B./IIJ1/162
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A.A.H.Q.W.D.
Daily Int. Sums.
A.H.B./IIJ1/
122/44.

Official German
War Narrative.

fighter-bombers continued their attacks on troops and convoys with undiminished violence.' Claims were made of at least 30 vehicles set on fire and over one hundred damaged. U.S.A.A.F. fighters of Nos. 65 and 66 Squadrons were very active and between them carried out 20% of the sorties flown.

A.A.H.Q.W.D.
Daily Int. Sums.
and No. 3 R.A.A.F.
Sqdn. O.R.B.

A particularly interesting operation was carried out by a combined R.A.F. and U.S.A.A.F. formation of fighters which, after low-level attacks along the Gazala/Tobruk road, in which trucks were damaged and a carrier full of troops was destroyed, next located and attacked barges travelling west along the coast from Tobruk. The barges were obviously evacuating fuel from the port, as drums were seen on deck. Two of these barges were set on fire and one blew up. A third barge was later seen to be beached and smouldering. Later, six more barges were attacked and three of them were damaged. Throughout the day, pilots reported numerous fires at Tobruk, as the enemy burnt stores and blew up installations, prior to the final evacuation of the port.

It is now known that the pass at Gazala was crowded with transport and it is surprising that this tactically weak spot should not have been singled out for concentrated attack. Although as many as 20 fighters operated together, there was no plan for the synchronisation of more than one raid on an objective and the concentration of all the available air effort at a given spot. This should not have been too difficult as, despite the continuous attacks on the retreating enemy forces, no enemy air activity was reported. Enemy records show that, in addition to the disorganisation caused by the Luftwaffe's rapid withdrawal to new bases, a severe limit was put on all operational flying, other than reconnaissance and the transport of supplies, owing to the acute shortage of aviation petrol in North Africa.

On the evening of 12 November, squadrons began to move their 'A' Parties forward from Mischeifa, in Egypt, to Gambut, in Cyrenaica. This was a long trek forward which, with deviations, amounted to some 150 miles. Some squadron advance parties, which had been leap-frogging their way forward from landing-grounds in the vicinity of Fuka, caught up with their units at Mischeifa and were immediately directed on to the newly-captured landing-grounds at Gambut.

No. 205 Group Night-Bombing Operations a Failure-Night
12/13 November

No. 205 Group
O.R.B. & Opsums.

On the night 12/13 November, the 28 Wellingtons and 4 Halifaxes which operated against the enemy forces ran out of targets. There was a marked scarcity of enemy transport in the area given - the roads between Derna and Cyrene - and the largest concentration seen consisted of no more than 50 vehicles. In point of fact, the night-bombing was carried too far to the west, as at this time the enemy were evacuating Tobruk and withdrawing towards Gazala. The great distances involved in the bombing of targets in Cyrenaica from bases in the Egyptian Delta were now beginning to tell against the night-bombers. The Albacores had been unable to operate for several days in the customary collaboration with the Wellingtons and, without them, the Wellingtons were not nearly as efficient for locating and illuminating their targets.

This extremely fluid stage in the land battle in a terrain where vast areas were devoid of salient features set

the night-bombers a particularly difficult task of identification. A comparatively slight navigational error might easily have resulted in the bombing of friendly troops. Such a mistake had been made in broad daylight by the Luftwaffe, when they had dive-bombed No.3 Recce Unit and destroyed nearly all their transport. In spite of the high level of activity of No.205 Group aircraft during this period of the pursuit there is no single example of a navigational error of this kind having been made.

On this particular night, owing to the failure of the night bombers to locate the main enemy forces, the results were disappointing and the combined efforts of 28 medium and 4 heavy bombers only managed to start a dozen fires. It would appear, however, that some success was scored as a German report stated that, 'enemy night bombers attacked the Gazala zigzag continuously.' The losses on the night's operations were comparatively heavy as two Wellingtons failed to return and a third crashed to the east of Daba.

These operations carried out by No.205 Group on the night of 12/13 November ended their intervention in the land-battle, begun on the night of 25/26 June, at the time of the retreat from Gazala. The use of night bombers in a tactical rôle against land targets had been proved a battle-winning factor of the first magnitude. Air Ministry policy had permitted the force in the Middle East to decline in favour of Bomber Command. Further diversions of Wellingtons to Malta caused the temporary disintegration of the force until, by 8 December 1942 No.205 Group controlled no more than three medium and one heavy bomber squadrons (Nos.37, 70, 148 and 462 Squadrons) all of which were below strength. From time to time this strategic bomber force was used against tactical targets, but with nothing like the continuity or intensity of the concentrated operations carried out at the time of the stabilisation of the Eighth Army at El Alamein and the battles of Alam el Halfa and El Alamein.

The Occupation of Tobruk - 13 November 1942

Tobruk was entered at 09.00 hours on the morning of 13 November by the 131st Lorried Infantry Regiment, followed by the main body of the 7th Armoured Division. This invaluable supply port was recaptured by Eighth Army troops, without opposition, within five months of it having fallen to Rommel's Panzer Army, on 21 June. It was obvious that the enemy had evacuated the town hurriedly and the demolitions were not as extensive as had been feared. The jetties had suffered very considerable damage, due to bombing, and mining was widespread, both in the harbour and its approaches and on land.

The Eighth Army's main pursuit force could not proceed any further until the port of Tobruk had been opened to shipping. However, the 4th Light Armoured Brigade was directed on Gazala, where lay the next most important group of airfields before the Martubas were reached, whence it was planned to provide air cover for Operation 'Stoneage'.

Over 100 sorties were carried out by a part of the fighter force operating from Sidi Azeiz, a few miles inside the Egyptian frontier, while the main fighter force moved on to the Gambut landing-grounds. Apart from four Hurricanes engaged on shipping patrols and nine Kittyhawks which provided cover for a strafing attack, all sorties were

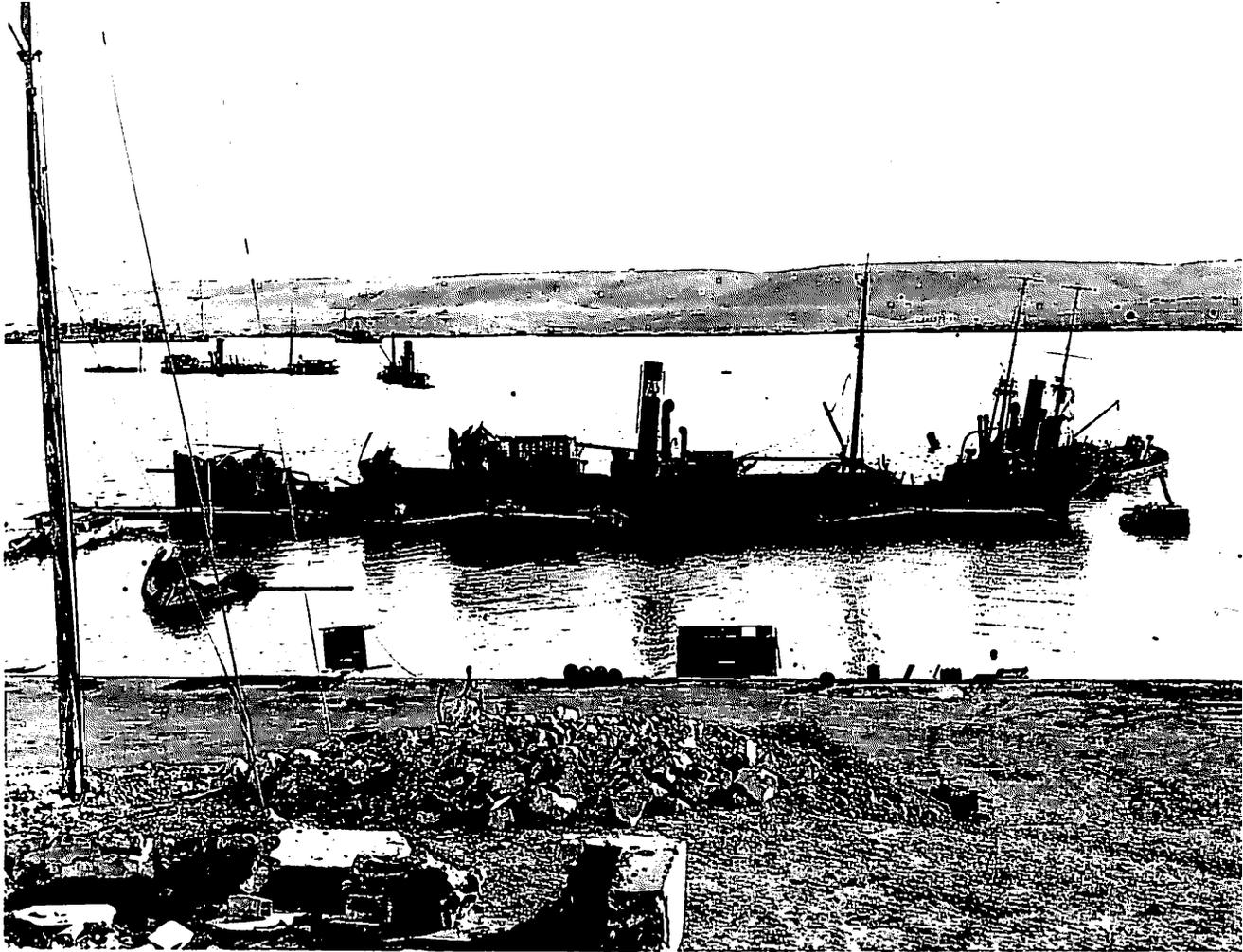
Official German
Narrative.

No.205 Group
O.R.B.

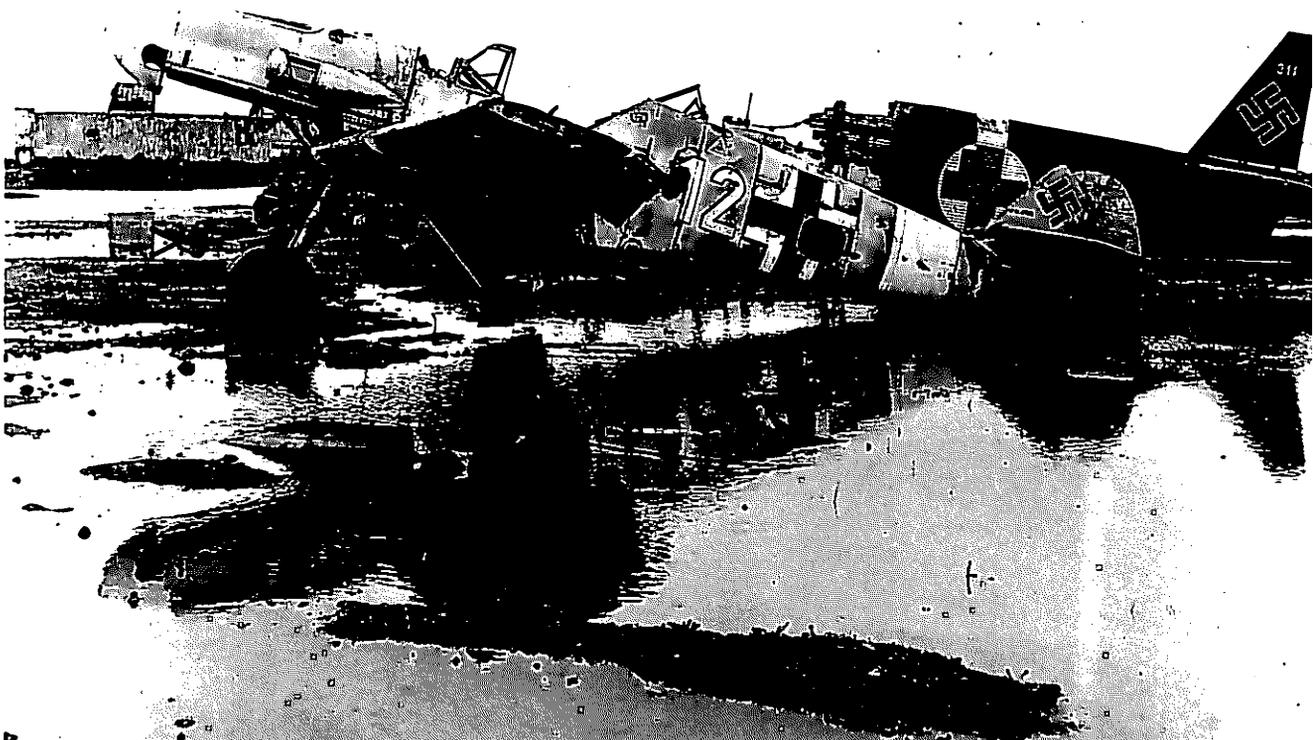
Main Eighth Army
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Cabinet Office
Narrative.

H.Q. M.E.
Opsums and
O.R.B.s.



Tobruk one hour after it had been reoccupied by
the Eighth Army



Derelict Me. 109 and a Ju. 52 air ambulance on a
flooded airfield in the Martuba area

Official German
Narrative.

concentrated on ground targets located along the Gazala-Tmimi Road. The only fighter-bomber operation was carried out by 16 Warhawks of Nos.64 and 65 Squadrons U.S.A.A.F. which claimed direct hits on trucks full of troops. The enemy reported that 'fighter bombers continued their attacks on troops and convoys with undiminished violence.' The only enemy aircraft encountered were two Me.109's which unsuccessfully attacked Kittyhawks of No.2 S.A.A.F. Squadron.

Operation by Hurricanes of Nos.213 and 238 Squadrons from an Advanced Desert Landing Ground (L.G.125) - 12 to 16 November

A.A.H.Q.W.D.
Report on
Operations in
the Western
Desert.

A highly interesting operation and one of considerable historical significance for the way in which it demonstrated the potentialities of air mobility was carried out during this period by Hurricanes of Nos.213 and 238 Squadrons, assisted by transport aircraft of No.216 Group and armoured cars of No.2 Armoured Car Company. Whilst the outcome of the Battle of El Alamein was still undecided, A.A.H.Q.W.D. had planned Operation 'Snapper' which was for a small striking force of 12 Kittyhawks to occupy L.G.122 - a desert landing ground in the Maddalena area - and to operate for a short period against enemy transport aircraft using airfields at Tobruk and El Adem. For various reasons this plan fell through, and in its place the A.O.C. substituted a somewhat more ambitious operation involving two squadrons of Hurricanes which, with the assistance of transport aircraft of No.216 Group, were to occupy L.G.125, a desert landing ground 180 miles due east of Agedabia. The intention was for these aircraft to occupy this landing-ground, well to the rear of the enemy's rear which was still not very much further west than El Adem, and attack enemy transport in the Agedabia-El Aghaila area, almost on the Tripolitanian frontier, when they considered themselves well out of range of hostile air attack. It was also the A.O.C.-in-C's view that, by delaying the enemy evacuation of Cyrenaica, the Eighth Army Commander would be helped in any plans he might formulate for cutting across the Jebel el Akhdar and so rounding up the last of the Panzer Army. H.Q. Middle East were themselves opposed to this project, owing to the risks involved in bringing unarmed transport aircraft into a forward operational area and only agreed when the A.O.C. W.D.A.F. gave his assurance that he would be responsible for their protection as part of normal tactical operations.

Official German
Narrative.

As has already been seen, by this time Rommel had come to the conclusion that it would be hopeless to try and hold Cyrenaica, owing to the threat of an outflanking movement by the Eighth Army across the Jebel el Akhdar. He had therefore begun to move thousands of second-line troops - mainly Italians - back to Marsa Brega, in order to develop a defensive position there. It was on these unsuspecting troops, many of whom were no doubt congratulating themselves on being so far to the rear of the front, that the main weight of the air attacks was to fall.

This remote desert airfield was located some 120 miles within the Cyrenaican frontier. At 11.30 hours on Friday 13 November - not the most auspicious of dates, as was commented on by squadron diarists - 36 aircraft, divided equally between Nos.213 and 238 Squadrons arrived at L.G.125, having escorted 12 Hudsons of No.216 Group, which had transported vital stores and equipment, together with ground personnel numbering over 100. Other stores and rations had been dumped at the landing-ground the previous day.

Immediately on arrival, all pilots assisted in refueling their aircraft, in readiness for the first operation. This comprised 27 Hurricanes which took off a little over two hours after arrival at their new base for a combined strafe of the coast road from Agedabia to El Agheila. The attack achieved complete surprise and Wing Commander Darwen, the C.O. of No.243 Wing, who took part in the operation, described how 'all transports and troops were surprised along the whole length of road, many of the troops waving and welcoming the reinforcing Luftwaffe, until the Hurricanes opened fire.' In this initial attack, a total of nearly 90 enemy vehicles was either destroyed or damaged. A Fieseler Storch aircraft was also shot down in flames. The type of attack necessitated very low flying and the operation was marred by the fact that two of the Hurricanes hit the ground and were lost, together with their pilots. The leader of No.213 Squadron, Squadron Leader Oliver, struck a telegraph pole and so damaged the starboard mainplane that it was only with the greatest difficulty that he was able to reach base.

On the following day, 14 November, it was decided to attack Agedabia airfield, in order to disrupt the air defence of the road. In the course of this very successful surprise raid, six Italian Cr.42 fighters and one Savoia aircraft were destroyed. A number of enemy vehicles were also set on fire and others damaged when the aircraft turned their attention to convoys on the road. On the return journey occurred a mishap which might have ended much more seriously. Owing to the fact that the aircraft were not carrying VHF/Df, those of No.213 Squadron became completely lost, half of them landing in the Desert and half at Gambut. The Squadron did not manage to make base at L.G.125 until early the next day. One pilot obtained his correct position from a South African Armoured Column at that time moving up to occupy the airfield at Martuba.

On 15 November, further attacks were carried out against enemy transport along the main road. In the course of this operation, a column of Italian field artillery, with their transport, was discovered only 60 miles from L.G.125 which was in such a remote position that it was obvious that the column had been despatched with the express intention of attacking the British aircraft at their base. A shuttle service of aircraft was then immediately undertaken which completely annihilated the enemy column, destroying 12 lorries, 2 armoured cars and four 18 pdr. guns. After this interlude, attacks were resumed against the airfield at Giala. Such was the surprise achieved by the raiders that ground crew were still working on an aircraft when it was attacked and blew up. In the course of these attacks claims were made of two Cr.42's, one Ju.88, two Savoia 79's and one Cant.1007 destroyed.

There was now noted a greatly increased enemy air and ground patrol activity in the vicinity of the main road. Two high recces were seen over L.G.125 and this was followed, on 16 November, by a night-fighter type Ju.88, escorted by Me.109's, used presumably to trail the squadrons back to their base. As the element of surprise had obviously been lost and the enemy would soon take further steps to destroy the small force which was operating deep into enemy-held territory, the C.O. obtained permission from A.A.H.Q.W.D. to withdraw, and this was granted. Before returning to their main base at L.G.s 13 and 101, in the Qasaba area, to the west of Fuka, a force of 24 Hurricanes of Nos.213 and

No.243 Wing
O.R.B. and
A.A.H.Q.W.D.
War Diary.

Nos. 213 and 238 Squadron O.R.B.s and Report on Operation at L.G. 125 by W/Cdr. Darwen.

238 Squadrons carried out their last combined strike, between 08.30 hours and 10.30 hours on the morning of 16 November. As a grand finale, this last operation was considered to be the most successful of all and accounted for 44 enemy vehicles destroyed and some 25 damaged.

Official German War Narrative.

The return airlift was again provided by Hudsons of No. 216 Group, to which the Hurricanes gave escort. They left L.G. 125 at 12.30 hours and arrived back at main base two hours later. An enemy comment on the operation is contained in a report dated 15 November and which, of course, missed the last day's activity. 'Strong enemy airforces,' it stated, 'concentrated mainly on attacking the Agedabia-Marsa el Brega area. They caused a large number of vehicle losses.' The appearance of two squadrons of R.A.F. fighters hundreds of miles to the rear of the enemy which had just evacuated Tobruk must have caused considerable consternation. The configuration of Cyrenaica, as has already been mentioned, made an outflanking movement across the Jebel el Akhdar by a strong Eighth Army force almost a certainty in the mind of the enemy Commander. This operation from a desert landing ground well to his rear must have emphasised to Rommel the risks his forces were running and accelerated the evacuation of Cyrenaica.

No. 2 Armoured Car Company War Diary.

The operation, which had been planned to help disorganise the enemy retreat and thus give the Eighth Army time to complete an outflanking movement across the Desert, was perfectly timed and executed. For the loss of three Hurricanes destroyed and four damaged (Cat. II) the enemy lost two aircraft destroyed in the air, 12 on the ground and a further 130 M.T. destroyed and 170 damaged. No. 2 Armoured Car Company provided L.G. 125 with A.A. defences together with a defensive cover fifty miles out which served as an Observer Screen Unit and to give warning of approaching raiding parties.

In the course of the four days' operations, from 13 to 16 November, the two Hurricane Squadrons flew a total of 156 sorties (81 by No. 238 and 75 by No. 213 Squadron).

Operation 'Stoneage' - the East-to-West Convoy to Malta - 16 to 20 November

A.A.H.Q.W.D. Daily Int. Sums.

After the occupation of Tobruk, on 13 November, which assured the Eighth Army pursuit force's supply position for the next phase of the pursuit, the most pressing problem became the occupation of the Martuba airfields, to enable the W.D.A.F. fighters to provide cover for Operation 'Stoneage'. There was but little time, as the convoy was scheduled to leave Port Said on 16 November. In the 'race for the Martubas' the Squadrons of Force 'A' pressed steadily forward. On 13 November, they were operating from Sidi Azeiz, on 14 November from Gambut and on 16 November from Gazala. All surplus stores at Gambut - including in particular the petrol which had been flown forward by transport aircraft of No. 216 Group - were held ready for the move forward to the Martubas. Unfortunately, on 16 November, the bad weather intervened and the R.A.F. had the mortifying experience of finding that the landing-grounds at Martuba had been flooded and were unserviceable. The only alternative left to them was to operate from their existing base at Gazala which had the result of reducing quite considerably the effective range of the fighters to be used as escort.

In order to control Operation 'Stoneage', a Combined Operations Room was set up in H.Q. No. 201 Group, on

Operation
'Stoneage'
A.H.B./IIJ5/
101/41.

A.O.C.-in-C.
Correspondence
with P.M. Etc.
A.H.B./IIJ1/
183/27(E).

16 November, at which the A.O.C.-in-C. together with the C.-in-C. Mediterranean and the A.O.C. No.201 Group were present. Provision was made by No.201 Group for anti-submarine patrols, while reconnaissance and shadowing of enemy surface vessels in Taranto was undertaken by the R.A.F. Malta. Continuous fighter cover was to be given to the convoy throughout daylight hours by A.H.Q. Egypt, A.H.Q. Western Desert and A.H.Q. Malta, in strictly defined areas. During the convoy operations; No.201 Group established, at Gambut, reconnaissance aircraft, long-range fighters and a striking force for use against any enemy naval force which might attempt to intercept the convoy. At the disposal of No.201 Group was a force of 75 aircraft, including Liberators, and B.24's of American Bomber Command. A further nine Beaufighters flew to Malta on 17 November to augment the long-range fighter force there.(1) At dusk on 16 November, the convoy of four merchant ships (MW 13), escorted by a cruiser and seven Hunt class destroyers sailed from Port Said. Throughout the night an anti-submarine escort was provided by Hudsons of No.459 Squadron and Swordfish of No.815 Squadron. At dawn on 17 November, the convoy was off Alexandria. Fighters from No.252 Wing and Mersa Matruh were on patrol all day and Bisleys of No.15 S.A.A.F. Squadron carried out anti-submarine patrols.

The escort of four cruisers and 10 destroyers sailed from Alexandria at 15.30 hours to rendezvous with the convoy at dawn on 18 November, meanwhile continuous anti-submarine patrols were carried out by Hudsons of No.459 Squadron and Swordfish of No.815 Squadron. On 18 November, the convoys came under the protection of the varied assortment of aircraft based on Gambut especially for the operation. Bisleys and Hudsons continued their anti-submarine patrols from this base. Beaufighters of No.252 Squadron, operating from Gambut, gave dusk and dawn protection.

A.A.H.Q.W.D.
Opsum.
A.H.B./IIJ1/
122/73(C).

When the ships were located some 20 miles to the north of Derna, No.211 Group took over their protection. At 11.10 hours, six Ju.88's attacked the convoy, but on being attacked by the fighters they dropped their bombs very wildly and wide of the ship and made good their escape. At 16.20 hours, a fleet of 26 Ju.52's, escorted by Ju.88's, was sighted passing ahead of the convoy on a north-easterly course. The Beaufighters of No.252 Squadron attacked, claiming one Ju.52 as a probable. One Beaufighter was damaged and crashed on landing.

R.A.F. Malta
and Squadron
O.R.B.s.

After dusk, when the escorting fighters had left the convoy, the force was attacked by Italian torpedo-bombers (SM 79's). The Arethusa was damaged by a torpedo and forced to return to Alexandria. From daylight on 19 November, the convoy came under the protection of Malta-based fighters. Very rough weather was experienced all day and three Spitfires flew into the sea and all three pilots were drowned, in spite of the Navy's attempts to rescue them. Two of the aircraft

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- (1) The strengthening of the Beaufighter force, on Malta, in preparation for Operation 'Stoneage' demoted the Middle East of Beaufighters, apart from those of No.252 Squadron temporarily based at Gambut for the protection of the convoy. A request to Air Ministry for reinforcements was refused on the grounds that it would mean breaking up Coastal Command Squadrons 'which are already fully extended on operations.'

were from No.126 Squadron and one from No.185 Squadron and both Squadrons reported the loss as being due to engine trouble. The convoy reached Malta safely, without further incident, in the early hours of 20 November.

For a time, considerable anxiety was felt at the Combined Operations Room for the damaged cruiser Arethusa which was making her way slowly back to Alexandria, escorted by a destroyer. However, arrangements were made for fighters to give cover against air attack and Hudsons, Bisleys and a Sunderland provided anti-submarine escort, and the Arethusa managed to reach Alexandria, on 21 November, without further damage. Air escort was also provided for the naval force on their return to Alexandria. Although the ships were shadowed by a Ju.88 and Euryalus was attacked by torpedo-bombers - again after dark - they managed to reach port in safety on 22 November. During the passage of the convoy, No.201 Group were unable to carry out any anti-shipping strikes, while No.211 Group, which flew nearly 200 sorties in direct and indirect support of the convoy operations, were forced to reduce proportionately the amount of close-support which they could give to the Army.

War Cabinet
Papers. Hist.
B. (Crusader) 5.

After the successful passage of Convoy MW 13, further convoys for the relief of Malta proceeded as a matter of routine and by the middle of December, the Governor of Malta was in a position to report that almost 70 per cent. of the island's most important commodities had been raised to full scale. Furthermore, the receipt of considerable supplies of aviation petrol enabled the R.A.F. on the island to resume their aggressive air policy, while the Royal Navy were again free to make use of it as an important naval base.

The manner in which Convoy MW 13 was able to reach Malta unscathed, after the ordeals suffered by Operations 'Harpoon', 'Vigorous' and 'Pedestal' is a measure of the serious decline of Axis air power over the Mediterranean which occurred during the last quarter of 1942. At no time during the passage of the convoy was it seriously challenged. The Axis air forces were barely in evidence and no units of the Italian Navy ventured to leave port. The occupation of air bases in Cyrenaica by Allied aircraft, taken in conjunction with the Allied invasion of French North-West Africa, had altered the whole strategic balance of air power in the Mediterranean. In that theatre of operations the Axis air forces had been eclipsed to such a degree that, by the time Operation 'Stoneage' was carried out, the Allied air forces had reached a stage in air superiority which was virtually one of air supremacy.

The A.O.C.-in-C.'s Offer to the G.O.C. Eighth Army to Assist an Outflanking Movement Across the Jebel el Akhdar with an Air Transport Fleet

Main Eighth
Army War Diary.

'The enemy armour has been almost entirely eliminated,' says an Eighth Army report for 17 November, 'and our tanks are able to operate completely unhindered. The enemy retreat is, in fact, so complete that our forces seem able to occupy any ground which considerations of supply allow them to reach.'

By the time Tobruk had fallen, the speed of the enemy's retreat coupled with the ever-lengthening lines of communication - Tobruk itself was over 400 miles from the main bases in the Delta - had begun to tell on the Eighth Army's supply and maintenance organisation. Equipment had also suffered

considerable deterioration from the long forced marches over difficult terrain. The 7th Armoured Division, which represented the Eighth Army's main armoured strength in the forward area, found most of their tanks unserviceable after the gruelling trek which they had made on their own tracks across the desert to the frontier. The enemy's decision not to hold the frontier meant that there was no slackening of the pace of the pursuit. After abandoning Tobruk, the Panzer Army made use of both roads through the Jebel, and the evacuation of Cyrenaica continued at a fast pace, helped by good roads and the lack of tracked vehicles.(1)

XXX Corps Int.
Sum.

Cabinet Tele-
grams Hist. (3)
(Crusader) 5,
Alexander's
Despatch and 'El
Alamein to the
Sangro'.

As has been seen from Rommel's own fears, the Panzer Army's perilous situation invited the obvious British plan which was to send all the available armour across the Jebel and so cut the path of retreat and, incidentally, the lines of communication of the enemy before they could make good their escape to the Marsa Brega-El Aghella positions. However, the difficulties of the Eighth Army's maintenance and supply position which, in General Montgomery's view 'precluded the possibility of continuing the pursuit with major forces' and 'being determined not to take any chances', finally decided the Eighth Army Commander to send only light forces by the desert route. These were two columns of 11th Hussars and the Royals which were far too weak to be able to force a major decision. Later, however, when the G.O.C. Eighth Army found that the enemy's rapid withdrawal to Marsa Brega had actually been brought to a complete standstill for lack of petrol, he ordered X Corps to strengthen the outflanking force. Unfortunately, by this time the opportunity had passed. The heavy rains which began on 16 November involved the desert column in considerable delays and so gave the enemy sufficient time to organise their withdrawal from Benghazi, which patrols of the 11th Hussars entered on 20 November.

The Eighth Army Commander's decision not to risk a bold outflanking movement in strength across the Jebel in order to take full advantage of the enemy's plight caused the Air Commanders bitter disappointment. The operation from L.G.125 had been planned by the Air Officer Commanding Western Desert Air Force with the express intention of impeding the enemy retreat to Marsa Brega and thus enabling the Eighth Army to execute this move and cut off the enemy retreat from Cyrenaica. Furthermore, as early as 9 November the Air Officer Commanding-in-Chief had told the G.O.C. Eighth Army that there was 'a possibility of calling on American transport aircraft, as well as our own, and that these would be taken off the regular routes for a specific operation, such as a drive west to cut off Benghazi' By

A.O.C.-in-C.
Correspondence
Part V. A.H.B./
IIJ1/183/271(E).

- (1) The retreat from Gazala to Agedabia had been fraught with particular danger, because the British had all the time had the possibility of cutting us off by a thrust through Mechili. Sections of my force had stood choking the roads without petrol for days on end, and the British air force had flown attack after attack against the 60-mile column, with considerable success. The quantity of petrol we had received, while very considerable from the Luftwaffe point of view - it had been carried almost exclusively in transport aircraft - had not sufficed to fill the needs of the Army. Nevertheless, we had succeeded in making a planned withdrawal. From Tobruk to Marsa el Brega we had lost scarcely a man.' 'The Rommel Papers.'

No.216 Group
O.R.B.

15 November no advantage had been taken of this offer and by this time it was already too late. Four days' notice were required for the necessary complicated arrangements to be carried out and by 19 November the main enemy force had evacuated Benghazi. By this stage in the pursuit, No.216 Group's airlift of stores to the forward areas had risen to 100 tons a day. Had all available American aircraft been called in, at the request of the Army Commander, this figure could have been greatly exceeded. As it happened, the two armoured columns of the 11th Hussars and the Royals which had been sent across the desert were kept supplied by airlift.

Whether or not the G.O.C. Eighth Army was justified in his cautious approach to the possibility of an Eighth Army thrust, in strength, across the Jebel is primarily an Army question. From the air point of view, however, it is disappointing that an attempt to operate in this way with the help of an air transport force, as a combined Army/Air operation was not tried on a sufficiently ambitious scale to influence decisively the fighting in North Africa. Already the Panzer Army had shown that when sea communications failed, a modern mechanized force could be kept supplied with fuel by means of transport aircraft and thus saved from annihilation.

Like the operation from L.G.125, the plan was bold in conception and to some extent revolutionary and, as such, it was a challenge to orthodox military views. The desert, with its vast areas over which both ground and air forces could operate with little or no risk of interference from the enemy was eminently suitable for such bold conceptions of warfare. A sudden acceleration of the rate of advance of X Corps at this time, as will be seen, would have caught the enemy in a moment of grave weakness, completely immobilised from lack of petrol, and their annihilation or capture would have been assured. Had such a catastrophe overtaken the Panzer Army it would have accelerated the expulsion of the enemy from Africa, which did not take place until May of the following year, and would probably have hastened Italy's defection from the Axis partnership.

Ground and Air Operations from the Fall of Tobruk to the Capture of Benghazi (13 to 20 November 1942)

Whilst the W.D.A.F. were engaged on such special operations as the one from L.G.125 and the Malta convoy, they were still busy fulfilling their primary function as a tactical air force. In addition to the constant pressure the day-to-day operations; however, there were all the complex arrangements for the move westward of the Squadrons of Force 'A', gravely impeded by a break in the weather on 16 November which, as has already been mentioned, caused widespread flooding of forward landing-grounds and made travel over the desert tracks impracticable. If the pursuing air force was experiencing considerable difficulties during the move forward, the plight of the retreating enemy air forces was really desperate. The shortage of aviation spirit had reached such a pitch that at times only reconnaissance sorties could be flown while bombing was confined almost entirely to Crete-based bombers. The Luftwaffe were also finding it impossible to keep their units forward. By 15 November, only two days after the fall of Tobruk, both fighters and Stukas had been withdrawn to bases in Tripolitania, the fighters to Marble Arch and Merduma and the Stukas as far back as Nofilia.

Official German
Narrative.

A.A.H.Q.W.D.
War Diary.

On 14 November, there was a rise in the sortie-rate of the W.D.A.F. fighter-bombers and 78 operated. The majority carried a 1 x 500 lb. bomb, using the Gambut landing-grounds as a base. Targets, however, were limited and the reward for this activity was not high - no higher, in fact, than the success obtained by low-level strafing attacks which were made in almost all cases by the fighter-bombers after bombs had been released.

No.2 A.A.S.C.
War Diary
Cabinet Office
Archives.

There was no night-bombing of the enemy during the night 14/15 November, but a few night-flying Hurricanes operated along the road between Tocra and Benghazi machine-gunning enemy transport columns. A single enemy aircraft dropped bombs on the main road in the Sollum area without doing any damage. The next day, however, 15 November, No.2 A.A.S.C. reported that 'the enemy bombed and strafed Sollum Pass with only three aircraft, but this imposed considerable delay and had much effect on the troops. The Eighth Army had enjoyed almost complete immunity from air attack since 23 October and did not relish renewal of enemy air action.' In this air attack a number of Eighth Army petrol lorries were set on fire causing considerable dis-organisation. A Royal Air Force Regiment detachment which happened to be behind opened fire and shot down one of the raiding aircraft, a Ju.88. As a result of this incident, Hurricanes and Spitfires were put on offensive patrol over the Sollum area, but no more hostile aircraft were encountered.

A.A.H.Q.W.D.
War Diary.

On 15 November, No.211 Group fighters flew approximately 130 sorties. For the most part they were engaged on low-level machine-gunning attacks on the enemy columns as they retreated along the coast roads and over the desert routes. Already dense cloud in some areas heralded a break in the weather and caused some of the aircraft to be recalled. Cloud also hampered observation of the results of the raids, but considerable damage was seen to have been inflicted on the enemy convoys and numerous fires broke out among the vehicles which included troop carriers. Hurricanes of Nos.80, 274 and 335 Squadrons were also busy escorting shipping to Matruh harbour and carrying out patrols over the port.

H.Q.M.E. Opsums.
A.H.B./IIM/A13/
2A.

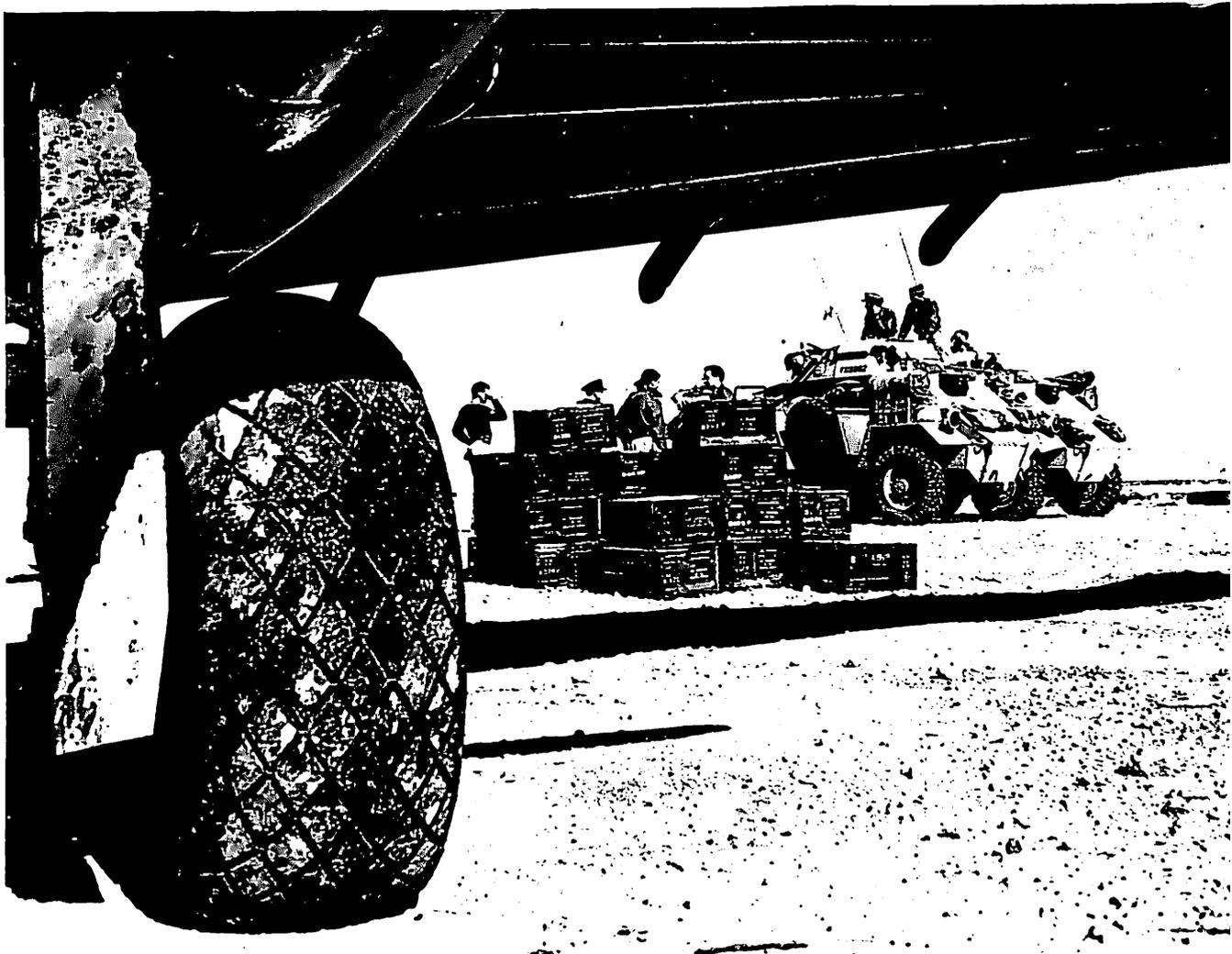
Intelligence sources indicated that there was an acute crisis in the Panzer Army's petrol supply position, and an important feature of the W.D.A.F. air operations at this time was the way in which attacks were directed against the enemy air transport organisation for ferrying petrol across from Crete. It was hoped thereby so to hamper the retreat of the Panzer Army that the Eighth Army pursuit force would be able to catch up with them. Between 17 to 19 November, No.239 Wing and part of No.233 Wing, which were operating from Gazala, due to the unserviceability of the Martuba landing-grounds, concentrated their attacks on the enemy airfields at Magrun, Benina and Barce which were the chief North-African bases for this traffic. As a result of these raids the Luftwaffe alone lost 24 aircraft; 14 of them were either shot down or destroyed on the ground and a further 10 had to be destroyed, as a result of damage, by their own troops. Of these 24 aircraft one half were Ju.52's, most of them loaded with petrol, while three He.111's lost were also being used for the petrol air lift. This represented 12 per cent of the total strength of Ju.52's aircraft in the Eastern Mediterranean. The loss of these aircraft, at a time of great crisis in the enemy's petrol supply position.

A.A.H.Q.W.D.
Opsums. A.H.B./
ILJ1/122/73(C).

A.H.B.6.



The coast road at the foot of the Sollum Pass during the advance



Armoured cars waiting to receive ammunition unloaded from transport aircraft

Official German
Narrative.

when the Panzer Army was literally immobilised for lack of fuel, might have been fatal had the Eighth Army been in a position to place a strong armoured force across the enemy's line of retreat to the south of Benghazi. An enemy situation report for 18 November stated that, 'strong enemy forces carried out low-level attacks on landing-grounds, troops and convoys. Four fighter aircraft and five transport planes loaded with petrol were destroyed.'

The Retreating Enemy Forces Brought to a Halt for Lack of Petrol - 17 and 19 November

The enemy's supply position which, relying as it did almost wholly on airborne supplies, had been critical throughout the retreat, reached such a pitch that the Panzer Army was actually immobilised for a while and their air force grounded. This was much more grave than the situation which had arisen at Qasaba, on 6 November, when 21 Panzer Division had been halted for lack of fuel and its armoured strength wiped out. On 17 November and again on 18 November, the whole Panzer Army was brought to a standstill and, but for the delays experienced by the pursuing force, would have been annihilated.

According to the enemy, this particularly acute crisis in the Panzer Army's supply position was precipitated by the panic conditions with which the Italians evacuated Benghazi. On the evening of 15 November, Rommel forwarded a report to Combined Headquarters with the instructions that it was to be 'laid before the Fuehrer immediately'. He protested that 'the petrol situation, which has been in a permanent state of strain, has now become catastrophic and for the moment has almost immobilised the German troops still in Cyrenaica.' The Afrika Korps had no petrol and 90th Light Division, who were acting as rearguard in the eastern part of Cyrenaica, had only one consumption unit left. It was thus impossible either to move the German troops or evacuate stores from Benghazi. This situation was attributed by Rommel to the action of the Italians in diverting westwards the submarine Barletta and a ship, the Hans Arp, both bound for Benghazi with cargoes of petrol, and also to the fact that the tanker Foscolo, which was already in the port, had been sent away with her cargo still undischarged. Rommel ended this report in a way which revealed his inability to grasp the true realities of the strategic situation in the Mediterranean, where Allied air and naval power had given them such a full measure of control over the enemy's seaborne supplies. He told the German G.O.C. Rome 'to make it his business to see that a stream of ships arrived carrying petrol, so that the Army might become mobile again.'

Official German
Narrative.
Cabinet Office
Archives.
AL743.

Further disorganisation had been caused to the enemy by the Italians' 'premature preparations for the evacuation of Benghazi where ammunition dumps and water points, and at Barce, and the Benghazi-Barce railway, had been destroyed. This made the management of Benghazi port, which was being run by the Germans very difficult.' Apparently it was only after a great deal of argument that the Germans could persuade the Italians to send the steamer, Hans Arp, (2645 tons) with her cargo of petrol, back to Benghazi. In this case Italian caution would appear to have been justified, for the Hans Arp was promptly torpedoed and sunk by a submarine when off Ras el Hilal, on 16 November. As a result, no petrol arrived at Benghazi by sea on 17 November and only 102 cubic metres arrived by air, due to the fact that a number of the transport aircraft had been shot down by the R.A.F. These supplies

were inadequate and consequently the Africa Korps could only be withdrawn as far as Ghemines, while rear line and supply vehicles were immobilised in the Benghazi-Agedabia area without petrol.

Things looked brighter for the next day, 13 November, as two Italian destroyers, carrying petrol, were scheduled to arrive. This they failed to do, the Italians using the specious excuse that they had been 'forced to turn back by a storm.' At this particular time Rommel was very perturbed by the presence of British armoured cars to the south east of Benghazi, at Msus, which threatened to cut the coast road and so seal off the Panzer Army's retreat. These armoured cars belonged to the 11th Hussars and the Royals which, it will be recalled, General Montgomery had despatched across the Jebel in lieu of a stronger armoured force. Rommel was unaware that these columns were too light to challenge his own force which was immobilised for lack of petrol and so unable to launch a counter-attack eastwards. He therefore sent an urgent request to Field Marshal Kesselring 'to send all the available air strength out against the enemy at Msus all day on the 18th.' The Luftwaffe, however, was in much the same plight as the Panzer Army. Only two raids could be carried out on 18 November and the Fliegerfuehrer Afrika advised that 'as from 19 November the G.A.F. would be unable to fly anything but tactical reconnaissances until fresh supplies of petrol arrived.'

In addition to the loss by air action of the Ju.52's laden with petrol for the Panzer Army and the sinking of the Hans Arp, Rommel received news of yet another blow which, under the circumstances, must have seemed a veritable disaster. On the night of 17/18 November the 10,000 ton MV Giulio Giordano, carrying nearly 4,000 tons of petrol from Italy to North Africa, was sunk by two R.N.A.S. Albacores, assisted by a Wellington of No.69 Squadron. As a result, Rommel sent yet another of his 'special reports' to Combined HQ at Rome with what must have seemed by now the tiresome instructions that it was 'to be laid before the Fuehrer immediately':

'The German motorised formations of the Army used up all the available petrol in the forward areas in reaching the Agedabia area, on 19 November. As a result they are now completely immobilised. On 17 November Army had asked for petrol to be flown over to Agedabia on the 19th. According to advice from the C.-in-C. South (Kesselring) this is no longer possible owing to the distance involved. As already reported, the petrol now in Africa amounts to only 10 tons at Buerat (400 kms. west of Agedabia) and 500 tons at Tripoli. To bring it forward from Tripoli would take several days. In consequence the Army petrol situation is such that not even the vital supplies of food and water can be brought to the troops.'

That evening, Rommel heard that the steamer (Sirio had managed to break the blockade and had arrived in Tripoli with 1,200 tons of petrol on board. Such was the plight of the Panzer Army that formations were immediately ordered to send all their available transport to Tripoli - a round trip of 1,000 miles by road - travelling day and night.

All this time, with the Panzer Army brought to a halt for lack of petrol, the Royals and 11th Hussars were on the enemy flank, in the desert, in an excellent position to put

themselves athwart the enemy's lines of communication, but they were too weak to do so. This superb opportunity was missed. The stronger armoured reinforcements which were on the way had been sent too late - and in any case had been delayed by the weather. The only use these tactics of sending light forces across the desert served was to scare the enemy out of Benghazi. Rear parties of 90th Light Division evacuated Benghazi early on the morning of 19 November, after having destroyed the port installations and supply dumps.

Cabinet Office
Papers. Hist.
(B) (Crusader) 5.
CS/1711/28.

Official German
Narrative.

A review of the comparative tank strengths given by the Commander-in-Chief, Middle East Forces to the C.I.G.S. 'as known at 25 November' was 418 tanks with a further total of 144 reserves in the forward area, while the serviceable armoured cars in the forward area totalled 300. According to an enemy tank strength for 23 November, there were 35 German tanks and no Italian tanks. The Germans had four armoured cars left and the Italians ten.

Clearance of Mines from Captured Landing-Grounds Given High Priority by Eighth Army

Main Eighth Army
War Diary.

When Rommel, his armour immobilised, sent an urgent request to Kesselring for aircraft to attack the armoured cars of the 7th Armoured Division, then operating in the Msus area, he unwittingly did the W.D.A.F. a good service. Although - again for lack of petrol - the enemy aircraft were grounded after two raids and the damage inflicted on the 11th Hussars was inconsiderable, the attacks gave rise to a quickened interest in the R.A.F. in Eighth Army circles. Information on the condition of landing-grounds in the forward area suddenly assumed remarkable prominence in the exchange of signals between X Corps and Main Eighth Army H.Q. Urgent requests were made for A.A. ammunition and a load of 50,000 rounds of 40 mm Bofors ammunition was rushed to Msus by transport aircraft of No.216 Group.

The importance of denying the W.D.A.F. fresh bases to which they could advance to harry the retreating Panzer Army and also give cover to the Eighth Army's forward columns had quickly been realised by the enemy. Mining of landing-grounds which had been hurried and perfunctory during the earliest and most disorganised phase of the retreat had soon become methodical and widespread, while particular attention was paid to the laying of booby-traps.(1) Derna was the first airfield where large-scale mining was carried out. Here photographs taken from a low altitude just before the landing-ground was evacuated enabled the individual mines to be clearly located. The Martubas were only lightly mined and were soon in use by the R.A.F. In the Benghazi area, however, both Benina and Barce were heavily mined and the buildings on Berka No.1 were riddled with booby-traps. The landing-ground at Magrun was blocked by wrecked aircraft.

(1) 'Throughout our retreat, we called on all our resources of imagination to provide the enemy with ever more novel booby traps and thus to induce the maximum possible caution in his advance guard. Our Engineer Commander, General Buelowius, one of the best engineers in the German Army, did a splendid job.' 'The Rommel Papers.'

Main Eighth Army
War Diary.

The Eighth Army engineers were given a priority for the removal of these mines from landing-grounds second only to that of the main routes along which the pursuing Eighth Army would proceed. Thus, although on 24 November the Chief Engineer Eighth Army reported that the 'L.G. at Benina still mined, Berka Satellite wet and still mined, Magrun blocked by wrecked aircraft and Berka Main mined,' by 28 November, XXX Corps were able to report that mines had been cleared from all these landing-grounds, with the exception of the verges at Berka Satellite.

The mining and ploughing of airfields was to assume increasing importance as the advance of the Eighth Army proceeded and at times the whole pursuit was held up because of the damage wrought by the enemy on vacated airfields. The first case of ploughing by the enemy did not take place until mid-December when Ghindels landing-ground was ploughed. A combination of ploughing and mining was found most effective and in some cases airfields treated in this way were never used again.

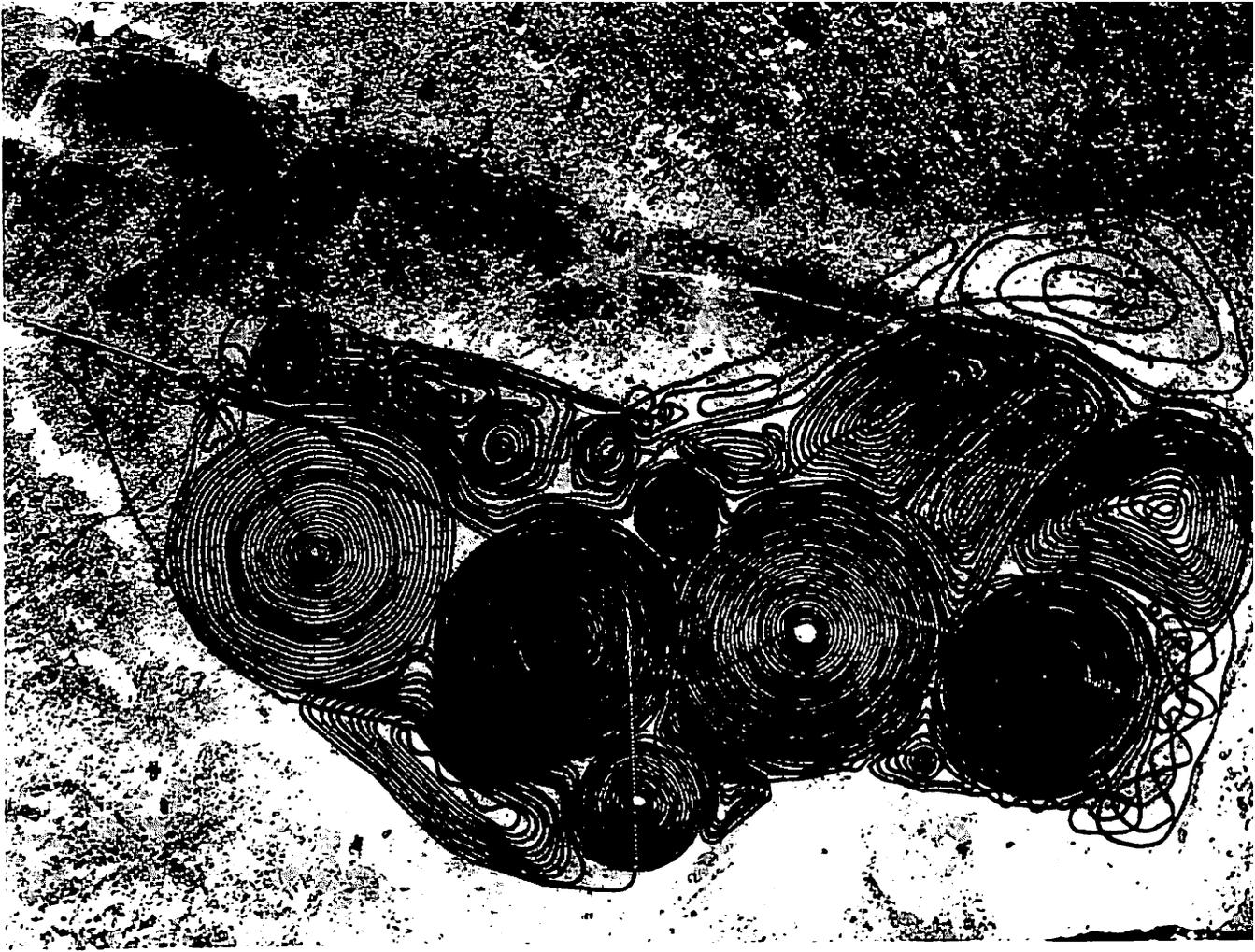
Heavy and Effective Liberator Attacks on Tripoli - 21, 24, 26, 28 and 29 November

Middle East Air
Staff O.R.B.
Oct. to Dec.
1942. A.H.B./
IIM/A13/2A.

Strategic bombing of the enemy's ports of supply for the Panzer Army was intermittent during this period. Up to the time Tobruk fell, the efforts of No.205 Group's Wellington force had been wholly concentrated on direct support of the Eighth Army by night-bombing of the retreating enemy. Before being stood down for maintenance, after a period of most gruelling and rewarding operations, and to complete the move to new locations at Daba, the Wellingtons of No.205 Group (Nos. 37, 70, 104, 108 and 148 Squadrons), together with Liberators of No.160 Squadron, attacked port facilities at Benghazi on the night 13/14 November. Bombs burst on the harbour moles. Two of the Wellingtons were lost on this operation. Another attack on Benghazi was carried out the following night by Liberators of No.160 Squadron when eight fires were started, including a particularly violent one at the base of Cathedral Mole. The final attack on Benghazi was made by six Fortress aircraft of the U.S.A.A.F. on the night of 18/19 November, when the enemy were evacuating the port. The raid was directed primarily at destroyers in the harbour. Already the enemy's preparations for departure were well-advanced and when the aircraft arrived they saw many fires burning. The Fortresses which dropped nearly 50 x 500 lb. bombs added considerably to the conflagration and must have made the night one of horror for the retreating enemy forces.

With the capture by Eighth Army forces of the port of Benghazi, on the morning of 20 November, the Panzer Army had lost in 16 days three out of four of their main ports of supply - Matruh, Tobruk and Benghazi. There now only remained Tripoli which, as has already been seen, involved trucks in a road haul of some 1000 miles from their bases in Cyrenaica to the port and back again. The air transport link to North Africa from Crete, which had played such an important part in supplying the Panzer Army with petrol, both during the battle of El Alamein and during the first phase of the retreat, had been cut.(1) The severe losses

(1) 'Although 5,000 tons of petrol had arrived in Africa for the Panzer Army during November, no less than 8,100 tons had been sunk by the British on the way. The scale of these sinkings and the quantity of petrol lost by them is made even more clear when it is realised that the greater part of the 5,000 tons which did arrive was flown by the Luftwaffe.' 'The Rommel Paperst.'



The ploughed-up landing-ground at Ghindels



Benghazi waterfront

of Ju.52's, just prior to the fall of Benghazi, had shown that, with the W.D.A.F. occupying the strategically important air bases on the Cyrenaican 'hump', a service of slow and vulnerable transport aircraft was impossible. In addition, the Ju.52's had now reached the extreme limits of their range. With Tripoli as the Panzer Army's only remaining port of supply - Tunis had not yet come into the picture - it was obvious that heavy bombing of that port would make even the enemy occupation of their new defensive positions at Marsa Brega untenable.

No.205 Group
O.R.B.

H.Q. 205 Group, together with its much-depleted force of Wellingtons, had moved to the Daba area on 18 November. The distances, however, were still too great for the medium bombers to join in the strategic war against the enemy, while the supply position - as much a governing factor to the Eighth Army as the Panzer Army - forbade any further shift towards the west for the time being. Such Wellingtons as has been moved to Malta were preoccupied with Bizerta, Tunis and other comparable targets in French North-West Africa. The main burden of the air attacks against Tripoli now fell on the Liberators, which had moved their bases from Palestine to Egypt, helped on occasion by the small number of Fortress aircraft available. The weight and scale of these attacks must have come as a great shock to the enemy who must have felt - quite reasonably - that a round trip of some 2000 miles, (comparable with bombing attacks on Tunis from air bases in the United Kingdom) was out of the question.

H.Q. M.E. Table
of Operations and
M.E. Weekly Int.
Sum. No.8.

Using Gambut as a staging post, 14 Liberators of U.S.A.A.F. 9th Bomber Command carried out their first raid on Tripoli on the afternoon of 21 November, while a further 8 Liberators of No.160 Squadron repeated the attack during the night 21/22 November. Photographic reconnaissance revealed that this heavy weight of attack - in the first raid alone 6 x 2000 lb. and 60 x 1000 lb. bombs were dropped - very extensive damage was caused, particularly to warehouses and installations on the Spanish Mole. In addition, enemy reports state that the M.V. D'Annunzio was sunk and damage was caused to other shipping in the harbour.

A.H.B.6.

By the end of November, a further 5 raids involving 47 Liberator sorties (13 of them R.A.F.) had been launched against Tripoli. By far the heaviest raid was carried out at midday on 29 November, when a formation of 16 American Liberators attacked the port, while towards dusk they were followed by another wave of 8 Liberators. In the course of these two extremely destructive raids, in which 120 x 1000 lb. bombs were dropped, the enemy admitted that five ships were hit and wharf installations were severely damaged. Two important merchant ships, the Sirio of 5,222 tons and the Giulio of 5921 tons sustained such severe damage that they were later classified as complete losses. Apart from the actual damage to shipping and the port's installations, a particularly serious result of the raids - as had happened previously with the Wellington attacks against Tobruk - was that fear of raids among the dock workers reduced the capacity of the port very considerably and Rommel was soon protesting most vigorously against the effect on his supplies.

List of Italian
Merchant Shipping
Sunk based on
P1/4203 and
Official German
Narrative.

Hitler's Permission Given to Rommel for Evacuation of the
Marsa Brega Position and Retreat to Buerat - 29 November

After the fall of Benghazi on 20 November, the enemy's next defended position was at Agedabia which in itself was of considerable importance as it controlled the approaches

to the Marsa Brega-El Agheila system of defences. With the advance of 22nd Armoured Brigade across the desert, however, Agedabia was threatened with being outflanked and the enemy accordingly withdrew to Marsa Brega. Troops of the 22nd Armoured Brigade entered Agedabia a little before dawn on 23 November. The road leading southwards was heavily mined, slowing up the advance very considerably, but by 25 November Eighth Army patrols were in contact with the Marsa Brega-El Agheila line of defences. Thus, within 20 days of the beginning of the pursuit, the enemy had been expelled from Egypt and Cyrenaica. On 26 November XXX Corps took over command of the forward battle area from X Corps, leaving X Corps in Cyrenaica.

At Marsa Brega, Rommel, by connecting well-placed defended localities with extensive minefields, had developed to the utmost what was naturally an extremely strong defensive position. To the north lay the Gulf of Sirte while to the south stretched a wide area of salt-marsh. Only by a lengthy detour over country which had some of the worst going encountered in the desert could the position be outflanked. An additional strength was the remoteness of the position. With Benghazi but recently captured and not yet open to shipping, Tobruk, at a distance of 300 miles, was the Eighth Army's nearest supply port. El Agheila had twice marked the high-water mark of a British advance to the west mainly due to the area's difficult communications.

However, if the Eighth Army's administrative situation was difficult, the enemy's plight was desperate. Their only remaining port, at Tripoli, lay 500 miles to the west and there was inadequate transport - to say nothing of petrol - for such a long road haul. The air lift from Crete had been cut and, owing to the shortage of aviation spirit, transport aircraft could only ply between Tripoli and the front at the expense of operational aircraft. After the success of Operation 'Stoneage', the renewed offensive against the enemy shipping by Malta-based aircraft, coupled with submarine attacks by the Royal Navy and the devastating raids on the port by Liberators, had reduced the flow of petrol and ammunition to the Panzer Army to a bare fifth of requirements. Operation 'Torch' had aggravated matters still further by diverting urgently-needed reinforcements and supplies for the Panzer Army to the defence of Tunisia which, in the eyes of the Fuehrer, was now of paramount importance.

Left with a supply line of 500 miles from Tripoli and inadequate M.T., Rommel was informed by the German Q.M.G. that part of the supplies for the Panzer Army would now have to be transported via Tunis, lengthening the enemy's supply line to the fantastic length of over 1000 miles from the port of disembarkation to the front line. By the third week in November, the supplies brought forward by convoy amounted to no more than 80 tons a day, or about one fifth of the tonnage necessary to supply and replenish the troops.

The replenishment of Malta, mentioned above, had begun a new cycle of heavy enemy shipping losses. Between 17 and 29 November, air attack accounted for 40,000 tons of enemy shipping, 29,000 tons at sea, on the supply route to North Africa, and a further 11,000 tons destroyed in Tripoli harbour. These figures take no account of shipping damaged by air attack and which amounted to a very considerable tonnage. Following the loss from F.A.A. attack, of the 10,534 ton tanker Giordano with her invaluable cargo of 3,900 tons of

C.-in-C.'s
Despatch.

Middle East
Operations 1942
C.A.S. Paper
No.848.

Official German
Narrative.

Lloyds List of
Enemy Shipping
Losses, List
of Italian
Merchant Shipping
Sunk and Opsums.

petrol on 17 November, came the loss on 23 November of the 3576 ton Favorita, sunk by a Wellington of No.69 Squadron off Cape Carbonaro. The next day the 4283 ton Luigi was sunk by torpedo bomber, probably as a result of attacks on ships in the same convoy as the Favorita. On 25 November, the 1371 ton Algerino carrying an important cargo of 600 tons of ammunition and 200 tons of fuel from Tripoli to Buerat was sunk by a Malta-based Beaufighter of No.227 Squadron with a direct hit on her port bow with a 500 lb. bomb when only 15 miles from Misurata and well within range of enemy shore-based fighters. The Citta di Napoli of 5418 tons was sunk on 28 November near Cape San Vito and is given in the enemy list as having been sunk by aircraft. The next day, two ships already mentioned, the Giulia of 5418 tons and the Sirio of 5222 tons were reduced to total losses, by heavy-bomber attacks on Tripoli harbour. A small ship, the Lago Tona of 800 tons, is also listed as having been sunk by air action on 20 November.

Official German
War Narrative and
Panzer Army
Strength Returns.

The supply crisis did not end Rommel's troubles. After retreating one thousand miles, the remnants of the Panzer Army equipment left over from the disaster at El Alamein had been reduced still further by sheer wear and tear, in addition to battle losses. A battle strength for the Afrika Korps for 23 November shows that out of an establishment of 371 tanks they had only 35 left, 16 armoured cars out of an establishment of 60, and 12 anti-tank guns out of establishment of 229. The 90th Light, with an establishment of 71 tanks, had none; there were 4 armoured cars out of an establishment of 30 and 31 anti-tank guns remained from an establishment of 229. By the end of November, both the supply position and the general weakness of the Panzer Army had become so desperate that Rommel left by air for the Fuehrer's H.Q. 'to supplement his reports of 17 and 23 November to the Fuehrer on the situation in the Marsa Brega position and the condition of the German troops.'

Rommel certainly worked quickly. Having left North Africa at 03.00 hours on 29 November by 13.30 hours the same day he was sending orders by wireless from the Fuehrer's Headquarters - orders which have an unmistakable Hitlerian flavour about them.

'All men of the three arms of the service in Africa who could carry arms and all weapons to be put into the front line to defend the Marsa Brega positions. For this purpose the majority of the rear-line troops were to be relieved of their duties and the men and vehicles thus freed were to be sent to the front. Exceptions were the units unloading ships at Tripoli and the troops held for the defence of the town. Moreover, all available mines were to be laid at the front and all ammunition and petrol to be brought forward.... The QMG to bring all reserve fuel forward as quickly as possible to be used in 'offensive defence'.

Lloyd's List of
Enemy Shipping
Sunk in the Med.

Rommel was back at his own H.Q. to resume command of the German-Italian Panzer Army by 07.00 hours on 2 December, only to receive the dispiriting news that apart from the fact that no petrol had been flown across, the tanker Gualdi of 3289 tons, scheduled to arrive at Tripoli, had been sunk that night by the Royal Navy off Palermo. Rommel brought with him yet fresh instructions from Hitler - the Duce was also present at the four-day conference - which, surprisingly enough, gave permission for withdrawal to the Buerat position,

in Tripolitania some 200 miles along the coast, thus almost halving the distance from the supply base at Tripoli.

'The most important outcome of the four-day conference was a new set of instructions for the conduct of future operations. These gave the Panzer Army a free hand to withdraw the infantry immediately to the Buerat positions and to carry out a fighting withdrawal with the mobile forces to the Buerat positions in face of a superior enemy attack. The Fuehrer and the Duce had agreed that these positions, in conjunction with the operations in Tunisia, must be held under all circumstances with all available means.'

The moves were expected to begin on the night of 3/4 December. It soon became apparent, however, that the Eighth Army Commander had decided to halt operations in order to reorganise and build up his supply system, and that an attack was not to be expected in the immediate future. This cautious policy on the part of the Eighth Army Commander gave Rommel a much-needed respite for improving the defences at Buerat and was also providential, as there was no petrol available, in any case, to complete the move. Not merely was it impossible to put what remained of the German armoured and motorised forces to any offensive use, but the supplying of the troops with the ordinary necessities of life had become extremely difficult. In addition, the Luftwaffe had been forced to ground almost all their operational aircraft, apart from those used for reconnaissance, owing to the shortage of aviation spirit.

The Eighth Army Commander's Decision to Halt at Marsa Brega and Prepare for a Major Offensive in Mid-December

The action fought at Marsa Brega was militarily an anti-climax and, as such, is of limited interest. It does demonstrate, however, to what extent a move forward of the Eighth Army had become conditional on direct air support from the W.D.A.F. The El Agheila defensive position, which was virtually a bottleneck like El Alamein, was the gateway to Cyrenaica and General Montgomery wanted the Eighth Army to control it in order to ensure that the Axis forces would not hold this vital position for a third time. He wondered if, by bluff and manoeuvre on the open flank he could scare the enemy out of this position. This would have suited the G.O.C. Eighth Army as he could have taken possession of the bottleneck and so fight the enemy in the easier country to the west. However, this feint was never tried. After touring the forward area at the end of November, (at a time when Hitler, Rommel and the Duce were holding their conference and deciding that the Marsa Brega positions must be evacuated), the G.O.C. Eighth Army decided that bluff would not move the enemy and that he would go all out to annihilate them in their defences.

This important decision, which gave Rommel such a valuable respite, was influenced by a miscalculation based on an over-estimate of the enemy's strength. It was considered, for instance, that the Germans alone disposed of up to 100 tanks and considerable numbers of anti-tank guns, whereas there were no more than 35 tanks, all immobilised for lack of fuel, anti-tank guns were down to 10 per cent of establishment (80 out of 839) and ammunition was extremely short. Furthermore, it was estimated that 'Tripoli was receiving heavy traffic' whereas we now know that the efforts of Malta-based aircraft, the Navy and the Liberators between

Alexander's
Despatch, 'El
Alamein to the
Sangro' and
Official German
Narrative.

them had practically closed the port. Even when reports were received early in December that Rommel was moving out the Italians (preparatory to a general evacuation of the position, as agreed with Hitler and the Duce), the fact that the Germans themselves showed no sign of moving out decided General Montgomery that 'bluff would not remove him (Rommel) and he planned to get behind his German force and capture them.'

Even if General Montgomery had managed to bluff the enemy out of the Marsa Brega positions, it is doubtful whether, at this stage in the pursuit, he could have exploited the opportunity. The fact was that in the course of a rapid advance in which a thousand miles had been covered in less than three weeks, the Eighth Army had overrun their own lines of communication and it was necessary to halt the pursuit, at least until Benghazi was operating again. Throughout their retreat, the enemy had performed the task of demolition and mining very thoroughly. The water supply, road and rail communications and port installations had suffered very considerable damage. This had been augmented in the case of the ports, railroad and road by heavy battle damage. The adverse weather, accompanied by widespread flooding, had also done its part to hinder the development of the supply services. Although Benghazi was open to shipping within four days of its capture and was working at a much higher capacity than the most optimistic estimates, the build-up for the scale of attack which the G.O.C. considered necessary to carry the Marsa Brega positions meant a much longer delay and General Montgomery calculated that it would not be until mid-December that the Eighth Army would be in a position to launch an offensive.

The A.O.C.-in-C.'s Criticism of the G.O.C. Eighth Army for Not Giving the W.D.A.F. Sufficiently High Priority for Maintenance

Another factor influencing the delay before the Marsa Brega-El Agheila positions was the Army's unwillingness to advance further without a high level of air support. The air attacks on forward Eighth Army units in the Msus area had shown that isolated formations in the desert were particularly vulnerable to air attack. The enemy air forces, although badly shaken, were still a force to be reckoned with and one which could conceivably receive strong reinforcements. It consisted of about 120 fighters at Marble Arch, 28 Stukas at Nofilia and a few Hs.129 (ground attack) at Merduma. The fact that operations by these aircraft were being severely limited for lack of aviation spirit was probably not known. On the other hand, the arrival of petrol could have changed this situation overnight, giving the enemy air forces a high degree of local air superiority over any Eighth Army units which might have ventured beyond the limits of range of their supporting air force.

Report on
Operations in
the Western
Desert

By the time advanced Eighth Army units were operating in the Msus area, the W.D.A.F.'s supply situation which was largely dependent on the Eighth Army's 'Q' Service, was such that they were quite unable to give anything like the measure of air support to these advanced mobile columns which the military situation warranted. The Air Officer Commanding-in-Chief was gravely concerned that a considerable force of aircraft, comprising the whole of his Command's medium and light-bomber strength, was lying idle in Egypt, when their employment against the enemy might have altered

the whole course of military operations in the Western Desert. The reason was that in the early days of the pursuit, and virtually until advanced units of X Corps had been bombed at Msus, air force supplies had not received anything like the requisite degree of priority from the Army.

'You have, I know,' the A.O.C.-in-C. signalled to the A.O.C.W.D. on 23 November, 'been pressing for many days for arrangements to be made whereby our Wellingtons and lightbombers can operate from Cyrenaica. The same applies as regard Albacores which have been withdrawn to base in view of impossibility of operating them from advanced aerodromes. I know Army Commander appreciates importance of securing forward landing grounds, but this is useless unless appropriate priority is given to the maintenance of squadrons which could use these landing grounds. A balance must be drawn between land forces and air forces. If your forces are to be properly employed and able to hit where it hurts, they must operate from and be maintained at forward landing grounds. Obviously there is a price to be paid in terms of corresponding reduction of maintenance commitment of land forces. For many days now the bulk of our air striking force has been unemployed and I see no immediate prospect of employing them effectively. Surely the air has paid good enough dividends recently for Army Commander to realise necessity of paying the necessary price. G.H.Q. are throwing in their last tiny M.T. reserve to try and help, but the remedy lies with Eighth Army. You may show this signal to Army Commander.'

On the following day, the A.O.C.-in-C. sent a signal to the C.A.S. This referred to a signal from General Alexander to the P.M. and C.I.G.S. dated 21 November outlining the Eighth Army's future policy and in which mention had been made of air force policy.

'I have just seen CS/1706 of 21 November to P.M. and C.I.G.S. which unfortunately was sent without prior consultation with me or my staff. Had I been consulted, I would have been unable to agree with the references to heavy air action at Agedabia, to neutralisation of Tripoli or to the difficulties of getting R.A.F. requirements forward. At present none of the light bomber force or medium bomber force are forward, despite repeated requests on the part of Coningham for requisite priority of maintenance. Eighth Army Commander has so far given priority to very large land forces (ration strength at and west of Tobruk was 100,000 men some days ago). G.H.Q. are trying to help but it will be days before this striking force can get forward. Neither can I agree that, with the forces available operating at such great range as Tripoli that we would even begin to neutralise that port, and consequently to rely on such action for solving the Army's problems at Agheila is wishful thinking.'

Five days later, by 29 November, the situation had still shown no sign of improvement and the A.O.C.-in-C. sent an even stronger-worded signal, this time to the A.O.C., W.D.A.F. It was prompted by various messages from Air Vice-Marshal Coningham in which urgent representations had been made for an airlift of petrol by American Dakotas and in which Air Vice-Marshal Coningham had stated - prophetically, as it so happened - 'my main fear is that the enemy will leave

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Agheila before we attack and that we will be unable to follow him up or to give the Army assistance while they are doing so.... The present position is that the fighters are barely within 100 miles of the enemy main lines.'

'Once again,' Air Marshal Tedder replied on 29 November, 'this is entirely a matter of priorities. The provision of adequate supplies for an adequate force to meet the eventualities envisaged is an Army responsibility. In my opinion we have already lost opportunities of weakening the enemy owing to the balance between land and air forces in Cyrenaica not being properly maintained. It is incomprehensible to me that, after their experience of what the air can effect, the Army are satisfied with a situation in which only a proportion of the available fighters and practically none of the available bombers can operate in the forward area. I agree with you that unless some drastic steps are taken to remedy this situation the enemy will be able, should he wish, to make rapid retirement practically unhampered and any of our land forces that may be able to pursue will do so virtually without air support. I feel that the Army Commander who has so frequently emphasised the value and importance of air action will take the necessary steps to ensure that adequate supplies are made available to enable air forces to operate ahead of and in support of our advanced land forces. Should he, however, consider it impossible to remedy the situation, I wish you to make the resulting situation unmistakably clear to him. In this event, which I trust will not arise, let me know at once and I will take up the matter with C.-in-C. M.E.F.'

Preparations for the Action at Marsa Brega

Having decided that bluff would not move the enemy from their prepared positions at Marsa Brega, the Army Commander planned to get behind the German forces and capture them. This involved the Eighth Army in another wide outflanking movement to the south, to be carried out this time by the 2nd New Zealand Division which, it was planned, would cut the road well to the west of El Agheila. In the north, 51st Division would attack both along the road and south of the Sebcha es Seghira. The 7th Armoured Division was to follow up the latter blow. Heavy air attack was to start two days earlier than the main army attack which was timed for 14 December.

From the air point of view, the action at Marsa Brega was planned as an integral part of Operation 'Guillotine', the plan for the occupation of Tripolitania, for as has already been mentioned the A.O.C., W.D.A.F. considered it most likely that the enemy would withdraw before a full-scale attack could be launched. However, deployment of the air force continued as if in preparation for a major battle. The Air Plan envisaged the employment of three Fighter Wings (Nos. 239, 244 Wings and No. 57 Fighter Group U.S.A.A.F.) operationally controlled by No. 211 Group and two light-bomber Wings (No. 3 S.A.A.F. Wing and 12th Light Bombardment Group) in the forward area, supported by the night-flying Hurricane Squadron (No. 73) operating from Magrun. In addition, it was hoped that a medium-bomber effort of up to 100 sorties per night would be provided by No.205 Group and No.201 Group, the former operating from Baheira, but using Benina as an advanced base. In reserve were to be No.233 Wing (shortly to become 7 S.A.A.F. Wing), while No.243 Wing, with two Hurricane Squadrons was to be held available for the

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protection of lines of communication once the advance had progressed sufficiently to justify their employment.

In the meantime, in order to ensure the protection of those forward armoured columns in the Agedabia area, No.244 Wing (Spitfires) was moved to Msus, on 23 November. Another vital requirement was the provision of air cover for shipping plying to and fro from the port of Benghazi. On 25 November, a Hurricane Squadron was moved into the Martuba area, the port of Benghazi being covered by the Spitfires operating from Msus until Benina became serviceable. The speed with which our air forces could be deployed in accordance with the plan was governed as much by the landing-ground situation as by the difficulties of supply. The provision of adequate landing-ground space for the air force was a problem of some magnitude. It was no longer possible to find large areas suitable for the construction of landing-grounds, as required, in a matter of hours. The Agedabia-Antelat area, apart from the extensive mining carried out by the enemy, was dusty and liable to become boggy in wet weather, while to the west of Marble Arch the landing grounds were widely spaced along the coast and known to be poor.

The deployment of at least one fighter Wing well forward was a matter of urgency. The Spitfire Wing operating from Msus (No.244 Wing) were able to provide some protection for forward troops but the enemy had 120 fighters at Marble Arch and, together with the lack of warning system and of forward landing-grounds, was able to make fairly harassing attacks in the battle area. However, the R.E. landing-ground construction parties, which had moved forward with the spearhead of the Eighth Army advance, worked at high pressure and, with the help of infantry, managed to clear the landing-grounds at Agedabia and Antelat by 1 December. Good progress was then made with the landing-grounds at Haseiat and Belandah which were in operational use by 3 and 6 December respectively.

It had been decided that No.233 Wing, which was to go into reserve during the battle, should as far as possible bear the brunt of operations during the period of reorganisation, in order to allow the other fighter Wings an opportunity to collect themselves after the long advance. No.233 Wing was accordingly moved forward to Antelat on 1 December and to Belandah No.1 on the 4th. No.244 Wing and 57th Fighter Group U.S.A.A.F. moved into El Haseiat and Belandah No.2 on 7 December. On 8 December No.239 Wing moved into Belandah No.1 and relieved No.233 Wing which was withdrawn to the Martuba area. On the same date, two squadrons of No.244 Wing were detached to a small forward landing-ground which had by then been prepared at Nogra, in order to decrease their distance from the forward troops. On 12 December, No.244 Wing and the remaining two Squadrons moved into Agedabia, the landing-ground at El Haseiat having been found too soft, and, with No.73 Squadron of night-flying Hurricanes installed at Magrun, the fighter force was fully deployed for intensive operations.

The light bombers of No.3 S.A.A.F. Wing and 12th Light Bombardment Group were at Solluch and Magrun respectively. No.285 Reconnaissance Wing was at Agedabia, while a Flight of No.40 Tac/R Squadron was at Nogra.

Airlift of 130,000 Gallons of Petrol to Advanced L.G.s in Cyrenaica by Dakotas of No.316 Group U.S.A.A.F. December 1942

It has been seen how the air forces had outrun the Army maintenance organisation. It was soon obvious that the deployment of the W.D.A.F. would inevitably be delayed were entire reliance to be placed on the standard supply situation. This was a matter of considerable concern to the A.O.C.-in-C. because, in his opinion, it was 'strategically and tactically of vital importance that the general offensive with strong land and air forces should be resumed at the earliest possible moment.' From the air point of view, the gravest handicap was the lack of petrol. On 28 November, the A.O.C., W.D.A.F. wrote to the A.O.C.-in-C. stating that his main fear was that the enemy might leave before the attack and that the W.D.A.F. would be unable to follow up or help the Army while they were doing so.

'They (the forward Squadrons) cannot possibly be given enough fuel by ordinary transport means before the date of the attack, and certainly not should any retreat occur meanwhile. The only way to ensure sufficient fuel for the force is to fly it in. For that reason I have asked that the whole DC3 resources... shall for a period of 6 or 8 days fly nothing but bulk petrol to the Magrun area.... I am sure you understand that the priority of fighter supply is unquestionable.... The Army cannot advance without fighters and the fighters cannot move without petrol.'

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In a further signal on 30 November, Air Vice-Marshal Coningham enumerated a number of the reasons for 'limitations affecting the present situation:-

- '(1) Landing Grounds in the forward area not yet ready or serviceable....
- (2) Physical limitation of traffic on roads when allowance made for Army formations required for battle. Severe mining of edge of road great handicap. Important bridges and sections have been blown, allowing for only slow by-passes which are subject to weather restrictions.
- (3) Shipping losses. Three special ones being wastage in canned petrol in Empire Patrol in Tobruk, burning of a petrol ship in Tobruk from unknown causes, and the burning of a petrol ship in Port Said.
- (4) Railway has had derailments and only two trains running daily when 4 expected. In addition to these limiting factors date of battle has been advanced 10 days. Suggest therefore that, in spite of any priorities or speeding up Army may effect, still physically impossible for both ground and air forces to be ready in time unless all resources for supply used. Quite apart from possible need for pursuit, should enemy retire to Buerat line earlier, in addition it is quite clear that the heavily-mined single road beyond Agheila will prevent speedy pursuit unless Fighter Force can, in first few days, be largely moved and maintained by air from the resources in the Benghazi area....'

The petrol supply situation for both the Eighth Army and the W.D.A.F., which was causing considerable concern, had

been considerably aggravated by a problem of carriage which was in itself very simple and yet one which threatened the progress of air and ground operations alike. The non-returnable standard commercial light tin, known as a 'flimsy', was in almost universal use throughout the Middle East at this time. As its name suggests, the 'flimsy' was not sufficiently robust to withstand the many and severe handlings received in transit over long and broken tracks. Owing to the acute shortage of other types of container, it was necessary to use these containers in large numbers. The loss of petrol through leakage from 'flimsies' was extremely high, it being estimated that for every three loads of tinned petrol received in the forward area by army and R.A.F. one had been wholly lost through wastage of this kind. The carriage of high-octane fuel in 'flimsies' could not be accepted, and so the entire production of 40-gallon drums, made of steel plate, was taken over by the R.A.F. Unfortunately, the construction of the Lockheed Hudson, No. 216 Group's main transport aircraft, was only suitable for the transport of tinned fuel. The American D.C.3, on the other hand, was of such construction that it could carry 16 x 40/44 gallon drums of petrol on every sortie. It was most fortunate that, at this period of crisis in the supply situation, the Commanding General of the U.S.A.A.F. in the Middle East, Major General L.H. Brereton agreed to the employment of the 316th Troop Carrier Group, equipped with 39 D.C.3's for an airlift of petrol to forward landing-grounds. The timely arrival of these Dakotas, with their ability to carry nearly 800 gallons of petrol per sortie, altered the whole supply situation for the W.D.A.F. Operating from El Adem from 1 December, with the help of R.A.F. maintenance, the 316th Troop Carrier Group transported 24,000 gallons of petrol to Benina, 36,000 to Magrun and 72,000 to Agedabia.

Air Operations Prior to the Attack on Marsa Brega (23 November to 12 December 1942)

The policy governing W.D.A.F. air operations prior to the assault on the Marsa Brega positions was designed primarily to provide cover for the Eighth Army's advanced columns and then to force the enemy on to the defensive and, if possible, out of their air base at Marble Arch. By 25 November, there was an estimated total of 130 enemy aircraft on Marble Arch (actually there were 138 fighters and dive-bombers on forward landing grounds of which 85 were serviceable) and the Eighth Army's forward troops were being worried by enemy fighter-bomber and Stuka attacks. At this time the W.D.A.F. fighters were too far back to be able to counter this effectively. It was possible, however, for medium bombers to reach Marble Arch, with a reduced load, from Baheira in the Tobruk area and the enemy landing-grounds at Marble Arch were attacked on the night of 25/26 and again on the night 27/28 November by a total of 40 Wellingtons of Nos. 37, 70, 108 and 148 Squadrons which staged at El Adem. In spite of rain and bad visibility en route, all aircraft reached and bombed their objective, starting a number of violent fires. These attacks appear to have had the desired effect, as there was a temporary lull in the attacks on our forward troops. The enemy then switched their attacks and employed their Crete-based Ju.88's for raids on the Eighth Army's rearward lines of communication.

At dusk on 2 December, a force of between 12 and 15 Ju.88's from Crete raided Tobruk harbour. A jetty there was hit, a high-speed launch damaged and seven men were

Notes on the Maintenance of the Eighth Army and the Supporting R.A.F. by Land, Sea, and Air from El Alamein to Tunisia. Cabinet Office Archives.

Record of Operations. A.H.B./ IJ1/122/68(A).

A.H.B.6 Records.

No.205 Group O.R.B.

killed and six wounded. Arrangements had already been made for 22 Wellingtons and 9 Halifaxes from Nos. 37, 70, 148 and 462 Squadrons to attack the enemy air base at Marble Arch. On receiving news of this raid on Tobruk harbour, however, the A.O.C. No. 205 Group switched the target to Heraklion, in Crete, the raiding enemy aircrafts' own base, where 45 tons of bombs were dropped causing a number of fires. This heavy scale of retaliation, which must have seemed to the enemy mystifyingly prompt, had the effect of cutting down the raids very considerably. On the following night 11 Wellingtons left to bomb Marble Arch, but owing to adverse weather conditions, none of the bombers was able to locate the target. Three jettisoned their bombs, one aircraft brought its load back and the remaining seven attacked enemy transport along the road. No. 236 Wing had to cancel operations as their landing-ground was unserviceable after heavy rain. Owing to the steady deterioration of weather conditions, these medium-bomber attacks had to be discontinued.

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By 4 December forward landing-grounds had become available and it was possible to provide the Eighth Army's forward troops with a reasonable degree of air protection. By 6 December, the deployment of units of No. 211 Fighter Group had reached a stage when fighter bombers were within range of the enemy air base at Marble Arch. They were also able to carry out raids on the enemy's forward positions at Marsa Brega where, on 6 and 7 December, fighters and fighter bombers carried out a total of 62 attacks. In the course of engagements on 8 December, seven Me. 109's were claimed as destroyed, and although these claims are not substantiated by enemy records, it is clear that by this date the enemy air forces had again been dominated, for on 9 November there was no enemy air opposition and enemy air activity was confined to a single air reconnaissance of the forward area. By 10 December, the results of bringing the W.D.A.F. fighters forward were fully apparent, as the enemy had withdrawn practically all his aircraft from Marble Arch to Nofilia, and sent others as far back as Tauorga and Churgia. At this stage, fighters of the W.D.A.F. switched their attacks to Nofilia and the enemy began to mine the landing-grounds at Merduma, Marble Arch and Nofilia.

No. 252 Squadron
O.R.B.

On 6 December, Beaufighters of No. 252 Squadron, operating from Gambut, resumed their low-level attacks on enemy transport in the rear areas interrupted since the end of October when they had reverted to coastal duties and training. Eight aircraft operated mainly along the stretch of road between Sirte and El Agheila. Camps and personnel were machine-gunned, a petrol bowser and petrol store set on fire, five lorries left burning and some 25 damaged. However, the most outstanding opportunities for the use of Beaufighters which had occurred during the early days of the retreat had been missed. Now the enemy were not easily surprised and two of the raiding aircraft were shot down by light A.A. gunfire with the loss of their crews, which included No. 252 Squadron's Commanding Officer, Wing Commander P. H. Bragg.

The Action at Marsa Brega (13 December)

The G.O.C. Eighth Army had planned to launch the attack on the enemy position at Marsa Brega on 16 December, but with the withdrawal of the Luftwaffe to fresh bases far to the rear and the move of the non-motorised Italians, it was obvious that the enemy had no serious intention of holding

the position. The date of the attack was accordingly advanced as much as possible. On 12 December the New Zealanders started off from El Haseiat on their long out-flanking march and the 51st Division launched large-scale raids on the 11 December, in order to distract attention from the move.(1) The enemy judged these attacks to be the beginning of the Eighth Army's offensive, coupled with the increased activity of the R.A.F. This opinion was reinforced by a B.B.C. news announcement, at 17.00 hours on 12 December which stated that the Marsa Brega positions were held by comparatively weak enemy forces.

In accordance with the Duce's instructions not to accept a decisive engagement at Marsa Brega, but to defend the Buerat positions, the Panzer Army prepared for the withdrawal of the motorised formations which now formed the entire garrison at Marsa Brega. The order for withdrawal to Buerat was issued, under cover of the codeword '333' at 17.40 hours on 12 December. An enemy appreciation of the situation stated that the following circumstances decided the exact time for the issuing of this order:

'(a) A stronger enemy attack was definitely expected on the 13th at the latest. Even though the positions could probably be held on that day (especially in the central Afrika Korps sector), yet it was fairly certain that most of the motorised formations would come to grips with the enemy at close range, and in this battle and the subsequent withdrawal we would suffer a further loss of fighting strength.

(b) The German troops' petrol situation would permit practically no mobile operations during battle of the type expected on 13 December; tank counter attacks were specially affected. The petrol now with the troops was just sufficient to carry out the first bound of the withdrawal as ordered - to the area between Agheila and el Mugtaa (west of Agheila).

(c) The danger of the formations in the general line Maaten Giofer-Bir es Suera-the coast SW of Marsa Brega being outflanked from the south was very imminent. The petrol position did not allow the necessary steps to be taken to combat this.'

The enemy evacuated Marsa el Brega during the night 12/13 December. According to an enemy report, the Eighth Army did not notice the withdrawal 'because he did not follow up immediately and in the morning was still shelling the abandoned positions heavily.'

Army patrols on the morning of 13 December reported the fact that the enemy had evacuated the positions and this

(1) 'The British Commander's planning had contained one mistake. Experience must have told him that there was a good chance that we would not accept battle at Marsa Brega. He should not, therefore, have started bombarding our strong-points and attacking our line until his outflanking force had completed its move and was in a position to advance on the coast road in timed co-ordination with the frontal attack.' 'The Rommel Papers'.

Official German
Narrative.

Official German
Narrative.

Opsums.

A.A.H.Q.W.D.
War Diary.

No.2 A.S.C. War
Diary.

fact was confirmed by fighters. Immediately a very heavy bombing programme was put into operation. Unfortunately the light bombers had been grounded temporarily by the wet weather which had made their landing-grounds at Solluch and Magrun unserviceable, so the maximum effort was switched to fighter bombing and a record total of 293 fighter-bomber sorties was carried out. The enemy withdrawal was very well organised and on the whole targets were not very good. All the fighter-bomber sorties were flown without escort, which reveals the extent to which the enemy air force had been dominated in the phase prior to the battle.

For the most part the results achieved by the bombing were considered disappointing for the amount of effort involved, and only 19 burning vehicles were counted, although many more must have been damaged. At a later enquiry instituted by the A.O.C., W.D.A.F. it was considered that the fighter bombers tended to attack from too great a height. This was perhaps understandable as the enemy had purposely strengthened both air and ground defences along the line of retreat. The volume of flak along the Via Balbia was reported to be very heavy indeed and targets were by no means rewarding.

Official German
Narrative.

'The enemy air activity was particularly strong,' says an enemy report on the air activity for 13 December. 'Forces of 8-25 bombers continuously attacked our rear-guard positions between Agheila and the Mugtaa narrows. Our own air force was used mainly to engage the enemy aircraft. Twelve enemy planes were shot down, 9 by our fighters and 3 by ground defences. Our fighter bombers raided enemy concentrations in the area S.W. of Agedabia. The troops were ordered, in view of the increased danger from the air, expected in the next few days, to site every available anti-aircraft weapon along the Via Balbia.'

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The actual losses sustained by the W.D.A.F. on 13 December amounted to two Kittyhawks and two Spitfires missing.

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Staff Appendices
to O.R.B.

The next day, 14 December, targets were again limited and although the light bombers were available - by this time their landing-grounds had dried sufficiently - no calls were made on them for lack of suitable targets. About one hundred fighter-bomber sorties were flown against M.T. and encampments on and near the main road to the west of El Agheila and in a protective rôle over forward Eighth Army units. Observation of the results of these raids was largely obscured by bad visibility and the day's most successful incident was when an ammunition dump blew up. There was slight opposition from the enemy air forces which engaged only three times during the day.

No.2 A.S.C. War
Diary.

The day's first news of the New Zealand Division came from a fighter report of windscreen flashes seen some 20 miles to the west of the Marada track. Bearing in mind the nature of the out-flanking movement the New Zealanders were carrying out which depended for its success on concealment this is perhaps to be understood. Nevertheless, the wireless silence imposed on the New Zealanders by their Commander, coupled with the fact that all their staff officers who had been carefully trained in air support matters had been replaced was to result, later, in the Royal Air Force missing a series of magnificent targets.

The Enemy Again Temporarily Immobilised for Lack of Petrol -
15 December

The enemy supply situation which had shown a temporary improvement with the flying of petrol to Tripoli and Misurata and the arrival of 1200 tons at Tunis, by sea, reached another period of acute crisis at a time when the Eighth Army were launching their major offensive. By the evening of 14 December, after all the petrol brought up had been used, the Afrika Korps had barely one consumption unit left. On the previous day three ships, the German tanker Macedonia of 2875 tons, the steamer Foscolo of 4500 tons and an unlisted vessel the Oriano had been sunk with a total of 3,500 tons of petrol on board. The Macedonia was sunk by submarine off Sousse after having been tracked and attacked by F.A.A. aircraft. The Foscolo was sunk by F.A.A. Albacores operating from Malta. Added to this was the dislocation of the Tunis-Gabes railway from raids by Allied aircraft based on Tunisia. The Panzer Army's ammunition state was also most serious. The divisional artillery had only .3 of its ammunition scale and no light or heavy field howitzer ammunition could be brought forward because of the petrol situation.

Lloyd's List of
Enemy Merchant
Shipping Sunk in
the Mediterranean.

'As our forces and the enemy's were disposed' says an enemy report for 14 December, 'the opportunity would have offered itself to counter-attack and destroy the outflanking enemy armoured division with our own armoured forces on 15 December, while at the same time defending the favourable positions in the El Mugtaa narrows. The Army's critical petrol situation, however, made its whole position appear extraordinarily grave.'

Official German
Narrative.

On 15 December, the enemy rearguards were holding the area Ras el Ali - Marble Arch whilst the withdrawal of other forces continued. The 8th Armoured Brigade was in contact with the enemy rearguard to the south, and troops of the 51st Highland Division reached El Agheila. The 5th and 6th New Zealand Brigades and the Royals, followed by the 4th Light Armoured Brigade, reached the area Merduma-Wadi Matratin, cutting off part of the Afrika Korps which could not withdraw to the next positions at Nofilia owing to shortage of petrol.

Cabinet Papers
Hist. (B)
(Crusader) 5.

Official German
Narrative.

'On 15 December,' says the German account, 'the enemy renewed his efforts to destroy the main body of the German motorised formations by frontal and flank-ing attacks. The petrol position made a counter attack impossible. Not until the evening, when the necessary petrol had been brought forward, was the Army able to withdraw to avoid the threat of encirclement. The head of the southern enemy force had already reached the Via Balbia west of our rearguards, and so it remained to be seen whether they could withdraw successfully during the night.'

The insistent pressure by the Eighth Army throughout 15 December caused an improvement in targets for the W.D.A.F., although at an estimated average of 50 vehicles to the mile they were never good. In the course of the day, enemy transport appeared on the road to the west of Marble Arch and in wadis to the south of the landing-grounds

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in such numbers as to constitute a moderate light-bomber target. (1) Baltimores of No.21 Squadron S.A.A.F.; Bostons of No.24 Squadron S.A.A.F. and B.25's of the U.S.A.A.F., escorted by Kittyhawks of Nos.3 and 450 Squadrons R.A.A.F., 112, 250 and 260 Squadrons and P.40's of the U.S.A.A.F. carried out three raids starting a number of fires. At the same time Kittyhawks and P.40's which were operating independently against the same targets started a number of fires and explosions and caused considerable damage.

No.2 A.S.C.
War Diary.

The information from forward Army tentacles was not good and a safety bomblines given by 4th Light Armoured Brigade delayed air attacks on the enemy road columns. Delay in engaging targets was also caused owing to the New Zealand Division keeping wireless silence and not knowing their exact positions and, later, when W/T silence had been broken, by not keeping Air Support Control properly informed of locations or bomblines.

Official German
War Narrative.

'All day long,' says the German report, 'enemy fighter-bombers and bombers kept up incessant attacks on the retreating German motorised forces on the Via Balbia. The petrol situation was as serious as ever. At the moment, it would not permit the Army to withdraw westwards from the Nofilia area.'

Failure of New Zealand Division to Report Their Positions on 16 December Causes W.D.A.F. to Miss Excellent Targets

From the air point of view, the 16 December was a most disappointing day. During the night 15/16 December, the New Zealanders notified the position of their Headquarters as being in such a location that a large proportion of the enemy rearguard was still to the east of Wadi Matratin, which the New Zealanders had reached, and as the wadi, though not a complete obstacle, was able to be crossed easily in the neighbourhood of the road, it was assumed by both Army and Air H.Q.s, - having had no word to the contrary - that the New Zealanders were sufficiently strong to prevent a break through. Army H.Q., therefore, issued instructions telling them to hold the ring and to press on with securing a landing-ground.

A.A.H.Q.W.D.
Report on
Operations

Unfortunately, not only were the New Zealanders not in a position to prevent a break through by the enemy, but they failed to report the true positions or the disposition of their forward troops. The dawn Tac/R on 16 December reported enemy concentrations to the west of the New Zealanders, pointing to the fact that part of the enemy force had managed to make good their escape during the night. Subsequent reports confirmed that the road was, in fact, open, with the New Zealanders to the south of it. However, as no bomblines had been received, bombing could not be started, and it was not until 10.30 hours that word came through from the New Zealanders and a bombing programme could be arranged.

- (1) 'At about midday (15 December) a British bomber formation flew over, the first for a long time, and chose my H.Q. as a target for its bombs, probably attracted by General Seidemann's highly conspicuous Storch. The Ic truck was burnt out and several other vehicles were damaged.' 'The Rommel Papers'.

The 15th Panzer Division had been unable to complete its withdrawal during the night 15/16 December, owing to the shortage of petrol and was still to the east of the New Zealanders, at dawn. The New Zealanders, however, had had some difficulty in deploying in unknown country, by moonlight, and in registering their guns. This enabled the enemy, by breaking up into small parties, to race for safety, losing a number of tanks and guns, but they succeeded in getting the main body away. By pursuing this policy of breaking up into small groups and also by using heavy concentrations of A.A., the enemy managed largely to defeat the bombers. Altogether, eight light-bomber raids were carried out, involving a total of 78 Bostons, Baltimores and Mitchells, out of which approximately 25% were holed by the intense and accurate gunfire. For the most part it was considered that the results of the bombing were disappointing although a number of direct hits were scored among retreating enemy transport columns and also on A.A. batteries.

Alexander's
Despatch and
Official German
Narrative.

No. 3 S.A.A.F.
Wing O.R.B. and
A.A.H.Q.W.D.
War Diary.

The speed and efficiency with which the enemy made good their escape was remarked on by R.A.F. observers. The best targets had been missed in the morning and by the afternoon the retreating enemy forces could only be reached by fighters using long-range fuel tanks. Fighters flew 248 sorties, mainly on escort duties to the light bombers and on protective patrols over forward troops.

The failure of the New Zealand Division to notify their position, with the result that the W.D.A.F. missed a series of excellent targets on the morning of 16 December, when the enemy rearguard made their breakthrough to the west, gave rise to considerable comment and criticism at the time. On 20 December, Major Wallace of No. 2 A.S.C. visited the New Zealand Division H.Q. and the War Diary of No. 2 A.S.C. records for that date:

'General Freyberg considers close effective air support only possible with something in the nature of a Stuka formation under command. In the light of this, he thinks air support not to have been satisfactory and his division not to have been trained. The difficulty of getting information to the air remains under any system, however. He considers surprise vital and wireless silence nearly always essential until contact is made. Alternative pre-agreed plans must therefore be made with R.A.F. and considerable faith must be put in coloured smoke which all forward vehicles must carry.'

No. 2 A.S.C. War
Diary.

In spite of the wireless silence imposed by their Commanding General, we now know that the approach march of the New Zealanders had been detected early on - as was to be expected - by German air reconnaissance. Such moves had been made with such regularity during the pursuit that provision for them in enemy plans were made as a matter of routine. The enemy alluded to 'the expected encircling move' detected by air reconnaissance at 14.00 hours on 14 December. The immunity from attack of the New Zealand Division was not due to the secrecy of their approach march, for it was being plotted and anticipated very carefully, but to the enemy's acute shortage of petrol.

'As our forces and the enemy's were disposed at present (14 December) the opportunity would have offered itself to counter-attack and destroy the outflanking forces on 15 December, while at the same time defending the favourable positions in the el Mugtaa narrows. The

Official German
Narrative.

Army's critical petrol situation, however, made its whole position appear extraordinarily grave.'

The situation as seen from the air point of view was put by Group Captain Beamish, S.A.S.O., W.D.A.F. in a contemporary document, his 'Report on Operations in the Western Desert'.

'The effect of the uncertainty of the ground situation on our air operations, underlined the vital necessity for a running commentary and reliable information from the forward troops if air forces are effectively to intervene in the land battle. This lapse was the more unfortunate because the Air Support procedure of the New Zealand Division had previously been first class. But during their encircling movement to Marble Arch they made no use of their air support tentacles due, it appears, to the fact that all the carefully trained staff officers who had handled air support matters at El Alamein, and in the first phase of the advance, had been changed.'

CHAPTER 11

THE ADVANCE TO TRIPOLI (14 DECEMBER 1942 to 23 JANUARY 1943)The Occupation of the Marble Arch Landing-Ground by Air -
18 December

If the Eighth Army's advance into Tripolitania were not to be hindered by the lack of air support, it was imperative that the landing-grounds in the Marble Arch area should be occupied at the earliest possible moment. These requirements had been foreseen, and had been the subject of detailed planning by the W.D.A.F., in Operation 'Guillotine'. Now that the interdependence of the army and the air force was so apparent, the co-operation obtained from the Eighth Army was excellent. The Eighth Army gave the securing and clearance of landing-grounds the highest priority and strong landing-ground reconnaissance and construction parties were attached to the New Zealand Division.

A.A.H.Q.W.D.
Report on
Operations

The enemy's mining of the roads and particularly their verges had hitherto entailed such delays to road convoys that the landing-grounds would almost certainly be cleared of mines and made ready for occupation long before they could be reached by R.A.F. ground parties and the supply echelons. A most ambitious plan was therefore formulated which was to move a whole Fighter Wing (No. 239 Wing), complete with the necessary maintenance staff, supplies and equipment by air to operate not only in advance of the W.D.A.F.'s air pursuit Force, Force 'A', but even to be based ahead of the Eighth Army's own main pursuit force. This meant, virtually, that the Eighth Army's most forward element, the New Zealand Division would be supported for the time being with its own small but homogeneous fighter force, which was to be flown in as soon as a forward landing-ground had been cleared. In addition, this supporting air force would be wholly supplied by air lift, until the road had been opened up and a special R.A.F. road convoy, held in readiness, could move forward.

A.A.H.Q.W.D.
Operational
Instruction
No. 11 and Main
H.Q. Eighth Army
War Diary.

The operation achieved a remarkable degree of success. A force of 61 transport aircraft (28 Dakotas, 26 Hudsons and 7 Bombays) was kept standing by at short notice, from 16 December. The road convoy comprising two S. and T. columns, or some 50 vehicles, was held in readiness from the beginning of the attack on the Marsa Brega positions, laden with fuel, ammunition, bombs, rations and water. Furthermore, arrangements were made with XXX Corps for the New Zealand Division to provide A.A. defences for the landing-grounds, together with transport for the use of the Wing until the batteries of the 12th A.A. Brigade had arrived.

The New Zealanders had secured the Marble Arch landing-grounds by 17 December. They were found to have been sown with over 2,000 mines, in addition to a profusion of booby-traps. However, by working throughout the night, by moonlight, the R.E.s were able to report the landing-grounds clear of mines by 08.00 hours the following day. It was truly a remarkable achievement and one that involved the Eighth Army R.E.s, owing to the speed with which they had to work, in considerable casualties. Within two hours, the fighter aircraft of No. 239 Wing, together with transport aircraft of No. 216 Group and 316 Troop Carrier Wing, U.S.A.A.F., had begun to arrive and by 13.30 hours the first fighter-bomber sorties, at Squadron strength, had taken off. In all, five squadron sorties were carried out that afternoon against targets which, until that time, had been well out of range.

It had been intended to ferry forward bombs and other supplies with a Bombay shuttle service operating between Belandah and Marble Arch, but such was the help afforded by the Eighth Army to get the R.A.F. road convoy through that the S. and T. columns arrived ahead of schedule and further ferrying of supplies by aircraft was found to be unnecessary.

This airlift of No. 239 Wing (Nos. 3 and 450 R.A.A.F. and 250 and 260 Squadrons, all flying Kittyhawks) on 18 December 1942, from Belandah to Marble Arch involved the transportation of 160 tons of personnel and equipment in 79 sorties. The returning aircraft were used to evacuate casualties from the Medical Holding Centre which the New Zealand Division had set up on the landing-ground. Fighter cover was provided throughout by the fighters of No. 239 Wing. There were no accidents to aircraft, other than a Dakota which burst a tyre. Four members of a R.A.F. refuelling party were killed and four others wounded when one of them stood on a mine.

Squadron O.R.B.s

No. 2 A.S.C.
War Diary.

'239 Wing "A" Parties flown to Marble Arch during the morning,' says a contemporary report, "and their aircraft operated from that L.G. all day. The Bombays, Hudsons and D.C.3s used by them flew at zero feet, within sight of the road, and were most inspiring. Surely the shape of things to come."

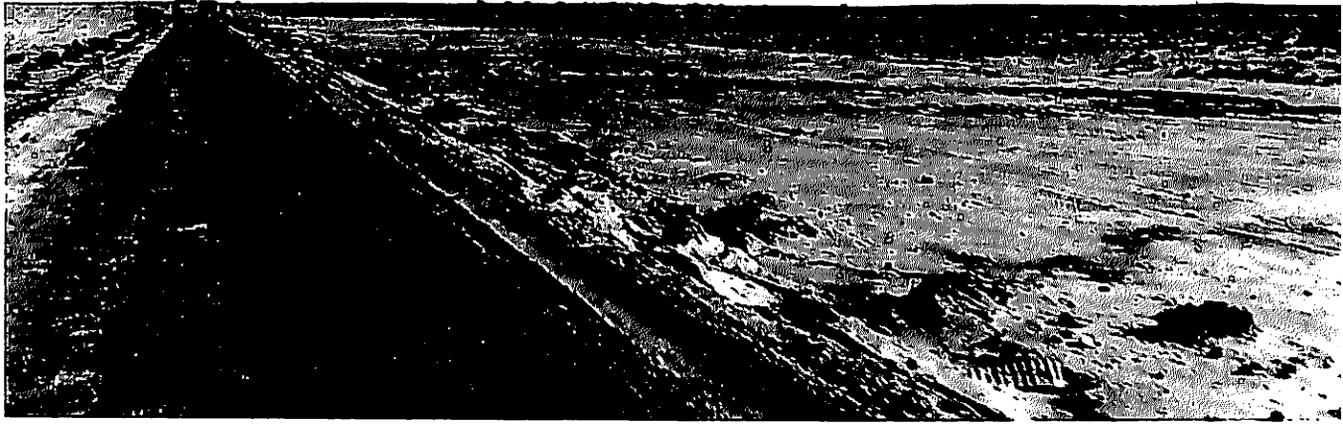
The Panzer Army's Retreat to Buerat

In the action at Marsa Brega - El Agheila, the enemy had lost 500 men taken P.O.W. and, what was much more serious, some 20 out of their small reserves of tanks had been destroyed. Both the 15th Panzer Division and the 90th Light Division constituting more than one half of Rommel's effective force had been cut off for a time by the New Zealanders, and only the greatest of good fortune had enabled Rommel to keep his force intact. As soon as it was seen that the enemy were escaping, the 4th Light Armoured Brigade was sent on to harass the fugitives. However, by blowing up bridges and culverts and sowing the coast road and wadis with mines, the armoured cars were delayed and prevented from closing with the enemy. Nevertheless, by the evening of 16 December, the Eighth Army advanced guard had covered the 40 miles to Sirte. Only after outflanking manoeuvres by armoured cars and artillery was the enemy compelled to evacuate Sirte which was entered shortly after dawn on Christmas Day. As the enemy had proved so sensitive to an outflanking movement, the manoeuvre was continued until, by 30 December, the enemy had withdrawn to the main position at Buerat.

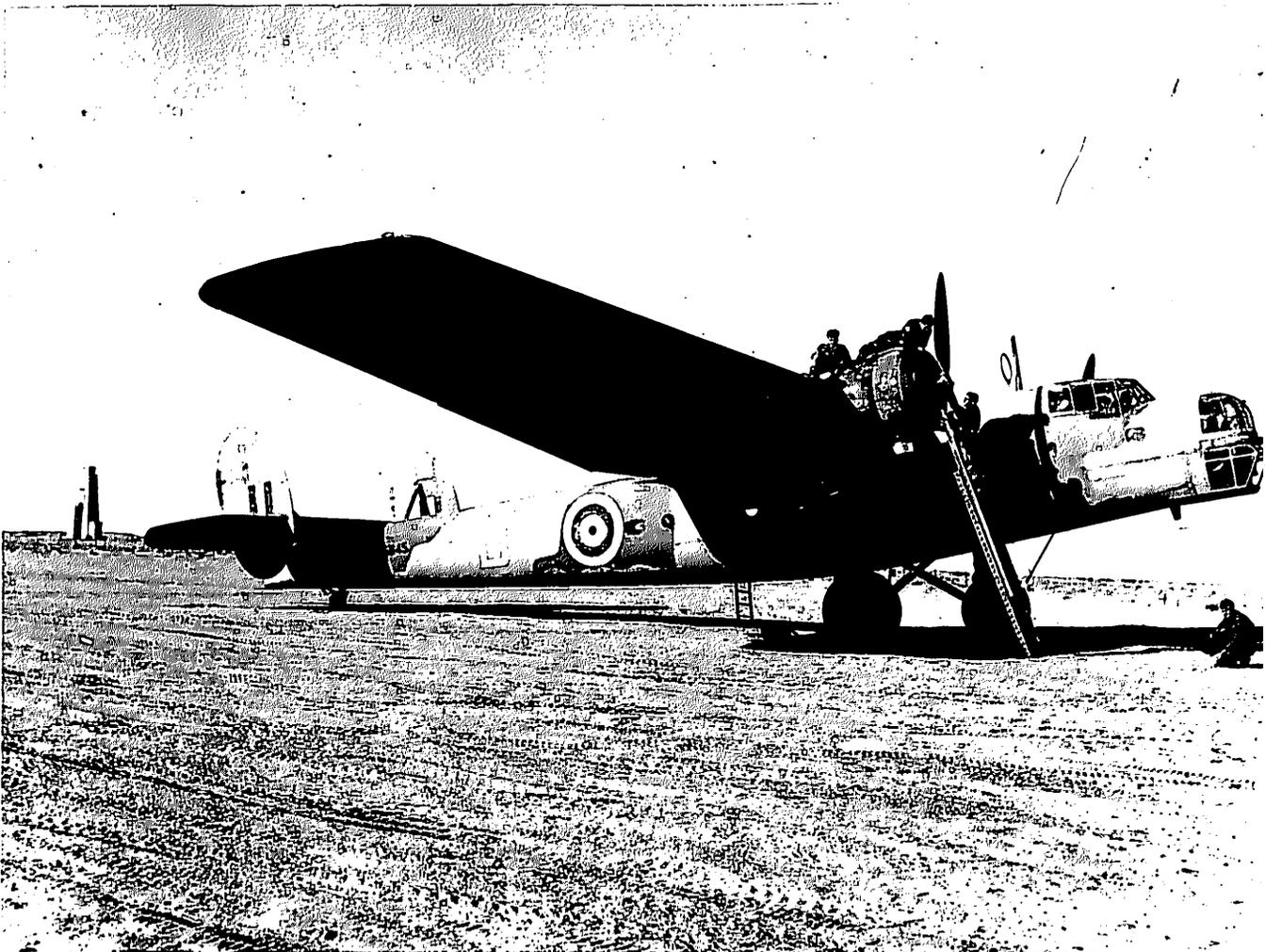
War Cabinet
Papers. Hist.
(B) (Crusader)
5 and Alexander's
Despatch.

Enemy Decision to Evacuate Tripolitania and Retreat to a New Line in Tunisia - 31 December 1942

On 17 December, Rommel had a meeting with Marshal Bastico in which he put forward a case for abandoning the positions at Buerat and with it the whole of Tripolitania and making a stand on the Gabes line in Southern Tunisia. Not merely, he argued, had the heavy losses sustained by the Panzer Army during the battle of El Alamein not been made good, but they had latterly been increased during the action at El Agheila. So little petrol had been available, that the retreating Panzer Army had been unable to carry out mobile operations and found it impossible to bring forward essential supplies of ammunition. There was every likelihood that, in their present state of weakness, the remnants of the Panzer Army would be surrounded at Buerat and destroyed within a few days.



Transport aircraft passing road convoy



Transport aircraft on the airfield at Marble Arch

Strong positions had already been constructed at Gabes, flanked by the impassable Chott country, an area of extensive salt-marshes, which removed any fear of being out-flanked. Rommel advised a fighting withdrawal from one defensive line to the next towards Tunisia, where the opportunity would later arise to unite with the operational groups there, complete re-equipping and eventually be able to resume the offensive.

Similar reports were laid before Combined H.Q., G.H.Q., the C.-in-C. South and the German G.O.C. Rome for the Italian Supreme Command. Rommel urged a quick decision, as the Buerat positions contained about 10,000 German and 15,000 Italian non-mobile troops who would have to be withdrawn in time if they were not to be sacrificed, as has happened at El Alamein.

On 19 December, a typical hortatory message was received from the Duce: 'Resist to the uttermost! I repeat, resist to the uttermost in the Buerat positions with all the troops of the German-Italian Panzer Army.' Work was accordingly undertaken on the Buerat positions in day-and-night shifts. Nevertheless, the way in which the Eighth Army were pressing forward - the enemy had been particularly impressed by the speed with which the Marble Arch and Merduma landing-grounds had been opened up - caused Rommel to fear that the positions at Sirte and Buerat might be by-passed to the south and that the Eighth Army might advance on Tripoli without having to stage an attack. He therefore sent a message to Marshal Bastico asking for 'immediate advice how to conduct the campaign in such a case' as 'the Duce's instructions did not provide for this possibility.' The deference shown by Rommel to the advice given by the Duce, during the retreat, is in marked contrast to his attitude, six months earlier, during the advance on Egypt.

On 21 December, a message was received from the Duce stating that the Buerat positions were to be held for as long as possible to gain time to get essential supplies up to the Panzer Army via Tunisia. This did not answer Rommel's question as to how the fight was to be carried on if the Buerat position was outflanked, and a message repeating this was sent to Marshal Bastico. A reply was received on 23 December, stating that Italian troops had been placed in a position where they would be able to ward off a diversionary thrust by light forces. Any stronger force, the Marshal maintained, could not remain hidden from air reconnaissance and as these outflanking forces had a slow 250-mile march across the desert, there would be enough time to divert Panzer Divisions to the threatened spot or to take the advancing forces in the flank. Petrol, he argued, would be available, as once the motorised troops had withdrawn behind the Buerat positions, the expenditure of petrol would fall sharply.

Rommel in turn argued that the Marshal's views were based on false assumptions. All experience during the previous two months had shown that to place any reliance on an improvement in the petrol position was doomed to disappointment. Then the fighting strength of the German motorised divisions' was so small that they could not successfully oppose the enemy's strong armoured force.' Rommel maintained that he should not be asked to cling to a position and let the enemy come to grips with it, if its only aim was to delay the enemy advance and gain time for large quantities of supplies to come through Tunis. In his

Official German
War Narrative.

view, the policy of delaying the enemy and of mobile defence promised the greatest success for this aim.

To strengthen his arguments, Rommel placed further emphasis on the extremely critical supply situation. From 1 - 20 December, a daily supply of only 100 cubic metres of fuel had been received when active fighting conditions demanded a daily expenditure of over 400. Supplies of ammunition and food had been practically stopped due to the petrol shortage and the Panzer Army had only been able to survive because the troops had been able to get food stocks straight from the dumps they had been evacuating and the expenditure of ammunition had been very small. Tripoli harbour had been almost completely closed to shipping. The Tunisian ports, with their road, rail and sea communications with Tripolitania were a vital artery for the Panzer Army. However, constant air attacks on the Sousse-Tripoli road had stopped almost all day traffic, while saboteurs and harassing troops had been so active between Tripoli and Misurata that the Italians had ordered convoys to use it only by day. Air raids had put the Tunis-Gabes railway completely out of commission and, so it appeared to Rommel, in the face of Allied air superiority, there seemed little likelihood that it would ever be in commission again.

At a conference with Marshal Bastico, on 28 December, Rommel stated that three consumption units of petrol (750 cubic metres) were his minimum requirements for fighting an action at Buerat. Marshal Bastico promised, somewhat optimistically, that this amount would be brought to Tripoli by submarine during the next few days.

On the last day of 1942, Rommel received the permission he had sought for withdrawal into Tunisia. 'Considering the Mediterranean situation and the Panzer Army's supply position,' the instruction from the Italian Supreme Command stated, 'the Italian Supreme Command has now decided to hold the Buerat position as long as possible, but not to expose the troops to the threat of annihilation. A decisive battle is not to be accepted, but the Army is to carry out a delaying withdrawal in the face of superior enemy pressure, first to the Tarhuna-Homs positions and then, if necessary, further west, gaining as much time as possible.'

The Eighth Army Commander's Preparations for a Battle at Buerat

Now that Rommel's supply difficulties and the weakness of his forces are so apparent from captured enemy documents, the G.O.C. Eighth Army's plans for an assault on the enemy positions at Buerat seem - as had been the case at Marsa Brega - most ponderous. 'I decided,' he wrote, 'to plan for the Buerat battle on the basis of ten days' heavy fighting, using four divisions, and calculated that the necessary dumping would take some three weeks. I therefore intended to resume the offensive in mid-January.' It is surprising that, after the enemy Commander had declined an action at Marsa Brega, it should be thought probable that he would choose to defend the much weaker positions at Buerat. No strengthening of his forces had been remarked, nor had there been any noticeable improvement in their supply position which might warrant the assumption that assault on such a heavy scale and for so long might be necessary. These were only the battered remnants of the Panzer Army against which when intact at El Alamein, which was an infinitely stronger position, hardly more than twice that number of divisions had been employed.

'El Alamein to
the Sangro.'

p. 32



Walking battle casualties await air transportation



Ploughed landing-ground at Sirte

Once the positions at Buerat had been taken, the Eighth Army Commander intended to drive straight through to Tripoli and open up the port. The plan was the by now routine one of a frontal assault combined with an outflanking movement to the south, through the desert. The 50th and 51st Divisions would attack astride the coast road, while 7th Armoured Division and the New Zealand Division would deliver the main thrust round the enemy flank and drive in behind them. This plan was modified by the exclusion of 50th Division, owing to the fact that gales which raged from 4 to 6 January 1943, caused havoc in the port of Benghazi, sank 4 ships, one of which was carrying 2,000 tons of ammunition, and reduced the capacity of the port by two-thirds. This involved, - until Benghazi could be put in commission again - an additional road haul of 300 miles from Tobruk, for which 50th Division's transport was needed.

The Air Staff plan for the advance to Tripoli, known as Operation 'Fireeater', did not envisage any major resistance at Buerat, such as would necessitate a full-scale attack. It is a document which assessed the situation with such accuracy that it is hard to believe that both the Army Commander and the W.D.A.F. Air Staff had access to precisely the same sources of intelligence.

The enemy was forced to withdraw from the Marsa Brega-El Agheila area in order to avoid envelopment and his land forces have fallen back to the Buerat-Wadi Zem Zem area. His air forces are at present on the Bir Dufan-Tanargia-Churgia landing-grounds.

Appendix 'H' to
A.A.H.Q.W.D.
Record of
Operations.

As a result of R.A.F. and R.N. action, the enemy is unable to make any considerable use of the port of Tripoli: his forces in Tripolitania now rely on lines of communication extending into Tunisia and, although they have been considerably shortened by his recent withdrawal, his supply position is believed to be exceedingly precarious.

The enemy has been short of stores of all descriptions for some time and he is unlikely to possess sufficient mobility to counter any threat of envelopment in strength except by further withdrawal.

It was decided to deploy three Fighter Wings with a fourth in reserve, two Light Bomber-Wings and the Reconnaissance Wing by 12 January 1943. In order to provide protection to convoys to Tripoli immediately the port was in our hands, No. 243 Wing, with two Hurricane Squadrons, was to be ready to move forward immediately behind the air forces engaged in the battle. Sections were to be established at Misurata and Tripoli, together with G.C.I. (Night Radar) for the control of Beaufighters in the Tripoli area as quickly as possible and then hand over control of the static defences to A.H.Q. Egypt.

The provision of adequate landing-grounds for the advance to Tripoli in order to maintain a high level of air support for the advancing forces was most important. The enemy policy of extensive mining and ploughing of landing-grounds meant that it would almost certainly be quicker to construct new ones, if suitable ground could be found. New landing-grounds were envisaged in the Sedada, Bir Dufan and Tarhuma areas. Arrangements were made, therefore, for a R.E. landing-ground construction party, complete with all available graders (six in number) to accompany the New Zealanders and

go forward immediately behind the leading troops. As soon as 7th Armoured Division and the New Zealanders had reached the Sedada area and a suitable landing-ground had been opened up, No. 239 Wing (S.E. Fighters) would move forward in order to provide cover for the next stage of the advance. As had happened previously at Marble Arch, it was planned to establish and initially maintain this Wing by air with transport aircraft of No. 216 Group and the 316th Troop Carrier Group, U.S.A.A.F.

By 12 January 1953, three landing-grounds had been completed in the Hamraiet area, and by that date the supply position being most satisfactory, due to the use of air transport to lift petrol and oil to Marble Arch (in December and January Dakotas laid down 153,000 gallons of petrol and 9,500 gallons of oil at Marble Arch) the force had been deployed and was ready for full-scale operations. The three Fighter Wings (Nos. 239, 244 and the 57th Fighter Group U.S.A.A.F.) had moved up to Hamraiet, the Reconnaissance Wing (No. 285) was based on a strip landing-ground near Tamet and adjacent to the Army/Air H.Q., and the two Light-Bomber Wings (No. 3 Wing S.A.A.F. and the 12th Light Bombardment Group) were based at Gzina and Chel.

Air Operations Prior to the Advance to Tripoli
(18 December 1942 to 16 January 1943).

The occupation of Marble Arch landing-ground by fighters of No. 239 Wing, with the help of an airlift by transport aircraft of No. 216 Group and 316th Troop Carrier Group, on 18 December, had again brought the enemy within range of the W.D.A.F. fighter bombers. On the day of arrival five fighter-bomber operations, at squadron strength, were carried out against enemy westbound transport in the Sultan area. On 19 December repeated bombing and machine-gun attacks were made throughout the day on enemy transport between Sultan and Buerat by a total of 144 Kittyhawks. Numerous vehicles were destroyed and damaged. Direct hits were scored on A.A. posts and casualties inflicted on enemy troops.

'The enemy air force was particularly active today,' says an enemy report for 19 December, 'Strong forces of low-flying aircraft and fighter-bombers continually attacked our troops throughout the day, mainly on the coast road between Sirte and Buerat. Air reconnaissance reports state that the enemy had already brought forward much of his air force. In spite of our heavy mining and demolitions, the airfields at Arco dei Fileni (Marble Arch) and Merduma were already in use again. Air photos revealed that there were 80 single-engined and 9 multi-engined aircraft on the Arco dei Fileni airfield and 20 single-engined at Merduma.'

Unfortunately, this high operational level could not be maintained. The speed of the enemy's retreat from the Marsa Brega-El Agheila positions, the lack of forward landing-grounds and the well-organised way in which the enemy were withdrawing meant that targets soon became poor and the provision of adequate cover for forward Eighth Army troops again became a major problem. Until the Hamraiet landing-grounds had been opened up and occupied, on 6 January 1943, distance and the lack of an adequate warning system made it impossible to prevent the enemy carrying out fairly frequent harassing attacks on our forward troops.

No. 239 Wing
O.R.B.

H.Q.M.E. Air
Staff O.R.B. and
Opsums.

Official German
War Narrative.

A.A.H.Q.W.D.
Report on
Operations.



R.E.s at work on an advanced airfield the day before
it was occupied by the R.A.F.



R.A.F. and R.A.A.F. groundcrews helping to prepare
a landing-ground in Tripolitania

A.A.H.Q.W.D.
War Diary.

These attacks were not permitted to go on without some measure of retaliation. On 21 December, Kittyhawks of No. 3 Squadron R.A.A.F. attacked the enemy landing-ground at Hum which was located about 150 miles inland from the Gulf of Sirte. Six aircraft (two S. 79's, one Ju. 52, one Ju. 88, one Ju. 87 and one Me. 110) and a glider were seen to burn. Two Kittyhawks were shot down by A.A. gunfire. An Italian P.O.W. later confirmed that five aircraft had been destroyed in this raid. Another raid was carried out on this airfield on Christmas Day, when five transport aircraft and two gliders were claimed as destroyed. In spite of these attacks, the degree of control which the W.D.A.F. fighters could exercise in the forward area was by no means adequate, for the reasons stated above. On 29 December, one of the largest-scale attacks of which the enemy was capable was launched against the Eighth Army forward troops in the Bir Zidan area. The raid was carried out by a formation of 15 Stukas, escorted by 10 Me. 109's, killing one man and wounding 19 others and destroying 2 vehicles and one gun. On the following day a total of 47 bombers and fighter bombers were reported as having bombed Eighth Army forward units, mainly the 4th Light Armoured Brigade. In spite of this activity no damage was reported. This lack of success was undoubtedly due in the main to the fact that 6 W.D.A.F. fighter formations, using a new landing-ground at Czina for refuelling, shot down eight Me. 109's, six of them confirmed, from the ground by the Eighth Army. This provided a sharp check to the enemy, but it was not until Hamraiet had been opened up that the position came again under control.

The opening up of these advanced landing-grounds provide outstanding examples of inter-service co-operation. The Eighth Army R.E.s were assisted by 'A' Parties of No. 239 Wing and No. 244 Wing and some 300 infantry when preparing the landing-grounds at Czina and Chel. At Hamraiet a thousand New Zealanders assisted the L.G. Construction Party by picking up stones from the airfield, all the time being subjected to frequent attacks by Me. 109's.

A.A.H.Q.W.D.
Record of
Operations.

Inspection of the roads between Agedabia and Marble Arch had shown disappointing evidence of the effects of the W.D.A.F. fighter-bomber activity, even allowing for the fact that the enemy put any vehicle capable of carrying a load in tow. Analysis of the situation proved that substantial results could not be expected unless bombs were released from under 3,000 feet and pilots had plenty of practice. The A.O.C., W.D.A.F. therefore gave instructions for intensive training to be undertaken with practice bombs.

No. 73 Squadron
O.R.B.

No. 205 Group
O.R.B. and
Opsums.

Throughout this period, night-flying Hurricanes of No. 73 Squadron were busy flying patrols over Benghazi, to protect the port and shipping from attacks by Ju. 88 aircraft, based on Crete. They were also busy harassing the enemy along the roads. No. 205 Group aircraft carried out varied tasks. On the nights of 15/16 and 16/17 December, a total of 29 Wellingtons attacked enemy aircraft on landing-grounds at Castel Benito and Tamet, the success of these operations being marred by adverse weather conditions. A further 30 aircraft bombed transport and buildings along the road at Buerat el Hsum, on the nights 18/19 and 19/20 December with a moderate degree of success. Further diversions of Wellingtons to Malta left the Group, at one time, with no more than 10 serviceable aircraft available for operations. This was a most unhappy period for the Group which had made such a valuable contribution to the victory in the Middle East. Policy was changed constantly, squadrons were broken up and

personnel posted with, so it seemed, but little thought of the effect on morale of the teams which had accomplished such fine work together.

Enemy air activity from Crete, mainly against the port of Benghazi, needed to be checked and a raid was carried out against Heraklion airfield by 14 Wellingtons from Nos. 37 and 70 Squadrons. Weather conditions were poor and the operation was not a success. From 7 January 1943, No. 205 Group came under the operational control of A.A.H.Q., W.D. for action against road targets. Benina was used as a forward base and between 8 and 17 January, a total of 64 sorties was carried out against Western Desert targets which comprised mainly enemy transport and camps.

During the last two weeks of December, and the first week of January, however, the weather was consistently bad and severely limited air operations. Landing-grounds were flooded and the moves forward necessitated by the redeployment of the air force for the offensive at Buerat were accomplished under conditions of the greatest difficulty. Following the rain and the widespread flooding came mud and then finally dust - the curse of improvised landing-grounds in the desert - which again impeded operations. Even when the bombers were again able to operate, visibility over the targets was frequently so bad that no results of the bombing could be observed.

The occupation of landing-grounds at Hamraiet in early January (advance parties arrived on 4 January and the Spitfires operated on 6 January, the crews having had all their tents blown down and their aircraft put out of action by a severe sandstorm) stirred the enemy air force to a high level of activity in an attempt to force the Spitfire Squadrons (Nos. 92, 145 and 1 S.A.A.F.) from these advanced landing-grounds which were only some 50 miles from their front-line positions at Buerat. On the day of arrival the landing-ground was twice bombed by a total of 30 Me. 109's which damaged a Spitfire on the ground, killing four New Zealanders and wounding 14 others who were still at work on the unfinished surface. Both raids were intercepted by 14 Spitfires which, however, made no claims, many of them still suffering from the effects of the sand which caused their guns to jam. The Army shot down three of the aircraft with their A.A. gunfire. On the following day three raids by Me. 109's were carried out by a total of 20 aircraft. No damage was caused but two men were killed. The Spitfires were a trifle more successful, shooting down one enemy aircraft for the loss of one Spitfire. By 11 January, however, the Spitfires had begun to get the measure of the enemy. On that day German and Italian aircraft attempted three raids by fighter-bombers, two on Hamraiet landing-grounds and one on Bir Zidan. All raids were intercepted and two Me. 109's and two Me. 202's were shot down, while A.A. gunfire accounted for another Me. 109. On 12 January - in spite of rising dust a day of considerable air activity on both sides as it marked the beginning of the W.D.A.F. air offensive in support of the Eighth Army attack on the Buerat positions - No. 145 Squadron and No. 1 S.A.A.F. Squadron intercepted an attack on Tamet landing-ground by 12 Me. 200's escorted by 7 Me. 109's. Four of the Italian aircraft and one German fighter were shot down for the loss of two Spitfires. The enemy succeeded in cratering the runway at Hamraiet and damaging five aircraft on the ground. This was the last enemy attack on the airfields at Hamraiet and Tamet.

A.A.H.Q.W.D.
Daily Int. Sums
and Record of
Operations.

No. 3 Wing
S.A.A.F. O.R.B.

Squadron O.R.Bs
and H.Q.M.E. Air
Staff O.R.B.

The battle of Buerat began on 15 January and soon the enemy air forces had other preoccupations.

The Action at Buerat - 15 January 1943.

Official German
Narrative.

In spite of the Eighth Army Commander's elaborate preparations for a full-scale offensive at Buerat, for which he had concentrated some 300 tanks, as early as 14 days before the scheduled date for the attack, there was apparent every indication that the enemy would do no more than fight a short delaying action and then recommence the withdrawal westwards. Already, by the first week in January, the enemy infantry had begun moving off - Pistoia and Spezia on the 3rd and 4th and the Young Fascists shortly afterwards. What was even more conclusive - though probably unknown to the Army Commander at the time - was that on 13 January Rommel was forced to divert 21st Panzer Division, with No. 580 Recce Unit and 220th Engineering Battalion under command, for the defence of southern Tunisia. The enemy were under no illusions about the imminence of the attack and the form it would take.

Official German
War Narrative.

"The increase in the number of transports bringing tanks forward (repeatedly reported by agents), the enemy air force's organisation on the ground, and the move forward of Eighth Army and XXX Corps H.Q. to the area west of Sirte (fixed by radio bearings on 8 January), all point to the advance march ending soon. . . . His big attack must be expected any time from 11 January. . . . The present picture of the enemy advance points clearly to its main weight being in the southern sector, where the greater part of his armoured and motorised formations are assembled."

Furthermore, reconnaissance aircraft were especially assigned to the task of watching for the anticipated outflanking movement to the south.

M.E. Weekly Int.
Sums.

7th Armoured and 2nd New Zealand Division began the assault at 07.15 hours on 15 January - four days earlier than had been proposed if the enemy had been prepared to stand. In accordance with the Army/Air plan, the air offensive started with an intensification of air activity well in advance of the land offensive, in order to establish complete domination of the Axis air forces, culminating with bombing the enemy positions immediately prior to the attack. Already there was an overlap with the aircraft based on Tunisia. The important air base at Castel Benito, due south of the port of Tripoli, was bombed by B. 26's of the 12th U.S.A.A.F. of Eastern Air Command on 9 January, and again two days later by a formation of 12 Fortresses. Tripoli, now a strategic target within reach of heavy and medium bombers from Libya, Tunisia and Malta, was heavily bombed by Wellingtons and Liberators.

A.A.H.Q.W.D.
Daily Int. Sums.

The heightened air activity which heralded the Eighth Army attack started a week before the ground offensive with a series of raids on the enemy's forward air bases. In this preliminary phase over 1100 fighter sorties were flown. Weather again impeded operations and the enemy showed that they could still hit back, in the air, and inflict disproportionately heavy casualties on the W.D.A.F. fighters. On the night 12 January, a total of 17 Bostons of Nos. 12 and 24 Squadrons S.A.A.F., operating from their new base at Ozina, attacked the enemy landing-grounds at Tuorga and Bir Dufan. Weather conditions were unfavourable and no

No. 3 Wing
S.A.A.F. O.R.B.

Official German
War Narrative.

results were observed. An enemy report stated that 'enemy night bombers carried out attacks on the rear areas continuously for several hours. From daybreak onwards heavy bomber formations, with strong fighter protection, also attacked our forward troops and landing-grounds. During these attacks 12 enemy aircraft (mostly fighters) were shot down. A sandstorm set in at midday and severely limited both sides' air activity for the rest of the day.'

No. 3 Wing
S.A.A.F. and
Squadron
O.R.B.'s

On 13 January, the day to which this report alludes, one of the rare instances of enemy fighters piercing the W.D.A.F. screen of fighters escorting a formation of light bombers occurred. A formation of 18 Baltimores of No. 24 S.A.A.F. Squadron, escorted by Warhawks of Nos. 65 and 66 U.S.A.A.F. Squadrons and Kittyhawks of No. 112 Squadron were intercepted by 20 plus Me. 109's and Me. 202's after bombing a tented camp - their primary objective, dispersed aircraft on Bir Dufan landing-ground could not be located. Three of the Baltimores were hit by the fighters, one being destroyed and two others rendered Cat. II. Seven of the escorting fighters - four of No. 112 Squadron, one of No. 65 Squadron and two of No. 66 Squadron were also shot down. The enemy lost two Me. 109's. This engagement, in which the enemy were so successful, revealed a fresh aggressiveness which pointed to the fact that new blood had arrived for the Luftwaffe in North Africa. This view was supported by pilots' reports of the improved handling of enemy aircraft.

A.A.H.Q.W.D.
Report on
Operations.

No. 3 Wing
S.A.A.F. O.R.B.

On 14 January, the day prior to the Eighth Army offensive, over 100 light-bomber sorties were carried out against the enemy's advanced landing-grounds, dug-in positions and transport, while the fighters flew a total of 219 sorties. It was the familiar 'softening-up' technique as a preliminary to the land offensive. The enemy reacted strongly, and all raids encountered opposition, both from fighters and from intense anti-aircraft gunfire. For the second day they scored a victory over the W.D.A.F. when they shot down 11 fighters for the loss of two Me. 109's. The occasion was a raid by 18 Bostons on Bir Dufan landing-ground - part of the plan to dominate the enemy air forces before the land battle. Both on their way to the target and on the return journey the escorting fighters - 12 Kittyhawks of No. 3 R.A.A.F. Squadron, 12 of No. 250 Squadron, 12 of No. 450 R.A.A.F. Squadron and 12 of No. 260 Squadron - were bitterly opposed by a mixed force of between 20 and 25 Me. 109's and Me. 202's, which succeeded in splitting up their numerically superior opponents into small groups and so inflicting heavy losses on them. These successes, however, were not sufficiently significant to affect the trend of events. The W.D.A.F. soon re-imposed their domination of the Axis air forces, in spite of this reverse, and the advance of the Eighth Army again forced the enemy to evacuate their bases.

No. 211 Group
O.R.B.,
A.A.H.Q. W.D.
Daily Int.
Sums and
Squadron
O.R.B.s.

No. 205 Group
Intelligence
Report.

During the night 14/15 January, 15 Wellingtons assisted by Albacores attacked dispersed M.T. and camps in the Gheddabia area. The illumination by the Albacores was good and it enabled the Wellingtons to obtain a consistently high level of results, in spite of the fact that the enemy vehicles were well-dispersed.

The battle started slowly, with the 7th Armoured Division cautiously probing an anti-tank gun screen in the Wadi Ramel. The going was extremely bad and the enemy

A.A.H.Q.W.D.
Report on
Operations.

A.A.H.Q.W.D.
Daily Int. Sums.

H.Q. M.E. Table
of Operations.

withdrew skilfully. Nowhere along the front did targets for light bombers materialise, although fair M.T. targets for fighter-bombers were found and attacked in the Churgia area, along the main road. Spitfires, Warhawks and Kittyhawks maintained constant protective patrols over the forward Eighth Army units, but there was very little enemy air activity, compared with the previous day. There was apparent a renewed spirit of caution on the part of the enemy air forces which tended noticeably to avoid all action, while the few bombers which operated jettisoned their bombs on the appearance of our fighters. In the course of the day, the W.D.A.F. fighters flew some 300 sorties.

A.A.H.Q.W.D. War
Diary.

Air reconnaissance on 15 January revealed that the enemy had ploughed his advanced landing-grounds at Churgia. There was evidence, also, that ploughing was beginning on other landing-grounds, the enemy's intention being, as at El Agheila, to pull his air forces right back, relying on extensive ploughing and mining of the vacated air bases to keep the W.D.A.F. out of effective reach of his retreating forces. There would appear to have been some delay on the part of the W.D.A.F. in grappling with this menace of ploughing which was having such a disproportionate effect on the Eighth Army pursuit. The ploughing units, however, as was revealed by photographs of Tauorga landing-ground, where there were three in action, comprised difficult targets for air action. Furthermore, such was the value placed on this work by the enemy that, although the landing-grounds had been evacuated by aircraft, a full complement of light and heavy A.A. defences, together with searchlights, were kept whilst ploughing and mining were still in progress.

No. 3 Wing
S.A.A.F. O.R.B.

The failure of the light bombers to find suitable targets on 15 January led to a change of policy - one which, nevertheless, had been under consideration for some time - the light bombers now being reserved for night-bombing. This policy was adhered to throughout the remainder of the advance. During the first night of the offensive (15/16 January) a total of 21 Bostons of Nos. 12 and 24 Squadrons S.A.A.F. and 3 Baltimores of No. 21 Squadron S.A.A.F. attacked scattered enemy M.T. along the road between Misurata and Tauorga. The landing-ground at Tauorga was also bombed and strafed. No results were observed from any of these attacks. A single Albacore of No. 826 Squadron F.A.A. also illuminated and bombed enemy M.T. on the track between Gheddabia and Sedada. At the same time, night-flying Hurricanes of No. 73 Squadron carried out offensive patrols in the forward area but without sighting any enemy aircraft.

During the night, the Eighth Army's outflanking movement had succeeded in getting through the main enemy position and had crossed the Wadi Zem Zem. The battle for Buerat was over and the enemy began to withdraw on his whole front, making for the hilly country covering Tripoli on the south east.

Official German
Narrative.

'To-day's air reconnaissance reports,' says the enemy appreciation for 15 January, 'again confirmed the concentration of the enemy's main tank strength in the southern sector. A successful defence against the full-scale enemy attack was not expected in view of the relative strengths of the opposing forces and the insufficiency of supplies for the armoured and motorised formations. Army therefore decided to

make an immediate withdrawal to the general line between Sedada and the road bend 56 km. NW. of Buerat... The movement began according to plan at 20.00 hours.'

The Capture of Tripoli - 23 January, 1943.

The enemy's retreat from Buerat was characterised by its orderliness and deliberation. Although Rommel had lost the 21st Panzer Division - they had been withdrawn for the defence of southern Tunisia on 13 January - and he was left with only the 15th Panzer Division and the 90th Light Division, there was never any question of the retreat developing into a rout. It took the Eighth Army 8 days to advance the 200 miles from Buerat to Tripoli. At one time the Eighth Army Commander had fears that he might have to stop the advance and fall back to Buerat, or even further, in order to maintain the supply of the Army. In addition to the mining of roads and verges, the demolitions and booby-traps - it is interesting to note that the laying of booby-traps was left to the ingenuity of the Italians - further extensive ploughing of airfields was carried out. The Germans had developed the routine of withdrawal, by this time, to a fine art. Where possible, the main movements were made by night, and only where the terrain forced some measure of concentration, as happened during the passage of the defile at Tarhuna, were really good targets presented to the W.D.A.F. and then they were of insufficient density to warrant the use of light bombers. This does not mean that this phase of the operations was conducted without hard and at times bitter fighting. There were losses on both sides and only by destroying their wheeled vehicles and breaking through with its armour did No. 33 Recce Unit escape annihilation on 16 January.

Contrary to the impression gained in the period prior to the action at Buerat, when the enemy were active bombing the W.D.A.F. forward landing-grounds and their fighters had shown a fresh spirit of aggressiveness, as soon as the retreat started there was a sharp decline in enemy air activity. This was due primarily to the conditions of the retreat. On 17 January, the enemy's chief preoccupation was the evacuation of Bir Dufan L.G. This had been hastened not merely by the developments in the ground situation, but by the systematic attacks launched on the landing-ground during the night 16/17 January by light bombers of Nos. 21 and 24 S.A.A.F. Squadrons which dropped 44 x 250 lb. bombs among 18 aircraft and Hurricanes of No. 73 Squadron which periodically strafed the landing-ground, in an effort to hold up any ploughing and mining that might be in progress. Dawn reconnaissance on 17 January revealed enemy aircraft still on Bir Dufan. As other ground targets were not available at the time, three fighter-bomber attacks were directed against Bir Dufan with the object not only of destroying enemy aircraft, but of preventing further ploughing and mining. By mid-day all serviceable enemy aircraft had been withdrawn. The Stukas were flown back to Mellaha and fighters and transport aircraft to Castel Benito and Asaba. These attacks do not appear to have had altogether the desired result, as extensive ploughing had taken place at Bir Dufan, although at Tauorga the ploughing was hurried and sketchy.

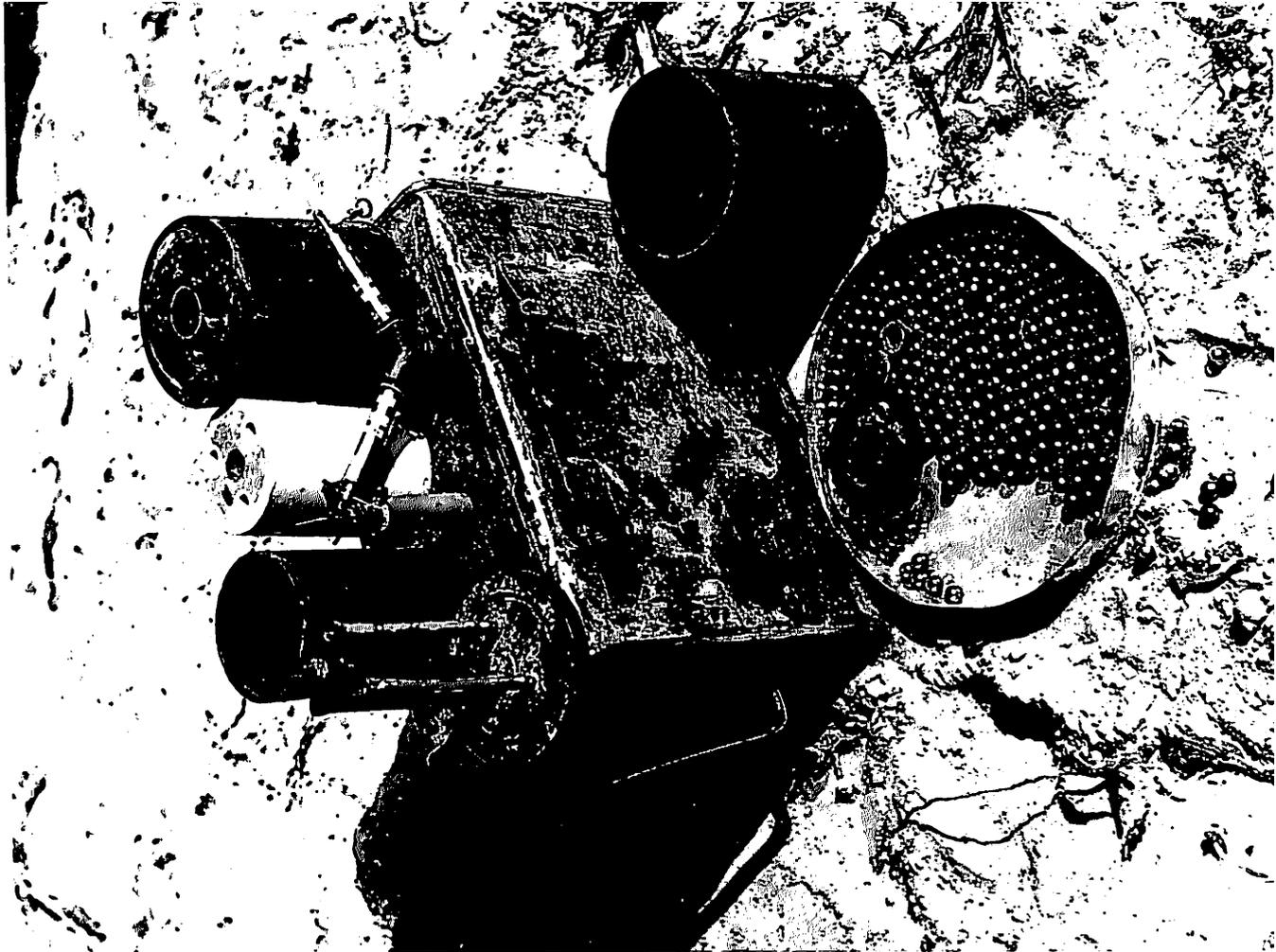
W.D.A.F., War
Diary

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S.A.A.F. O.R.B.

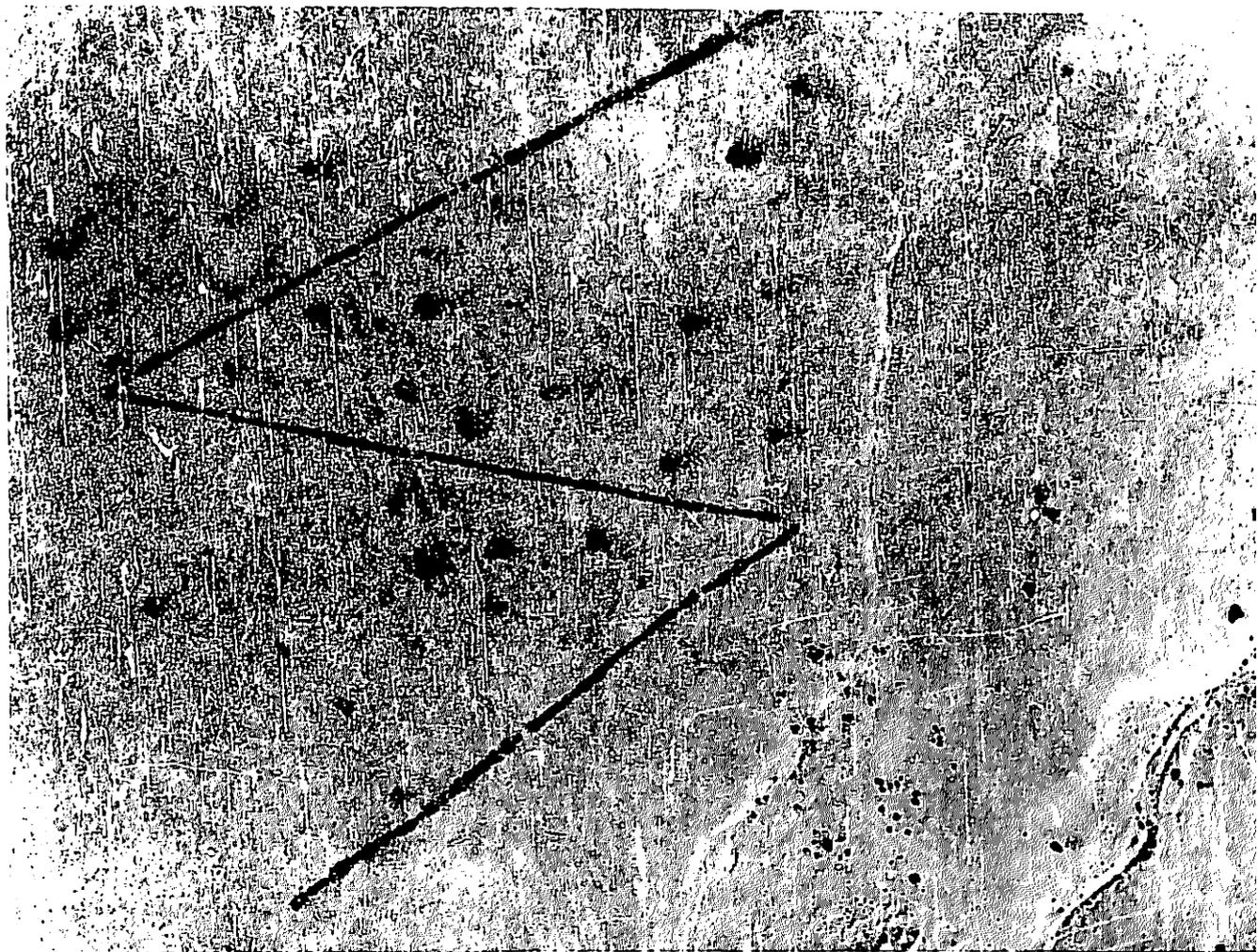
A.A.H.Q.W.D.
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Daily Int.
Sums.

Once the desired evacuation of Bir Dufan had been realised, the fighter effort was switched to attacks on the retreating enemy M.T. as they passed through the bottleneck



A dismantled 'S' mine on Nofilia airfield



The ploughed landing-ground at Sedada
Between the arms of the 'Z'-shaped furrow, holes have been made by
explosive charges

A.A.H.Q.W.D.
Report on
Operations and
War Diary

at Beni Ulid and to the north-east up the Tarhuna road. These offered excellent targets and fighter-bombers carried out over 70 sorties. Numerous vehicles together with a petrol dump were set on fire and casualties were inflicted on personnel. The Kittyhawks which were operating with long-range tanks and carrying 6 x 40 lb. bombs for the first time, achieved tactical surprise, the enemy being bombed at a range at which they must have considered themselves immune.

Report on
Operations,
A.A.H.Q. W.D.
War Diary,
No. 216 Group
and No. 239 Wing
O.R.B.s

An important event on 17 January was the move by air transport, as at Marble Arch, of No. 239 Wing from Hamraiet to a landing-ground which had been prepared to the south-east of Sedada, where the landing-ground recon party had reported a suitable site at 08.00 hours that morning. Then, protected by a screen of armoured cars and working almost within sight of a local skirmish, the landing-ground was fully prepared to receive the Wing Advanced Recon Party which was lifted by four Hudsons and one D.C. 3 of No. 216 Group, which arrived at Sedada by 11.30 hours. The main flying party, consisting of 16 Hudson aircraft with 196 personnel, made up by each squadron to be a complete servicing echelon, in every detail arrived at 13.00 hours, escorted by squadron aircraft, just as the armour were moving forward. This airfield was therefore captured by the army, opened up and in operational use in a single day.

A.A.H.Q.W.D.
Daily Int. Sum.

Twelve Kittyhawks of No. 260 Squadron actually carried out fighter-bomber attacks on enemy M.T. in the Beni Ulid area before landing at Sedada. The returning air transport evacuated casualties from the Medical Holding Unit which the Army had established on the landing-ground. The enemy's only bombing attack on 17 January was carried out in the Sedada area at the very time the transport aircraft were landing at the airfields. It was an anxious moment, but happily the enemy fighter-bombers - 10 Me. 109's - were not aware of the opportunity presented to them of attacking such a vulnerable target.

H.Q.M.E. Opsum.

On 17 January, photo reconnaissance by three Spitfires of No. 2 P.R.U. Detachment had established that the bulk of the enemy air force had withdrawn to Castel Benito, where a total of nearly 200 enemy aircraft were counted. That night all available night-bombers - 48 in number - concentrated their attacks on that airfield. Although over 30 fires were counted on and around the airfield, there is no evidence that this concentration of effort was justified, compared with alternative targets. The enemy at this time were negotiating the defile at Tarhuna, where night-flying Hurricanes of No. 73 Squadron reported having located excellent targets. By flying second sorties, the Hurricanes were able to make 20 attacks. Many strikes were observed and about 40 fires were counted. However, these were not all vehicles, as later it was found that the enemy had used the subterfuge of burning bundles of straw and wood placed along the roadside.

No. 73 Squadron
O.R.B.

Opsums.

On 18 January, the Tarhuna track was still providing high-quality targets. These were attacked by eight fighter-bomber formations which, excluding escorting aircraft, totalled the high figure of 175 aircraft. This figure covered the sorties by fighter-bombers - 135 in number - carried out by the four Squadrons of No. 239 Wing (Nos. 3 and 450 R.A.A.F. and 250 and 260 Squadrons) operating from the new airfield at Sedada. Much

A.A.H.Q.W.D.
Table of Operations

destruction of enemy M.T. was reported. The enemy partially defeated the fighter bombers, however, by rushing the defile in small groups. Although our fighters were operating within close range of the enemy fighter bases, the enemy aircraft made no serious attempts to interfere with these attacks. This may have been due in part to the sustained bombing of Castel Benito airfield. In addition to the attacks on the previous night, a heavy raid by 13 Fortress aircraft of the 12th Air Force, operating from Tunisia and escorted by 33 P. 38's had been launched against this important enemy air base during daylight on 18 January, starting many fires among dispersed aircraft and in hangars.

M.E.W.I.S.

Official German Narrative.

'The enemy air activity,' says the German report for 18 January, 'had again increased. His bombing attacks were directed mainly against Tripoli town, port and airfield, while the enemy fighter-bombers and low-flying aircraft flew a large number of sorties against our positions at Tarhuna.'

No. 73 Squadron
O.R.B.

That night, 18/19 January, Castel Benito airfield was again the main target for the force of 61 bombers (24 Bostons, 11 Baltimores, 9 B. 25's and 17 Wellingtons) which operated, one large and many small fires being started on the airfield. The Wellingtons which had been briefed to attack Asabaa landing-ground were unable to locate their objective and so attacked enemy M.T. near Tarhuna and a fort at Garion. The night-flying Hurricanes of No. 73 Squadron, by doing second sorties, managed to carry out a total of 24 sorties against retreating enemy M.T. in the Castel Benito - Tarhuna area, starting six fires. A train was also attacked.

Official German Narrative.

At this time, the enemy's supply situation was still most serious. The recent fighting and the resumption of the retreat had caused the consumption of petrol to increase alarmingly, so that the last reserves of petrol were being consumed. Lacking the petrol for the move as reinforcements into southern Tunisia, 21st Panzer Division was still immobilised to the south-east of Tripoli. To add to these difficulties, there was an acute shortage of ammunition, particularly in the heavier calibres (10 cm., 17 cms. and 21 cms.). The enemy had planned to hold the Tarhuna-Homs position for some three weeks (an optimistic assumption, as these positions were in no way comparable in strength with the ones recently vacated) but the combined pressure of the Eighth Army and the Western Desert Air Force was such that Rommel decided to avoid a decisive battle there, particularly as there was a danger that the Italian infantry divisions, which were without transport, might easily be surrounded and overwhelmed, as had happened at El Alamein.

In spite of the speed with which the advanced landing-ground at Sedada had been occupied by No. 239 Wing, the advance was soon moving at such a pace that there was a danger that the W.D.A.F. fighters might again be outdistanced. Whilst the Sedada landing-ground was still under construction, the Bir Dufan area had been reconnoitred. The existing landing-grounds - as had already been revealed by photographic reconnaissance - had been so extensively ploughed and mined that they were useless, but happily some excellent natural sites were located some 14 miles to the south west. The Eighth Army R.E.s working at tremendous pressure, managed to

A.A.H.Q.W.D.
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Sums.

complete new landing-grounds there by 19 January, so that on that day all three fighter wings moved forward and occupied them. Unfortunately conditions of low cloud in the target area severely hampered operations, and although some 90 fighter-bomber sorties were made, few successes were claimed. The enemy showed increased activity, carrying out three bombing and strafing attacks with Me. 109's and two Stuka attacks, in an attempt to hold up the advance. Probably due to poor visibility, one Stuka attack was launched against their own troops.

No. 3 Wing
S.A.A.F. O.R.B.

A combination of bad going and mines delayed the progress of our forces advancing north-west from the Beni Ulid area, on the 19th, but by evening pressure was being developed on Tarhuna. On the coast 51st Division continued to advance and Eighth Army armoured cars occupied Homs in the evening. Reconnaissance by Spitfires of No. 2 P.R.U. and Baltimores of No. 1437 Flight revealed that in Tripoli the oil tanks were burning and that the enemy had sunk two block ships in the harbour entrance, so that an enemy evacuation of the port seemed imminent. Accordingly, all the light bombers available for night operations, totalling 46 aircraft (29 Bostons, 7 Baltimores and 10 B. 25's) were concentrated on targets in the Tripoli area. No. 73 Squadron aircraft also operated and carried out 15 sorties. Considerable movement of enemy M.T. was reported, the light bombers locating excellent targets and starting numerous fires, both large and small. The Hurricanes effectively machine-gunned large numbers of enemy transport on the roads in the Tripoli area together with camps and dumps to the south of Castel Benito. The Breda gun fire was intense and some pilots retaliated by concentrating their attacks on the 'flak' posts which had been installed along the road. The Wellingtons of No. 205 Group which set out to bomb the L.G. at Mellaha were diverted, after take-off, No. 37 Squadron being sent to Castel Benito and No. 70 Squadron to Tripoli. Six aircraft attacked Castel Benito, starting a fire which was visible 60 miles away. The aircraft which attacked Tripoli also started a fierce blaze which could be seen for 50 miles. Intense, very accurate opposition was reported in the Tripoli area, particularly from a flakship in the harbour.

No. 73 Squadron
O.R.B.

No. 205 Group
O.R.B.

Official German
Narrative.

'The moves commenced the previous evening,' says an enemy report, 'were carried out during the night, mainly according to plan and with no enemy pursuit, but under incessant air attack directed largely on the pass road west of Tarhuna. The moves were still in progress at daybreak.'

Middle East
Opsums and
Squadron
O.R.B.s.

During the morning 20 January, the W.D.A.F. fighter bombers were out in strength attacking the retreating enemy transport on the roads in the Tarhuna and Tripoli area. Out of the 209 fighters which flew sorties about one half carried bombs. Unfortunately in the morning targets were mainly obscured by low cloud. Later in the day gun positions and dug-in troops in the Cussabat area which were holding up our advance were attacked by 34 Kitty-bombers of Nos. 3 and 450 R.A.A.F. and 250 Squadrons, covered by 12 Kittyhawks of No. 260 Squadron. The bombing, which was made with 40 lb. and 500 lb. bombs, was accurate and was believed to have had successful results.

Official German
Narrative

'The enemy,' says the German report for 20 January, 'again concentrated his fighter-bombers on the pass road west of Tarhuna and his bombers carried out day and night attacks on Tripoli.'

That night, 20/21 January, 44 Bostons, Baltimores and B. 25's, using Darragh as an advanced refuelling base, proved that the enemy's major movements were still being made by night, for they found excellent targets in the Tripoli area of enemy convoys moving westwards along the main road. A total of 200 x 250 lb. bombs was dropped to good effect. Night-flying Hurricanes also found targets among enemy M.T. in the same area.

By 20 January, the Panzer Army could only muster 39 tanks (15th Panzer Division 23 Mark III and IV and Centauro Battle Group 16 'M'). The reserves of petrol were down to one consumption unit, the petrol situation having received a serious set-back, as during the afternoon, 10 out of 14 scows coming from Tunisia loaded with fuel had been sunk by the Royal Navy.

Rommel's well-ordered fighting retreat from Buerat, although in itself unspectacular, must be judged as one of his major feats of generalship, revealing him in his true light as a field Commander of great tactical brilliance. His tank strength at this time was less than one tenth that of his opponents. Yet, in spite of his achievements, he was being subjected to much hostile criticism. On the morning of 20 January, he received a message from Marshal Cavallero stating:

'The Duce is not in favour of the steps at present being taken, because they are not in accordance with his instructions to hold the Tarhuna-Homs position for at least 3 weeks. He does not believe the threat from the south to be very pressing and considers the orders that have been given unjustified and over-hasty. The Duce is of the opinion that the withdrawal will certainly develop into a break-through if all the moves are speeded up, as Army intends to do. The Duce insists on the line laid down by him being held.'

That same day Rommel attended a conference at Bianchi with Field Marshal Kesselring, Marshal Cavallero and Marshal Bastico. After outlining his difficulties, Rommel pointed out that once Buerat had been evacuated, the likelihood of delaying the Eighth Army's advance - provided their tactics were correct - was small. Neither the Tarhuna-Homs positions nor those at Tripoli, which only consisted of anti-tank ditches and isolated strong-points, had in his opinion 'any practical defensive value in modern warfare.' Rommel ended by asking the Italian Supreme Command to decide 'definitely whether he was to offer decisive defensive battle in the Tarhuna-Homs positions or to withdraw the Army intact to the Mareth line.'

Meantime events did not wait on the Duce's decision. Having received reports that the Ramcke parachutists had been transferred from the Homs front across to Tarhuna, the Eighth Army Commander decided to strike a hard blow on the right flank and launch 22nd Armoured Brigade through to Castelverde and Tripoli. By the evening of 21 January, 51st Division after bitter fighting, had managed to force the enemy back from the hills about Caradini and 22nd Armoured Division were to the west of Homs. In spite

El Alamein to
the Sangro.

Alexander's
Despatch.

A.A.H.Q.W.D.
Report on
Operations.

Nos. 250 and
260 O.R.B.s

No. 239 Wing
O.R.B.

H.Q.M.E. Opsum
and A.A.H.Q.W.D.
Daily Int. Sum.

No. 92 Squadron
O.R.B.

of these successes, the pace of the advance was still too slow for the Army Commander. For some thirty-odd miles from Homs the road to Tripoli winds through ravines and it had been demolished in many places with great skill and thoroughness, so much so that it was often impossible even for tracked vehicles to by-pass the demolitions. Eventually, however, 51st Division won their way through this stretch of intensely difficult country and emerged into the plain of Tripoli where the country was more open and suitable for the employment of armour. By the morning of 22 January, Castelverde had been captured by 51st Division and 22nd Armoured Brigade were brought forward to force their way through to Tripoli.

The enemy air activity was now on a comparatively small scale, as the bulk of his air forces had been forced to withdraw to fresh bases in Tunisia. Nevertheless, Castel Benito was still in use, in spite of the heavy weight of air attack it had sustained. Now that the Eighth Army's advance had been held up, there was a serious danger that their forward troops would be unable to 'flush' Castel Benito before the enemy could plough and mine it. This was a most important factor in the advance owing to the lack of landing-grounds and suitable sites in the Tripoli area. It was therefore decided to make an all-out effort to try to prevent serious damage to the landing-ground by air attacks to hold up the mining and, if possible, destroy the ploughs. On 21 January, 87 fighter-bomber and low-level machine-gunning attacks were made on the airfield. Ploughing had already started, but this was soon interrupted. The actual destruction of the three tractor ploughs in use on the Castel Benito landing-ground fell to Kittyhawks of Nos. 250 and 260 Squadrons which bombed and strafed the ploughs, together with the enemy aircraft still on the landing-ground. Two separate raids by a total of 41 Kittyhawks were made in the face of intense A.A. gunfire before the three ploughs were accounted for. By 07.30 hours on 24 January, No. 239 Wing Advance Party had reached Castel Benito by airlift in Dakotas and Hudsons. At 15.00 hours a force of 43 fighter bombers set out for their first Wing attack on Tunisia when they carried out a very successful attack on Ben Gardane L.G. and created havoc among enemy road convoys.

On 21 January, other fighter-bombers continued their attacks on enemy M.T. withdrawing along the coast road from Tripoli into Tunisia. A total of 66 fighter-bomber attacks were made and at least 11 vehicles were destroyed and many others damaged. Low cloud prevented a further 19 fighter-bombers from bombing. Other fighter-bombers, 11 Kittyhawks and 10 P.40's, despatched to bomb a gun position, were unable to locate the target. Offensive patrols over the coast road in the Tripoli area took up a further 87 sorties (79 Spitfires and 8 P.40's). A formation of Spitfires of No. 92 Squadron, carrying out a sweep over Castel Benito and the Castel Verde areas located 8 unescorted Ju. 87's flying west at 15 miles distance. They managed to intercept some of them and shot down three which were confirmed by forward Eighth Army troops. The concentrated attacks on Castel Benito landing-ground also accounted for many enemy aircraft damaged.

On 21 January, Rommel was present at another conference at which Marshal Cavallero passed on the Duce's oracular reply to Rommel's request for instructions on the conduct of operations.

Official German
Narrative

'The Duce's directions are unchanged,' he said. 'The destruction of the Army must be avoided, but as much time as possible must be gained.'

The German report on air operations for the night 20/21 January and day 21 January stated:

'Enemy night bombers continuously raided Tripoli town and seaplane base. During the day heavy fighter-bomber raids were carried out in support of the ground attack west of Tarhuna and Homs.'

No. 211 Group
O.R.B.

Fighters of No. 211 Group flew 325 sorties on 21 January - the highest total since the battle of El Alamein.

No. 3 Wing
S.A.A.F.
O.R.B.

Already the retreating enemy forces were passing out of range of the light bombers based on Bir Dufan and orders were given by A.A.H.Q.W.D. for all available aircraft to fly to Darragh for the operations night 21/22 January against enemy transport on the road from the small port of Zuara to Ben Gardane, the airfield some 30 miles across the frontier, in Tunisia. A force of 35 light bombers (26 Bostons and 9 Baltimores) operated, causing a number of fires among M.T. along the coast road and also on the L.G. at Ben Gardane. However, the main enemy force was missed by the night-bombers which had been briefed to operate at least 50 miles too far to the west, the chief targets still being in the neighbourhood of Tripoli. Hurricanes of

No. 73 Squadron
O.R.B.

No. 73 Squadron operated along the coast road, westwards from Tripoli, carrying out low-level machine-gun attacks against enemy convoys, tented camps and parked vehicles. An ammunition dump near Castel Verde was hit and blown up.

H.Q. Middle East
Table of
Operations

Over 100 fighter bombers continued the attacks on good targets presented by the enemy as they retreated from Tripolitania across the frontier into Tunisia. One formation - 12 Kittyhawks of No. 450 Squadron R.A.A.F. and 11 Kittyhawks of No. 3 Squadron R.A.A.F. - caught a petrol tanker as it was refuelling about 20 vehicles. The tanker caught fire and exploded and most of the vehicles surrounding it were destroyed. Many other enemy vehicles, including five staff cars, were damaged. On the same day, 22 January, in order to delay the departure of shipping from Zuara, in anticipation of an impending attack by a British light naval force, three formations totalling 56 Kittyhawks, escorted by 18 Spitfires, bombed the small harbour there. Direct hits with 40 lb. bombs were claimed in a merchant vessel and several direct hits on a jetty and wharves. Lighters and a submarine were machine-gunned and about 20 vehicles were destroyed or damaged. The last formation to attack found five Me. 109's circling the harbour and shot down three of them. Spitfires and Kittyhawks carried out a total of 61 sorties on patrol in the Tripoli - Zuara area without incident.

A.A.H.Q.W.D.
Daily Int. Sum.

In spite of the proximity of enemy landing-grounds to the scene of operations, enemy air activity was on a small scale. No reports of bombing were received by A.A.H.Q.W.D. during the day. In the afternoon, the Germans provided fighter cover for their M.T. in the neighbourhood of Zuara. The enemy air forces were again preoccupied with another move westwards - this time to new bases in Tunisia. By contrast, aircraft of No. 211 Group flew some 200 sorties.

No. 211 Group
O.R.B.

Main Eighth Army
Cositrep
A.H.B./ILJ1/
162/3 and
Alexander's
Despatch.

Having emerged on to the plain of Tripoli and captured Castelverde, on the morning of 22 January, 51st Division were now only 30 miles from Tripoli. Here, as has already been mentioned, the country was more open and suitable for the employment of tanks and 22nd Armoured Brigade was brought forward through the 51st Division for the final assault. The German 90th Light Division made a final stand some 15 miles to the east of the port. This was the occasion when a battalion of 51st Division went into battle riding on Valentine tanks to stage an attack in the full moonlight. Meanwhile progress had been made on the left flank and the southern outflanking column was only 17 miles from Tripoli. With strong Eighth Army forces converging on the city from two directions its fall was now assured. The 11th Hussars entered Tripoli from the south at 05.00 hours on 23 January, while the 1st Gordons of the 51st Division came in from the east. (1)

It was three months to the day that the Eighth Army offensive, Operation 'Lightfoot', had been launched at El Alamein, during which time the Eighth Army and the W.D.A.F. together had advanced 1400 miles. First Egypt, then Cyrenaica then the greater part of Tripolitania had been finally cleared of the enemy. By the end of January, our forces had advanced to the Tunisian frontier and the pincers were beginning to close on the enemy, for with the fall of Tripoli the enemy could make no real stand east of the Mareth line.

Official German
War Narrative.

'Our main air effort,' says the German report on the air situation for 22 January, 'consisted of fighter protection over the coast road west of Tripoli for the enormous number of second-line and supply vehicles using it. Army had also ordered every possible anti-aircraft weapon to be sited between Tripoli and the frontier. By this means, eight enemy aircraft were shot down during the day by ground defences - five by anti-aircraft and three by machine-gun fire. The enemy concentrated his air attacks mainly on the retreating convoys on the Via Balbia.'

No. 211 Group
O.R.B.

These claims of losses inflicted on the W.D.A.F. by A.A. gunfire are not supported by R.A.F. records. No. 211 Group give the day's losses as three fighters. The following extract is taken from the Western Desert Daily Intelligence Summary for the period ending dusk 22 January.

- (1) When the Eighth Army entered Tripoli, they found private and civic buildings little damaged and the public services were still functioning. Most of the military installations and establishments, however, had been wrecked either by bombing or by the enemy when they evacuated the place. Damage to the port was particularly widespread. The quays and wharves were cratered, the mole breached and the entrance to the harbour had been blocked with sunken ships. The first British ship entered Tripoli on 3 February and a complete convoy was berthed there within three days. The enemy were surprised that the port had been opened up so quickly. 'The enemy is already using Tripoli port,' says a German report in early February, 'in spite of the enormous destruction we had carried out there.'

'Enemy air activity on a small scale considering proximity of enemy landing-grounds to scene of operations. Attempts made to patrol road and to forestall attacks on Zuara were successfully checked by our fighters who in course of day destroyed 3 Me. 109's and 1 Me. 202. Two pilots are missing but one of them is known to have force-landed SE. of Castel Benito.'

Rommel's decision to evacuate the port of Tripoli was given in a German appreciation of the situation for 22 January:

'To-day's enemy picture indicated that the Army must expect strong pressure on Tripoli from south and east and an outflanking thrust west of the city, on 23 January. Army therefore decided to destroy all important installations at Tripoli, especially those of the port and the airfields, to evacuate the city on the night 22-23 January and to carry out a fighting withdrawal in the face of superior pressure to the general line Bianchi-Olivetti (40 km. west of Tripoli)....

Official German
War Narrative.

Marshal Cavellero expressed his appreciation to the Army Commander for the Army's defensive success the previous day, and informed him that instructions had arrived last night (22/23 January) from the Duce that Army was to do its utmost to withdraw the greater part of the non-motorised formations under cover of the motorised and armoured formations....

The Army's withdrawal to its new defensive line west of Tripoli,' says the first entry for 23 January, 'went according to plan on the night 22/23 January, despite severe enemy pressure and incessant night-bomber attacks.'

No. 3 Wing
S.A.A.F. O.R.B.
and Opsum No. 94.

Air operations continued throughout the night 22/23 January with 39 bombers of No. 3 S.A.A.F. Wing which refuelled at the forward landing-ground and spread their attacks over dispersed aircraft on the landing-grounds at Medenine west and Ben Gardane, and also on M.T. on the road between Zuara and the frontier, starting numerous fires and causing a number of explosions. Twelve Hurricanes of No. 73 Squadron also machine-gunned convoys on the road from Zuara to Medenine, scoring many hits and setting a building on fire. Only during the morning did the retreating enemy present targets to the fighter-bombers and in the main these were well-dispersed. Some 70 fighter bombers operated, making an attack on a camp to the west of Zuara and four attacks on enemy transport in the same area. Towards the middle of the day no further targets materialised and further operations were confined to Spitfires of No. 145 Squadron which kept a continuous patrol over a Wellington operating over Tripoli harbour sweeping mines.

H.Q. Middle
East Opsum and
W.D.A.F. Daily
Int. Sum.

During 23 January, enemy air activity was on a small scale and confined mainly to small interception patrols in the Zuara area. This was due to the fact that the enemy air forces were preoccupied with yet another move to new bases, this time in Tunisia. Unfavourable weather on 23 January prevented a full-scale reconnaissance of enemy landing-grounds, but it was established that enemy fighters had occupied landing-grounds at Gabes where 42 were located

and Medenine West where a further 65 were counted. There were still 14 German fighters on Ben Gardane landing-ground. It was now obvious from the location of these new bases that the G.A.F. were in close touch with their colleagues in the Tunis area and could switch rapidly from one front to another.

A.A.H.Q. W.D.
Daily Int. Sum.

It was decided to give the enemy air forces no rest and, accordingly, all available light-bombers were briefed to attack the enemy air base at Medenine West. A total of 26 aircraft (7 Bostons of No. 12 S.A.A.F. Squadron, 10 Bostons of No. 24 S.A.A.F. Squadron and 9 B. 25 Mitchells) operated. Only 22 of the sorties were effective against the landing-ground, three others being directed against good M.T. targets located along the coast road between Sabratha and Ben Gardane. A further 15 light bombers (three Bostons of No. 12 S.A.A.F., three of No. 24 S.A.A.F. and nine Baltimores of No. 21 S.A.A.F. Squadrons) also attacked the same road targets to good effect. The attacks on the landing-ground only resulted in one fire, although 52 x 250 lb. bombs and nine boxes of incendiaries were dropped, and it would appear that this effort would have been employed to far greater profit had the whole of the night bombing been concentrated on the retreating enemy columns. This phase of air operations is noticeably lacking in the single-minded concentration and direction which had won such conspicuously high results earlier in the campaign. It is as though many of the lessons learnt the hard way in the desert had been, for the time being, if not forgotten then overlooked.

A.A.H.Q.W.D.
Record of Operations. A.H.B./
IIJ1/122/68 (A)

With the rapid movement westwards of the enemy, targets had begun to fade. It was now urgently necessary to move a Wing forward in order to obtain increased range. As a result of the harassing attacks carried out on Castel Benito airfield and the destruction of the three ploughs, the enemy had been prevented from ploughing or mining it to any extent. Comparatively little repair work was found to be necessary and the airfield was ready for occupation on 24 January. Enemy demolitions along the road delayed the move forward of the squadron supply echelons and ground parties to such an extent that it was again necessary to fly in No. 239 Wing with the aid of transport aircraft. Spitfires flew a total of 47 sorties to cover the arrival of the Hudsons and Dakotas, on 24 January. As has already been mentioned, on the afternoon of the day when the squadrons arrived at the landing-ground an attack in strength with 43 fighter bombers was launched against the enemy-occupied landing-ground of Ben Gardane. One Me. 109 was destroyed on the ground and one Ju. 88 in the air, while a number of others - there were 15 in all on the airfield - were probably damaged. On the return journey about 300 enemy transport on the main road were machine-gunned and six were left in flames and more than 30 damaged. No enemy air activity was encountered in the forward areas. This establishment of a fighter wing at Castel Benito ensured reasonable protection of the Eighth Army forward land forces as far as the Tunisian frontier. Ample evidence of the effect of the air attacks to which the airfield at Castel Benito had been subjected was found when the W.D.A.F. occupied it. In addition to the widespread damage caused by the heavy bombing, over 50 repairable aircraft had been left abandoned.

H.Q.M.E. Opsums.

Record of
Operations.

Reconnaissance had established the fact that enemy aircraft were still on Zuara landing-ground. An early

A.A.H.Q.W.D.
Daily Int. Sums.
and Opsums.

morning raid on 24 January by eight Warhawks of No. 65 Squadron U.S.A.A.F. and 11 Warhawks of No. 64 Squadron U.S.A.A.F., all carrying 40 lb. bombs, had the desired effect of driving the remaining aircraft off the landing-ground. Zuara was the last air base available to the enemy in Tripolitania and it was apparent that the whole of the Axis air forces had now moved back to more secure landing-grounds in Tunisia. Reconnaissance revealed that the enemy's new fighter bases were at Gabes, Medenine and Ben Gardane. Air attacks were renewed at intervals on the landing-ground at Zuara and also on the little port there in order to prevent ploughing and hamper any shipping activity.

C.-in-C.'s
Despatch.

Until the port of Tripoli had been opened, the Eighth Army could only support light forces in the forward area. However, the advance continued steadily and by the end of the month our forces were on the Tunisian frontier. In this they were aided by a column of Fighting French from the Chad territory, under General Leclerc which, while the Eighth Army were advancing along the coast, invaded the country from the south.

No. 3 Wing
S.A.A.F. O.R.B.

After the fall of Tripoli, there was a drop in the activity of the W.D.A.F. due to adverse weather conditions and also to a lack of suitable targets. Rain and poor visibility were such on the night of 24/25 January that a force of Bostons and Mitchells which set out to attack enemy aircraft on Medenine West airfield failed to locate their target. However, they attacked enemy convoys along the coast road near Ben Gardane to good effect, causing one large fire and a number of explosions. This raid was the last the light bombers were to carry out for a month, when they did a certain amount of preliminary bombing of the Mareth positions, prior to the offensive. This period of quiescence for the light-bomber squadrons was spent to good effect in bringing aircraft forward to new advanced bases, in training, and in general reorganisation.

Report on Operations of the
W.D.A.F. A.H.B./
IIJ15/4.

The air defence of the port of Tripoli was now of vital importance, as from the date of its capture it had become the main port and base of the Eighth Army. Before large-scale operations westward could be undertaken, it was necessary to develop this base and to concentrate the necessary forces in Western Tripolitania. Moves for the protection of the port were well-advanced even before it was in our hands, and by 23 January - the date Eighth Army troops entered Tripoli - a Sector Operations Room and a Hurricane Squadron had been established at Misurata. As soon as Castel Benito was available, another Hurricane Squadron (No. 274) was installed there, under No. 211 Group, until the airfield at Mellaha could be made serviceable and a Sector Operations Room set up. It was anticipated that the Luftwaffe's long-range bomber force of Luftflotte X, based on Crete, would not lose much time in carrying out night-bombing attacks against the port. To counter this, a flight of Beaufighters of No. 89 Squadron was moved forward on the 27 January and a G.C.I. Station was set up. Night-flying Hurricanes of No. 73 Squadron were also used for the night-defence of the port.

Record of Operations
W.D.A.F.
A.H.B./IIJ1/
122/68(A)

On 2 February, the static defences East of 13 degrees East (a little to the west of Tripoli) were handed over to Air Headquarters Egypt. During February, the enemy attacked the harbour on most nights, sometimes in considerable strength, but did relatively little damage.

The port's A.A. defences were also very formidable and only seldom did enemy aircraft manage to penetrate the A.A. barrage. The increasing casualties caused by our night fighters and the A.A. forced the enemy to reduce the strength and frequency of his attacks and finally to abandon them altogether.

Reconnaissance Operations by No. 285 Reconnaissance Wing.

No. 285 Wing
O.R.B.

Throughout the period of rapid changes of location covering the advance from Alamein to Tripoli, a firm policy was maintained of keeping No. 285 Reconnaissance Wing sited within 10 miles of Advanced Air Headquarters. This was of importance as the Wing's outstanding task was to supply the combined Army and Air Headquarters with photographs of the battlefront and of the strategical areas behind the battlefront. The successive stages of the move were Daba, Mersa Matruh, Gambut, Imimi, Benina, El Agheila, Marble Arch, Tamet West, Darragh and Castel Benito.

Record of
Operations.

Tactical Reconnaissance requirements of the Army were met by No. 40 S.A.A.F. Squadron which normally kept a flight with one of the forward fighter wings. This arrangement was made necessary by the shortage of landing-grounds. In practice the arrangement worked out very well, as it greatly facilitated the provision of an escort, when necessary. Since the advance began, No. 40 Squadron S.A.A.F. had operated from 19 landing-grounds, making 318 sorties on 160 operations (24 of which were escorted by fighters), totalling 444 hours. The Squadron lost six aircraft, three in combat and three by A.A. The system of broadcasting the results of the Tac/R's over the Air Support Control Links proved very successful.

No. 285 Wing
O.R.B.

The 'A' Flight of No. 2 P.R.U. (Spitfires VD) was termed the Wing's 'maid of all work', its various duties covering strips of the battle areas, survey strips, landing-grounds and harbours. The enemy's advanced landing-grounds and harbours such as Tobruk, Derna, Benghazi and later Tripoli were covered daily, the latter task being taken over from Malta on 10 November 1942. Sorties requested by H.Q. R.A.F. Middle East, such as Navarino and special bombing targets at ports and landing-grounds were also dealt with, the results being flown down to Heliopolis or the bomber Wing concerned. Between 23 October and 23 January the Flight carried out 208 sorties, totalling 635 hours.

No. 60 Squadron S.A.A.F. was recalled from the Delta in November to survey first the Marsa Brega defences and later those of Buerat and Mareth. A thorough survey of the Mareth Line positions was already well in hand even before the Eighth Army had entered Tripoli. The Squadron was flying Baltimores II and Marylands and by late January had been reduced to two serviceable aircraft.

No. 1437 Strat/R Flight did extremely valuable work throughout the advance. As the campaign became one of movement so Strat/R became increasingly important and the enemy's withdrawal was followed step by step and invaluable information regarding enemy movements, concentrations, camps, dumps etc. was obtained. A Strat/R aircraft - the Flight was operating Baltimores II - usually took off at first light, so that information regarding likely targets could be reported back before mid-day. The total number of sorties flown during this period was 137, totalling 490 hours.

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CHAPTER 12

FROM THE FALL OF TRIPOLI TO THE FINAL VICTORY IN TUNISIA

(23 JANUARY TO 12 MAY 1943)

Section I.

Unification of Air Command in the Mediterranean

As the Eighth Army approached the Tunisian frontier, questions of unified command exercised the minds of both the Allied and enemy Commanders. (1) On the Allied side, this pressing problem of the unification of command was complicated - as is the case in all Coalition wars - with questions of national prestige and sovereignty, ones over which the Americans had always shown themselves to be extremely sensitive. The essential fluidity of air power served to emphasise the problem at an early date. It was one to which the Air Officer Commanding-in-Chief was particularly alive, as any division of control threatened the whole basis of unified command on which the complex structure of air power in the Mediterranean had been built.

On 19 November 1942, the Chiefs of Staff, prompted by a suggestion from the C.A.S., requested the Commanders-in-Chief Middle East for their views on the future organisation of command in the Mediterranean. The Defence Committee replied on 22 November in Mideast Signal CC/143 in which the more pertinent references to air command in the Mediterranean were extracted verbatim from a paper on that subject which the A.O.C.-in-C., Middle East had submitted to the Middle East Defence Committee. This paper was to inspire all future negotiations on the subject and is of such historical interest that it is quoted at length:

'Defence Committee

Command in the Mediterranean

Note by the A.O.C.-in-C.

1. Commanders-in-Chief have been asked for their views on the future organisation of command in the Mediterranean theatre once we have consolidated our positions in North Africa.

My views on the control of air forces in the area are as follows.

2. After we have occupied North Africa, the air forces in the Mediterranean area will be faced with two main tasks:

(a) The control of sea communications, in conjunction with naval forces

(1) 'In January 1943, the long needed appointment of German Supreme Commander for the Mediterranean was at last created. Field Marshal Kesselring, the C.-in-C. Air, South, became in practice, if not in name, Supreme Commander of all German forces in the Central Mediterranean. His new appointment made him Rommel's superior. No change was made in the system of organisation for the Italians.' Weichold.

- (b) Overseas combined operations in conjunction with naval and land forces.

The Control of Sea Communications

3. The problem of controlling sea communications will entail for the most part, the protection of our own shipping and offensive action against enemy naval forces. For this, all types of aircraft, fighters, bombers, torpedo bombers and reconnaissance, will have to be used, and their respective rôles carefully co-ordinated. As the situation requires, we must be prepared to switch the whole of our effort on to the most important task at the time wherever in the Mediterranean this may be.

All air forces in the Mediterranean theatre should therefore operate under a single commander.

4. While the Royal Navy must always play a vital part, I think it has been proved conclusively in the course of the last eighteen months that air forces must play a dominant part in the control of sea communications in the confined waters of the Mediterranean. The presence of enemy air forces has prevented, and will continue to prevent, our surface forces from operating with the freedom they still enjoy in the wider oceans.

All air forces in the Mediterranean area should therefore operate under air command.

Overseas Combined Operations

5. This need for centralised control applies equally to the problem of overseas combined operations. All types of aircraft will be required and the maximum concentration and co-ordination can only be achieved if command is vested in one man.

6. For the effective execution of both the main tasks in paragraph 2 above, therefore, the best and to my mind the only sound solution to the problem is that all the air forces in the Mediterranean area should be under a single Air Officer Commanding.

7. There will be difficulties, of course. The Americans may have different ideas and political considerations may decide the issue on different lines. It will in any event take time to set up the new command. But I am convinced it should be our aim to achieve it as quickly as we can.

8. To sum up, my proposals are:—

(a) If the Americans Agree

(i) Set up a single air command for the whole of the Mediterranean area, under an Air Officer Commander-in-Chief. As the naval command will be British, and the major air effort in the area is and will for some time continue to be British, the Commander-in-Chief should be British.

(ii) Within this command there should be two sub-commands, Eastern and Western, the latter including the American 12th Air Force. These sub-commands to include Naval Co-operation Groups on lines similar to 201 Group.

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D.C. (42) 85.
21 Nov. 1942.

- (iii) Naval Commander-in-Chief of land forces in Torch and Middle East Commands would deal with the A.O.C.-in-C. and their Army Commanders with the Commanders of the Sub-Air Commands in which they may be located.
- (b) If the Americans Do Not Agree
- (v) In these circumstances, the United States 12th Air Force in Morocco and Algeria would presumably remain under U.S. Command.
- (vi) We should still, however, insist on the maximum possible centralisation of control. To this end the Eastern air force in Tunisia should be set up as a new R.A.F. sub-command. If General Eisenhower retains command of Tunisia this sub-command would be located in his area but should operate under A.O.C.-in-C. Middle East.
- (vii) The strategic direction of all the air forces in the Mediterranean area should be co-ordinated by the A.O.C.-in-C. Middle East and General Eisenhower under the direction of the combined Chiefs of Staff.

(Int. A.W.T.)'

On 28 November, Air Chief Marshal Tedder returned to Cairo after a visit to Malta and Algiers. Malta, he reported in a signal to the C.A.S. the day of his arrival back in Cairo, he found 'running smoothly and well.' It was different in the 'Torch' area where the chaotic conditions obviously shocked him profoundly. He found the communications there 'practically non-existent, except for French telephone system which is archaic. This applies to all services.' The landing-grounds were 'dangerously inadequate ... dispersal non-existent and ... congestion almost unbelievable. The most forward fighter aerodrome is some 100 miles from the forward troops. Any reality of combined H.Q. has gone. Eisenhower and huge U.S. staffs fill large hotel.... Welsh and his H.Q.s are some miles out of Algiers and Doolittle (who commands the U.S. air) has a separate H.Q. in the town. The U.S. air is running a separate war though Eisenhower assured me that he had given instructions it was to be under Welsh's operational control.' Air Chief Marshal Tedder said that he was 'frankly concerned at the situation'.

'I feel,' he concluded, 'that the whole problem demands firm handling, both from the point of view of the immediate conditions in Algeria and Tunis, and from that of future control of the Mediterranean. I told Cunningham our views about future air command in the Mediterranean and he agreed them. I feel they ought to be implemented at once. I feel that a small operational H.Q. of Middle East should be set up at once in Eisenhower's H.Q. alongside Eisenhower and the Admiral, leaving Welsh free to fight his battle which at present he is quite unable to do. I feel that Middle East can help with its experience of mobile organisation, security measures, communications and repair and salvage. I am willing to send some individuals over to advise, but without authority feel they can do little. I would most strongly oppose any suggestion that I should go there to advise. Advice without authority and responsibility is useless.'

AOC 971 Enc. 9a
Command in the
Mediterranean.
A.H.B./LLJ1/183/
174.

(84234)503

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On 30 November, the C.A.S. signalled that General Eisenhower had proposed to the Chiefs of Staff that Air Chief Marshal Tedder should go to Algiers for two weeks as his adviser. This proposal was not acceptable for the reason already given by Air Chief Marshal Tedder that 'advice without authority is worthless.' However, the Chiefs of Staff were anxious to place Air Chief Marshal Tedder's experience at the disposal of General Eisenhower.

'I intend,' said the C.A.S. 'to propose suggesting to Eisenhower that you assume command of all Air Forces in the Mediterranean forthwith. I understand Prime Minister is favourably inclined.

Your responsibility would be:

- (a) subordinate to Eisenhower for operations of the Torch Air Forces, British and American;
- (b) to Chiefs of Staff for co-ordinating Middle East air operations with those of Torch to achieve most quickly defeat of Rommel and Nehring.'

As the C.A.S. informed the A.O.C.-in-C. on 4 December, General Eisenhower rejected this proposal:

'Mainly on the ground that he does not think you could command air operations in two separate theatres which are under separate ground Commanders and in both of which separate tactical problems exist at present. As a temporary measure Eisenhower is attaching Spaatz who is now in Algiers as the "Deputy for air operations but his position is not that of a Commander." He wishes, however, to take advantage of suggestion that you should send advisers and asks you to send as soon as possible two staff officers who are "thoroughly experienced in the type of air fighting that must take place out of improvised fields and without the benefit of established bases and adequate stocks of spare parts and supplies." Please send these officers immediately.'

The A.O.C.-in-C.'s reaction to this information that General Eisenhower, while wishing to profit by the R.A.F.'s extensive experience of operations in the Middle East, yet wished to keep the senior air appointment an American preserve, was chilly. He pointed out that he was being requested by General Eisenhower

'for transfer of heavy bombers from here. Today I have had request from Welsh for fighters in view his heavy losses on the ground of which I am frankly not surprised. These separate requests further emphasize the need for unified command.... Close co-ordination of the air operations from the East and from the West is in my opinion most urgently required and I feel that we have a right to insist on that so far as the R.A.F. is concerned. As regards the point that the A.O.C.-in-C. could not serve as Commander in two separate theatres which are under separate Ground Commanders, I presume Eisenhower does not realise that I already control air operations in theatres under separate Ground Commanders including incidentally those from Malta and that in specific theatres

Correspondence
with C.A.S.,
P.M. etc.
Punch 122.

A.O.C. Punch
Dec. 5 for
C.A.S. from
Tedder

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I delegate detailed control of air operations to the land commander, especially where it is operating in direct support of land forces.

'I have shown the above to Andrews and he agrees that unified co-ordination of air operations in the Mediterranean is necessary.

'As regards sending advisers, I would strongly urge I be relieved of this since throughout I consider advice without executive responsibility to be worse than useless and with the best will in the world only likely to cause friction.'

There were soon signs, however, that Air Chief Marshal Tedder's persistence in pressing the need for centralised air control in the Mediterranean, was beginning to bear fruit. On 9 December the A.O.C.-in-C. wrote to the C.A.S.

'It is daily being made yet more and more evident that the distribution of air forces and the direction of the strategic air effort from the whole of the African coast and from Malta are matters requiring almost daily consideration and adjustment and that that adjustment can only be properly made by one authority who is in a position to balance the requirements, resources and facilities. This does not, of course, affect the direction of the detailed tactical operations which are linked with the land operations in Tunisia and Libya.

Correspondence
with Prime
Minister, Etc.
A.O.C. Punch 127
A.H.B./IIJ1/183/
27(E).

'Since writing the foregoing, have received signal from Eisenhower saying "suggest in order thoroughly to co-ordinate air activities of your forces and my forces that you visit my Headquarters for several days during present critical period". Have replied gladly accepting suggestion and propose leaving to-morrow with staff of four.'

The C.A.S. replied on the same day:

Ibid.
Punch 125.

'Delighted you are going to Algiers. All agreed here as to need for united strategic control of all Mediterranean Air Forces both now and in the future. Main difficulty seems to be American reluctance for political reasons to place air forces under R.A.F. command.'

By 11 December, Air Chief Marshal Tedder was in Algiers.

'Main preoccupation here,' he signalled to C.A.S. on 13 December, 'is control of operations of air forces in support of land battle. Anderson has been extremely dissatisfied due firstly to Anderson's fundamental misconception of the use and control of aircraft in close support and secondly his failure to appreciate almost hopeless handicaps in respect of aerodromes, communications, maintenance and supplies under which Lawson has been operating. Actually, my impression is that our air has done magnificently and more than conceivably could have been expected under the conditions.... Lengthy discussions have, I think, shown Americans distinction between the tactical air battle, in support of the land battle, and the strategic air operations which are necessarily controlled from the rear....

AWT 100 and 110
Dec. 16. CAS
from Tedder.

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'Had long private talk yesterday with Eisenhower on question of unified air command and also command in North Africa. Present air organisation is almost crazy with two air forces nominally working together with no effective command. Spaatz is performing useful function in co-ordination though of course he has no operational experience or knowledge, but he is not commanding. One effective commander of both forces is essential and I personally believe the only answer to this is an American Commander with first-class British Deputy....'

On 16 December, Air Chief Marshal Tedder was able to signal to the C.A.S. in an optimistic vein.

'Have had further discussions with Eisenhower. He is, I think, fully in agreement with the need for unified Command in the Mediterranean, but is nervous (a) about his call on U.S. forces in U.K. and (b) about Washington reactions to putting U.S. air forces under British command.... The more I see of the R.A.F. set-up here, the more convinced I am that we shall only get full value out of it if Middle East resources and experience are fully available for Torch which can only be if Middle East have command. Feel we have a right to insist on this....'

The C.A.S. replied on 17 December:

'Can see Eisenhower may have difficulties about putting U.S. Air Forces under British Command and the ideal permanent arrangement on which we are agreed may not work for this reason. It is also obviously more difficult to work when there are two separate though closely related campaigns in progress in Tunisia and Tripolitania. Must leave it to you to get agreement on an arrangement as near that suggested by Chiefs of Staff in 223 of 1st December as possible. Probably not worth too much effort to attain the ideal as long as the main object is achieved of devising some machinery whereby suitable air striking forces can be concentrated quickly against whatever is the vital objective at the time.... I am not quite clear on your proposal.... It would be helpful if you would describe your idea in terms of Western Desert with particular reference to following questions....'

Punch 127.

The C.A.S. then proceeded to outline six questions on organisation which the A.O.C.-in-C. answered in his signal of 20 December, in which he expanded his ideas on air command in the Mediterranean and which, eventually, was to serve as a blueprint for the new organisation.

'Herewith summary my proposal.

(a) A.O.C.-in-C. establishes advanced H.Q. in (r) in Allied H.Q. He continues to control strategic operations Malta and Libya as at present. In North Africa he co-ordinates, under Eisenhower, operations of British and American Air Forces.

(b) There are two main air forces in North Africa

(i) Tactical short range force operating in support of land battle. This is bulk of British E.A.C. but U.S. short-range fighter aircraft and light bombers operate under this command during

AOC Punch 141
Dec. 20

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active land operations. U.S. long-range fighter and mediums may also be placed under this command on occasions as has been done in Middle East.

(ii) Strategic force of heavy bombers, entirely American. Medium bombers both British and American also in this force except when passed to control of (i)....

I came away because I felt I had given all the advice I could usefully give and there was risk of my coming to be regarded as a regular but of course irresponsible adviser on actual operations. I felt this to be dangerous as shown by Anderson remarking to me that the last battle had really been lost because my advice had been taken.¹

The next move came from General Eisenhower himself who sent a signal to Air Chief Marshal Tedder, on 4 January 1943, asking for a meeting. It was obvious that developments in Tunisia, where the battle had become a stalemate, had shaken the General's confidence and that he wanted the assurance of a nucleus of operationally-experienced staff officers around him. These, both Army and R.A.F., could only come from the seasoned and practised forces of the Middle East.

'I have just heard that you intend soon to start for London. I would greatly value an opportunity to talk with you anywhere from an hour up to as long as you can stay.... If you could stop here no later than the 11th I could be certain of seeing you and would accommodate my time to suit yours. Even if you could stop for only half an hour I would come to the airport for a conversation. Could you give me an estimate of your prospects so that I may arrange my time accordingly.¹

Enc. No. 31A
Command in the
Mediterranean.
A.H.B./IIJ1/183/
174.

The C.A.S. warned the A.O.C.-in-C. in his signal dated 5 January:

'In conversation with Eisenhower, please do not commit yourself in any way about re-organisation Eastern Air Command or appointment in it until you have discussed these questions with me at Symbol, but anything you can do to persuade Eisenhower to accept unified control Air Forces in Mediterranean would be very valuable....¹

Ibid. Enc. 31A.

The Casablanca Conference, alluded to in the above signal as Operation 'Symbol' opened at Anfa, near Casablanca, in French Morocco on 15 January 1943. The Prime Minister, President Roosevelt and the Combined Chiefs of Staff were present at the conference which was also visited by Generals Eisenhower, Alexander and Air Chief Marshal Tedder. It resulted, among other things, in a decision to reorganise the chain of command in North Africa with a view to setting up a unified command of the Allied Naval, Land and Air Forces. It was apparent by this time that von Arnim's forces in Tunisia and those under Rommel would soon effect a juncture and it was decided that when this occurred the projected unified Command should be formed.

The agreed proposals authorized the formation of a Mediterranean Air Command under an Air Commander-in-Chief, Mediterranean comprising three subordinate Commands:

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North-West African Air Forces, Middle East Command and Malta. The Air Commander-in-Chief was to be subordinate to General Eisenhower in respect of

OCS 163 and
170: 23 Jan.
1943.

- (a) the air forces stationed from time to time in the North-West African theatre and their operations,
- (b) the operations of other Mediterranean air forces in conjunction with operations conducted in or from the North-West African theatre.

General Eisenhower was to afford the Air C.-in-C. all possible support and facilities in the North-West African theatre for the operation of the Mediterranean air forces and for their efficient co-operation with the land and sea forces in that theatre.

It was agreed that Air Chief Marshal Tedder should be the Air Commander-in-Chief, Mediterranean, with his headquarters at Algiers. Middle East Command was to be placed under the command of Air Chief Marshal Sholto Douglas (Deputy Chief of Air Staff 1940 and A.O.C.-in-C. Fighter Command 1940-1942) as A.O.C.-in-C. Malta was to become a separate Command, under M.A.C., with Air Vice-Marshal Park remaining as A.O.C. The third Command under M.A.C., the North-West African Air Forces, was to be commanded by Major-General Spaatz.

These proposals were put into force on 17 February 1943 under General Eisenhower's General Order No. 20. The detailed organisation of the new Command was left to the new Commander, Air Chief Marshal Tedder. This was outlined in his letter to the C.A.S. of 18 February.

'We have worked out the amalgamation of Eastern Air Command and the 12th Air Force and it only remains to get the right bodies in the right offices. This may take a few days. In the meantime, Spaatz's Headquarters, Headquarters North West African Air Forces have been officially constituted after many arguments about titles. We have designated these subordinate Commands as,

- (a) Tactical Air Force, with No. 242 Group in Northern Tunisia, 12th Air Support Command in Central Tunisia and Western Desert Forces - Southern Tunisia,
- (b) Strategic Air Force, comprising all bombers not included in the Tactical Air Force,
- (c) Coastal Air Force, comprising Coastal Defence fighters and all G.R....

I am determined to try and avoid the use of the title Air Support Command for Coningham's Command. There was intense opposition to the title of Tunisian Command, so I came to the conclusion about the functional title being the only one....

The whole situation both from the operational and organisation point of view is quite incredibly untidy and it will undoubtedly take a long time to get it tidy. We shall get some headaches in keeping the enemy quiet until we are in a fit state to deal with him properly. One does feel however that as far

Chief of Air
Staff A.H.B./
IIJ1/183/242(A).

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as the air is concerned we have got the real good-will of the Americans and we are determined to make a job of it.'

By 23 February, Air Chief Marshal Tedder was able to notify Air Ministry of the new appointments.

'Organisation of Air Forces in N.W. Africa has been agreed with Eisenhower and is being implemented. Directifs have been issued.

(a) Headquarters Northwest African Air Forces. Commanding General, General Spaatz. Deputy A.V.M. Robb.

(b) Northwest African Tactical Air Force A.O.C., A.M. Coningham. Deputy A.O.C. Brigadier Chuter. Under A.O.C. Tactical Air Force some No. 242 Group, A/Cdr. Cross, 12th Air Support Command, Brigadier Williams, Western Desert Air Force, A.V.M. Broadhurst.

(c) Northwest African Strategic Air Force A.O.C. Major General Doolittle.

(d) Northwest African Coastal Air Force A.O.C., A.V.M. Lloyd (not yet arrived).

(e) Northwest African Training Command A.O.C. Brigadier Cannon (at present commanding Bomber).

(f) Northwest African Air Service Command A.O.C. Brigadier Dunton.

Idem. 3A.

Malta now under operational control of my Headquarters but Malta and Western Desert continue to be administered by H.Q. R.A.F. M.E.'

Reorganisation of the German Air Command

After the expulsion of the Axis forces from Tripolitania, almost the whole of the Italian Air Force based on North Africa and comprising some 200 aircraft was withdrawn to Sicily and Italy, leaving only 60 S.E. fighters of more recent types to be transferred to Southern Tunisia. This redistribution of units of the Italian Air Force was probably prompted by the need to ease the problem of maintenance and supply of obsolescent units of little or no operational value. The German units, on the other hand, were withdrawn intact from Tripolitania into Southern Tunisia. They comprised some 160 aircraft and augmented the force of about 150 German aircraft under Fliegerkorps Tunis. In January 1943, there was an estimated strength of 380 German and 530 Italian aircraft based on Sicily and Sardinia.

D.D.I. 3. A.H.B./
IIJ1/63 and
A.H.B.6.

Faced with the complications of a divided air command, the enemy followed a parallel course to the Allies and established in February one unified Command, Fliegerkorps Tunis, over all the G.A.F. forces operating in Africa. The fullest flexibility was assured by retaining under Fliegerkorps Tunis subordinate tactical groupings to operate against the First and Eighth Armies respectively.

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The G.O.C. Eighth Army and the A.O.C. Tactical Air Force
on Army/Air Co-operation.

In addition to the reorganisation of Command in the Mediterranean, there was a general tendency during this period towards clarifying the principles of war that had led to success in the various battles in which the Eighth Army and the Western Desert Air Force had co-operated. In January 1943, General Montgomery circulated a pamphlet with the title 'Some Notes on High Command in War'. It was written for General Officers of the Eighth Army and supplemented an earlier pamphlet on 'The Conduct of the Battle' which had been produced for Senior Officers of the Eighth Army. After a preamble, General Montgomery plunges straight into an exposition of his views on the use of Air Power.

'Use of Air Power

Any officer who aspires to hold high command in war must understand clearly certain basic principles regarding the use of air power.

The greatest asset of air power is its flexibility, and this enables it to be switched quickly from one objective to another in the theatre of operations. So long as this is realised, then the whole weight of the available air power can be used in selected areas in turn; this concentrated use of the air striking force is a battle-winning factor of the first importance.

It follows that control of the available air power must be centralised, and command must be exercised through R.A.F. channels.

Nothing could be more fatal to successful results than to dissipate the air resources into small packets placed under command of army formation commanders with each packet working on its own plan. The soldier must not expect, or wish, to exercise direct command over air striking forces.

The commander of an army in the field should have an air H.Q. with him which will have direct control, and command of such squadrons as may be allotted for operations in support of his army.

Such air resources will be in support of his army, and not under his command.

But through this Air H.Q. the army commander can obtain the support of the whole air striking force in the theatre of operations, because of the flexibility of air power.

Once this flexibility is destroyed, or is negatived in any way, then the successful outcome of the battle becomes endangered.

And this will happen if the soldier attempts to exercise direct command over air striking forces. Such direct command, with resulting dispersion of air effort, is in fact, quite unnecessary; we have now evolved, and it exists in Eighth Army, a system which enables the Army to obtain the fullest air support whenever and wherever necessary.

G.A.S. 1745
Pt. III.
Army/Air
Co-operation.



Air Chief Marshal Sir Arthur Tedder chatting informally with pilots of a W.D.A.F. squadron in Tripolitania



The Air Officer Commanding Western Desert Air Force, Air Vice-Marshal Sir A. Cunningham and the General Officer Commanding the Eighth Army, Lt.-General Sir B.L. Montgomery.

All that is required is that the two staffs, army and air, should work together at the same H.Q. in complete harmony, and with complete mutual understanding and confidence.'

This blunt statement of views asserting the autonomy of the air force by an Army Commander of General Montgomery's high reputation undoubtedly owed much to the influence of Air Vice-Marshal Coningham with whom, as A.O.C. W.D.A.F., the G.O.C. Eighth Army shared the combined Army/Air Battle H.Q. It was also timely, for it is truly a most astonishing fact that an operation of the magnitude and importance of 'Torch' had been launched without significant use being made of the wealth of operational experience that had been amassed in the Middle East throughout the previous eighteen months. This fact, combined with General Anderson's narrow conceptions of the functions and handling of an air force and the Americans' aversion to surrendering any tittle of national sovereignty, had brought events to the point where the disintegration of Allied air power in the area of the 'Torch' operations was threatened. In spite of their numerical inferiority, and having been caught completely by surprise, the German Air Force had shown such energy and capability in developing airfields and their ground organisation in Tunisia that for a time they actually possessed tactical air superiority in the 'Torch' area. The position was summed up by Air Chief Marshal Tedder when asked by the C.A.S. to rebut a War Office Criticism that insufficient light-bomber support had been given to the First Army.

Chief of Air
Staff A.H.B./
IIJ1/183/242(A)
Encl. 7A.

'It is difficult,' he wrote on 26 February, 'to give precise answer to general criticism of this character. Investigation into methods of operation and control of our air forces which have been in vogue in past do however abundantly explain many shortcomings which may have existed. Fighters have been frittered away in penny packets to give close cover, bomber and fighter escorts have similarly been frittered away in attacking petty targets, all on the orders of local Commanders. Under such conditions losses have been high, enemy air has been aggressive and impudent despite inferior numbers, and in consequence effective support of the land battle has been quite unattainable, on the scale which should have been possible with the forces available....'

The basic remedy is proper organisation and control. This is already beginning to show results which have been noted by the enemy as well as by our own troops. Much however remains to be done and it will take time to get the close co-operation here between land and air which we have attained on the other front. No-one could be more helpful in this way than Alexander....'

On 16 February, at Tripoli, Air Vice-Marshal Sir Arthur Coningham gave a talk to the British and American General and Senior Officers at the end of the second day of the Army Exercise there. The views he expressed supplemented those published by the G.O.C. Eighth Army at Tripoli the previous month.

'I should like to amplify what (the Army Commander) has said because I attach such great importance to proper doctrine. Unless we do keep our doctrine right there will be continual trouble.

The doctrine that we have evolved by trial in war over a period of many months could, I think, be stated in its simplest form as follows:

The Soldier commands the land forces, the Airman commands the air forces; both Commanders work together and operate their respective forces in accordance with a combined Army/Air plan, the whole operations being directed by the Army Commander.

There are fundamental differences between the Army and the Air Forces which should be recognised:

The Army fights on a front that may be divided into Sectors such as a Brigade, Division, Corps or an Army front. The Air front is indivisible.

An Army has one battle to fight, the land battle. The Air has two. It has first of all to beat the enemy Air, so that it may go into the land battle against the enemy land forces with the maximum possible hitting power. We have not, as yet, secured sufficient superiority to finish the air-to-air battle off completely, but we have been pretty near it and we have been able to concentrate up to 80 or 90% of our hitting power on the enemy land forces.

The fighter governs the front and this fact forces the centralisation of air control into the hands of one Air Commander operating on that front. I think it is generally accepted that with adequate fighter superiority and bomber forces the air has a governing influence on what happens within reach on the ground or on the sea.

And finally there is no doubt that in this technical age it needs a life of study and specialising for a sailor, a soldier or an airman to learn his profession. He is never free from the problems of development, particularly in war, and I therefore cannot accept the possibility that any man, however competent, can do the work of the other services without proportionately neglecting his own. In plain language, no soldier is competent to operate the Air just as no airman is competent to operate the Army.

It is generally agreed that the fighting efficiency of a service is based upon leadership, training and equipment. The Commander is personally responsible for the leadership and training, and no one who has not this power should operate the forces concerned. There is too great a tendency these days to think in terms of numbers and strengths, whereas the real battle forces are properly organised units.

You will notice that the Army Commander does not use the word "co-operation". I submit that we in Eighth Army are beyond the co-operation stage, and that work is so close that we are, in effect, one unit. I hope you won't mind if I suggest that co-operation often means the other fellow co-operating with you. We in the Air Force have cause to view the word with mixed feelings because in the past co-operation has meant the Air co-operating with the Navy or the Army. The difference in the Eighth Army is that there has

been as much air co-operation by the Army as Army co-operation by the Air, and the natural result is that we have now passed beyond that stage into a unit or team which automatically helps the other....'

The views of General Montgomery and Air Vice-Marshal Coningham were later incorporated by the Chief of the Air Staff in a pamphlet 'Air Power in the Land Battle' issued by Air Ministry in May 1943. Substantially the same views were published on 21 July 1943 by the U.S. War Department in their Field Service Regulations pamphlet FM 100-20 under the title of 'Command and Employment of Air Power'.

In the pamphlet 'High Command in War' General Montgomery reveals how it is the historian finds such a dearth of documents dealing with the policy and planning of the battles in which the Eighth Army and Western Desert Air Force were involved.

'A commander,' he wrote in the Section entitled "Method of Exercising Command", 'must train his staff and his subordinate commanders to work and act on verbal orders or instructions.....'

All orders for operations which are in progress or contemplated should be given verbally by the army commander to his corps commanders or other generals under his direct command. To confirm these orders in writing is quite unnecessary; commanders who cannot be trusted to act on clear and concise verbal orders are useless. The whole of the operations in the Battle of Egypt, from the moment the attack started on 23 October 1942, to the capture of Tripoli on 23 January 1943, were carried out on verbal orders given by me to my corps commanders and these were never confirmed in writing....'

Army/Air
Co-operation
C.A.S. 1745
Pt. 33.

Section II:

The Advance of the Eighth Army into Tunisia (23 January to 5 February 1943)

After the fall of Tripoli, on 23 January 1943, the Eighth Army could only operate light forces towards the Tunisian frontier until the port had been opened up. Owing to administrative difficulties, the advance west of Tripoli was carried out with 7th Armoured Division only, 2nd New Zealand Division and 51st Division being left to reorganise in the Tripoli area. Following the fall of Tripoli, the Axis forces continued their withdrawal westwards, covered by rearguards of the 90th Light Division and the 164th Division. Bad weather, difficult going and the extensive and skilful demolitions carried out by the enemy hampered the Eighth Army's advance.

Main Eighth Army
Cositrep A.H.B./
IIJ1/162/3.

On 29 January 1943, however, 4th Light Armoured Brigade patrols, operating on the southern flank, crossed the Tunisian border. As has already been seen, the small port of Zuara, which had been bombed by 56 fighter-bombers prior to a Naval bombardment in the early hours of 23 January(1)

(1) Zuara was bombarded in the early hours of 23 January by H.M.S. Cleopatra and Eryalus, on the 15th Cruiser Squadron, with 4 destroyers, causing fires and explosions. One R.A.F. Mosquito co-operated with the Naval force and a Sunderland provided anti-submarine protection.

was captured on 31 January. This meant that practically all enemy resistance had ceased in Tripolitania by the end of January, and by 4 February, the last of the Italian empire in Africa was in our hands.

Air Operations Between the Fall of Tripoli and Eighth Army Reaching the Tunisian Frontier (23 January to 4 February 1943)

Record of
Operations and
Daily Int.
Sums.

For the next few days after the fall of Tripoli, on 23 January, the W.D.A.F. air activity was mainly directed against the harbour at Zuara and enemy shipping in the Zuara-Pisida area. Rain and low cloud persisted from 27 to 30 January and air operations on those days were on a small scale. On 25 January, Kittybombers scored a hit on a MV off Zuara and damaged a number of barges which were operating along the coast, on the morning of 1 February. Kittyhawks also attacked enemy aircraft on airfields at Ben Gardane on 24 January and at Medenine West on 25 January: Schooners and 'F' boats, plying along the coast, were attacked by fighter-bombers and three were claimed as destroyed on 3 February and another which blew up on the following day.

For the most part, however, air operations by the W.D.A.F. were unimportant during this period and the total of sorties flown frequently fell below 50 a day. Apart from the bad weather, the low level of operational activity was due in part to a regrouping of the force after the fall of Tripoli.

The Withdrawal of the Panzer Army to Mareth

After the fall of Tripoli, the enemy's main preoccupation was to strengthen the Mareth Line. The general plan pursued by Rommel was to move the non-motorised formations - some 30,000 men and almost all of them Italians - back to the Mareth Line and hold up the Eighth Army's advance for as long as possible with the motorised formations only. Any further sacrifice of Italian infantry, as had happened at El Alamein, would have involved Rommel in serious political difficulties. By 27 January, this movement had been practically completed and the whole of XX and XXI Corps, with the exception of some small units, had assembled on the Mareth Line and were busy improving the construction of the positions.

The 7th Armoured Division's patrol activity on the southern flank, some 70 kms. to the S.S.W. of Zuara made the enemy fear the possibility of a strong thrust against the southern flank of the Mareth Line. Rommel decided, therefore, to move 164th Light Division and the Nizza Recce Unit to the Fom Tatahouine area, where Afrika Korps assumed command of all the German and Italian forces there. The construction of the Mareth Line defences demanded Rommel's presence all the time. He therefore entrusted the Afrika Korps Commander, Colonel Freiherr von Kliebenstein, with the conduct of the rearguard action and put under his command on 29 January the 15th Panzer Division, one German Air Force Brigade, the Afrika Panzer Grenadier Regiment and most of the Army artillery. On 27 January, a message was received from the Duce nominating the Italian General Messe as Commander of the German-Italian Panzer Army. He was to assume command as soon as Rommel had brought back all his army to the Mareth Line, after which Rommel was granted sick leave by the Fuehrer until his health was restored.

The German appreciation of the situation for 1 February stated:

German Official
War Narrative.
Cabinet Office
AL 743.

'The day was remarkable for the pause in the enemy activity both on the ground and in the air. This was probably due to his necessity or intention of establishing a new supply base before continuing operations. This assumption was confirmed by air reconnaissance according to which the enemy was already using Tripoli port, in spite of the enormous destruction we had carried out there. Several small ships were in the harbour itself, and some larger ones lying in the roadstead.'

On the following day:

'Ground and air reconnaissance revealed very little change in the enemy disposition. The lack of enemy activity confirmed the supposition that he intended to build up his air force and supply organisation in his rear areas.'

For the first time since the battle of El Alamein, the enemy supply position was reasonably satisfactory. On 4 February, the report on the German troops' supply position stated that 'almost all types of supplies were assured for the present', while three days later it was stated that 'the German troops' supply situation was secure for the moment. For the first time for weeks we were in a condition to meet an enemy outflanking move with an armoured counter attack.'

This remarkable improvement in the enemy supply position was attributed by the A.O.C.-in-C. mainly to a period of extremely bad weather.

'Entirely agree,' Air Chief Marshal Tedder wrote to the C.A.S. on Jan. 8, 'volume of supplies reaching enemy through Tunisian ports is serious matter. There are various factors which have caused this of which the main one is the weather. This has seriously interfered with reconnaissance both by day and night and also with night strikes from Malta and presumably has also interfered with day strikes from North Africa....'

In my opinion, the only solutions to this problem are:

- (a) reasonable weather
- (b) submarine action
- (c) search and strike by night torpedo aircraft specially off North coast of Sicily
- (d) day strikes by Fortresses
- (e) heavy and medium bomber attacks on Tunisian ports, Palermo and Naples, in accordance with the location of the target ships.'

The Advance from the Tunisian Frontier to Mareth
(4 to 21 February 1943)

Once the Tunisian frontier had been crossed by the Eighth Army the enemy resistance stiffened. Furthermore, the advance was severely hampered by the many demolitions

Main Eighth
Army Cositreps
A.H.B./IIJ1/
162/3,
Alexander's
Despatch and
'El Alamein to
the Sangro.'

and the heavy rain which flooded great areas of the countryside. The 8th Armoured Brigade were forced to construct a causeway over the marshes and improve the coastal road leading from Zuara to El Assa. The causeway was ready by 15 February, by which date the enemy had been forced to evacuate Ben Gardane, not merely the first town of any importance so far captured in Tunisia, but a centre of vital airfields. The Eighth Army Commander's next move was to take Medenine, with still more important airfields, and Fom Tatahouine, a valuable road junction. Owing to the increased enemy opposition, the 51st Division was brought forward and this formation, together with 7th Armoured Division, launched an attack on Medenine, which fell on 17 February, while Fom Tatahouine was taken on the following day.

General Montgomery now had the help of General Leclerc's Free French (Force 'L') which had made a remarkable advance of 1500 miles across the Desert from Lake Chad and which now placed itself under his orders. He gave it the task of moving from Nalut along the escarpment to Ksar Rhilane and subsequently to operate eastwards and so threaten the enemy's western flank.

Reason for Low Level of W.D.A.F. Operations During Eighth Army's Approach March from Tripoli to Mareth

During the four weeks covered by the enemy's withdrawal from Tripoli to Mareth, the W.D.A.F. level of air operations dropped very considerably. Throughout this period, the air force had been handicapped by various factors, but foremost among these was the lack of landing-grounds. There was a large air force available, but little accommodation for it in the Tripoli area. The enemy had ploughed and mined all landing-grounds as he withdrew, and the type of terrain - mostly soft or sandy or else salt-pans - was such that it became waterlogged with even a slight amount of rain.

The requirements were for a minimum of two airfields in the El Assa area, initially for use by fighters but capable of development for use by bombers, and a minimum of five airfields for fighters in the Ben Gardane - Medenine area. The Kittybombers of No. 239 Wing were compelled to operate from Castel Benito until 14 February, by which time El Assa was serviceable, and in one leap they were 100 miles nearer to the enemy. This enabled the Spitfires of No. 244 Wing to move forward from Darragh to Castel Benito.

Other factors which limited the scope of operations were the shortage of petrol and supplies and the adverse weather conditions. Targets were never good during this period, being small and well-dispersed. The terrain was also favourable to camouflage and pilots frequently reported that they were unable to locate targets at over 4,000 feet. At this time, the use of 250 lb. and 500 lb. G.P. bombs had been almost entirely discontinued in favour of the containers of 40 lb. anti-personnel (fragmentation) bombs which often were far too light for the type of target, e.g. dug-in, well-dispersed M.T. and dug-in positions.

On 8 February, the weather improved sufficiently to enable four attacks involving nearly 100 aircraft to be carried out in direct support of our advancing troops. Targets, however, were small and results from the R.A.F.

Report on
Operations of the
W.D.A.F. A.H.B./
IIJ15/4,
W.D.A.F. War
Diary and
Landing Grounds
(General).
A.H.B./IIJ1/122.

A.A.H.Q. W.D.A.F.
Daily Int. Sums.
and O.R.B.s.

No. 2 A.A.S.C.
War Diary.

point of view were disappointing. However, the Army, who had been without close support from the W.D.A.F. for some time past, considered that the raids had had an excellent 'showing the flag' value and enemy air activity over our forward troops showed a sharp drop.

No. 239 Wing advance parties reached El Assa on 15 February and on 16 February, improved weather enabled a fairly strong fighter-bomber attack to be made on the landing-ground at Medenine West. Unfortunately, the weather closed in again and air operations were limited to fighter attacks and tactical reconnaissance.

Record of Ops.
and D.D.I.3.

Throughout this period, enemy air activity was on a light scale, both on account of the weather and also because he was reorganising and bringing the Tripolitanian and Tunisian forces under a single unified control. Apart from attacks against the port of Tripoli, enemy air attacks were confined mostly to interception patrols, recces and harassing attacks against our forward troops.

Further Reorganisation: Formation of No. 210 Group
(8 February 1943)

No. 210 Group was formed on 8 February. It took over the operational and administrative control of all R.A.F. units allotted to the static defence of Tripolitania and for the protection of coastal shipping. This included responsibility for the defence of Tripoli.

No. 3 Wing
S.A.A.F. O.R.B.

The supply position improved considerably with the opening of Tripoli, making it possible to bring forward the light and medium bombers. On 11 February, No. 3 Wing S.A.A.F. moved forward from Gzina to Sirtan only to find that rain had made the landing-grounds unserviceable. No flying was possible until 17 February, when the Wing began night-flying operations. Renewed bad weather caused a cancellation of all operations until the night of 23 February when 26 Bostons and 15 Baltimores attacked the road between Mareth and Zaret. Further attacks were carried out by 31 aircraft on the night of 24/25 February and on the following night by 32 aircraft against the Mareth Line.

No. 232 Wing
O.R.B.

On 19 February, No. 232 Wing were called forward from their locations in Egypt, at L.G. 86, two miles to the S.W. of the Cairo-Alexandria Road to new bases in the Tripoli area. This involved a land journey of some 1600 miles for which the convoys were allowed 12 days. No. 232 Wing convoy left on 21 February, No. 55 Squadron on 22 February and No. 223 Squadron on 23 February. On 23 February, the 12th Medium Bombardment Group was installed at Castel Benito.

No. 205 Group
O.R.B.

The move forward of No. 205 Group into Tripolitania from the Magrun-Solluch area presented acutely difficult problems of supply, particularly of petrol, oil and bombs, at a time when stocks were strictly rationed in the Western Desert Command. It was a question of priorities involving policy decisions of far-reaching importance. On 30 January, the A.O.C. No. 205 Group was informed by H.Q. Middle East that his Group might be operating from Misurata in the near future and that he should reconnoitre the area for suitable aerodromes as soon as possible. The reconnaissance was duly made and on 7 February, on receipt of No. 205 Group reconnaissance report, the A.O.C. Western Desert stated in a signal to S.A.S.O., H.Q. R.A.F., Middle East:

'I would like to make it quite clear that no bombs or petrol can be made available for No. 205 Group at present. All units under my command are grounded, or strictly rationed with the exception of the forward Wing operating in the battle area. I would like the movement of 205 Group and any but the essential units of No. 201 Group held up until the supply situation is clarified.'

A.O.C.-in-C.
Personal File.
A.H.B./IIJ1/
183/8
Enc. 531B.

The A.O.A. replied on the following day:

'A.O.C.-in-C. regards operations of No. 205 Group as of greater importance during present period than those of W.D. Air Force which must continue to be strictly rationed. This, of course, does not apply to your forward Wing. This view also shared by General Alexander who, it was understood, had secured agreement of Commander Eighth Army and yourself to it, as he confirmed on his return that petrol and bombs would be available for No. 205 Group in Misurata area by 15 February. A.O.C.-in-C. has therefore ruled that move of No. 205 Group must proceed as ordered and requests you give all possible assistance to have Group in operation by Feb. 15.'

Idem. Enc.
533 A.

The A.O.C. Western Desert Air Force protested that he had not been consulted either by the Army Commander or General Alexander about the use of No. 205 Group. According to him, the plans he had agreed with the Eighth Army Commander were that No. 205 Group would be available for operations during the battle of the Mareth Line, for which the probable date was 15 March. However, he agreed that 'supplies would be back-loaded to Misurata for No. 205 Group as soon as Supply and Transport Columns could be withdrawn from forward loading to the battle area.'

Idem. Enc.
534A.

The Western Desert Air Force was not the only interested party. The move forward of the strategic bomber force to the forward area meant that the Eighth Army had their own intake of petrol and supplies reduced at a time when they were building up stocks for the assault on the Mareth Line. This led to some extremely frigid signals from Rear Eighth Army H.Q. which General Alexander had, in turn, to override. In spite of this conflict of interests, the move forward was undertaken by 10 February when main parties of all units (Group H.Q., Nos. 231 and 236 Wings and Nos. 37, 40, 104, and 462 Squadrons) moved out from Solluch and Magrun for Gardabia. The move involved a trek forward of 500 miles, but by 15 February all unit main parties had arrived at their new locations at Gardabia (approximately 20 miles to the S.S.E. of Misurata) and the Group was ready to operate.

No. 205 Group
O.R.B.

Decision to Bring No. 6 ('Tankbuster') Squadron Forward

No. 6 Squadron had been smarting under their relegation to shipping escort duties since the end of the battle of El Alamein. It will be remembered how they had held a special Mess Meeting in order to air their grievance at being left out from the pursuit. Now that plans were being prepared for the attack on the Mareth Line, there seemed a promise of more active employment for a squadron which had distinguished itself so much in its specialised form of air support for the Eighth Army. The 'lobbying' of H.Q., Middle East which had gone on for months eventually showed results and on 9 February, S.A.S.O., R.A.F., Middle East

signalled the A.O.C. Western Desert stating that the Squadron had been used on shipping escort duties and asking for information on the probable requirements 'as No. 6 Squadron would need to prepare and train in advance.'

The A.O.C. W.D.A.F.'s reply was not encouraging:

'Might be possible to employ one Tankbuster Squadron. After much discussion, it would appear that employment of tankbusters in Alamein battle was not sufficiently successful to warrant any great expenditure of effort to get them into action for the next battle..'

A.O.C.-in-C.
Personal File
A.H.B./IIJ1/
183/8.

By 18 February, the A.O.C. W.D.A.F. had had the opportunity of discussing the question with Air Chief Marshal Tedder and it was agreed that No. 6 Squadron should be sent forward and should be placed under No. 244 Wing. The Squadron O.R.B. reflects the enthusiasm felt for this news. Earlier in the month the Squadron had celebrated its 29th birthday. The C.O., S./Ldr. D. Weston-Burt 'expressed the hope that during 1943 the squadron would resume the rôle of tankbusting.' On 20 February, the Squadron O.R.B. records:

'A signal received from A.H.Q., Egypt:

"No. 6 Squadron to return their Hurricane IIO's to Delta where they will re-arm with Hurricane IID's and proceed at once to Castel Benito for tankbusting rôle under Western Desert. Ground party will proceed direct from Bu Amud to Tripoli. Administrative orders for moving will follow."

The uplift in morale as a result of the foregoing signal is remarkable. When the tankbusting rôle was discarded and the squadron was given the job of convoy protection, the keenest disappointment was felt not only amongst the pilots but amongst all other personnel as well. Now that the opportunity appears imminent of being able to take part in the drive to force Rommel out of Africa, all ranks are overjoyed, and the keenest enthusiasm for the task ahead is everywhere in evidence.'

The Squadron arrived in Tunisia in time to take a most effective part, on 10 March, in the annihilation of an enemy force sent by Rommel against General Leclerc's force at Khasr Rhilane. An account of this interesting operation is given later in the narrative.

Record of Ops.

In February, during this period of build-up for the Mareth battle, the Polish Combat Team consisting of 16 experienced Polish fighter pilots arrived and formed a third flight in No. 145 Squadron, under No. 244 Wing. The flight was serviced by R.A.F. ground crews and was equipped with Spitfire IXs. Further Spitfire IX's were shared between Nos. 92 and 145 Squadrons.

Rommel's Attacks in Central Tunisia and Towards Medenine,
(February 1943)

On 4 February, Rommel and General Messe discussed the questions arising from the possibility of a thrust by II United States Corps in the Gafsa Sector of Western Tunisia. Rommel told General Messe that there were two ways of meeting the threat - either by purely defensive measures, or else by an encircling attack 'to meet the enemy and destroy him as he attacked.' Typically enough, Rommel

Official German
Narrative.

chose the spoiling attack. He considered that 'a purely defensive policy scarcely merited any further discussion.' He realised that it would be some time before General Montgomery would be able to bring really strong forces into Southern Tunisia (General Montgomery planned to start operations against the Mareth defences about 20 March) and he considered that 'an attack in the Gafsa area if launched in good time, might possibly succeed even now.'

Official German
Narrative.

Rommel's plan was accepted, and on 6 February the Italian Supreme Command sent instructions for an attack to be launched against 'the enemy flank at Gafsa, from the El Guettar area, leaving some motorised forces to take part in the defence against the Eighth Army.'

The 5th Panzer Army with Rommel in command struck at the positions held by the 1st United States Armoured Division at Sidi bou Zid on the morning of 14 February (Operation 'Morning Breeze'). The blow was shrewdly timed and met with a surprising degree of success against the unseasoned American troops, and Rommel, having thrust through the Kasserine Pass, appeared by 21 February to be gathering himself for a further blow to the north, thus threatening the flank and rear of the First Army. It was evident that any further successes by the enemy might well jeopardise the whole Allied position and General Alexander, who had taken over control of 18th Army Group on 19 February, after a tour of the battle area, ordered General Montgomery, at the crisis of the Kasserine Battle, on 21 February, 'to create as powerful a threat as possible on the enemy's southern flank.'

Report on
Operations.
A.H.B./IIJ1/
188/4.

Although the Eighth Army was not ready, for administrative reasons, to operate major forces in southern Tunisia, it was decided that they should stage an immediate demonstration in force and the W.D.A.F. was ordered 'to exert maximum pressure on both air and land forces in the Mareth area.' These operations by the W.D.A.F. were to represent what the enemy had learned to regard as the preliminary to a general attack, whilst our land forces were to be concentrated forward, even though they would be unbalanced and unable to fight cohesively on a major scale. As it happened, there was no immediate risk for General Montgomery in advancing ahead of his main strength, since the enemy's main forces were fully engaged elsewhere.

Alexander's
Despatch.

On 23 February, the W.D.A.F. fighter wings moved to forward airfields in the Medenine area. No. 244 Wing and No. 7 (S.A.A.F.) Wing were at Hazbub and Neffatia where they were controlled by an advanced H.Q. of No. 211 Group, while the remainder of the Fighter Force was controlled by Rear 211 Group, from Castel Benito. Weather conditions hampered operations on 23, 24 and 25 February, but by 26 February the fighter-bomber offensive was in full swing, the main targets being airfields at Bordj Touaz, Gabes West and El Hamma. Sorties by fighter aircraft numbered 370, of which approximately one third carried bombs.

A.A.H.Q.W.D.
War Diary.

The enemy were very active at first, launching a series of low-flying attacks on our forward landing-grounds, the one at Neffatia in particular being attacked a number of times. However, sustained attacks on enemy airfields and successful air fighting - on 26 February W.D.A.F. pilots claimed 12 enemy aircraft shot down for the loss of 8 pilots missing - forced the enemy air force on to the defensive.

Report on
Operations.

Opsums and
No. 205 Group
O.R.B.

The heavy and medium bombers of No. 205 Group and the light bombers of No. 3 S.A.A.F. Wing, No. 232 Wing and 12th Medium Bombardment Group had been brought forward in time to take part in the air offensive. On the night 23/24 February, targets for No. 205 Group night bombers were switched from Palermo to Gabes West landing-grounds. A total of 31 bombers (25 Wellingtons and 6 Halifaxes) operated. The enemy were taken completely by surprise as the flare-path was on when the first aircraft arrived. Further attacks on Gabes West airfield and Gabes town were repeated until the night of 26/27 February, after which No. 205 Group reverted to the operational control of H.Q. Middle East. On the night of 23/24 February, 26 Bostons, 15 Baltimores and 18 Mitchells dropped 38 tons of bombs on targets in the Mareth area. A further 22 Bostons and 10 Baltimores attacked the Mareth Line on the following night, while on 25/26 February 10 Baltimores and 18 Mitchells attacked the same area, starting a number of fires.

Report on
Operations of
the Northwest
African Tactical
Air Force.
A.H.B./IIJ1/
188/4.

At the same time as the W.D.A.F. launched their air offensive, the G.O.C. Eighth Army increased the pressure against the enemy outer defences at Mareth and General Leclerc's Force 'L' occupied Khsar Rhilane. Actual contact on land with the enemy, however, was on a very minor scale as General Montgomery was 'determined not to attack until he was ready,' and the greater part of the credit for this diversion is due to the Air Force who carried out a total of 1200 sorties of all kinds and at least kept the enemy's southern air force actively engaged and unable to take any part in the Kasserine Battle.'

It was the situation on the Mareth front which finally decided Rommel to abandon his offensive and this decision was taken before the diversionary attack by the Eighth Army and the W.D.A.F. had had time to develop. On 22 February, the enemy appreciation of the situation stated:

German Official
War Narrative.
Cabinet Office
AL 743

'In the afternoon, F.M. Kesselring visited Battle H.Q. NW of Kasserine and was put in the picture by the Army Comd. The latter stated that the continual reinforcement of the enemy, the unfavourable weather (which made the country impassable except on formed roads), the increasing difficulty of using mobile troops in mountainous country which little suited them, and the low strength of our formations, all made it seem pointless to continue the attack. The Army Commander therefore expressed the opinion that the attack should be abandoned and the attacking force withdrawn, now that the enemy approach march to the Gafsa-Sbeitla area had been broken up with heavy losses. He was forced to this conclusion by the deciding fact that the situation at the Mareth Line demanded the presence of mobile troops of both armies as soon as possible, to strike a quick blow at the enemy as he assembled for his attack and force him to postpone it.'

The Battle at Medenine (6 March 1943)

H.Q. N.A.T.A.F.
Report on Ops.

By the end of February, the 15th Panzer Division was again located on the Eighth Army front, having been absent during the Tebessa offensive, and 21st Panzer Division was also reported to be moving south again. Intelligence of the location of enemy units, indicated a heavy movement southwards through the Gabes gap. On 26 February Field Marshal Alexander signalled General Montgomery that he

Alexander's
Despatch.

thought Rommel would try to attack the Eighth Army as soon as he could, following the original French plan which was to deliver a counter-attack from the area of the Ksar el Hallouf pass, on to the left flank, and rear of the attackers (which in this case were, of course, the Eighth Army).

It was calculated that an enemy attack could not occur before 4 March, but by this date the Eighth Army would barely be ready to counter such a thrust, nor would the W.D.A.F. be fully concentrated. It was arranged, therefore, for the air forces in North and Central Tunisia to assist by attacking enemy airfields in the Gabes area and any movement or concentration of his land forces behind the Mareth positions.

C.-in-C.'s
Despatch.

The Eighth Army was disposed with three divisions forward. On the right, the 51st Division, with the 23rd Armoured Brigade under command, covered the area north of the road opposite the Wadi Zigzaon. To the south was the 7th Armoured Division, reinforced by the 8th Armoured Brigade and the 1st Fighting French Flying Column. The position round Medenine was held by the New Zealand Division, with the 201st Guards Brigade and the 4th Light Armoured Brigade under command.

On 24 February, Spitfires of Nos. 92, 145 and 601 Squadrons moved forward from Castel Benito to Hazbub L.G. near Medenine, as part of the deployment plan for the field fighter force.

No. 145 Squadron
O.R.B.

'The L.G.,' says No. 145 Squadron O.R.B., 'is very soft and needs rolling and filling in of soft spots before being serviceable for Spitfires. Our new site appears to be uncomfortably close to the front line troops and digging in is, for once, quite popular. We are apparently about 6 miles from our front-line troops - a rather novel situation for a Fighter Wing - and for once we have more than an academic interest in the bomblines.'

Hazbub was probably closer to the enemy than any other L.G. occupied by the R.A.F. during a period of static warfare in North Africa. On 26 February, the enemy made determined attempts to force the Squadron to vacate the airfield and bombed three times. One aircraft was holed and one airman killed and another injured. The pilots of No. 145 Squadron, however, had their revenge by shooting down three of the raiders and damaging three more. The 1st March was 'a very eventful day'. After acting as cover to Kittybombers raiding the north end of the Mareth Line, when the Spitfires shot down three Me.109's, at 17.20 hours the enemy started shelling the L.G. and the Squadron was ordered to fly all serviceable aircraft to El Assa.

No. 92 Squadron
O.R.B.

'We shall remember this day for a long time,' says the entry in No. 92 Squadron O.R.B. for 1st March, 'although there was only one operational trip for us. Five aircraft were scrambled for a local interception patrol of the Hazbub area in the morning and were vectored on to 3 Macchi 202's. F/Lt. Duke D.F.C. and Bar shot down two of them, thus being able to avoid the 13th score appearing on his aircraft. At 5 o'clock in the afternoon the enemy started to shell the L.G. from the hills southwest of us and it was not long before he was able to get the range of the runways

and dispersals. An order was received for all pilots to sit in the cockpit of their aircraft and in this we were fortunate in having 6 aircraft at standby and another 6 at readiness. Just after 6 o'clock, when the sun was going down, all aircraft were told to take off for L.G.s east of us. What a sight it was! Aircraft from 3 Squadrons taking off from two narrow runways missed each other by inches!

The shelling of Hazbub L.G. which led to its temporary evacuation was carried out by 'a very large gun on a bearing of 270 degrees' (probably a 17-cm gun). It lasted from 17.25 hours to 18.30 hours, most of the shells landing on the runways or to the west of the landing-ground. One Spitfire was damaged (Cat. 2) and three other Cat. 1. One airman was killed and five injured. The shelling continued at intervals during the night, the shortest intervals between the shells being 40 seconds.

The next day, 2 March, 21 Kittyhawks of No. 5 S.A.A.F. Squadron and No. 2 S.A.A.F. Squadron, 18 of them carrying bombs, carried out an attack on the gun position, 11 x 250 lb. and 7 x 500 lb. bombs being dropped on the gun emplacement, dug-in M.T. and infantry positions. No gun was seen, but two large M.T. were destroyed and some troops killed and wounded.

From 1 March, strategical and tactical reconnaissance was intensified, with Nos. 1437 Flight and 40 (S.A.A.F.) Squadron covering the enemy's rear and forward areas respectively. It was considered likely that 10th Panzer Division would move southwards, thus bringing the attacking enemy force up to three Armoured Divisions (15th, 21st and 10th Panzer Divisions) and strategical reconnaissance kept a close watch on the Sidi bou Zid - Sfax area. On 3 March, Tac/R at last found 800 M.T. moving south from Gabes to Matmata and Kittyhawks of No. 7 S.A.A.F. Wing set out to attack this target, but by the time they arrived, the enemy had scattered and hidden themselves. On the following day further enemy movement from Gabes to Toujane and Hallouf was observed, tactical reconnaissance aircraft counting a total of 72 tanks and 1000 M.T., but targets were well-camouflaged and difficult to find. Kittybombers carried out a total of 133 sorties in 5 raids. Targets were reported as being 'variable' but fairly successful results were claimed. Two Kittyhawks of No. 2 S.A.A.F. which had taken part in the dawn armed reconce to locate the enemy were used to guide No. 239 Wing to the target, dropping their bombs as markers and then returned.

On 5 March there were no developments, as the enemy were resting all day and air operations by the W.D.A.F. were on a reduced scale owing to bad visibility and lack of targets.

'As the Panzer Grenadiers moved off on the evening of the 5th down the steep winding road from Ksar el Hallouf,' the C.-in-C.'s despatch relates, 'they defiled past the Army Group Commander, standing in his open car at the top of the pass. According to an eye-witness on the spot Rommel was obviously a sick man, with a dirty bandage round his neck where he was suffering from desert sores and to a party who stopped near him he said that unless they won this battle the last hope in Africa was gone.'

A.A.H.Q.W.D.
Daily Int.
Sums.
A.H.B./IIJ1/
122/44(O)

A.A.H.Q.W.D.
War Diary and
Diary Int.
Sums.

Alexander's
Despatch.

On the morning of 6 March, the enemy attacked the Eighth Army positions with armour and lorried infantry from the direction of Hallouf and Toujane, aiming first at cutting in between two strongly-held features in the Medenine area. The key position was the Gebel Tedgera, a hill which rises abruptly from the plain to the north-east of Medenine. This was defended by the 201st Guards Brigade. The enemy's intention was clearly the capture of Medenine, which would cut communications with Tripoli and isolate the greater part of our forces.

By midday over 100 enemy tanks had been reported. Seven attacks by Kittybomber formations, mainly of three squadron strength, were made against the rear of the enemy forces attacking Medenine from the west. Some 280 sorties by fighter aircraft were carried out during the day and of these 100 were by fighter bombers. One particularly interesting operation was what No. 2 A.A.S.C. termed a 'psychic target'. Air Operations considered that the tanks in a particular area would pull back to refuel about 13.30 to 14.00 hours and eight Kittybombers of No. 5 S.A.A.F. Squadron were sent hunting in the probable area. They located between 40 and 50 M.T. and tanks at a cross-roads at E 5982. One bomb fell among a cluster of tanks which were refuelling and started a large petrol fire.

No. 2 A.A.S.C.
War Diary.

Other fighter bombers caught the enemy columns as they moved up through defiles in the Matmata hills and were particularly successful. The weather on 6 March was not good and quite a lot of low cloud made interception of enemy aircraft difficult and also prevented the air forces on the northern front from co-operating as had originally been planned. The enemy air forces were unusually active and made a succession of low-flying attacks against our forward landing-grounds and troops, using Me.210's and F.W.190's. In an attack on Neffatia Main L.G. the enemy damaged a total of eight Kittyhawks, Spitfires and Hurricanes, killed three R.A.F. personnel and wounded five others.

Daily Int. Sums.
and A.A.H.Q.
W.D. War Diary

In addition to the attacks by fighter bombers, No. 205 Group's night bombers were placed under the operational control of A.A.H.Q. Western Desert from 2 March. In the course of two nights' operations 49 Wellingtons and 10 Halifax aircraft dropped 127 tons of bombs in the Mareth area. 'Again,' says No. 3 Wing S.A.A.F. O.R.B., 'the light bombers were not used, it being found that the whole situation, so far as the air was concerned could be handled comfortably by the fighters and fighter bombers.'

No. 205 Group
and 3 Wing
S.A.A.F.
O.R.B.s.

The enemy's concentrated attacks were beaten off by the infantry with anti-tank guns, without the intervention of tanks, except one squadron. The Eighth Army casualties were light and they lost no tanks at all. The enemy made four attacks with armour during the day, but in none of them was he able to score any success. That evening he drew off with the loss of 52 tanks - the greatest total loss had so far suffered in any one day's battle in Africa. (1) 'In many ways,' said

(1) 'The Operation had lost all point the moment it became obvious that the British were prepared for us. We had suffered tremendous losses, including 40 tanks totally destroyed.' The Rommel Papers.

Alexander's
Despatch.

General Alexander, 'this battle resembled the battle of Alam el Halfa before Alamein: for the second time Rommel had committed the error of throwing his tanks against well-emplaced anti-tank guns.'

Medenine was Rommel's last battle in Africa, and it was a complete failure. Shortly afterwards he handed over command of the Army Group to Von Arnim and returned to Germany. (1)

General Montgomery alludes to the Battle of Medenine as 'a model defensive engagement and a great triumph for the infantry and the anti-tank gun.' There is no doubt, however, that one of the chief reasons for Rommel's failure at Medenine was the high level of intelligence provided by the W.D.A.F. Again, as at Alam el Halfa, the element of surprise necessary for the success of the operation had been lost. Although a combination of bad weather, the enemy's excellent camouflage and dispersal prevented the W.D.A.F. air offensive from developing anything like a full bombing momentum, it must have been very worrying to the enemy Commander and auguring badly for the success of the operation to find his columns being bombed during their long approach march to Medenine as much as three days before the beginning of the ground offensive, and also being watched closely from the air.

Report on Ops.
and A.A.H.Q.
W.D. War Diary

Unfavourable weather restricted air operations on the morning of 7 March, but later in the day fighter bombers made successful attacks against the enemy forces as they withdrew through the passes leading to Toujane and Hallouf. Targets for the fighter bombers were fleeting and concentrations were not easily picked out, due to lowering cloud. The enemy air force were very active. They carried out three attacks against Neffatia L.G., destroying one Hurricane, damaging another and wounding eight A.A. personnel. Another attack was made on Hazbub L.G. which had been reoccupied after the previous shelling. Three attacks on Eighth Army forward troops by 12 - 15 bombers were also reported. Patrolling Spitfires had many encounters with enemy aircraft and claimed eight Me.109's and one Me.202 destroyed for one Kittyhawk pilot missing and one Spitfire damaged.

Squadron
O.R.B.s and
Daily Int.
Sums.

Throughout 8 March, the enemy continued to withdraw his armour through Hallouf towards Matmata and into Toujane. During the morning three fighter-bomber attacks at one-squadron strength were carried out on retiring enemy tanks and transport in the Hallouf area, where a fair amount of damage was caused by bombing and strafing. Pilots again reported that targets were difficult to locate due to the broken terrain and the enemy's excellent camouflage and dispersal. Cloud was also prevalent. Spitfires of Nos. 1 S.A.A.F. 92, 601 and 145 Squadrons carried out over 100 offensive sorties but enemy air activity was much reduced, only one fighter-bomber attack being reported.

(1) Rommel handed over command of the Army Group to von Arnim on 8 March and took off for Rome on the following day.

The Attack on the Fighting French at Ksar Rhilane
(10 March 1943)

Report on
 Operations

General Leclerc's Force 'L' of Fighting French, which also included a Greek detachment, was established at Ksar Rhilane, some 50 miles to the south of the Eighth Army positions. With plans already well advanced for the attack on the Mareth Line, this force was assuming increasing importance. An essential part of General Montgomery's plan for the Mareth battle was to pass the New Zealanders in a wide outflanking movement through the desert and it was on this manoeuvre that the General was relying as the main method for ejecting the enemy from the powerful Mareth defences. The presence of Force 'L' at Ksar Rhilane was valuable as it prevented the enemy from reconnoitring towards the New Zealand concentration area. Another role assigned to Force 'L' was to operate against the enemy flank and rear, when the main offensive was under way. There had been no opportunity, however, to regroup or strengthen the French column after their long march from the Chad territory and they were weak in artillery, particularly in A.A. and anti-tank weapons.

Balked in his attack on Medenine, the enemy Commander saw the chance of an easy success which would have important repercussions in North Africa, and on 10 March he launched a sudden and violent attack on Ksar Rhilane with the Recce Units of the 21st and 15th Panzer Divisions and some Italian mobile units.

No. 6 Squadron
 O.R.B.

The dawn Tac/R on 10 March failed to show any sign of a threat against Ksar Rhilane, but at 08.40 hours 'L' Force gave a target of 30 heavy armoured cars and guns to the NE of Ksar Rhilane. No. 6 Squadron which had only arrived in the forward area three days earlier had first been sent to Hazbub for stand-by, but as this advanced L.G. was again being shelled by the enemy, pilots then flew their aircraft to Neffatia where the enemy promptly bombed them. Nevertheless, a message by telephone was received on 9 March by the C.O. of No. 6 Squadron (Squadron Leader Weston-Burt) from the A.O.C. W.D.A.F. (Air Vice-Marshal H. Broadhurst) 'ordering 12 aircraft to be at Hazbub Satellite as soon after first light as possible in readiness for operations from that landing-ground.'

At dawn on 10 March a formation of 12 Hurricane IIDs left for Hazbub Satellite. As soon as the enemy intentions became clear, the 'Tankbusters' were ordered to attack in full strength and since it was improbable that the enemy had with them their normal complement of A.A. protection orders were given for the attacks to be pressed home from a low altitude. At the same time, strong patrols of Spitfires were ordered to cover the Hurricanes and protect the French from Stuka and low-flying attacks.

No. 6 Squadron
 O.R.B.

The first sortie took place at 10.5 hours on 10 March when 6 'Tankbusters' - their pilots incidentally being from the United Kingdom, Canada, Australia, New Zealand and the United States of America - located some score of vehicles near Ksar Rhilane and set over half of them on fire. Fires were still burning in the area when a further 14 Hurricane IID's from No. 6 Squadron - their pilots this time from the United Kingdom, Australia, New Zealand and South Africa - attacked targets in the same area and as a result this particular German force was virtually annihilated. The Squadron's total score was six Mark III

tanks (two flamers), 13 A.M.C.s (five flamers), 10 lorries (four flamers), three semi-tracked vehicles, two tracked troop carriers, one gun and trailer and a W/T van. The Squadron's casualties were two Hurricane IID Cat. II and one Cat. I, there being no pilots missing or injured.

No. 2 A.S.C.
War Diary.

'The Hurricanes,' says No. 2 A.S.C. War Diary, 'made two successful attacks. They caught the enemy in the open and destroyed or put out of action nearly two-thirds of his vehicles, leaving the remainder scattered over the countryside, frantically searching for cover and calling urgently for reinforcements in plain language.'

No. 112 Squadron
O.R.B.

In the afternoon, another target consisting of AFV's and guns was passed by Force 'L' to Air Support Control and two Kittyhawk Squadrons (12 of No. 3 R.A.A.F. Squadron and 12 of No. 450 R.A.A.F. Squadron carrying 40 lb. and 500 lb. bombs) were briefed to attack. The target was duly located and after bombing the aircraft carried out low-level attacks. Claims were made of 11 vehicles and an armoured car set on fire and a petrol bowser and a truck blown up. (1) A second fighter-bomber raid that afternoon ran into trouble. It comprised 11 Kittyhawks of No. 260 Squadron and 12 Kittyhawks of No. 250 Squadron, with 12 Kittyhawks of No. 112 Squadron as top cover. Whilst the target was being attacked by the fighter bombers, the top cover ran into a formation of Ju. 87's, heavily escorted by 20 -30 Me.109's. A dog-fight then ensued, as a result of which six pilots of No. 112 Squadron were lost. They claimed two Me.109's destroyed and one Ju.87. No. 2 A.S.C. attributed the heavy casualties to the fact that there was no Spitfire escort. Heavy as the losses were, this encounter did have the effect of saving the French garrison from a dive-bombing attack by some 20 Stukas.

No. 2 A.S.C.
War Diary.

Eighth Army
War Diary

The enemy force, severely depleted by these air attacks, later attacked the fort, but the French held out and the attacking force, obviously reluctant to undergo a second ordeal on the following day, ceased fire at dusk and withdrew. During 10 March, 'L' Force passed out two messages reminiscent of the 'Merci pour la R.A.F.' of Bir Hacheim days:

A.A.H.Q.W.D.
War Diary.

'TOO 11.02 hrs. Planes over at 10.35 left
11.00 hrs. Appear to have done excellent work.

TOO 14.55 hrs. Last visit R.A.F. did excellent work especially against enemy artillery to the N.E.'

Two days later, a pilot of No. 40 S.A.A.F. Squadron which landed at Ksar Rhilane to pick up maps which the French had captured from the enemy was received by General Leclerc

(1) No. 3 Recce Unit reported to 90th Light Division that in an attack by low-flying aircraft 40 km to the south of Bir Soltane they lost two 50-mm. anti-tank guns, two 37-mm. anti-tank guns, one 40-mm. anti-tank gun, two 20-mm. guns and nine machine-guns. It is more probable that these casualties were inflicted by the fighter bombers of No. 3 and 450 R.A.A.F. Squadrons rather than the 'tankbusters'. (90th Light Division Messages in and out G.M.D.S. 30264/2-4).

No. 40 S.A.A.F.
O.R.B.

who 'asked him to convey to the R.A.F. his thanks for the splendid support they had received during the last four days.' The O.R.B. records how 'cigarettes were later dropped on the French suitably inscribed "bon jour!"'

Air Operations 11 - 20 March 1943

No. 3 Wing
S.A.A.F. War
Diary

On 11 March, Bostons of No. 3 S.A.A.F. Wing carried out what was in the nature of a practice run in preparation for a reversion to day bombing when 18 Bostons, escorted by Kittyhawks and an independent top cover of Spitfires attacked the eastern end of the Mareth position. One fire was seen, but cloud obscured further observation of results. The troops were reported by the Army to be greatly pleased to see a familiar formation of 18 Bostons in the air again. Another raid by Bostons was carried out against the Mareth position on the following day. A feature of these raids was the intense and accurate A.A. gunfire encountered over the target and a high proportion of the raiding Bostons was holed.

No. 2 A.S.C.
War Diary

The thirteenth of March was not a good day for the Americans. American Warhawks of Nos. 64, 65 and 66 Squadrons were carrying out a sweep of the forward area when they were attacked by a force of 30 Me.109's which shot down five Warhawks, for the loss of three Me.109's. On the same day 12th Medium Bombardment Group made a trial flight. 'They are very inexperienced,' says a report by No. 2 A.S.C. 'and dropped all their bombs on the 69th Brigade. There was no damage and no casualties as the Brigade is well-dispersed and dug in, but it was a most unfortunate mistake, the more so,' the War Diary added regretfully, 'as Captain Smith (of No. 2 A.S.C.) goes to-morrow to lecture the Division on Air Support.' Investigation later established the fact that the failure of the American bombers to do damage was due mainly to the fact that the American 250 lb. bombs were not fitted with nose-rods and 'went deep into the earth and wasted their force upwards.'

Owing to the distinctive nature of the terrain in the Mareth area it was considered that no artificial landmarks were necessary. As a result of this mistake, however, the construction of two landmarks was immediately undertaken, one on the coast 150 ft long and approximately 5 ft wide, out 4 ft deep by a bulldozer was particularly vital as it marked the bombers' landfall on their favourite sea approach.

A.A.H.Q.W.D.
War Diary and
Report on Ops.

On 17 March, low cloud and then dust hampered operations. The enemy again endeavoured to shell forward fighter units out of the L.G.'s at Hazbub Satellite with his 17-cm. guns from the high ground. Warhawks of Nos. 64 and 65 Squadrons were detailed to bomb the enemy gun positions, but the conditions of 10/10ths cloud forced them to return with their bombs. On the following day, however, 18 Bostons of No. 12 S.A.A.F. dropped 72 x 250 lb. bombs on the enemy gun position, scoring direct hits on a building and a trench. This prompt retaliation by the air force combined with the launching of night patrols by the 4th Indian Division in the same area forced the enemy to withdraw his guns finally out of range.

Another formation of Baltimores of Nos. 55 and 223 Squadrons attacked enemy concentrations in the Mareth area, as part of the preliminary softening up, prior to the battle. They dropped 92 x 250 lb. bombs, but no results of

the bombing were observed. There was intense and accurate A.A. gunfire from the target area. A heavy attack by No. 205 Group Wellingtons to be directed against enemy positions at Mareth for the night 17/18 March was abortive as the bad weather forced the recall of the aircraft. Three of the Wellingtons which did not receive the recall signal reached the target and dropped 50 x 250 lb. bombs on a camp and dispersed enemy transport.

No. 205 Group
O.R.B.

Low cloud prevented offensive air operations on 19 March, although Spitfires of Nos. 1 S.A.A.F., 92 and 145 Squadrons were active on interception patrols in order to prevent the enemy reconnaissance aircraft which were very active in the southern and western ends of the bomb-line from carrying out effective reconnaissance in these tactically important areas. On the night 19/20 March - the night prior to the launching of the offensive - a total of 35 Wellingtons of Nos. 37, 40 and 70 Squadrons dropped 62 tons of bombs on enemy MT and gun emplacements between Mareth and Ketena, along the coast road, starting several fires, including one very large one. A.A. gunfire, both heavy and light, was intense and one Wellington was shot down. The three F.A.A. Albatrosses which assisted as pathfinders, dropping flares and then 6 x 250 lb. bombs, were holed by gunfire.

No. 73 Squadron
O.R.B.

During this period, sporadic attacks were carried out by enemy night bombers against road communications and other targets along the Eighth Army front. To counter this activity, patrols were carried out by night-flying Hurricanes of No. 73 Squadron. This Squadron also employed intruders over the enemy airfields from which the bombers were operating.

Developments in Combined Bomber and Fighter Training and Airfield Construction

Report on
Operations.

Recent operations with light bombers and their escorts which were in the nature of trial flights had shown the need to improve the methods with which the light bombers formed up and approached a target and also to make their crew thoroughly familiar with the country over which they were to operate during the forthcoming battle. A training scheme was therefore devised which would ensure that the bombers and their fighter escorts should spend the minimum time circling a rendezvous point and at a low altitude which would help to defeat the enemy R.D.F. system, the final climb towards the target being delayed until the last possible moment. This would ensure that the enemy would only be able to engage our aircraft with those fighters already on patrol or at immediate stand-by on the ground. The adoption of this system would make it possible to reduce the number of escorting fighters, thus releasing others for fighter-bomber work and offensive patrols over the enemy lines and back areas.

The method adopted was one already well tried in England. An easily-recognised rendezvous point was chosen well clear of fighter or bomber landing-grounds. The bombers took off and formed up below 500 feet at a subsidiary rendezvous within sight of the main one. Fighters followed a similar system at yet a third rendezvous point. The bomber formations then flew over the main rendezvous point as near as possible to the precise zero time and set course for the target while the fighters slipped into position. The five-minute rule was also introduced, so that should a rendezvous be missed at zero hour, the bombers would again cross the rendezvous point at zero plus five,

zero plus ten and zero plus fifteen, after which they returned to base.

Apart from ensuring a rendezvous, this system avoided the need for breaking R/T or W/T silence, and so giving away the operation to the enemy. In this way, too, bombers and fighters did not interfere with each other during the forming up and were able to keep below the enemy's R.D.F. screen, without risk of collision. After a few practices, squadrons found no difficulty and this technique invariably defeated the enemy's warning system.

Another interesting innovation at this time was the use of salt pans as landing-grounds. They were found to provide an excellent dust-free surface for aircraft, with the only disadvantage that the use of MT across them had to be strictly limited. Although an experiment forced on the W.D.A.F. because of the acute shortage of suitable sites for L.G.s, the salt-pans proved remarkably successful, the units sited on them showing the lowest accident rate for a very long time.

The Battles of the Mareth Line (20 - 27 March 1943)

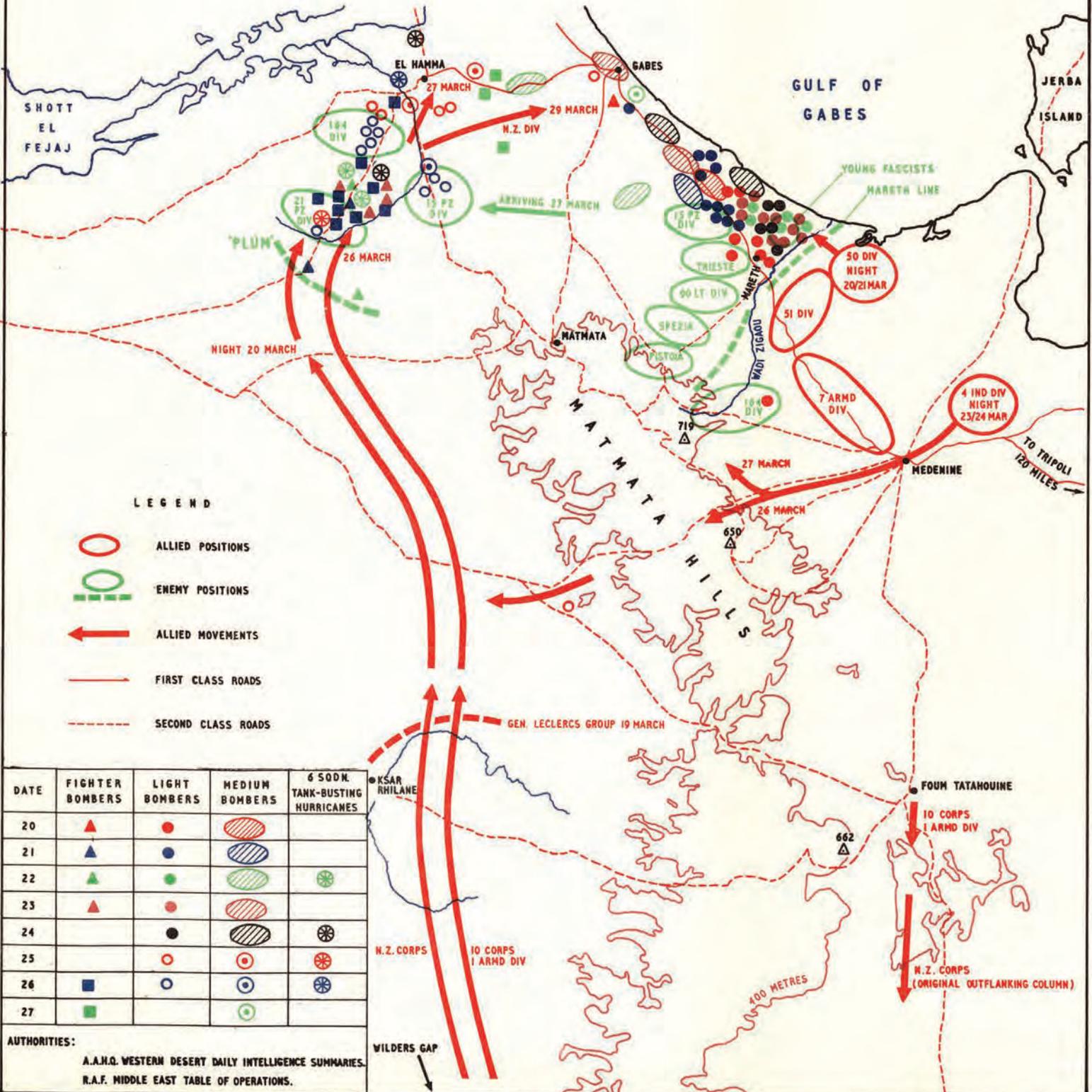
As a defensive position, the Mareth Line was almost as strong as El Alamein. It had been originally constructed by the French to protect Tunisia from an attack by the Italians from the east. The main defences stretched for 22 miles, one flank resting on the sea and the other on the steep-sided Matmata Mountains. At the eastern end of the line the Wadi Zigzaou had been widened and deepened to form a natural tank obstacle. The defences themselves consisted of a system of interconnected strongpoints, partly underground, reinforced with concrete. There was, however, one serious disadvantage. The bunkers had been planned for the French 25 and 47-mm. anti-tank guns and were too small to house the German 50 and 75-mm. guns which had to be positioned in the open. The Matmata Mountains shielding the western flank were almost impassable for wheeled traffic and the one poor road crossing them was blocked at the pass of Ksar el Hallouf. Any attempt to outflank the Mareth line involved a journey of almost 150 miles across waterless desert. As far back as December 1942, at the request of General Montgomery, the possibility of finding a way round the Mareth line had been thoroughly explored by the Long Range Desert Group who had reported that although very great difficulty would be experienced in crossing the country, it was not impassable to wheeled traffic.

F/M Rommel personally reconnoitred the Mareth line in February 1943 and sent back to the Fuehrer's H.Q. his personal appreciation. Rommel explained that, like all the Army's positions in Egypt and Libya, with the exception of the El Alamein positions, even the well-fortified Mareth line could be outflanked to the south and west by strong enemy forces. According to Rommel, this statement was backed up not only by his own reconnaissances, but also studies prepared in 1938 by the French.

'It could be assumed with practical certainty that the English would carry out such an operation either on a large or small scale. With the difference in strength of the opposing forces, to hold the Mareth line complete presents an impossible task to the German-Italian Panzer Army, if the enemy conducts his

Alexander's
Despatch.

MARETH: TACTICAL BOMBING, 20-27 MARCH 1943



DATE	FIGHTER BOMBERS	LIGHT BOMBERS	MEDIUM BOMBERS	6 SODM. TANK-BUSTING HURRICANES
20	▲	●	◐	
21	▲	●	◐	◐
22	▲	●	◐	◐
23	▲	●	◐	
24		●	◐	◐
25		●	◐	◐
26	■	●	◐	◐
27	■	●	◐	◐

AUTHORITIES:
 A.A.H.Q. WESTERN DESERT DAILY INTELLIGENCE SUMMARIES.
 R.A.F. MIDDLE EAST TABLE OF OPERATIONS.

German Official
War Narrative
for
11 February 1943

campaign correctly and simultaneously launches a frontal attack from the east, an outflanking move west of the Djebel Ksour and a thrust towards the coast from the Gafsa area. If, on the contrary, the Army's rear is not threatened and the majority of the vital mobile reserves do not have to withdraw from their forward positions, it seems possible that we may gain a decisive success against the Eighth Army if the Italian divisions can face a full-scale attack. Whether this (contrary to all previous experience) will be the case only the event can decide.

It is unquestionably necessary to do our utmost to ensure that the planned attack on Gafsa (Operation "Morning Breeze") is successful in time to free the German-Italian Panzer Army's rear, which is essential'.

It was mainly a preoccupation with the Panzer Army's rear which had, therefore, prompted Rommel's attack against the United States II Corps at Gafsa (Operation 'Morning Breeze').

The plan adopted by General Montgomery for the assault on the Mareth Line (Operation 'Pugilist') was precisely the one most feared by Rommel. The legacy of the Mareth battles was left to the Italian General Messe, who assumed command of the Axis forces manning the Mareth Line on 20 February, while 1st Italian Army and the northern attacking force were combined under F. M. Rommel's leadership to form Rommel Group for the Gafsa offensive which was eventually to lead to the rout of the Americans at Kasserine. As a sidelight on Rommel's brilliance as a field Commander it is interesting to note that he planned to conduct operations for the Gafsa offensive personally 'following with an advanced Battle H.Q. behind Afrika Korps or 21st Panzer Division according to which way the main battle swung.' F. M. Rommel who had been a sick man for some considerable time left North Africa for Germany before the Mareth Battle, on 9 March, although General Montgomery - as is evident from his personal account of the battle - was under the impression that the Panzer Army was still under the control of his old opponent throughout the Mareth battles.

'El Alamein to
the Sangro'

G.-in-C.'s
Despatch

As a preliminary to the Eighth Army's main offensive on the Mareth Line, General Alexander planned an attack by United States II Corps (now commanded by General Patton) to pin down the 10th Panzer Division on the Gafsa sector, 'to restore confidence after the earlier setbacks by a carefully planned successful operation, to exert pressure on the right rear of the enemy defending the Mareth positions and to be ready to open an alternative line of supply for Eighth Army after they had broken through the Gabes Gap.' The Eighth Army's plan was to deliver a frontal attack on the coast on the night of 20/21 March against the enemy's eastern flank with XXX Corps and to break into and roll up the Mareth Line from the right. X Corps, initially held in Army reserve, would then be ready to exploit success by passing through and advancing towards Gabes and Sfax, the capture of Sfax being the final objective of the operation. Meanwhile 2nd New Zealand Division, strongly reinforced with 8th Armoured Brigade and General Leclerc's Force 'L', were to carry out an outflanking movement round the western flank, to break in behind the Matmata massif.

The W.D.A.F. Air Staff plan for Operation 'Pugilist' was approved by the Air Officer Commanding North African Tactical Air Force (Air Marshal Sir Arthur Coningham) at a

Report on Ops.

conference held at Canrobert on 12 March. The intention was to deploy five Fighter Wings, three Light Bomber Wings, one Recce Wing and two Medium Bomber Wings by 12 March. Included in this force would be a squadron of Spitfire IX's, detached from N.A.T.A.F. to counter the technical efficiency of the F.W.190's, and also an anti-tank squadron.

Air Staff
Plan for
Operation
'Pugilist'

The general policy for the employment of the Air Forces was to be in accordance with the day-to-day requirements in the battle area. 'Air action in support of the land operations was to be preceded by direct pressure on the enemy air forces, including attacks on L.G.s in order to obtain the maximum possible freedom of action to interfere in the land battle.' It was planned for air operations with that object in view to be developed from 15 March.

In addition to the protection of forward Eighth Army troops - particularly the 2nd New Zealand Corps in their long outflanking movement - and the escort of light bombers, fighters were to be employed offensively in the battle area and behind the enemy lines. It was anticipated that up to one third of the Kittyhawk sorties would be attacks by fighter bombers. No. 73 Squadron were to be used by night during the main period for the attack on suitable ground targets behind the enemy lines and for the protection of forward troops and landing-grounds from night-bombing attacks.

The light bombers were to be employed by day, with escort, against enemy landing-grounds and concentrations in the forward area. If not operated at maximum intensity by day, they were also to be used by night during the moon period. The medium bombers of No. 205 Group were to be employed by night against landing-grounds and suitable targets in the battle area during the moon period. It was also planned to use them during the period immediately preceding the land attack with the object of wearing out the enemy forces by continuous bombing throughout the night.

The First Battle of the Mareth Line (Operation 'Pugilist')
20 - 22 March

W.D.A.F. War
Diary and
No. 40 Squadron
O.R.B.

Weather conditions which had impeded air operations since 17 March improved on 20 March, the eve of the battle, thus enabling the W.D.A.F. to operate at maximum capacity, Reconnaissance aircraft of No. 285 Wing were particularly active on that day taking air photographs to check the enemy battery positions for the Army. Baltimores of No. 1437 Flight carried out Strat./R's covering enemy movements, while Spitfires of No. 680 Squadron carried out photo-reccees of enemy landing-grounds and also battle strips. The Spitfires of No. 40 (S.A.A.F.) Squadron made a total of ten sorties, paying particular attention to the southern area where the New Zealanders were advancing.

No. 3 S.A.A.F.
Wing O.R.B.

Bostons, Baltimores and Mitchells launched a full-scale offensive against the Mareth positions and a total of 162 sorties were made (9 raids by 18 bombers) against dug-in and well-dispersed targets. The enemy fighter opposition was negligible, but aircrews reported that the volume and accuracy of the heavy A.A. gunfire which the enemy put up over their lines was reminiscent of the battle of El Alamein. As a result two of the Bostons were shot down and many other light bombers damaged. The Spitfires carried out 70 sorties on interception patrols, engaging

F.W.190's for the first time on this front, and No. 1 S.A.A.F. Squadron claimed to have shot one down.

An unfortunate incident occurred when aircraft of 57th Pursuit Group U.S.A.A.F. bombed the New Zealanders.

'The New Zealanders Corps broke wireless silence and began their advance. The New Zealander Division asked for "Plum" a defended position on the Mareth Line as a target. This was given to 57th Pursuit Group and proved a disaster. Wing moves having been ordered, the 57's link had been sent forward with one of the ALOs to their new L.G. in the morning. During the afternoon the second ALO moved forward and no ALO and no military picture was available when the target arrived. An officer in their Operations Room was briefed by Major Wallace by telephone but this information never reached the pilots who attacked the 6th N.Z. Bde. some 12 miles short of the target.'

No. 2 A.A.S.C.
War Diary

Alexander's
Despatch

The main attack by XXX Corps began at 22.30 hours on 20 March when 50th Division advanced to the assault under cover of very heavy artillery fire. By first light, elements of this Division had established a bridgehead across the Wadi Zigzaou which ran in front of the enemy positions. The Wadi was very deep and steep-sided and the bottom was everywhere muddy and in some places had standing water in it. This was a frontal attack at the strongest point and on terms most advantageous to the enemy and the attacking force suffered severe casualties. Furthermore, something which might have been foreseen under the circumstances, it was impossible to reinforce them, as the Wadi which they had crossed on foot was quite impassable for wheeled vehicles and almost impassable for tanks. In the meantime, the New Zealand Corps on their outflanking movement had reached the enemy's defence line across the narrow valley leading to El Hamma and known by the code-name of 'Plum', where they were held up by the enemy. For the time being, therefore, the frontal attack at Mareth and the encircling move towards EL Hamma had both reached a condition of stalemate.

Opsums and
No. 205 Group
O.R.B.

During the night 20/21 March, Wellingtons and Halifaxes of No. 205 Group continued their attacks on enemy positions, concentrations and encampments and dropped, in all, 124 tons of bombs. All serviceable aircraft of Nos. 37, 40 and 70 Squadrons, back at base, were flown forward to Castel Benito for inclusion in the night's effort and 11 Halifaxes of No. 462 Squadron and 45 Wellingtons from Nos. 37, 40, 70 and 104 Squadrons operated. Three large and numerous small fires and two violent explosions were reported in the Mareth area. Albacores of No. 821 Squadron F.A.A. again co-operated by dropping flares. At the same time, Hurricanes of No. 73 Squadron carried out intruder and interception patrols but failed to sight any enemy aircraft.

Report on
Operations and
Opsums.

The next day, 21 March, a total of 180 light bombers attacked enemy positions in and behind the Mareth Line. Targets were found to be more plentiful and results were considered to be good, but much heavy and light A.A. gun-fire was experienced and nearly a quarter of the aircraft were holed, two of them being compelled to force-land. Ten raids from the north-west were carried out by N.A.T.A.F. on enemy landing-grounds and this kept the enemy air forces very fully occupied. The 'shuttle-service'

again worked smoothly and, in addition, three fighter-bomber raids were made on 'Plum', the enemy defended position to the south of El Hamma, in response to calls for air-support from the New Zealanders. Unfortunately, one or two pilots were reported as having again gone astray and this time they strafed N.Z. artillery. Altogether, fighters flew some 450 sorties.

On 21 March the Eighth Army offensive made but little progress. A few Valentine tanks managed to cross the Wadi Zigzaou, but an attempt to reinforce with anti-tank guns failed.

Heavy and medium bombers of No. 205 Group, assisted by F.A.A. Albacores, kept up the momentum of the attack throughout the night 21/22 March. A total of 63 aircraft of Nos. 37, 40, 70, 104 and 462 Squadrons operated, together with 5 Albacores of No. 821 Squadron F.A.A. The weather was not good, with 5 to 6 tenths cloud and targets were difficult to locate. The aircraft of No. 104 Squadron managed to carry out double sorties, in spite of the adverse weather conditions. The night-flying Hurricanes of No. 73 Squadron were again busy, mainly on intruder patrols.

During the morning of 22 March, it became apparent that 15th Panzer Division was forming up to deliver a counter-attack against 50th Division's bridgehead and the light bombers were alerted to deal with this threat. A total of 90 light bombers made their rendezvous with their escorting fighters at 09.00 hours, 10.50 hours and 11.10 hours but, owing to the almost impenetrable layer of cloud over the target area, they were recalled each time. The expected German counter-attack took place during the afternoon and much of the ground captured by 50th Division was regained by the enemy, as the heavy rain which had prevented the bombers from operating had turned the Wadi Zigzaou into a moat across which it was impossible to move tanks and anti-tank guns.

It was not until late in the afternoon that weather conditions improved sufficiently to allow the light bombers to operate. They carried out 54 sorties against the 15th Panzer Division, dropping 37 tons of bombs, on enemy M.T. and guns. Several fires were started and one large explosion was reported. The enemy A.A. gunfire was intense and accurate and a Boston was shot down and many others holed. However, help from the air force had come too late. In any case it is doubtful if 50th Division's assault could have succeeded as it was discovered later that the German reinforcements against the bridgehead consisted not only of 15th Panzer Division, but also included a regiment of 90th Light Division and the Ramcke parachutists.

In contrast to the failure of air operations in the Mareth area, a highly successful operation was carried out by 'tankbusters' of No. 6 Squadron in the El Hamma sector, though at the cost of four aircraft. An armed recce carried out by No. 239 Wing in the El Hamma area, to the north of the defended position known as 'Plum' revealed approximately 40 enemy tanks, together with M.T., dispersed behind the gun-line. These probably belonged to the 21st Panzer Division which had been sent to strengthen this part of the enemy front which was being threatened by the New Zealanders. Two attacks were carried out by a total of

No. 205 Group
O.R.B.

A.A.H.Q.W.D.
War Diary.

'El Alamein
to the Sangro'

20 Hurricane IID's, escorted by No. 239 Wing fighters, the final score being:-

No. 6 Squadron
O.R.B.

Mark III tanks	20 hit (4 flammers)
Mark IV tanks	12 hit (1 flamer)
Lorries	5 hit
AMC	4 hit
88-mm. guns	1 hit

Four of the raiding Hurricanes were shot down but their pilots were safe. The pilots taking part in this operation were from the United Kingdom, Canada, Australia, New Zealand, South Africa, U.S.A. and Rhodesia. The New Zealanders in the sector sent the R.A.F. most enthusiastic messages on the success of the operations.

No. 205 Group
O.R.B.

The night-bombing force of No. 205 Group which operated during the night 22/23 March comprised 10 Halifaxes of No. 462 Squadron, 14 Wellingtons of No. 104 Squadron and 21 of No. 70 Squadron. They were assisted by five Albacores of No. 821 Squadron F.A.A. which acted as pathfinders. Nearly 100 tons of bombs were dropped on targets in the northern sector of the Mareth Line, causing at least seven fires one of which was very large. At the same time night-flying Hurricanes of No. 73 Squadron, 12 in number, operated single air patrols over the coast. Enemy night bombers were active over the whole of the forward area, but unfortunately they were missed by the night fighters.

Table of Ops.

In the evening of 22 March, arrangements were made for an early morning Kittybomber attack to support a 'demonstration' by X Corps against an enemy position to the west of the main road. The attack was duly carried out early on the morning of 23 March by a total of 33 Kittybombers of Nos. 2 and 5 Squadrons S.A.A.F. and No. 450 Squadron R.A.A.F. which dropped 38 x 250 lb. and 8 x 500 lb. bombs. The Army reported that the attacks carried out by the raiding aircraft were very successful and the R.A.F. wished to repeat them, but X Corps vetoed the suggestion as a repetition would clash with their own attack. Bostons, Baltimores and Mitchells carried out 166 sorties against enemy positions and M.T. in the Zarat area, between Mareth and the coast. Appreciative signals were received from forward troops which included the statement that after one particularly severe raid the village of Zarat was set ablaze and all fire from the area ceased. In the El Hamma Sector three Kittyhawk squadrons attacked enemy M.T. and gun emplacements. A number of fires were left burning in the area.

No. 5 A.S.C.

Planning for Operation 'Supercharge', the Second Mareth Battle

As had happened with Operation 'Lightfoot' at the Battle of El Alamein, Operation 'Pugilist', the frontal attack on the most heavily defended sector of the Mareth Line was a failure. General Montgomery then decided to call off the frontal attack and reinforce the outflanking move by the New Zealanders with X Corps and the 1st Armoured Division, estimating that they would reach their destination by 25 March. At the same time the 4th Indian Division, under the command of XXX Corps, was to thrust into the mountains to the west of the Mareth Line and open up the road from Medenine to Bir Soltane via the Ksar el Hallouf pass as a shorter route of supply for X Corps and to provide a route of advance over which 7th Armoured Division could pass to

Alexander's
Despatch

get behind the Mareth positions and cut the Mareth-Gabes road. This plan which bore an obvious resemblance to the one adopted at El Alamein was christened Operation 'Supercharge'.

Report on
Operations

During the interval whilst X Corps and the 1st Armoured Division were engaged on their long outflanking march in order to join up with the New Zealanders, the detailed plan of action for Operation 'Supercharge' was considered and made ready. The New Zealanders were still held up at the 'Plum' defile, the difficult and well-defended 'funnel' leading up to El Hamma. This 'funnel' was, in fact, a valley stretching northwards to El Hamma, overlooked on both sides by two ranges of hills. It narrowed from south to north and was covered throughout its length by anti-tank guns and artillery in well-concealed emplacements in the hills. Furthermore, the bottom of the valley was crossed by dry stream beds at right angles to its length, each one providing a naturally strong defensive position.

The A.O.C., W.D.A.F. suggested to the Army Commander that a heavy and concentrated daylight air attack would have the effect of temporarily paralysing the enemy forces and that if the Army could stage a frontal attack timed to coincide with the air attack, it might be possible to drive an armoured force straight through towards El Hamma. The Army Commander favoured this plan and eventually, after consultation with the Commanders of X Corps and the New Zealand Corps, decided to adopt it. A conference was accordingly held between the A.O.C. W.D.A.F. and the B.G.S. Eighth Army to discuss the detailed close support necessary for Operation 'Supercharge'. In this discussion, the B.G.S. favoured switching the light-bomber effort to close support of the attacking force, but the A.O.C. preferred to use the fighter bombers for the undermentioned reasons:-

- (a) The light bombers did not know the country well enough.
- (b) They would require heavy fighter escort.
- (c) Doubtful weather conditions would have a serious effect on them, whereas the fighter bombers would probably still be able to operate.
- (d) There was not at that time and might not be at the time the offensive was launched light-bomber targets, whereas fighter bombers would find their own targets.
- (e) The fighter bombers could be used without escort.

It was then decided to lay on a continuous low-level attack by fighters, at two squadron strength, to start at Zero minus 30, employing 16 squadrons of fighter bombers, one squadron of 'tankbusters' and one Squadron of Spitfires. At Zero hour an artillery barrage would be put down on the whole front. This, as it advanced, was to be a moving bomblines marked by bursting shells. An enemy gun area was given as a special objective. The New Zealand Corps arranged for a gun to fire smoke shells into this area at a rate of one a minute as a target indicator. It was also decided to regularise the tank-to-aircraft communication and the fighter call sign, and frequency were given to the 8th Armoured Brigade who were asked to nominate one tank to do the talking.

The air plan for Operation 'Pugilist' was endangered at this time by developments in Central and Northern Tunisia which, it seemed, might alter the A.O.C. N.A.T.A.F.'s original policy which was to give the W.D.A.F. a completely free hand. It seemed likely that as much as one-third of the W.D.A.F. air effort might have to be switched from close support targets to action against the enemy airfields. The A.O.C. W.D.A.F. opposed this alteration in the plan very strongly, arguing that:-

Report on
Operations.
A.H.B./
IIJ15/4

(a) The basic land strategy was for the Eighth Army to make the main thrust against the enemy. It was therefore sound policy to give the maximum possible air support to the Eighth Army.

(b) The interference being received from the enemy air forces was so slight that there seemed little reason to attack them at this stage.

(c) The enemy airfields were well-defended by A.A. and the aircraft on them well-dispersed. It was felt that the results to be expected from these attacks on enemy air bases would not justify the diversion of effort from the battlefield.

(d) To attack the enemy airfields meant that the light-bomber formations would have to be escorted by the Kittyhawks and cover provided by Spitfires. All this potential effort should be concentrated in support of the land battle.

This viewpoint was eventually accepted by H.Q. N.A.T.A.F.

Basically, the object of the air plan for Operation 'Supercharge', as conceived by the A.O.C., W.D.A.F., was to paralyse the enemy resistance on the ground for long enough to enable the Army to make their break through. It was planned to concentrate the maximum number of aircraft that could reasonably operate over the area throughout the period agreed by the Army which was 2½ hours. It was important to surprise the enemy and mainly on this account the attack was timed to start in daylight. Since General Montgomery had taken over command of the Eighth Army, no major attack had been initiated by the Eighth Army in daylight and it was likely that the enemy was counting on a night attack.

No. 6 Squadron's 'Tankbusting' Operation 24 March

On 24 March, No. 6 Squadron 'Tankbusters' carried out two attacks against enemy tanks, M.T. and guns in response to air support calls from the New Zealanders on the El Hamma sector. The operations followed closely the pattern of the earlier raids on 22 March. At the end of the day the total score was:

No. 6 Squadron
O.R.B.

Mark III tanks	9 destroyed
Mark IV tanks	1 flamer
A.M.C.s	3 hit
Semi-tracked Vehicles	6 hit, 3 flamers
88-mm. guns	1 hit
trailer and W/T van hit.	

The hazards attending this type of operation were again made clear with the loss of 4 out of the 19 aircraft which took part in the attacks. One pilot was killed and another

A.A.H.Q.W.D.
War Diary

injured. A strong force of 37 Kittyhawks of Nos. 3 R.A.A.F., 112, 260 and 450 R.A.A.F. Squadrons which escorted the 'Tankbusters' on their first raid also went down to the attack and achieved a remarkable degree of success. They destroyed 14 M.T., an armoured car, two volkswagen and one troop carrier, all 'flamers'. Two gun positions were attacked and their crews wiped out. In addition, some 40 M.T. and 7 large tents were claimed as damaged. Two of the attacking aircraft were shot down with the loss of one pilot.

On the following day, No. 6 Squadron received the following signal from A.A.H.Q. W.D. :-

'Personal for S/Ldr. Weston-Burt from A.O.C.
General Montgomery sends his admiration and congratulations to your squadron for their work to-day. I again send mine. Please convey to all ranks.'

During the interim period between the end of Operation 'Pugilist' and the launching of Operation 'Supercharge' air operations were chiefly concentrated on the Mareth area. During the night 23/24 March, the medium and heavy bombers switched their attacks to targets along the coast road between Mareth and Gabes. A total of 26 aircraft operated and dropped some 60 tons of bombs. Several fires and a particularly violent explosion were reported. On the next day, 24 March, nearly 100 bomber sorties were flown by Bostons, Baltimores and Mitchells against targets near Zarat, where important enemy armoured forces were reported to be concentrated. Several fires were started and a number of direct hits scored. These operations were carried out in the morning, after which it was decided to conserve the light bombers for night operations in support of the New Zealanders.

No. 3 Wing
S.A.A.F.
O.R.B.

The Battle of El Hamma (26 March 1943)

Before 26 March, the day chosen for Operation 'Supercharge', the whole of the force of light, medium and heavy bombers was turned on to night operations. A programme was worked out between the Western Desert Air Force and No. 205 Group which would ensure that bombing would continue throughout the nights of 24/25 and 25/26 March, from dusk until dawn. 'The object was to destroy enemy transport and telephone communications in the El Hamma area and deprive the enemy troops of rest, thus lowering their morale as much as possible, in preparation for the "blitz" attack.' In all, 330 sorties were flown on these two nights and over 400 tons of bombs were dropped. There was a brilliant moon and pilots described the targets as 'the best they had ever had in Desert operations'. Fleet Air Arm Albacores co-operated as pathfinders, dropping flares and bombers as markers. The New Zealanders had also put out their own markers and identification signals to aid the night bombers. Explosions were observed in concentrations of up to 100 vehicles and numerous fires were started. This heavy weight of attack appeared to catch the enemy by surprise and there was little or no A.A. opposition encountered in the target area, although heavy A.A. and searchlights were active around Gabes.

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No. 205 Group
and 3 S.A.A.F.
Wing O.R.B.s.

In addition to the heavy scale of night bombing during the night 24/25 March, the light bombers were active on 25 March against enemy landing-grounds. Eighteen Bostons and Baltimores, escorted by two Spitfire and two Kittyhawk

squadrons attacked the L.G. at Djebel Tebaga where some 50 enemy aircraft had been reported. They obtained a direct hit and several near misses on dispersed aircraft. In this raid, a Baltimore had the fortune to shoot down a Me.109 which had managed to break through the fighter cover. Another light-bomber raid of 17 Baltimores detailed to bomb the landing-ground at Sfax el Maou found thick mist over the target area and bombed a railway junction to the west of Sfax. Their escorts of 24 Kittyhawks carried out low-level attacks against an enemy camp. Fighters carried out some 200 sorties mainly on interception patrols and on low-level attacks against ground targets. No. 6 Squadron were particularly unfortunate on the afternoon of 25 March when, in the course of an attack against some 50 enemy tanks in the El Hamma area, they had 6 out of the 10 aircraft which took part in the raid shot down. All pilots were safe. It is apparent from this that the element of surprise achieved by the 'tankbusters' earlier on had been lost and that the enemy were now well-prepared for their attacks. The squadron claimed:-

No. 6 Squadron
O.R.B.

Mark III tanks	11 hit (7 destroyed)
Mark IV tanks	5 hit (4 destroyed)

The concentrated attack by the night-bomber force comprising Wellingtons, Halifaxes, Bostons, Baltimores, Mitchells and Albacores against enemy forces gathering in the El Hamma area has already been mentioned. It was the eve of Operation 'Supercharge' and 168 bombers which took part dropped 200 tons of bombs.

No. 5 A.A.S.C.
War Diary

The 26th March, the day chosen for the launching of the Eighth Army's renewed offensive proved a very anxious day for the R.A.F., as visibility was bad and dust was rising. The fighters were accordingly moved to landing-grounds which were less likely to be dustbound. In spite of the adverse weather conditions - the degree of close support to be given to the attacking force required a high degree of accuracy in the bombing - it was decided by the W.D.A.F. to go through with the complete programme, with a last-minute adjustment which involved using a strong force of light bombers to start off the air offensive.

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Operations

Between dawn and Zero hour only Spitfire patrols - some 60 in number - were flown. At 15.30 hours, however, three formations of light bombers (Bostons of Nos. 12, 21 and 24 Squadrons S.A.A.F., Baltimores of No. 55 Squadron and Mitchells of Nos. 83 and 434 Squadrons U.S.A.A.F.) totalling 54 aircraft launched a simultaneous pattern-bombing attack on the main enemy positions to the south and south west of El Hamma. The intention was to create disorganisation and particularly to disrupt telephone communications. The bombers made a low and evasive approach and met no air opposition. Intense and accurate A.A. gunfire was met by one formation, however, and two Bostons and one Baltimore were shot down. An umbrella of fighters was provided over the whole area. No. 3 Wing S.A.A.F. complained that, owing to the smoke signals being put out late by the Army, navigation was difficult and visibility hazy. They also considered that the verbal briefing was too hurried for such an important operation. In spite of this, the bombing was considered to have been very satisfactory.

No. 3 Wing
S.A.A.F.
O.R.B.

Immediately after the light bombers had finished their attack, the first relay of fighter bombers (11 Kittyhawks

of No. 3 R.A.A.F. Squadron and 10 of No. 250 Squadron) entered the area and began to bomb and machine-gun from the lowest possible heights. A strength of $2\frac{1}{2}$ squadrons was maintained in the area, fresh relays arriving at quarter-hour intervals. Pilots were briefed to bomb specific targets and then to shoot up enemy gun positions with the object of killing the crews, particularly of those guns which were in a position to hold up the attacking armour. A Spitfire patrol of one squadron strength was maintained over the area to protect the fighter bombers, while at the same time the light bombers of N.A.T.A.F. attacked enemy airfields as a diversion. So effectively were the enemy surprised, however, that no air opposition whatsoever was met over the battle area. In all, 26 Squadrons bombed and strafed over a period of $2\frac{1}{2}$ hours and at a conservative estimate 80 - 100 M.T. were destroyed and 200 damaged. The cost was 11 fighter pilots missing and 1 light bomber crew.

As the country was difficult for navigation, a scheme of identification was used consisting of a large land-mark cut into the ground against which red and blue smoke was burned, while at the same time forward troops burned yellow smoke. Lorries were also arranged in the form of letters to act as ground strips at selected pinpoints. During the first five minutes of the air attack the Eighth Army artillery shelled the most important enemy strongpoints with smoke shells. In spite of the haze, these indicators worked well. An experiment in the control of aircraft working over the battlefield was tried out on this occasion. A R.A.F. officer observed the battle from a forward observation post in order to give pilots, by means of direct radio link, information about targets and our own troops.

At 16.00 hours, half an hour after the air offensive opened, X Corps and the New Zealanders attacked, following a favourite enemy plan with the sun behind them. The infantry advanced under cover of a heavy barrage, creeping at the rate of 100 yards every three minutes, thus automatically defining the bomb-line. The aircraft bombed and strafed in front of this line and became, in effect, part of the barrage. The enemy defences were completely overwhelmed and this most difficult position was taken with relatively little loss, thus enabling our armour to break through. The 8th Armoured Division followed through and advanced nearly 4 miles before being halted by darkness. As soon as the moon rose, the advance was continued. It was a daring but successful move. In the bright moonlight they drove straight past the bulk of the enemy armour and at dawn our leading tanks were only a few miles short of El Hamma.

The enemy was in an extremely precarious situation. To the east was 1st Armoured Division and to the west the New Zealand Corps and the enemy was caught between them. In spite of their heavy losses, however, the three German divisions which took part in the battle (21st Panzer Division, 164th Division later joined by 15th Panzer Division) were successful in holding on to El Hamma and keeping open the corridor through which the troops from the Mareth Line were withdrawn to the next defensive position to the north of Gabes. The enemy lost seven thousand prisoners and many tanks and guns.

In a signal dated 7 April, a reply was sent back by the W.D.A.F. to an enquiry by Air Ministry on 'the type of new technique in air attack made on the enemy south west of El Hamma on the afternoon of 26 March.'

A.O.C.-in-C.
Personal File
A.H.B./IIJ1/
183/8

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'There is no doubt,' the reply stated in the last paragraph, 'that this attack achieved surprise both in the air and on the ground and that continuous low bombing and strafing completely disorganised enemy defences for sufficiently to allow leading elements of Eighth Army to take them and thus permit the Armoured Division to pass through unmolested. Evidence from P.O.W. and also in quantity of men and material left behind by enemy testified to terrific moral and material effect caused by this air attack which introduced no novel feature but merely used normal frame of attack closely linked to a normal Army problem and which caught the enemy without well-prepared A.A. defences and on an occasion when we enjoyed almost complete air supremacy.'

ACG/200
A.H.B./IIJ1/
183/8
Encl. 648 A.

Although no new technique in air attack was employed at El Hamma, the precision and extent of the close co-ordination which was achieved in that battle between the Eighth Army and the W.D.A.F. had never before been achieved in North Africa. The tendency towards dispersal of effort against a plurality of targets, inherent in the handling of any major air force, had been resisted. The result was close-support at its best and most effective. One of the day's disappointments from the air point of view was an anti-tank sweep carried out by Hurricane IID aircraft of No. 6 Squadron in the afternoon. They failed to locate enemy tanks, other than derelicts, in the area assigned to them and lost two aircraft shot down and two others damaged (Cat. II).

No. 6 Squadron
O.R.B.

A signal from General Montgomery to Air Vice-Marshal Broadhurst was circulated to all ranks on 27 March 1943:

'From A.O.C. The following signal has been sent to me by General Montgomery as a result of the operations undertaken on the afternoon of 26 March. It is unnecessary for me to say how proud I am of the magnificent effort which was made by all units on that particular operation. There is no doubt that it was a major contribution to the success of the Eighth Army in their attack on the Mareth position and I would like Commanders to convey to all their pilots my appreciation of their effort, also the substance of General Montgomery's signal.

"I would like to convey to you my great appreciation of the superb support to the land battle that has been given by the Air Force under your command yesterday and in fact every day since this battle began. Such intimate and close support has never to my knowledge been achieved before and it has been an inspiration to all the troops. The results have been first class. I sincerely trust you have not suffered many losses. Please convey to the Commanders and all the pilots the grateful thanks of myself and the whole Army for their truly magnificent efforts."

In sending you the above message, I wish to convey to all Administrative and Maintenance personnel my deep appreciation of their long sustained efforts under most trying and difficult conditions through which, in no small measure, were mainly maintained the operational efficiency of flying units at such a high level.'

Enemy Evacuation of Gabes Provides W.D.A.F. with Excellent Targets 29 March 1943

No. 205 Group
O.R.B.

Daily Int.
Sums and
No. 2 A.A.S.C.
War Diary

During the night 26/27 March, No. 205 Group kept up the momentum of the air operations against the enemy by bombing in the Gabes area. A strong force of 56 Wellingtons and 6 Halifaxes attacked enemy M.T., barracks, gun positions, roads and railway sidings, dropping 100 tons of bombs and starting a number of fires. Haze made the identification of targets difficult, particularly as only one of the Albacores used for flare-dropping was serviceable. The next morning an early air reconnaissance reported westerly movement from El Hamma to Gabes. Two attacks by fighter bombers were carried out, causing the destruction of a large tank, 4 M.T. and a further 50 enemy vehicles damaged. It was apparent, however, that in anticipation of a retreat along this vital coast road, a number of A.A. gun posts had been set up, as the raiding aircraft were subjected to intense A.A. gunfire. Out of the 53 aircraft which took part in these attacks 6 were shot down and many others were damaged. Owing to these losses - a further two fighters were shot down in the course of the day's operations - orders were issued from Air Headquarters Western Desert that there were to be no more low-level attacks save by express order from S.A.S.O.

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Thick haze caused the cancellation of night-bombing operations for the night 27/28 March. Sand storms and poor visibility also prevented the exploitation of a very favourable land situation on 28 March. Such targets as were found rapidly dispersed when attacked by Kittybombers. In the afternoon the weather improved slightly and two attacks by Kittybombers were carried out on a fairly heavy movement of M.T. north from Gabes, but targets were found to be well-dispersed and no outstanding results were claimed. An armed recce by Spitfires over landing-grounds in the morning resulted in the shooting down of two dive-bombers and one Me.109. Another sweep by 12 Spitfires of No. 145 Squadron intercepted a formation of Ju.88's, shooting down two of them. On the following night (28/29 March) considerable enemy movement was expected along the coast road towards Sfax, as the enemy were known to be preparing the evacuation of Gabes, but bad weather again prevented the bombers of No. 205 Group from operating until 04.00 hours. Between 04.00 hours and 05.00 hours, however, 48 Wellingtons and 4 Halifaxes from Nos. 37, 40, 70, 104 and 462 Squadrons carried out attacks against excellent targets and reported many fires and explosions. They dropped 110 tons of bombs.

By 29 March the Eighth Army had cleared all the roads leading to Gabes from the south and the town was captured. The insistent pressure by the pursuing forces caused the enemy to be thoroughly disorganised and targets for air attack were plentiful. The order against low-level attacks was relaxed. Air recce revealed the enemy streaming back along the coast road, a fine target for fighter bombing and strafing which went on against it all day. The Wings were given a comparatively free hand and they soon found the places where damage to the road from air attack and the defiles were packing the enemy close together. These were probably the best targets of their kind that the W.D.A.F. had ever enjoyed. Claims included 50 M.T. in flames and 250 damaged. Night-flying Hurricanes of No. 73 Squadron started the execution when they attacked about 35 enemy M.T. north of Gabes. Bombing began at first light when

32 Kittybombers of Nos. 2, 4 and 5 S.A.A.F. Squadrons dropped 29 x 250 lb. bombs on a concentration of 80 enemy vehicles and by dark the fighter bombers had carried out 550 sorties, mainly directed against M.T. along the Oudref - Sfax road. Spitfires made 170 sorties to cover these operations, claiming six Me.109's, two Mc.202's and one Ju.88 shot down. Light bombers added to the havoc by carrying out 100 sorties against enemy road transport and also aircraft on the Zitouna and Sfax el Maou L.G.s. Besides destruction and damage to enemy M.T., four enemy aircraft were claimed as destroyed on the landing-grounds.

Air Operations Prior to the Action at Wadi Akarit
(30 March to 5 April 1943)

A.A.H.Q.W.D.
War Diary

The Wadi Akarit, where the enemy was expected to make his next stand after Mareth, was watched very carefully by the R.A.F. and covered by daily recces. Although great activity was noted in this area, where the enemy were feverishly improving the defences, the continuous movement of their M.T. northwards to Sfax appeared to indicate that the enemy probably intended to fight only a delaying action in the Wadi Akarit position.

A.A.H.Q.W.D.
War Diary,
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Operations and
No. 5 A.A.S.C.

The target given to No. 205 Group by A.A.H.Q.W.D. for the night bombers for the night 29/30 March was the road between Wadi Akarit and Mahares and a maximum effort was prepared, but owing to the dense cloud the operation was cancelled. Bad weather also restricted air operations on the following day, 30 March, and the sorties flown numbered approximately 350. After the heavy effort on the previous day, the W.D.A.F. were anxious for a period of 'make and mend' and it was agreed to call for a considerable effort only if X Corps made a set-piece attack or if the enemy decided to pull out by day. Early morning armed reconnaissance and two other made during the day along the coastal road to Sfax and behind the Akarit positions found no good targets. Reconnaissance showed 40 enemy aircraft on Sfax el Maou L.G. which was attacked by 73 Bostons, Baltimores and Mitchells. Cloud impeded the observation of results of the bombing and one formation of 18 Baltimores was forced to return with their bombs, but two Me.210's were set on fire.

Between 30 March and 1 April, the main object of the Allied air attack was to force the enemy to evacuate Sfax el Maou which had now become their main air base for operations against the Eighth Army. Over 180 tons of bombs were dropped on this L.G. by the light bombers which flew 230 sorties. These attacks would have been heavier had the adverse weather conditions not caused a number of the raids to be diverted from this target to alternative ones, or else cancelled. For instance, a force of 52 Wellingtons of No. 205 Group, detailed to attack Sfax el Maou L.G. on the night of 30/31 March found thick cloud over the target and bombed store sheds and M.T. to the north of Mahares. The alternative targets found by pathfinding Albacores happened to be most rewarding ones and the bombing started enormous fires covering an area of one square mile. The explosions which resulted indicated that the 'lucky bombing' had touched off an ammunition dumping area. The raids on the enemy L.G. at Sfax el Maou experienced intense A.A. gunfire and four of the light bombers were shot down. They claimed 7 enemy aircraft destroyed on the ground and many others damaged. These attacks achieved their purpose as by 1 April the enemy had

given up using the L.G. as an air base and had moved their forces back to La Fauconnerie. As a result, the air effort was switched from landing-grounds to attacks on the enemy defence positions and vehicles at the Wadi Akarit, but targets were well dispersed and only moderate results were achieved.

Operation 'Scipio' - the Attack on the Wadi Akarit Positions
6 April 1943

Squadron and
Wing O.R.B.s,
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Operations

The next major air operations began on 6 April, when the Eighth Army launched their attack on the Wadi Akarit positions. Between 2 and 6 April there was a decided lull in air operations due, in part, to a deterioration in the weather and a desire to conserve the air force in preparation for Operation 'Scipio'. The enemy's new air base at La Fauconnerie, where photographic reconnaissance had located some 60 aircraft, was attacked by W.D.A.F. fighter bombers and medium bombers of the Tactical Air Force. Spitfires were also active on interception patrols and on 4 April No. 145 Squadron claimed 3 Me.109's destroyed. On 3 April, Squadrons of No. 239 Wing moved forward from Medenine Main to EL Hamma L.G., but on the 4th they were not merely bombed but shelled for two hours by a single enemy gun. On 6 April the landing-ground was again shelled, this time by a battery of 6 guns, which destroyed one aircraft and killed one man. Aircraft were accordingly flown back to Medenine and returned next day for Operation 'Scipio'. The R.A.F. retaliated on the afternoon of the bombing when 24 Kittybombers dropped 31 x 250 lb. bombs at what was reported to be the location of the enemy gun position. No guns were seen but six large dug-in trucks around which there were slit trenches were bombed and a large fire was started. Whether or not this was the correct objective, there was no further shelling of EL Hamma L.G.

The Wadi Akarit position extended for some 15 miles between the sea and the Chott el Fedjadj along the line of the steep-sided Wadi Akarit which had been extended with an anti-tank ditch. As a defensive position it was naturally much stronger than Mareth and was, indeed, probably the strongest position which the enemy had occupied since leaving El Alamein. Fortunately it was no longer Rommel but General Messe who opposed the Eighth Army there and both the 10th and 21st Panzer Divisions were engaged with the American II Corps some 40 miles to the west. This left the Eighth Army's old opponents the 15th Panzer Division and the 90th Light Division for the defence of Wadi Akarit.

G.-in-C.'s
Despatch

X Corps made contact with the enemy's new line on 30 March, but General Montgomery decided to postpone the assault and the drive towards Sfax until stronger forces could be brought up. His plan was to attack with three infantry divisions, the 50th, 51st and 4th Indian in order to secure a bridgehead through which X Corps could pass with the New Zealanders leading. Preparations for the battle lasted a week, by which time the G.O.C. Eighth Army had nearly 500 tanks available. Briefly, the Eighth Army's plan of action was as follows:

'The Eighth Army intends to break through the Akarit position and to drive on towards Sfax. Infantry attacks will start during the night 5/6 April, the main attacks, however, being launched at 04.15 hours on 6 April. (Zero hour). Subsequently the New Zealand Division, followed by X Corps, will pass through and advance northwards to the west of the

Appendix 'M' to
Report on
Operations.
A.H.B./ALJ/15/4

main Gabes-Sfax road. Infantry will advance northwards along the axis of the main road.'

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The rôle of the R.A.F. was direct air support, but action along the lines of the battle at El Hamma was not possible because of the nature of the country and of the enemy defensive positions along the Wadi which did not lend themselves to that form of attack. During the operation, priority was to be given to air attacks on the enemy's reserves, particularly their armoured formations when they concentrated to attack our forces. After the break-through, it was hoped that the retreating enemy would present good opportunity targets on which, as had happened after the Mareth battle, the W.D.A.F. would turn the full weight of the air offensive.

On the evening of 5 April, all pilots were especially briefed with details of the land situation by the Air Liaison Officers, including the Army's plans for the advance and the artillery barrages. Attention was particularly drawn to the landmarks put out by the Army and to other arrangements for identifying friendly troops. A special briefing was given by the Air Officer Commanding W.D.A.F. at Senem L.G. at 15.30 hours to the Officer Commanding No. 211 Group, C.O.s of Wings and of Nos. 6 and 73 Squadrons. Plans were also laid for a landing-ground recce party to go forward with the 51st Division up the main Gabes-Sfax road to select landing-grounds and arrangements were made for A.A. and R.E. construction parties to accompany the L.G. Recce Party.

Although the battle of Wadi Akarit lasted only a day, the fighting was described by General Montgomery as 'heavier and more savage than any we have had since El Alamein.' The enemy, in fact, were now being hustled back not in their own time. The price the Panzer Army would have paid had Rommel accepted the repeated instructions from Higher Command to fight it out and challenge the full strength of the Eighth Army was made apparent in this battle. There was also evident a lack of balance in General Messe's handling of the battle and the disposition of his forces. There was an over-insurance against the advance of General Patton's American III Corps, which had already been halted, by employing the 10th and 21st Panzer Divisions against them on the El Guettar front, when only one German armoured Division, the 15th Panzer, was left to counter the full weight of the Eighth Army's frontal attack at Wadi Akarit.

Alexander's
Despatch

The attack was launched by XXX Corps supported by 450 guns, at 04.00 hours on 6 April. It was completely dark and this undoubtedly assisted the Eighth Army in gaining surprise, as previously all their night attacks had been mounted in moonlight. The 51st Division gained its original objective but was driven off by a counter-attack and the 50th Division in the centre was seriously delayed by resistance on the line of the Wadi. The 4th Indian Division on the left, however, soon gained their objective. At 08.45 hours, the division reported that it had advanced 6,000 yards and at midday General Montgomery ordered X Corps to 'smash its way out through the front.'

'The attack on Fatnassa,' says the C.-in-C.'s Despatch, 'was brilliantly successful against great difficulties of terrain; the 7th Indian Brigade, led by the Royal Sussex and 2nd Gurkhas, captured all their

objectives by dawn and the 5th Indian Brigade, which was then passing through, completed the mopping up and was in a position to take in rear the defences which were holding up the Corps' centre and right. At 08.45 the division reported that it had bitten six thousand yards out of the enemy position and at 12.00 hours General Montgomery put in X Corps. It looked like a complete débâcle for the enemy, but the 15th Panzer and the 90th Light Divisions, fighting perhaps the best battle of their distinguished careers, counter-attacked with great vigour and by their self-sacrifice enabled Messe to stabilise the situation. That night the enemy withdrew and the two Panzer Divisions which had been fighting a hard but irrelevant battle on the El Guettar road also broke contact and drew off to the northeast. At 16.00 hours on 7 April an American patrol met a patrol of the 4th Indian Division. At last the two Armies, from the east and the west, had made contact after their long and triumphant advances.'

The air offensive in support of the attack was at first mainly confined to armed recess and patrols. Between dawn and 13.00 hours, a total of 450 fighter sorties were flown, of which 160 were by fighter-bombers or by Hurricane IID 'tankbusters'. Some successes were scored against enemy transport, but for the most part targets were thin and unrewarding. In the early afternoon, however, when it was seen that enemy counter-attacks were developing, strong formations of bombers and fighter bombers attacked the enemy concentrations. In all, 5 formations of 18 light and medium bombers and 7 formations of fighter bombers at squadron strength, totalling 188 aircraft, dropped 80 tons of bombs. Observers considered that the targets were too well dispersed to be rewarding, but photographs later showed that more damage had been done than was readily apparent. Contemporary reports claim that the bombing succeeded in smashing the armoured attacks before they could develop. The Hurricane IID aircraft sent out to attack enemy tanks which had been reported by both air and ground forces earlier on found only one Mark III Special which they destroyed.

Opsums.

No. 3 Wing
S.A.A.F. O.R.B.

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Daily Int.
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A.H.B.6

The W.D.A.F. flew fighter sweeps with Spitfires over the battle area throughout the day, thus enabling the Eighth Army to launch their attacks in conditions of almost complete air protection. Only two enemy air raids were reported. One heavily escorted raid by Ju.87's and fighter bombers was broken up by Spitfires and another by Ju.88's was made abortive by A.A. gunfire. At the same time as the battle of Wadi Akarit was in progress, bombers of the Tactical Bomber Force carried out seven attacks against the enemy air base of La Fauconnerie. These raids followed hard on the intensive attacks carried out on the previous day by aircraft of the North-west African Strategic and Tactical Air Forces against enemy air bases in Sicily and North Africa. In two days the German Air Force had sustained the disastrous loss of 50 aircraft destroyed and a further 38 damaged. Although a high proportion of these aircraft were transports (23 Ju.52's were destroyed on 5 April) the blow must have been a shattering one to the Luftwaffe and must have accounted largely for the lack of enemy air activity on the Eighth Army front.

No. 205 Group
O.R.B.

The heavy raids put up by the night bombers of No. 205 Group missed the main withdrawal of the enemy forces from Wadi Akarit. Their briefing gave as targets M.T. concentrations on the Mahares - Sfax road and 35 Wellingtons from Nos. 37, 40 and 70 Squadrons operated in two waves, dropping 70 tons of bombs on small groups of M.T. and on camps and buildings. The results of the bombing were poor. In between these two attacks, 21 Wellingtons from Nos. 40 and 104 Squadrons went to Sfax town and dropped 43 tons of bombs there, bursts being seen on the railway sidings, phosphates quay and warehouses.

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Tac/R on the morning of 7 April showed that the enemy had withdrawn during the night and by the late afternoon was holding a line from Cekhira to the salt marsh at Sebket el Noual, still 50 miles distant from the area of the main night bombing. The first bombing raids of the day took place in early morning against small groups of enemy M.T. As the day wore on, however, targets improved and the scale of attack increased until all the light bombers and fighters of the W.D.A.F. were working at maximum effort. The best targets were found in the afternoon on the track leading east from Djebel Chemsî. This proved to be the enemy forces - the 10th and 21st Panzer Divisions - retreating from the El Guettar front where they were in danger of being cut off by the Eighth Army's advance. The light bombers and fighter bombers which together carried out 375 sorties during the day wrought considerable havoc among enemy M.T., forcing the enemy vehicles to disperse over a wide area.

No. 6 Squadron
O.R.B.

Hurricane IID aircraft made a late afternoon attack against a small force of enemy tanks preparing to counter-attack our forces in the Cekhira area. One Mark IV Special was destroyed and two semi-tracked vehicles damaged at the cost of six Hurricanes shot down by A.A. gunfire and three pilots killed. This was the last operation of any importance to be carried out by No. 6 Squadron 'Tankbusters' in North Africa. There is little wonder that Air Chief Marshal Tedder considered that the use of these highly-specialised aircraft was extravagant. Between 10 March 1943, when this squadron returned to 'tankbusting' duties for the first time since El Alamein, and their last operation of any significance in North Africa on 7 April, they had had 26 aircraft shot down.

No. 205 Group
O.R.B.

The night bombing by No. 205 Group on the night 7/8 April again missed the main enemy forces retreating from Wadi Akarit and El Guettar. For the second time, the bombing force was divided into two, part being directed against Sfax town and part against M.T. on the road between Mahares and Sfax. A total of 53 Wellingtons and 5 Halifaxes operated, but only small groups of vehicles illuminated by the Albacores could be found. Buildings and enemy railway sidings were bombed at Sfax, but no outstanding success was claimed.

No. 73 Squadron
O.R.B.

Throughout the period of the action at Wadi Akarit, night-flying Hurricanes of No. 73 Squadron had been operating mainly singly over forward troops and in pairs on intruder patrols. Apart from one encounter when they scattered a formation of 20 Ju.88's and claimed to have damaged four of them, they made no contact with the enemy.

The Enemy Withdrawal to Enfidaville Provides W.D.A.F. with
Some of the Best Targets in North Africa - 8 April

The 15th Panzer Division and the 90th Light Division provided the enemy rearguards throughout the withdrawal from Wadi Akarit and conducted a very skilful withdrawal. By 8 April they had reached a line Mezzouna - Mahares. Meanwhile, the American IIInd Corps had moved from El Guettar and was directed towards Faid, whilst another force - IX Corps - was starting to attack the hills to the north and south of Fondouk. There was little chance of the enemy making a stand south of the mountain line at Enfidaville, some 200 miles away and this involved the surrender of both Sfax and Sousse. Already the retreat of the 15th Panzer Division and the 90th Light Division from Wadi Akarit and the 10th and 21st Panzer Divisions from the direction of Gafsa was beginning to flood the roads and tracks with vehicles and on 8 April the retreating enemy forces provided some of the finest targets encountered in North Africa.

Alexander's
Despatch

Report on
Operations,
Opsums and
A.A.H.Q.W.D.
War Diary

No. 2 A.A.S.C.
War Diary

An armed reconnaissance by 6 Spitfires at dusk on 7 April reported considerable enemy movement on the roads to the north and northwest. The dawn Tac/R on 8 April confirmed that there was a considerable movement of enemy columns to the northeast from Mezzouna and northwards along the coast road from Mahares. The W.D.A.F. fighter-bomber operations began early. Twelve Kittyhawks of No. 112 Squadron, with 10 Kittyhawks of No. 260 Squadron, carrying 24 x 250 lb. bombs were airborne at 05.50 hours and bombed and strafed enemy M.T. in the Sfax area. This began a day of intensive air operations. Light bombers carried out 9 attacks involving 153 Bostons, Baltimores and Mitchells which dropped 782 x 250 lb. and 78 x 300 lb. bombs. Two other raids by a total of 30 Bostons and Baltimores returned to base without bombing owing to cloud over the target. No. 3 Wing S.A.A.F. stated jubilantly that it had had its 'biggest day since Alamein'. Fighters flew 750 sorties, 150 of them by fighter bombers. No restrictions were placed on low-level attacks and pilots were permitted 'to take the fullest advantage of these most exceptional circumstances.'

A.A.H.Q.W.D.
Daily Int.
Sums.

The targets presented to the bombers were never on the massive scale of the Panzer Army's retreat from Egypt, but the incessant attacks, apart from the very considerable damage they caused, seriously disorganised the enemy's retreat, with the result that towards the end of the day the enemy columns were split up over the whole area into small sections which dispersed immediately on the approach of our aircraft. It was estimated that during 7 and 8 April, at least 130 enemy vehicles were destroyed and 200 damaged by air action. Spitfires patrolled the battle area throughout the day, but the enemy air opposition was negligible due to the way in which they were being forced to abandon their forward landing-grounds.

No. 205 Group
O.R.B.

Again, probably because of the fluid nature of the ground operations, the night-bombers of No. 205 Group were briefed to attack targets too far to the enemy's rear, the area chosen being between Sfax and Sousse, whereas the enemy's main formations had not yet reached Sfax. Cloud also made the location of targets difficult. A total of 50 Wellingtons and 5 Halifaxes of Nos. 37, 40, 70, 104 and 462 Squadrons dropped over 100 tons of bombs, but generally speaking results were poor. The night-flying Hurricanes of

No. 73 Squadron were more successful, as they located good targets on the road between Mahares and Sfax.

90th Light
Division
Messages In and
Out. GMDS
30264/2-4

By the morning of 9 April, the enemy had begun to draw well out of range. Targets were reported as being few and far between and, in any case, the fighter squadrons were preoccupied with their moves to more advanced bases in the Gabes area. The German withdrawal was badly impeded at this stage by a shortage of petrol which immobilised the 90th Light Division for a time. This was probably due to the wholesale destruction of vehicles achieved by the W.D.A.F. during the previous two days.

90th Light
Division
Messages In and
Out.
Cabinet Office
Archives

The enemy withdrew from Sfax during the night 9/10 April and XXX Corps which had advanced up the coast occupied the town at dawn. No. 205 Group bombers which had been warned to stand-by for a night of maximum effort were forced to cancel operations owing to a deterioration in the weather over the target area. On the following day, 10 April, Strat/R aircraft reported good targets on the roads to the north of El Djem, but the continued bad weather prevented the W.D.A.F. bombers from taking advantage of them. The enemy withdrew rapidly towards Sousse, according to the 90th Light Division they were 'too short of troops and ammunition to do anything but adopt a mobile policy.' By 11 April, Eighth Army armoured cars were 16 miles to the south of Sousse and elements of the First Army had occupied the holy city of Kairouan. Sousse fell on 12 April and by the next day leading troops of the Eighth Army were in contact with the first defences to the north of Enfidaville.

Opsums and Daily
Int. Sums.

The speed of the enemy withdrawal was such that by 10 April they had moved out of range. New airfield sites had to be reconnoitred and constructed and the supply and maintenance organisation was stretched to the limit, as, until the port of Sfax had been opened up, both the Eighth Army and the W.D.A.F. were dependent on supplies brought along the single road from Tripoli, now some 300 miles distant. Air operations during this period were mainly confined to night attacks on the enemy airfields at Korba, St. Marie du Zit and Menzel Temime. This was in pursuance of the N.A.T.A.F. policy of making enemy air bases in Tunisia untenable, and to destroy the enemy forces there, and which was soon to develop into the most concentrated air offensive of its kind ever carried out in North Africa. (1)

- (1) 'The course of the battle on the ground had been largely determined by the Allies' supremacy in the air. American bombers and fighters operating en masse over the fronts effectively tied down the bulk of Axis fighters. Toward the end of March, the slow German type of aircraft (dive-bombers and cannon-armed planes) had practically no hope of operating. The Axis Air Forces therefore had to confine their support of the ground troops during the day to fighter and fighter-bomber operations. Bomber sorties were only possible at night, when attacks were directed against concentrations of Allied troops and against supply communications to the front. At the end of March - beginning of April, German air strength in the Central Mediterranean and Tunisia amounted to only 400 to 450 planes. On the basis of reconnaissance reports there were estimated to be 1,000 Allied aircraft in Tunisia alone.' Admiral Weichold.

The Air Offensive Against Enemy Landing Grounds in Tunisia - April 1943

After the junction of the First and Eighth Armies, with the result that the Allied forces in Tunisia presented one continuous front against the enemy, it was obvious that the fighting in North Africa was moving into the final phase. The main attack to capture Tunis was to be undertaken by the First Army in the area immediately west of the River Miliane which runs southwest from Tunis. This River was also the agreed boundary between the Western Desert Air Force and No. 242 Group. The Eighth Army was to attack the Enfidaville positions and advance towards Hammamet whilst the IIInd U.S. Corps would attack Bizerta. The attack by the Eighth Army was to precede that of the First Army and was intended to draw enemy forces away from the area where the main thrust was to be made.

In this concluding phase of the campaign, the task set by the Air Officer Commanding North African Tactical Air Force was:-

- (a) To destroy the enemy air forces in Tunisia.
- (b) To disrupt the enemy's supply lines by air and by sea.
- (c) To give maximum support to the Army in their final offensive.
- (d) To use every available aircraft to attack shipping or air transport, if the enemy attempted a Dunkirk.

The likelihood that the enemy might attempt to carry out a mass evacuation of North Africa was strengthened by the fact that reconnaissance aircraft had reported the discovery of ten small piers at various points along the coast of Tunisia. Most of these piers could be reached by craft plying between North Africa and Sicily between dusk and dawn. In addition to the handling of small craft bringing in supplies, particularly of petrol, these jetties would serve for the evacuation of troops. A Siebel ferry alone could carry 250 fully-equipped troops, so that the enemy's fleet of some 200 small craft could move a possible 15 - 20,000 men in a night.

The retreat to Enfidaville and the loss of territory in the Kairouan area meant that the enemy had been forced to abandon at least a score of landing-grounds in the southern and central sectors. Many unserviceable aircraft had to be left behind, the remainder being transferred to landing-grounds in the rear of the Enfidaville defences and in the Cape Bon peninsula. Aircraft under the operational control of the W.D.A.F. concentrated on the landing-grounds in the northeast of Tunisia, mainly in the Cape Bon area, at St. Marie du Zit, Oudha, Korba, Temime and Soliman. Apart from an attack on Enfidaville landing-ground by 18 Mitchells on 10 April and on Korba by over 50 Baltimores and Mitchells on 19 April, all the attacks of the W.D.A.F. light bombers, together with the medium and heavy bombers of No. 205 Group, were carried out at night.

In the course of operations between 10 and 23 April, a total of nearly 600 sorties was flown against enemy landing-grounds in north-east Tunisia. Aircraft of No. 205 Group alone dropped a thousand tons of bombs, and they

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discontinued their nightly attacks against enemy air bases only when, on 24 April, a directive was received from H.Q. N.A.T.A.F. that No. 205 Group should concentrate on building up its aircraft for intensive operations which were to be carried out should the enemy attempt an evacuation of Tunisia. On two nights weather prevented operations and haze and low cloud sometimes impeded observation of results, but it was evident from the numerous fires and explosions caused and the reports from reconnaissance aircraft that considerable damage was inflicted on dispersed aircraft, petrol dumps, buildings and runways. These intensive operations were supplemented by the very heavy attacks delivered both by day and night by aircraft of the North African Air Forces which reached a climax on 20 April when an all-out effort was made to pin down and destroy enemy aircraft during the Eighth Army's attack on Enfidaville when 13 enemy fighters (10 of them F.W.190's) were destroyed and 10 damaged. In the month of April 1943, air attack on enemy landing-grounds in North Africa, Sicily and Italy accounted for the extraordinary total of 166 enemy aircraft destroyed and 112 damaged. Of these 26 were destroyed on air bases in North Africa and 23 damaged. The balance was largely accounted for by the astonishing success of the Ninth U.S. Air Force's daylight attack with 62 Liberators on the Italian air base at Bari on 26 April when 105 German aircraft were destroyed (46 of them F.W.190 and 39 Me.109's) and 46 damaged.

A.H.B.6

From 22 April onwards enemy landing-grounds in North Africa emptied. The G.A.F. had decided that African-based aircraft were a wasting asset and units began a gradual withdrawal to Sicily. The first units to go were the Ju.87's, which were withdrawn completely, and reconnaissance showed them to be located in Southern Italy. Except for isolated occasions when special operations were laid on with Sicilian-based aircraft and for a light scale of attack by fighter-bombers operating from forward landing-grounds in North Africa, the G.A.F. ceased to play any serious part in the battle and attacks in force on enemy landing-grounds in Tunisia, except on air transport terminals, were discontinued.

N.A.T.A.F.
Record of
Operations

The Battle of Enfidaville - 20 April 1943

Following the enemy's withdrawal to the Enfidaville position, the Western Desert Air Force was established forward in the general area Sousse - Kairouan - El Djem and Hergla and their bases were in a position to operate over the Cape Bon peninsula and Tunis. The policy laid down by the North African Tactical Air Force for the period preceding the final land battle for Tunisia was primarily to prevent the enemy air forces from interfering with land operations and also to disrupt their lines of communication, particularly their air transport. For the first time since El Alamein the Eighth Army were to launch a major offensive without a pre-battle softening up of the enemy defences and, once the battle had been joined, without a full measure of direct support from the W.D.A.F.

Idem.

On 12 April General Montgomery was informed of General Alexander's plan which was that, owing to the unusual strength of the Enfidaville position, the First Army was to make the main effort in the final phase of the North African Campaign and that the Eighth Army's rôle would be to exert the maximum pressure on the southern sector of the enemy's front in order to pin down as much of

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his strength as possible. The plain to the west of Tunis was the most suitable ground for the deployment of armoured forces and General Montgomery was ordered by General Alexander to make available an armoured division and an armoured car regiment to join the First Army. The 1st Armoured Division and the King's Dragoon Guards were nominated and in due course they joined IX Corps.

The battle of Enfidaville began at 21.30 hours on 19 April⁽¹⁾ without the usual preliminary air bombardment which had been a feature of the battles during the preceding 6 months, but a great weight of artillery was provided. After a promising start in which the 50th Division captured Enfidaville and the New Zealanders advanced to a point 3 miles to the northwest of the town, the offensive gradually came to a halt. The enemy counter-attacked continuously on 20 and 21 April, but there was no air force available to help break up the attacks. Fighting was severe, particularly in the Takrouna area, and both sides suffered heavy losses. General Montgomery decided that it was too expensive to continue a thrust in the centre and on 22 April ordered a regrouping of the Army in order to switch the main thrust to the coast. At the same time it was necessary to send back 50th Division to the Delta to be refitted and rested in preparation for the assault on Sicily. This weakened the Eighth Army as the Division which relieved the 50th was the 56th which had had no previous operational experience.

For the first two days of the battle the efforts of the W.D.A.F. were directed almost entirely against enemy communications and landing-grounds and it was not until 23 April that the bombers intervened in the land battle, when light bombers carried out pattern-bombing of the enemy positions, mainly gun emplacements, at the request of the Army. Three light-bomber raids of 36 light bombers were arranged for 12.00 hours, 12.30 hours and 14.30 hours. The bombers were routed up the coast road towards Enfidaville. They swung left over a coloured smoke landmark by a road bend some three miles south of Takrouna, then north over a smoke line laid by guns which put them square on to the target area. The aircraft then bombed away from our own troops, who reported the raid as a complete success, and there was a congratulatory message from the 201st Guards Brigade, although the bombers themselves reported 'No target'.

At this time the policy of pattern-bombing gun areas was accepted by the R.A.F., and it became a standard drill for the Counter Battery Officer of X Corps to telephone every evening, giving one or two gun areas in their order of priority for attack. These targets were described at

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(1) 'Between 14 and 18 April, some important maps and papers were captured. From them it was discovered that the Division was opposed on the coast road by 2nd N.Z. Div. and that 4th Ind. Div. was on its western flank. On 15 April 155th Regt. captured two high-ranking engineer officers from Eighth Army H.Q. They carried important secret maps and orders which were particularly helpful to the Luftwaffe.... It must be admitted that all English PWs were well disciplined and confident of victory.' Extracts from 90th Light Division Int. War Diary. Cabinet Office Ref. AL773.

the evening R.A.F. conference and a light bomber programme was arranged to cover them. Arrangements were also made usually for the Army to lay down artillery smoke as markers on the near edge of the area.

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Sums.

Bad weather intervened and prevented the light bombers from operating on 24 April and again on 27 April. Between 23 and 29 April the light and medium bombers carried out a total of 378 sorties. By this stage in the battle there were no concentrations of enemy armour and the enemy positions were concealed in difficult, enclosed country which hampered observation of both the targets and the results of the bombing. On occasion, too, low cloud added to the bombers' difficulties. All attacks followed the technique of pattern-bombing mentioned earlier, giving little indication of results to the crews of the bombers. No fighter bombers took part in these operations, as they were being employed elsewhere on shipping strikes.

Alexander's
Despatch

On 29 April, the G.O.C. Eighth Army signalled General Alexander saying that as a result of a failure of 56th Division when coming under artillery fire, he did not feel happy about the possibilities of success at Enfidaville. At this time General Alexander was formulating plans for finishing off enemy resistance in the Tunis plain and he accordingly signalled back his authority for the attack to be abandoned. Thus the last battle which the Eighth Army was to fight under the command of General Montgomery in North Africa ended in a stalemate. Perhaps it is only a coincidence that the Eighth Army's failure at Enfidaville broke the pattern of close co-operation between the Eighth Army and the W.D.A.F. which had been built up to such a high degree of efficiency throughout the campaigns. At this time, however, the primary tasks set the W.D.A.F. were the destruction of the enemy air forces and the cutting of the enemy sea and air lines of communication.

The Destruction of the Enemy's Air Transport Fleet
(April 1943) (1)

Undoubtedly the German Air Force's greatest single triumph in the Mediterranean theatre of operations lay in their use of air transport, but for which the German-Italian Panzer Army could never have made good its escape from El Alamein, nor could the enemy forces in Tunisia have been built up to a degree when they could resist the powerful Allied invading forces for seven months. Air transport to Tunisia began immediately after the 'Torch' landings. It was organised under a Central Headquarters at Rome with Wing Staffs at Naples and Trapani and Control Officers at

- (1) 'Events from December to March had shown that the main reason for the Axis losing its hold on the Central Mediterranean had been the Allies' ascendancy in the air. This ascendancy continued throughout March. The objectives of the Allied Air Forces were: to destroy Axis shipping, harbour installations, base stores, to disrupt cargo unloading and to ground the Luftwaffe. Axis air transportation was carried on as best as possible. Strong reinforcements were sent to balance out the Luftwaffe's losses, but these soon became casualties of the bitter fighting. For the Luftwaffe, the Mediterranean had become a bottomless pit.' Admiral Weichold.

the air ports of Sidi Ahmed (Bizerta), El Aouina (Tunis) and some of the fields in the Sicily - Calabria and Naples areas. At the peak of its operational activity, the German air transport fleet used a daily average of 200 Ju.52 aircraft which carried a load of 1.8 metric tons and 15 of the giant six-engined Me.323 aircraft, with a load capacity of 10 tons.

Part of the Ju.52 fleet made two trips a day from Sicily to Tunisia, achieving a daily average air lift of 585 metric tons, although this dropped as a result of Allied counter-measures in April to less than 190 tons. The daily flights consisted of one round trip from Naples and two from Sicily. Formations of from 80 to 120 planes, known as 'Pulks', assembled in flight and flew over the sea at a height of no more than 150 feet. This reduced the risk of detection by radar and also of any attacks from below, against which these lumbering transport aircraft were quite defenceless.

The formations from Naples picked up fighter escorts off Trapani for the crossing of the Sicilian Narrows and off the coast of Africa for the period of landing, unloading, reloading and return. After arrival off the Gulf of Tunis, the flights divided off into sections for Bizerta and Tunis. The enemy timed these flights 'to arrive during the normal noon lunch period for the Allied air forces, a time when hostile interference was found to be relatively unlikely.' The fighter escort for these formations was small, their speed being controlled by the slower planes which reduced the heavy Me.323 to a speed where they became so unstable that they had to string out.

At all stages of the campaign the air transportation of supplies and reinforcements to the Axis forces was a most important line of supply. When enemy shipping losses increased, however, due mainly to an improvement in the weather, coinciding with an increased expenditure of supplies due to a quickening in the pace of operations, the air transport link with Europe became vital for the Axis armies in Tunisia. In the middle of March 1943, the Air Officer Commanding-in-Chief ruled that the interruption of this air traffic must be given priority, and a plan was produced by the Tactical and Strategic Air Forces for mass attacks on the enemy air transport fleet as soon as the weather permitted.

The first results of this plan were realised on 5 April when 26 P.38(1) aircraft of the Strategic Air Force, on a fighter sweep over the Sicilian Straits, intercepted a large formation of between 50 and 70 Ju.52's and 6 Ju.87's, escorted by Me.109's, F.W.190's and F.W.187's heading for Tunisia. Later the same day P.38's escorting U.S. Mitchells on a strike against an enemy convoy intercepted another formation of Ju.52's. Shortly afterwards 41 Fortresses dropped 5760 fragmentation bombs on airfields in the Bizerta and Tunis areas. Further attacks were carried out against Sicilian landing-grounds used as bases for the transport aircraft. As a result of these intensive attacks, the enemy lost 25 transport aircraft destroyed and 14 damaged.

(1) The P.38 'Lightning' was built by Lockheed. Details of the P.38G were Gross Weight 15800 lb., Span 52 feet and Length 37 feet 10 ins., H.P. 1325 with Top Speed of 400 plus.

Axis
Transportation
to Tunisia.
Based on
G.M.D.S. Docs.
Cabinet Office
Archives.
AL 1025

Opsums, etc.

A.H.B.6

The total enemy aircraft losses for that day amounted to 43 destroyed and 32 damaged. Further interceptions and raids carried out by aircraft of the Strategic and Tactical Air Forces on 9, 10, 11 and 13 April accounted, according to enemy records, for a further 32 destroyed and 2 damaged. Thus, between 5 April when the systematic destruction of the German air transport fleet in the Mediterranean began and the 17 April when the W.D.A.F. were able to intervene, the enemy had already lost about a quarter of their serviceable transport aircraft.

The tactics now forced on the enemy by the heavy losses of transport aircraft and an increasing shortage of fighters was to use not more than two large convoys, escorted by short-range fighters. Extensive use was also made of the Me.323, with its great load-carrying capacity, which was about 5 times that of a Ju.52.

About this time, the Strategic Air Force was given other targets and so the burden of stopping the enemy air transport traffic was transferred to the W.D.A.F. By 16 April, the W.D.A.F. were located on forward landing-grounds to the north of Sousse and so were able to operate over the bay of Tunis. Their problem now was how best to intercept a fleeting target. The Intelligence staff made a detailed analysis of the enemy's air transport activity, the points of arrival and departure, the strength of escorts and the time taken to unload and turn round. From this analysis, it appeared that the best plan would be to maintain strong patrols at certain points in the Gulf of Tunis at likely times throughout the day. These points, however, were at the outer limits of the normal operational range of the Western Desert Air Force's Kittyhawks and Spitfires, so that patrols could not remain long over the area. Furthermore, the enemy was providing strong escorts for the transport convoys and, as has already been noted, in order to conserve fighter resources, tended to send large numbers of transport aircraft in each convoy.

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It was clear that the fighter patrols must be strong enough to overcome the enemy fighter escort and also to inflict severe damage on the transports. It was impossible to predict the precise time or place at which a convoy would arrive, and so patrols had to be despatched to cover the chosen area for a reasonable margin of time before and after the estimated time of the convoy's arrival. The most tempting method was to use small patrols spread over the maximum space and time because this would increase the chance of interception. However, the first interception on 16 April when 10 Spitfires of No. 145 Squadron with 3 Spitfires of No. 92 Squadron met 15 plus Me.109's acting as escort to 11 enemy transport aircraft (Ju.52's and SM 82's) showed that it would be more profitable to go for a policy of annihilation. The R.A.F. Spitfires were outnumbered by the enemy fighters and lost two aircraft. They claimed five SM 82's, two Ju.52's and three Me.109's destroyed. These claims cannot be substantiated from enemy records as this particular formation was Italian.

After this engagement, the whole Spitfire and P.40 force was concentrated on the interception of the enemy's air transport convoys. The sweeps were never carried out with less than three squadrons of P.40's with a squadron of Spitfires acting as top cover. This meant that virtually the whole of the W.D.A.F. fighter strength was devoted to

this task, following the basic principle of concentration in time and place which had been too often neglected in the past. After initial disappointments, the policy was seen to be fully justified, as it resulted finally in the annihilation of the enemy's air transport fleet.

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Daily Int.
Sums.

By 17.00 hours on 18 April W.D.A.F. formations had flown 250 sorties without sighting an enemy transport aircraft. Then at 16.50 hours four squadrons of Warhawks of the 57th Fighter Group U.S.A.A.F., with a top cover of Spitfires provided by No. 92 Squadron, took off on an interception patrol. They were in the area of Cape Bon when they encountered about 100 Ju.52's flying north-east at sea-level with a close escort of about 30 fighters. The Warhawks immediately engaged the enemy aircraft while the Spitfires covered them. The only enemy aircraft seen above the Warhawks was one Me.109 and one Me.202 which were shot down. When the Warhawks attacked, the cumbersome formation was thrown into complete confusion and many Ju.52's were seen deliberately to crash into the sea or on the coast in order to escape the Warhawks' devastating fire. After the engagement between 50 and 60 fires were seen on the ground and it was estimated that 58 Ju.52's, 2 Me.110's and 14 Me.109's were destroyed for the loss of 6 fighters. Enemy records reveal the loss of 33 Ju.52 transport aircraft destroyed and 6 damaged. The total Luftwaffe losses on operations on 18 April amounted to 43 aircraft of which 34 were Ju.52's (one was destroyed in an air raid on Palermo), four Me.109's, two Me.210's, one Me.110 and two Ju.88's. Since the beginning of the month, the G.A.F. had lost from hostile air action 93 transport aircraft destroyed and 26 damaged, representing well over one half of the total serviceable aircraft in their air transport fleet.

Squadron
O.R.B.s and
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Records

Unfortunately the R.A.F. played only a protective rôle in this engagement and were only able to claim one Me.202 destroyed. The leader of the U.S.A.A.F. Warhawks (1) sent a message thanking No. 92 Squadron 'for the successful cover they gave them and said that it was due to the knowledge that they would not be attacked from above that they were able to amass such a grand score.'

No. 92 Squadron
Squadron
O.R.B.

No. 7 S.A.A.F.
Wing O.R.B.
and Daily
Int. Sums.

Early the next morning Kittyhawks of No. 7 S.A.A.F. Wing (12 Kittyhawks of No. 5 S.A.A.F., 12 of No. 2 S.A.A.F. and 12 of No. 4 S.A.A.F. Squadrons) engaged a formation of 18 Ju.52's and SM 79's escorted by 8 Me.109's, F.W.190's and RE 200's. As a result of this engagement the Kittyhawks claimed 12 Ju.52's, 2 SM.79's and one RE.200 shot down. These claims cannot be confirmed from enemy documents as the Luftwaffe do not admit the loss of any transport aircraft on that day and the Italian records are not available.

A.H.B.6

The last major encounter with the enemy air transport fleet and which, according to enemy documents took them 'past the point of bearable loss' occurred on 22 April. An early-morning sweep by 35 Kittyhawks of Nos. 2, 4 and 5 S.A.A.F. Squadrons together with Warhawks of No. 79 Fighter Group U.S.A.A.F. escorted by 12 Spitfires of No. 1 S.A.A.F. Squadron and six of the Polish Flight met an escorted

(1) The P.40 'Warhawk' built by Curtiss was a single-seater fighter with a top speed in the region of 360 m.p.h.

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formation of the giant six-engined enemy transports, Me.323's, in the Gulf of Tunis. The combined claims amounted to a total of 30 Me.323's, 7 Me.109's and one RE 2001. German records show that 14 Me.323's were lost, while their additional losses in the Mediterranean from enemy action on that day amounted to five Me.109's, two F.W.190's, one Me.110 and one DO.217.

After this débâcle, the enemy abandoned large formations of transport aircraft in favour of flights by individual aircraft at ten minute intervals which were despatched from Trapani to Tunis and from Naples via Cagliari to Bizerta. It was possible to run a nightly total of 40 - 50 aircraft on the Trapani run and 20 to 30 on the Naples route. During this latter phase, however, night-flying Hurricanes of No. 73 Squadron and Beaufighters of No. 600 Squadron were used to maintain patrols over likely points of arrival.

The enemy sustained occasional losses of transport aircraft right up to the end of April, so that the final figures of losses during the month amounted to a total of 157 enemy transport aircraft destroyed or damaged (105 Ju.52 destroyed and 21 damaged and 19 Me.323's destroyed and 2 damaged). These figures include a few aircraft whose loss the enemy record as 'cause unknown'. On 10 April 1943 the total of G.A.F. transport aircraft in the Mediterranean amounted to 263 with 130 serviceable. The average serviceability at the beginning of the month is accepted as being round the 200 mark.

A.H.B.6
Figures

The Course of
the War in the
Mediterranean
Theatre of
Operations.
1 Jan. to 13 May
A.H.B.6 Trans.
No. VII/72

'The safeguarding of supplies between Italy and Tunisia,' says a study prepared by 8th Abteilung, the German Air Historical Branch, in July 1944, 'became one of the chief problems of the battle leaders in North Africa. Because there were always difficulties with these supplies, which had to be dealt with immediately, transport aircraft were used in all critical situations and became invaluable. The enemy, realising this, concentrated their fury on the transport units.... As a result of the considerable losses incurred, the whole matter of supplies became so acute that several times during the month bombers had to be brought in to fly over supplies of petrol.... According to incomplete reports, an average of 78 transport aircraft a day flew over during the month of April a total of not less than 9,289 troops, 538 tons of equipment and ammunition and 96 cubic metres of fuel from Italy....

The use of transport aircraft which continued to fly over some of the essential reinforcements for Tunisia and Sardinia had to be restricted to the hours of darkness, as a defence against enemy attacks. With the difficulties of supplying the army by sea, the transport units became, during the last days of the fighting, the only means by which the Army Group could be supplied with the necessary equipment for a prolonged resistance. At the beginning of the month, bomber aircraft again came to their assistance to transport fuel. However, under the increasing threats, and with the loss of the Tunisian airfields, even this means of help was reduced to a minimum after May 8. It was only possible to drop supply containers over our positions. The transport aircraft flew their last supply flight to Africa on May 12.'

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The W.D.A.F.'s outstanding success against the enemy's air transport fleet on 18 April gave rise to an impatiently worded signal from the Prime Minister to Air Chief Marshal Tedder.

'On April 18 a very important and successful attack was delivered on the German troop-carrying aircraft between Cape Bon and Sicily. We have only now, morning of 20th received a brief message contained in A.F.H.Q. Algiers O.714. Meanwhile yesterday afternoon, 19th, highly-coloured accounts of the air battle were issued by correspondents from Algiers and also from Cairo setting forth in unusual terms Air Marshal Coningham's commendation of Air Vice-Marshal Broadhurst's action.

2. It is improper that His Majesty's Government ~~should~~ should be left to learn from the press and radio the result of important operations. Even now we do not know from either official or unofficial sources whether the force which intercepted the enemy was composed of British or American air personnel and in what proportions. Pray let me know when

- (a) Air Marshal Coningham
- (b) You yourself
- (c) General Alexander, and
- (d) General Eisenhower

received information of the fight and what information, and what action was taken in each case, to report to higher authority.

3. Do you feel yourself obstructed in any way from sending reports and information to the Air Ministry in the same way that Admiral Cunningham reports to the Admiralty?

4. Send now, at the earliest moment, the fullest and best account in your knowledge of the war action of the 18th.'

On the same day, Air Chief Marshal Tedder received a signal from the C.A.S.:

'The Prime Minister showed me before despatch his telegram to you dated 20th April and I undertook to make suggestions to you for obtaining fuller and earlier information than we now receive on important air operations and on the general trend of the air war in your theatre.

2. At present I receive Sitreps, Opsums and Spaatz's daily summaries which are often in great detail but are usually 24 to 72 hours out of date when received and require much digestion before any true perspective of the air war as a whole can be obtained. I do not get anything from Coningham nor of course from Spaatz to tell me how things are going as a whole or what ideas are running in their minds. Great interest is shown here in such matters as the morale of the enemy air forces, their operational object and methods, our own appreciation of the situation and our ideas and plans for the immediate future with any major limiting factors.

Chief of Air
Staff AOC/52
A.H.B./IIJ1/
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3. Would you be able to send me an occasional appreciation either by yourself or by Coningham which I could show to the Prime Minister and other Chiefs of Staff?

4. The need for very early reports of really important or novel air operations is shown in the Prime Minister's telegram to you. It is clearly most desirable that we should as often as possible provide him with earliest inside information not available to the press but which he can give to Parliament in public session. This not only helps the Prime Minister but is also very good for the air force and since the opportunities are infrequent I feel we have little excuse for not taking those that occur. Operations on 18th April and those at El Hamma on 26th March are good instances. Prime Minister had nothing on these that had not been skimmed clean in advance by the press.

5. Could you arrange with Spaatz that Coningham should be allowed to repeat direct to Air Ministry for Prime Minister and me factual reports made to Spaatz on really important operations? As much local colour and interesting detail as possible should be included as raw material for Prime Minister's statement but message need not be long or elaborate.

6. I fully realise that to meet these requirements is by no means a straightforward task in view of pressure of work and inter-Allied chain of command, but I am confident that once you know what is wanted you will find means of providing it.'

Air Chief Marshal Tedder replied on 22 April giving in detail the story of the concentrated offensive against the enemy's air transport fleet.

'Action on April 18th was part of a comprehensive plan for dealing with enemy air transport. This plan began to be put into operation on April 5th when the conditions for obtaining maximum effect appeared favourable. The initial operation consisted of attacks on terminal aerodromes and endeavours to intercept convoys en route. The attacks on two Sicilian and two Tunisian aerodromes hit concentrations of transport aircraft badly dispersed. Precise figures as to numbers destroyed cannot, of course, be obtained, but photographic and other sources indicate probability that approximately 50 were destroyed. In addition, 18 were destroyed in the air by American P.38 sweeps. On the 10th two further P.38 sweeps made interceptions and destroyed 13 Ju.52's. In addition, a shipping sweep by American B.25's found no shipping but found Ju.52's and destroyed 10. On the 11th two P.38 sweeps made interceptions and destroyed 25 Ju.52's.

2. As Eighth Army advance made it possible for Western Desert Air Force to operate further forward, we had further scope for dealing with the enemy air transport and the actions of April 18th onwards are the result. Since the enemy convoys are concentrated and heavily escorted with fighters success was only possible by means of concentrating a large fighter force at the right time and place. Study of enemy methods of observation of intercepted enemy W/T traffic etc. gave an approximate period during which chances of

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interception were relatively good. It was arranged to cover a period of one and a quarter hours by means of five patrols of fifteen minutes, each overlapping by a few minutes and in average strengths of three Kittyhawk squadrons with one Spitfire squadron as top cover. This used the whole Western Desert force which consists of.

- (a) two American Kittyhawk Groups of four squadrons each
- (b) one South African Kittyhawk Wing of three squadrons
- (c) one British Kittyhawk Wing of five squadrons, one of which is Australian,
- (d) one Spitfire Wing of five and a half squadrons, including one Canadian, one South African and one half Polish squadron.

Of these patrols, the last one consisting of the 57th American Kittyhawk Group with one British Spitfire squadron as top cover was fortunate enough to be in the right place at the right time and intercepted a convoy of some 100 enemy transport aircraft with heavy fighter escort. 58 Ju.52's and 16 enemy fighters were destroyed. Numbers of others crash-landed on the beaches and in the water. This engagement happened in the evening. After dark, British Hurricane squadrons destroyed some of the Ju.52's which had landed on the beaches.

3. As a result of further sweeps on the 19th an additional 12 Ju.52's and 2 S.M. 79's were destroyed.

4. These events caused the enemy to change his habits, and Broadhurst devised a fresh plan which was put into effect this morning. This plan, like the previous one, involved the whole Western Desert Fighter Force. Preliminary reports of successful engagements indicate that 21 Me.323 six-engined gliders were destroyed as well as nine of the fighter escort.

5. I very much regret that you should have had first intimation of the engagement of the 18th through the press and radio and will try and ensure that this does not happen again. The first intimation I had of the action of the 18th was a few words on a bad telephone line from Spaatz's Headquarters late on the evening of the 18th whence it had just been received from Coningham. This was "flash" news and very vague. It was passed to General Eisenhower at his morning conference on the 19th. I myself had gone forward early that morning. I do not wish to excuse myself for not ensuring that accurate information regarding this engagement reached you before it became public, but I feel you will appreciate that in the present conditions it is extremely difficult to get quick and accurate information from Western Desert through the normal channels. Communications between them and here are still extremely poor. They are however improving and since I do not feel there is any difficulty in my passing information regarding important events quickly to C.A.S., I hope there will be no recurrence of what I fully realise was a thoroughly unsatisfactory situation.'

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To which the Prime Minister replied on 24 April.

'I congratulate you all on the brilliant series of operations. Had I received a report in good time, I could have made a complimentary reference to this action in the House which would have been agreeable both to the Royal Air Force and to the United States. As it is, it is only now five days after that I have had your account.

2. C.A.S. has asked you to arrange for Coningham to repeat to us here messages reporting actions he sends to Spaatz, and please do the same yourself in respect of any sent on to Higher Authority.

3. There seems to have been a later action on the 22nd of which I have so far heard nothing.'

Air Chief Marshal Tedder had the last word:

'Your message will be greatly appreciated by all concerned in the operations against the enemy air transport.

2. Have arranged for speedy direct reports of special operations in future.

3. Reference para. 3 of your signal. There has been no significant action later than the destruction of the 21 Me.323's on the morning of the 22nd of which I reported in para. 4 of my signal.'

The Western Desert Air Force in Air Strikes Against Enemy Shipping

According to an assessment made by General Warlimont, the Deputy Chief Armed Forces Operations Staff, in February 1943, allowing for 25% losses in transit, the basic minimum requirements of the combined Axis forces in North Africa amounted to 90,000 tons per month. The most, however, which the Comando Supremo could provide was 80,000 tons per month.

Axis
Transportation
to Tunisia
Cabinet Office
Archives No.
AL 1025

'Tonnage was being sunk at a rate which threatened its extinction by June or July. With the means available, the Allied depredeations on Axis shipping could not appreciably be reduced. Air convoy duty was already gradually consuming the resources of the German Air Fleet II.'

At the time of its fullest operation, it is estimated that the fleet of transport aircraft was ferrying across to North Africa between one-quarter and one-third of the Axis forces' total supplies. Records are incomplete, but during February 1943, which was the most successful month for transport between Italy and Tunisia, out of nearly 30,000 men conveyed by sea and air, 13,000 were carried by air transport. During April, the transportation of personnel by both sea and air declined to less than 11,000 due undoubtedly to the heavy losses of transport aircraft. Deliveries of supplies also fell far short of the estimated requirements. In April, only 29,000 tons out of 44,000 tons got through.

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'At no times,' says a German report, 'did the volume of supply, even allowing for the percentages of loss anticipated by the Axis High Command, reach the minimum required to reinforce and resupply at levels proper for effective operations.'

The destruction of at least three-quarters of the enemy's air transport fleet in April meant that unless sea transport could be quickly augmented, the collapse of the Axis armies in Tunisia would inevitably follow, whatever the military action taken on land.

'The continuation of resistance in North Africa depended on the arrival of supplies. The whole battle would be decided by the question whether supply ships would be able, by every possible means, to bring supplies through. In this way the position at sea, which was fraught with ever-increasing difficulties, affected the further conduct of the war in the Mediterranean'.

Furthermore, heavy shipping losses by the enemy would rule out the possibility of an organised evacuation of their forces from North Africa, although with the Royal Navy and Allied Air Forces in control of the Sicilian narrows this was never the serious threat that was sometimes feared by the Allied Commanders.

After the destruction of the Me.323's on 22 April by the W.D.A.F. it was obvious that only the remnants of the enemy's once powerful air transport fleet remained. Nevertheless, it still remained the policy for armed reconnaissance aircraft to cover the approaches to Tunisia searching primarily for air transports and yet also be on the look out for enemy shipping. The W.D.A.F. fighters soon adapted themselves to the requirements of the new technique called for by anti-shipping strikes. The volume of enemy shipping to Tunisia was on an increased scale, as a last-minute attempt was being made to rush in supplies by sea and so make good the loss of air transport. This enabled the fighter bombers of the W.D.A.F. to achieve some spectacular victories.

The first success went to Kittybombers of Nos. 3 and 450 R.A.A.F. Squadrons on 26 April which attacked two M.V.s with an escorting naval vessel which had been spotted by a special shipping recon off Zembra Island, in the Gulf of Tunis. Hits were scored on both merchant vessels and one was seen to blow up. The next day, low cloud prevented bombers from operating in the morning and no suitable targets were located in the afternoon. On 28 April, early weather and shipping recon aircraft reported shipping in the Gulf of Tunis. Kittybombers of Nos. 4 and 5 S.A.A.F. Squadrons, with Kittyhawks of No. 2 S.A.A.F. Squadron as top cover, attacked four landing craft escorted by two naval auxiliary vessels heading towards Tunis. One of these craft was blown up and two, which were evidently transporting petrol, were set on fire by bombing and strafing. On the same day, a M.V. of 1599 tons, the 'Teramo' (ex 'Marie Therese') was set on fire by Kittybombers of Nos. 2 and 4 S.A.A.F. Squadrons. The same ship was attacked by Warhawks of Nos. 85 and 87 Squadrons U.S.A.A.F. which managed to score only near misses. A final shipping strike of 12 Kittyhawks of No. 112 Squadron, carrying bombs, located the burning M.V. drifting between Cape Bon and Kelibia and

The Course of
the War in the
Mediterranean
Theatre of
Operations.
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attended by a hospital ship. The 'Teramo' was obviously derelict by this time and the aircraft returned with their bombs.

On 29 April, fighter bombers operating in Wing strength with Spitfires as escort continued their attacks on enemy shipping in the Gulf of Tunis. All the bombing attacks - nine in all - were made either by S.A.A.F. Kittyhawks or U.S.A.A.F. Warhawks and a claim was made of a 3,000 tons M.V. sunk, but this is not substantiated by enemy records. During the evening, Warhawks of Nos. 64, 65 and 66 Squadrons U.S.A.A.F. carrying 33 x 500 lb. bombs attacked a ship which later was recognised as the hospital ship which had been located in the Bay of Tunis standing by the 'Teramo' on the previous day. No hits were claimed.

On 30 April, first priority was given to shipping strikes and it proved to be the W.D.A.F.'s most successful day. Soon after dawn, Kittyhawks of Nos. 3 and 450 Squadrons R.A.A.F. bombed a M.V. of 1,500 tons setting her on fire. A destroyer was hit and set on fire by U.S.A.A.F. Warhawks and was later claimed as sunk. Spitfires covering the last Kittybomber operation of the day observed 5 vessels burning in the area of Cape Bon. The total claims for the day were one destroyer, one Siebel ferry, one 120 ft. launch and 1 'E' boat sunk and one 1,500 tons M.V. and an 'E' boat set on fire.

In April 1943, aircraft accounted for the sinking of 73,000 tons of enemy merchant shipping in the Mediterranean out of a total of 124,000 tons sunk. The Royal Navy sank 49,000 tons while the balance of 2,000 tons was lost from 'Cause Unknown'.

Lloyd's List

All enemy attempts to move shipping by night were frustrated by the Navy who were keeping a continuous destroyer and M.T.B. patrol from dusk to dawn as, subject to minefields, R.N. destroyers were able to operate at will within the limits of our fighter range. By the end of April, therefore, with their air fleet annihilated and their shipping brought to a standstill by the naval and air blockade, the Axis forces in North Africa were now sealed off from all sources of supply and reinforcement and were without means of escape. It now remained for the Allied land and air forces to begin the final offensive and end the campaign.

The Final Assault, May 1943

After the Eighth Army's failure to force the enemy's defences at Enfidaville, they were given a holding and diversionary rôle while the final assault was launched by the First Army. On 30 April, General Alexander visited General Montgomery and a general regrouping between the First and Eighth Armies was agreed in order to give weight to the projected thrust across the plain of Tunis to the sea, which was to finish the campaign. It was decided to transfer the 7th Armoured Division, the 4th Indian Division, the 201st Guards Brigade and some artillery units from the Eighth Army to the First Army front. It was this powerful and experienced force, drawn from the Eighth Army, which formed the spearhead of the final assault, and there is justice in the fact, as these formations were the nucleus around which the Eighth Army had grown, for in 1940 they made up the whole of the Western Desert Force.

Alexander
Despatch

A conference attended by the A.O.C. W.D. was held at H.Q. N.A.T.A.F. to decide on the best use to be made of the air forces available for the final attack. The A.O.C. W.D.A.F. recommended the use of all their light and medium bombers, together with all the light and medium bombers of the other tactical groups in North Africa, in a concentrated attack on the enemy troops ahead of the Army's axis of advance. This plan was accepted. No. 242 Group, as A.H.Q. to the First Army, were given operational control, having available to them the whole of the Tactical Air Force which included co-ordinated support from the W.D.A.F. and such medium bombers of the Strategic Air Force as were not required for vital strategic targets.

Report on
Operations
A.H.B./IIJ1/
188/4

The operational plan provided for the air attack to begin on the evening of 5 May, with preliminary bombing in the Zaghuan area in order to soften those positions on the ground which were to be attacked that night. On the following day, starting at first light, the combined bombers of the Tactical Air Force were to put down a creeping barrage in front of the advancing troops.

Axis Air
Operations
North African
Intelligence
Reports.
D.D.I.3.
A.H.B./IIJ1/63

By this stage in the campaign, the enemy air forces in North Africa had dwindled almost to extinction. At the beginning of the second week in April, the German Air Force still had over 300 aircraft in North Africa with an estimated serviceability of 60 per cent. After the fall of the enemy positions at Wadi Akarit and the withdrawal of the German Air Force to airfields to the east and southeast of Tunis, operations became essentially defensive in character. All elements of the G.A.F. in Tunisia were thrown together on a small number of airfields near Tunis and Bizerta and passed under one operational control. There they were vulnerable to Allied attacks on their airfields and this seriously affected serviceability. The Allied fighter patrols often prevented enemy aircraft from taking off, while at the same time they were faced with servicing and maintenance difficulties. In this way, units were forced to evacuate their bases in Tunisia and withdraw to Sicily and even Sardinia, in order to avoid losses on the ground. This was the beginning of the complete eclipse of the Axis air forces in North Africa. No attempt was made to build up a strong force capable of containing the air supremacy of the Allied air forces and, in this final phase of the operations in Tunisia, the G.A.F. was ineffective and completely outnumbered and outclassed, and in the closing days almost completely eliminated.

No. 205 Group
O.R.B.

The final offensive in Tunisia was preceded by a heavy bombing attack by aircraft of No. 205 Group along the lines already familiar in earlier battles. For this, operational control, of No. 205 Group was taken over by H.Q. N.A.T.A.F. wef 08.00 hours on 3 May. The night bombers were still operating from Gardabia, to the east of Tripoli, involving them in a round trip from their bases to the battle area and back again of over 800 miles. Advance parties were sent to new bases at Kairouan on 5 May, but it was not until the end of operations in North Africa that the Squadrons finally moved.

The first night-bombing attacks were carried out by 32 Wellingtons from No. 231 Wing and 8 Wellingtons from No. 40 Squadron in the Tebourba area of the Cape Bon peninsula on the night 4/5 May. Low cloud made the identification of targets difficult, but 76 tons of bombs were dropped across roads, railways and bridges starting a

number of fires. For the night 5/6 May which was the eve of the final offensive H.Q. N.A.T.A.R. ordered a maximum effort for attacks in the battle area, in accordance with the terms of their briefing which stated that, 'The enemy is being hammered by day and night preparatory to his final destruction.' The First Army put out night landmarks in order to assist aircraft to locate the forward line of troops. These landmarks were within three miles of the front line and approximately in the centre of each Corps front and they consisted of flares made to form a letter 100 yards deep. Arrangements were made for 59 Wellingtons and 10 Halifaxes to concentrate on the area contained by the Tebourba - Dejedeida - Furna - La Morhaghia - Bir Meherga - Cheylus - La Mohommedia roads. Low clouds closed down No. 238 Wing before Nos. 104 and 462 Squadrons could take off and only 43 Wellingtons operated. They dropped 80 tons of bombs in the target area but made no claims.

These night-bombing operations were part of General Alexander's plan for a 'very heavy attack in the blitzkrieg style.'

'I laid all the emphasis on speed and the maintenance of the objective. The armoured divisions were to move off behind the infantry divisions simultaneously with them, so that there would be no hesitation in pushing them through the infantry the moment a break through was achieved. I insisted that none of the divisions of 9 Corps (which was making the main blow straight at Tunis along the Medjez-Massioault road) should turn aside to mop up isolated areas of resistance or to attempt to roll up the enemy's exposed flank, but were to continue straight for Tunis, ignoring any enemy to left or right. By this means they would forestall the enemy on his defences round Tunis and split his whole front in half. If these instructions could be strictly followed, I felt confident of turning the German "blitzkrieg" technique on its inventors and preventing an African Dunkirk.'

Alexander's
Despatch

The attack was given the codename 'Vulcan' and 'D'-day was timed for before dawn on the morning of 6 May. An important preliminary to the plan was to capture the Gebel bou Aoukaz, in the sector held by the 15th Panzer Division, on the afternoon of 5 May, in order to free the left flank of the attack from any threat from this direction. This phase of the operation went according to plan, when the Gebel was attacked at 17.00 hours on 5 May, strong and effective air support being provided by the Tactical Bomber Force.

Report on
Ops.

The plan for the day's air operations aimed at keeping the momentum going with bombing at a very high density, bombers attacking in waves at the height of the offensive with an interval of only two minutes between the formations of 18 aircraft. From 05.30 to 07.30 hours, 84 aircraft from the Tactical Bomber Force bombed enemy positions on the immediate front of the First Army's attacking infantry. From 07.30 hours to 08.00 hours, 126 light bombers of the W.D.A.F. attacked the Fuana area which was a forming-up area for enemy armour, a little further back from the first target area. From 08.30 hours to 09.30 hours, 84 bombers from the Tactical Bomber Force bombed another area still further back. For the remainder of the morning, fighter bombers were used on opportunity targets. In the

afternoon, in response to a call from the Army for air support, 108 bombers attacked St. Cyprien, where the two armoured Divisions, the 6th and 7th Armoured Divisions, which had passed through the attacking infantry, were held up by the enemy who were endeavouring to organise a new defensive position.

Report on
Operations and
O.R.B.s.

On the whole, the Royal Air Force considered that more damage was caused to morale than to enemy personnel and equipment. Pilots did not report good results from their attacks. However, there is no doubt that the speed with which the ground forces advanced and the ineffectiveness of the enemy resistance were influenced very considerably by the degree and weight of the air support given by the air force.

Opsums.

During the day 6 May, 2154 sorties were carried out in direct support of the Army, a record at that time for any Allied air force in any theatre. Of these, 980 were carried out by the W.D.A.F. and No. 205 Group and the balance by aircraft of No. 242 Group, XII A.S.C. and T.B.F.

Alexander's
Despatch

'At dawn,' says General Alexander's despatch, 'the air forces went in. It was their greatest effort in the war up to that date, over two thousand sorties of all types, bombers, fighters and tank-busters. The weight of the attack was too much for the defenders, already weakened physically and morally by the heavy fighting....'

No. 2 A.A.S.C.
War Diary

Owing to an incident on 4 May in which, due to thick haze, aircraft in the course of an attack in support of the French at Zaghuan bombed friendly troops killing one man, wounding nine others and destroying an armoured car, particular care was taken to arrange markers for the attacking aircraft. Major Wallace of No. 2 A.A.S.C. arranged for the First Army to construct a landmark in order to assist the bombers. This landmark, in the form of a 'T' 150 feet in length, was dug by bulldozers and whitewashed, being sited in a green field at a road fork. As the bombers flew over, red and blue smoke was released at the landmark to attract attention. The bombers reported that this landmark was easily visible and the addition of the coloured smoke was not really necessary. They also said that, on this occasion, natural features made navigation so easy that the landmark was not essential. In the course of the day's operations, Major Wallace flew as a passenger in a No. 3 Wing S.A.A.F. Baltimore, in order to observe the landmark he had been responsible for making. This aircraft received a direct hit from enemy A.A. gunfire and crashed with the loss of all on board.

The target signal from H.Q. N.A.T.A.F. for the night-bombing programme for the night 6/7 May was not received by H.Q. 205 Group until 06.55 hours on the morning of 7 May and, in the absence of definite instructions, a force of 59 Wellingtons and 11 Halifaxes were detailed to attack enemy M.T. and troop concentrations moving back to Tunis from Massicault, Hammamet and Pont du Fahs. Weather conditions were dangerous and several Captains reported being lifted by air currents as much as 2,000 feet. Rain and electric storms were widespread. Roads were heavily bombed with the object of causing congestion among the retreating troops. A number of fires were started, one near Mornaghia being very extensive.

On the morning of 7 May it was confirmed that the main break-through had been accomplished, and the 6th and 7th Armoured Divisions moved forward from Massicault. By 14.30 hours, the bomblines had advanced right up to the capital where the first shells had fallen at 12.35 hours. At 14.45 hours, the 11th Hussars, followed by the 1st Derbyshire Yeomanry, entered Tunis. An hour and a half later, the 47th Regimental Combat Team of the 9th United States Division entered Bizerta.

Report on Ops.
and No. 2
A.A.S.C. War
Diary

On 7 May, owing to the prevailing conditions of low cloud with bad visibility and the rapidly changing ground situation, the W.D.A.F. aircraft were directed against shipping. However, the bombers of No. 242 Group and T.B.F. attacked certain pre-selected focal points through which enemy vehicles would have to pass. It was hoped that this would slow down the enemy withdrawal and create good targets. In particular, heavy bombing and strafing attacks were made on the road from Tunis to Bizerta in the Protville area, the roads and bottlenecks leading to the Cape Bon peninsula and the westward defile out of Tunis at Hammam Lif.

No. 205 Group
O.R.B.

A further maximum effort was called for from the night bombers of No. 205 Group for the night 7/8 May 'to harrass and destroy enemy troops and M.T., paying particular attention to the road junctions at Soliman, Grombalia, Beni Khalled and Menzel bou Zelfa.' Owing to bad weather, only 11 Wellingtons out of 53 together with 5 Halifaxes could operate. These, however, found excellent targets and reported large fires. Rain grounded the W.D.A.F. fighter bombers until 14.00 hours on 8 May. It was clear that no further large-scale air support would now be required for the land battle and, since the enemy had been making increasing use of Pantelleria Island, both for his air forces and small surface craft, it was decided to attack the airfield and the port there. A force of 126 Bostons, Baltimores and Mitchells took part in the raid and, according to No. 3 Wing S.A.A.F. O.R.B.:-

No. 3 Wing
S.A.A.F.
O.R.B.

'Dispersed aircraft on the aerodrome and the adjacent buildings and dumps provided a target which, in perfect weather, was a bomb-aimer's dream. Immense damage was done, as the photographs subsequently confirmed.'

No. 2 A.A.S.C.
War Diary

In the afternoon, the main W.D.A.F. effort was directed against enemy shipping, and fighter bombers, reinforced at last light by light bombers, attacked these targets continuously. Altogether W.D.A.F. fighters and fighter bombers flew 442 sorties, light and medium bombers 144 and reconnaissance aircraft 10 sorties. No. 242 Group continued their policy of attacking focal points, in order to slow up the enemy withdrawal, cause congestion on the roads and so help provide high density targets.

Record of
Operations
A.H.B./IIJ1/
188/4

The most important sector was now to the east, where large enemy forces, including the German 90th Light Division, were still holding back the Eighth Army, and it was feared that they might reach the Cape Bon peninsula, and fight a delaying action there. The main air task in this area was to assist the Eighth Army to force the defile at Hammam Lif, thus cutting the enemy off from Cape Bon, and also to make them realise that the Cape Bon peninsula would be impossible for either supply or evacuation. In accordance with this policy, 24 Wellingtons and 8 Halifaxes, which were still operating from Gardabia to the east of Tripoli, attacked

No. 205 Group
O.R.B. and
A.A.H.Q.W.D.
Daily Int.
Sums.

enemy M.T. and troop concentrations on the roads between Hammamet, Nabeul, Belli, Menzel bou Zelfa and Sidi Daoud. A number of fires were started, including a large one at Hammamet. At the same time, 7 Beaufighters of No. 600 Squadron and 22 Hurricanes of No. 73 Squadron operated over the Cape Bon peninsula with the primary object of intercepting enemy night-flying transport aircraft. As a result of these operations, claims were made of three Ju.52's destroyed and four damaged. Enemy M.T. and small craft were also attacked.

Soon after dawn on 9 May, bombing attacks were resumed on Pantelleria when 126 Bostons, Baltimores and Mitchells of the W.D.A.F. attacked the landing-ground there. No. 3 Wing S.A.A.F. were enthusiastic over the results of the raid:-

'The Wing had its full and even more successful share in a "repeat performance" over Pantelleria Aerodrome. Many direct hits and near misses were scored. Fires large and small, some with explosions, broke out. A fuel dump was set on fire by 21 Squadron and great columns of smoke rose to 4,000 feet. It was probably the most spectacular raid carried out by the Wing.'

No. 3 Wing
S.A.A.F. O.R.B.

In pursuance of the policy to make the Cape Bon peninsula untenable, over 300 sorties were carried out by W.D.A.F. fighter bombers against targets of opportunity in the area which included enemy M.T., troops concentrations, A.A. posts, shipping and aircraft on temporary landing-strips. The T.B.F. also had a heavy day operating against the last enemy pockets of resistance in the Bizerta area. Although no big withdrawal took place on the Eighth Army front, a constant though generally well-dispersed stream of traffic northwards into the peninsula was reported by reconnaissance. The policy of attacking focal points was adhered to and targets improved as a result. The Royal Navy were reported as being deployed around the Cape Bon peninsula and all aircraft were restricted to targets within five miles of the shore.

No. 2 A.A.S.C.
War Diary

On land, 9 May was a day of tremendous events when the enemy's resistance in North Africa began to crumble. As soon as it was seen that the situation in Tunis was under control, IX Corps split its forces. On the left, the 7th Armoured Division was directed northwards up the Bizerta road towards Protville and Medjerda. Simultaneously, the 1st United States Armoured Division moved towards the same area from Mateur. Resistance in this pocket collapsed on 9 May and the 15th Panzer Division, the Manteuffel Division and the 334th Infantry Division surrendered unconditionally. Among the six Generals taken prisoner was von Vaerst, the Commander-in-Chief of the 5th Panzer Army.

No. 205 Group were directed by H.Q. N.A.T.A.F. to provide a 50 per cent effort during the night 9/10 May to be directed against roads on Cape Bon and also the beaches along the west coast of the peninsula. Albacores of No. 821 F.A.A. Squadron again provided the illumination and 32 Wellingtons from Nos. 37 and 70 Squadrons operated. Weather was bad with restricted visibility. The whole of the prescribed road area was bombed, many direct hits being scored on roads and road junctions, M.T., barges and troops and a 4,000 lb. bomb was dropped on Kelibia on the N.E. corner of the peninsula. Hurricanes of No. 73 Squadron were also active operating singly and in pairs over the

Cape Bon peninsula. They saw flare-paths at Menzel Temime and El Houaria and destroyed two Ju.52's. Small boats at Kelibia were also attacked and low-level machine-gun attacks carried out against enemy M.T.

W.D.A.F. Daily
Int. Sums.

An early escorted raid by a strong force of 126 light and medium bombers of the W.D.A.F. was made against Pantelleria landing-ground and harbour on 10 May 'in order to discourage any ideas the enemy might have of carrying out a major evacuation of their troops in North Africa.' A petrol dump was set on fire which soon obscured the greater part of the airfield with smoke; barracks were bombed and hits were scored on enemy landing craft in the harbour. Altogether on 10 May the W.D.A.F. flew 700 sorties, including 200 fighter-bomber attacks against road targets in the Cape Bon peninsula. On the morning of 10 May, the 6th Armoured Division forced the defile at Hammam Lif by sending tanks through the very edge of the surf. They then poured through the pass down the road to the south and, by nightfall on the 10th, had reached Hammamet on the east coast, thus sealing off the Cape Bon peninsula. The Royal Navy took over all responsibility for shipping and nothing except hospital ships left or reached the enemy coasts.

No. 2 A.A.S.C.
War Diary

On the night of 10/11 May, No. 40 Squadron had the distinction of being the last squadron of No. 205 Group to carry out a night-bombing attack against enemy ground forces in North Africa. H.Q. N.A.T.A.F. again asked for 'a 50 per cent effort' on the Hammamet-Menzel Temime road, and 26 Wellingtons and 7 Halifaxes were detailed, but a later instruction reduced the number to 13 Wellingtons and these were all drawn from No. 40 Squadron. The weather was good and no opposition was encountered. The roads were bombed particularly at junctions. During the night, seven Beaufighters of No. 600 Squadron patrolled over the Cape Bon peninsula but encountered no enemy aircraft. Night-flying Hurricanes of No. 73 Squadron were also busy. They flew 20 sorties, destroying one Ju.52 which was coming in to land at El Haouaria, near the extreme tip of the Cape Bon peninsula, damaged two Ju.52's at Kelibia and started a fire there.

No. 205 Group
and Squadron
O.R.B.s.

In spite of the hopelessness of their position, as they were completely encircled, the veteran 90th Light Division still held out in the difficult Bou Fichta - Zaghuan area opposite their old opponents, the Eighth Army. If anything, the front there was livelier than ever, as the enemy were getting rid of their reserves of ammunition. This continued resistance led to No. 3 Wing S.A.A.F. being given a target of enemy gun positions about seven miles to the north of Takrouna. A total of 63 bombers operated, but 18 Baltimores decided not to bomb, as they did not get any smoke signals from the Army as had been laid down in their briefing. Fighter bombers also attacked road targets in the peninsula, claiming about 30 M.T. destroyed. In the afternoon, however, these attacks were discontinued as the 4th Armoured Division were operating in the area, making a rapid sweep round the peninsula. Altogether, the W.D.A.F. flew 373 sorties on 11 May.

No. 3 Wing
S.A.A.F. O.R.B.

During the night 11/12 May, 17 Hurricanes of No. 73 Squadron, operating singly, patrolled over the Menzel Temime and Cape Bon areas while Beaufighters of No. 600 Squadron also patrolled over the Cape Bon peninsula. All calls on the 90th Light Division to surrender having

been refused, it was decided to bomb them heavily on the morning of 12 May and Air Support Control made arrangements for 6th Armoured Division in the north and 56th Division in the south to fire smoke shells on their respective bomblines, in order to assist the bombers.

'The bombing was due to start at 11.00 hours,' says the No. 2 A.S.C. War Diary, 'but at the last moment 26 Armoured Brigade of 6th Armoured Division asked for it to be cancelled, as they considered that they could finish the battle unaided. A little later they changed their minds once more. Many people concerned did not appear to understand the time involved in arranging and "laying on" a light-bomber programme.

No. 2 A.S.C.
War Diary

In the afternoon, three formations of light bombers carried out the attack, being directed against 90th Light Division in particular. (1) This bombing was very close to our own troops (within 1000 yards) and results were excellent. Ground reports stated that it was followed by "a sea of white flags". This was the last attack delivered by the R.A.F. against ground targets in North Africa and it was fitting that it should have been so successful and should have been observed on the ground.

By 18.00 hours surrender had become general, if not complete, and the signal, "There is no bomblines in Africa" was sent to all A.L.O.s.'

The story of this last bombing raid in North Africa is best told in the following extract from No. 223 Squadron Q.R.B.

'W/Odr. Le Cheminant and P/O Service led twelve of our Baltimores together with six of 55 Squadron's in a formation attack on the 90th Light Division's defended positions eight miles due north of Enfidaville Town. Our troops had isolated these positions and called on the 90th Light to surrender. On their refusal, a line of smoke from 25-pounders, both north and south of the positions, was ordered by the Army and our crews were briefed to bomb only if this smoke was seen, as the extremely small area of the target called for great accuracy in formation bombing. Escort was completed one mile east of Kairouan Town at 15.12 hours. The coast was crossed four miles north of Sousse and the target approached via the coast line. The white smoke lines were clearly seen on arrival extending from pinpoints P. 3695 to P. 3498 north of the target area, and from P. 3695 to P. 3495 south of the target.

(1) Details of these last bombing raids in North Africa are as follows:

- I: 18 Baltimores of No. 21 S.A.A.F. Squadron bombed enemy positions in area P. 3695, P. 3298 and P. 3595. They dropped 108 x 250 lb. bombs, at 15.27 hours.
- II: 6 Mitchells No. 83 Squadron, 3 of No. 434 Squadron, 3 of No. 486 Squadron, 3 of No. 487 Squadron and 3 of No. 488 Squadron attacked the same target at 15.31 hours dropping 126 x 250 lb. bombs.
- III: 12 Baltimores of No. 223 Squadron and 6 of No. 55 Squadron attacked the same target at 15.32 hours, dropping 102 x 250 lb. bombs.

66 x 250 lb. G.P. bombs with extension rods were dropped by our aircraft at 15.33 hours from 7,500 feet falling in a good pattern in short sticks from east to west well within the smoke lines. Slight heavy anti-aircraft fire came from west of the target area, and slight light anti-aircraft gunfire from the target area, both inaccurate. The formation preceding ours over the target was seen to bomb dead between the smoke lines. Reports were brought back of numerous fires and charred marks on the ground in the hills inland of the target where also two lorries or A.F.V.s were seen to blow up, which seemed to show that the enemy was destroying transport and A.F.V.s preparatory to surrender. The formation turned left off target, returning to base on a course of 180°.

'As our aircraft were landing a signal was received from Eighth Army H.Q. "Army reports bombing very successful very good crop of white flags springing up."

'This raid was the last carried out on the continent of Africa, and was followed by the surrender of the 90th Light, the last of the "crack" Divisions of the German Army to surrender in Tunisia'.

Such was the end in North Africa. An army of a quarter of a million men with all their arms and supplies surrendered unconditionally, the last being Italians of the 1st Italian Army under Marshal Messe, who heard of his promotion to Marshal only shortly before his capitulation on the morning of 13 May. Only 663 of the enemy managed to escape.

APPENDIX 1

SOME NOTES ON THE G.A.F. MEDITERRANEAN AIR TRANSPORT

(from A.H.B.6 documents)

Throughout the campaign, the Ju.52 was the standard type of transport aircraft used by the Luftwaffe in the Mediterranean. Other types of aircraft, however, were employed more or less regularly during certain phases of the campaign including the He.111 (both as transport aircraft and as tugs for the glider Go.242), the Sa.82, F.W.200, Ju.90 and 290, B.V.222 and Me.323. In times of extreme urgency, the Ju.88 and Me.110 were used for transporting fuel and during the last stages of the Tunisian battle, the Do.24 was used for this purpose. To a minor extent, also, the glider D.F.S230, towed by the Ju.52, Ju.87 or Hs.126, was in operation.

The following table of load capacities provides a guide to the weights normally to be expected:

<u>Type of Aircraft</u>	<u>Load</u>
He.111	1.4 - 1.5 tons
Ju.52	1.7 - 2.0
Sa.82	2.2 - 2.5
F.W.200	2.8 - 3.0
Ju.90	4 - 5
Ju.290	6 - 8
B.V.222	6 - 8
Me.323	8 - 10
Go.242 Glider	2 - 2.5
D.F.S.230 Glider	1.2 - 1.5

Consignments included personnel, arms and ammunition, mechanical transport and fuel for both M.T. and aircraft, equipment and supplies of all kinds. Throughout the campaign, the conveyance of fuel for both aircraft and M.T. was of vital importance. Acute shortages of aviation spirit frequently interfered not only with the work of operational aircraft, but also with that of the transport aircraft themselves, while the shortage of fuel for M.T. was an almost permanent drag on the mobility of the Army.

Every conceivable method for conveying fuel by air was attempted. Transport aircraft, in addition to carrying consignments of fuel to the maximum capacity, were expected to make their journeys to and from their base on a stipulated quota, any balance to be drawn off from their tanks. Transport aircraft of all types, flying boats and seaplanes, operational aircraft including F.W.200, Ju.88 and Me.110 were all pressed into service for fuel-carrying. A P.O.W. of KG.100 stated that, in order to deliver 2,000 litres of fuel from Kalamaki to Fuka, each operational aircraft itself consumed 3,000 litres.

Bicycles, motor-cycles, motor-cycle combinations and tractors were all transported regularly by Ju.52, and occasionally the small 'people's car.'. With the arrival of the Me.323, however, vehicles of much larger size and weight were carried by air, including loaded lorries up to ten tons weight. Reference was frequently made to the conveyance of tanks by Me.323. If this were so, only tanks of small size could have been lifted, owing to the limitation of capacity to ten tons. It may well be that medium, semi-tracked tractors and other types of A.F.V.s were included in the term 'tanks' by agents and P.O.W.s.

The return of old aero engines was considered a priority service and there is evidence that Ju.52's were especially adapted for this purpose. Transport aircraft making two sorties a day from Crete to

Tobruk were expected to load ten engines for the return flight during the turn-round limited to one hour because of the possibility of air attack by the W.D.A.F. Other Ju.52's were fitted up as complete mobile Signal Stations and the use of these aircraft as air ambulances was, of course, a commonplace. There was also a refrigerator Ju.52 which was employed solely for carrying meat and vegetables to the Fliegerfuhrer Afrika and which carried enough to last his unit for three days.

Among the most important return loads for the air transport fleet were empty fuel containers and aero engines. There is evidence to show that the failure to send back empty fuel containers from Africa more than once jeopardised the supply of fuel at times when delivery was most needed. Examples of return loads are:-

- (1) 83 Ju.52's and 2 Sa.82 from Africa to Europe with 158 Service personnel, 296 wounded, 21,000 kg. field post and 1,800 kg. compressed air cylinders.
- (2) 33 Ju.52's and 1 Sa.82 from Africa to Europe with 62 G.A.F. personnel on duty and 21 on leave, 7 Army personnel on duty, 22 G.A.F. wounded, 120 Army wounded, 7306 kg. material including 4 old engines.

Although supply-dropping from the air was never on the sustained scale of the efforts on the Russian front at Staraya Russa and Stalingrad, this method of supplying isolated units was employed on occasion in Africa. For example, water and rations were dropped at Sollum in January 1942, while towards the end of the Tunisian campaign a number of Ju.88's were employed in an operation of this kind.

Escort for Ju.52 air transport formations of up to about 25 Ju.52's was provided by a single Kette (3 aircraft) of heavy fighters until early October 1942 when the activities of the W.D.A.F. Beaufighters (on loan from No. 201 Group) compelled the enemy to increase the escort to five Me.110's. The formation itself grew in size, since no aircraft was permitted to make the passage to Africa unescorted and sometimes comprised as many as 47 Ju.52 aircraft, while they regularly numbered between 30 and 40. The intensive Allied air offensive against the enemy air transport fleet caused such heavy losses that an escort of 10 fighters was ordered for each transport formation.

The G.A.F. losses in transport aircraft in the Mediterranean during April 1943 were:-

1943 April	Destroyed	Damaged
4	1	1
5	25	14
9	2	-
10	5	-
11	18	-
13	7	3
14	-	1
17	2	-
18	33	7
20	-	1
22	15	-
23	-	1
26	1	-
28	1	-
29	1	-
30	6	-
	<u>117</u>	<u>28</u>

The G.A.F. air transport strength in the Mediterranean appears to have remained fairly constant throughout the second half of 1942 and was in the region of 500 aircraft. As an example, the strength and serviceability state is given for 10 November 1942, immediately after the battle of El Alamein.

<u>Unit</u>	<u>Type</u>	<u>Strength</u>	<u>Serviceable</u>
I/ZBV 1 (Part in Med.)	Ju.52	39	26
II/ZBV 1 do.	do.	46	32
III/ZBV 1	do.	24	18
IV/ZBV 1	do.	30	15
ZBV 102	do.	50	39
ZBV 400	do.	20	6
ZBV 600	do.	43	32
ZBV 800	do.	52	33
Lufttransport St. (See) 222	BV.222	7	3
I/Me.323	Me.323	9	1
II Fl. Korps Transportstaffel	Ju.52	14	8
ZBV Gr. Brindisi	do.	66	50
do. Reggio	do.	76	52
do. Napoli	do.	38	27
	<u>Total</u>	<u>514</u>	<u>342</u>

The work of the transport squadrons was hampered not so much by the shortage of aircraft as of crews. Sickness among crews in Greece and Crete was no doubt responsible to some extent, although a percentage of sickness was probably allowed for in the initial establishment. Far more trouble was due to changes of policy in the G.A.F.; one was in the reduction of ground personnel for detachment to the army and the other the introduction of bomber crews under training into transport Gruppen.

APPENDIX 2

INTERCEPTION OVER EGYPT OF ENEMY
HIGH-FLYING RECONNAISSANCE AIRCRAFT

The presence of enemy high-altitude Ju.86 reconnaissance aircraft over the Delta area was first detected on 31 May 1942 when one was seen to come in over Aboukir, fly west over Alexandria, circle Amiriya and then leave in a westerly direction over Daba, Fuka and Mersa Matruh. The short vapour trail and the fact that the heavy A.A. guns of the Alexandria defences were obviously firing very low showed that the aircraft was something quite new. The Hurricane IIB which attempted to intercept had to give up at 31,700 feet when the intruder was still 2/3,000 feet above.

2. After another unsuccessful attempt to reach the raider, the following equipment was removed from standard Hurricane IIB's:-

Desert trays.
Rear armour plating.
4 outboard guns and ammunition chutes.
IFF equipment.
Contactor gear.

This increased the Hurricane IIB's ceiling to 35,000 feet which was still inadequate and six more guns were removed, leaving two only. This aircraft managed to climb to 36,200 feet on a normal interception, but by this time Spitfires had been made available.

3. Spitfires were first used on 25 June 1942 when aircraft awaiting modifications at No. 103 M.U. commenced operations. This was by arrangement with C.M.S.O. and A.O.C. No. 206 Group and was the outcome of a suggestion by O.C. No. 103 M.U. at Aboukir. The standard Spitfire VB reached an average height of between 33,000 and 35,000 feet, so once more stripping was resorted to, various combinations of armament being tried. Eventually the stage was reached where Spitfires worked in pairs, one being standard except for the removal of cannons, rear armour plate and the raising of the engine compression and the other stripped of everything bar the absolute essentials, leaving it a shell with two .303 Brownings only. It was later found that the removal of 30 gallons of fuel made it possible to engage the Ju.86 before it got too far out to sea, but this entailed a nice judgement on the part of the pilot as, without R/T to check his position, he had to judge when he should break off the chase to enable him to reach base. This was an additional hazard since the majority of these chases were over the sea and proceeding away from land.

4. The plan adopted was for the two Spitfires to go off together, the standard Spitfire receiving instructions by R/T until the enemy aircraft was sighted and signal its position visually to the completely stripped Spitfire which then went ahead and engaged the enemy by aiming at one engine. The standard Spitfire, having attained its ceiling, was to wait in visual contact below the enemy aircraft and, if the stripped Spitfire succeeded in putting out one engine, was to engage the enemy as it lost height.

5. The first success was claimed on 24 August 1942 when a stripped Spitfire from Aboukir, flown by Flying Officer Reynolds, damaged a Ju.86 then flying at a height of 42,000 feet. Although this was later confirmed destroyed by a P.O.W. report, enemy records state that this particular reconnaissance aircraft reached base. According to enemy records the first Ju.86 was shot down on 29 August, the pilot landing in the sea where he was later picked up still in possession of what were described as 'most valuable' photographs. In this particular case the pilot of the stripped Spitfire made no claim, as although he opened fire when a thousand feet below the enemy aircraft, his guns jammed.

6. On 6 September a stripped Spitfire flown by Pilot Officer Genders attacked a Ju.86, flying at 40,000 feet, when 80 miles north of Alexandria and damaged it. He was forced to bale out over the sea, due to shortage of petrol, and after 21 hours in the sea he managed to swim ashore at Rosetta. The 'marker' Spitfire, piloted by Pilot Officer Gold, also attacked the Ju.86, concentrating on the cabin. Although only claimed as damaged, enemy records show that this aircraft belly-landed in the desert and became a total loss. Whereas on 20 August the parent Unit IIF123 had five Ju.86 aircraft on their strength, one of them serviceable, by the 10 September they had only four, none of which was serviceable.

7. Another engagement with a Ju.86 took place on 15 September when Pilot Officer Gold claimed to have damaged the starboard engine of an enemy aircraft at 39,000 feet. This is not confirmed by enemy records. It is perhaps significant, however, that Unit IIF123 had only three Ju.86 aircraft by 20 September, all of them unserviceable. Furthermore, the enemy were thoroughly discouraged by the activity of the Spitfires at a time when this type of strategic reconnaissance would have been most valuable to them. By 23 October, when the battle of El Alamein was launched, only one more flight over the Delta area by a Ju.86 was attempted and this was abortive owing to cloud.

8. These interceptions were all carried out by test pilots of No. 103 M.U., Aboukir. Other Units which took part in operations against the enemy 'high-flyer' were:

No. 1 S.A.A.F. Squadron	Hurricane IIB
No. 80 Squadron	Hurricane IIC
No. 145 Squadron	Spitfire VB
No. 601 Squadron	Spitfire VB

APPENDIX 3

EXTRACTS FROM A REPORT ON ENEMY AIRCRAFT TECHNICAL INTELLIGENCE
IN THE MEDITERRANEAN (NOVEMBER 1942 TO MAY 1943)

The Eighth Army Advance from El Alamein

The Eighth Army advance which began in the early part of November 1942, proved a tremendous windfall in the way of abandoned enemy aircraft. The enemy's precipitate withdrawal and the breakdown of his organisation were apparent from the very first field to be inspected, at El Daba, which was crowded with aircraft, many of them intact and flyable. There was a rich yield of new information. There were several specimens of the new Me.109G series, with Daimler-Benz 605 engine, which had not previously been inspected. There were examples of the modified Ju.87D series, with increased bomb-carrying capacity and greatly increased armour protection. There were good specimens of Italian aircraft and several German gliders in reasonable condition.

2. It was to prove the same on many of the desert landing-grounds whose capture followed that of El Daba. The enemy had evacuated without any attempt to destroy large numbers of aircraft, and huge quantities of stores. At Mersa Matruh, large numbers of aircraft and a complete Air Stores Park for the Luftwaffe, including many aero-engines were inspected. Tobruk yielded a good number of intact aircraft, including Ju.88's, He.111's, Ju.52's, gliders and many Italian aircraft, as well as one of the most extensive bomb-dumps ever to be captured. In the Tobruk caves were found large quantities of Luftwaffe stores, including great supplies of aircraft tyres the markings of which were taken and which proved of much value to the Ministry of Economic Warfare. At El Adem, the Henschel 129 was inspected for the first time. As the Martubas, Derna and Barce fell into our hands, the count of enemy aircraft and material continued to swell. At Benghazi where a Technical Intelligence team were the first R.A.F. personnel to enter the town, the thousand mark was passed and the first specimen of the FuGe.25 radio - a very important capture - was obtained. By the time Tripoli fell, a total of well over 1,300 German and Italian aircraft, many of them in good condition, had been inspected since the beginning of the advance from El Alamein.

3. Operation 'Torch'

Meanwhile, in November 1942, the Anglo-American landings had taken place in North Africa and two technical officers from Air Ministry AI2G came in with this invasion. The early days were spent in examining the aircraft captured on Maison Blanche, but as no transport was available it was some time before any attempt could be made to inspect the many enemy aircraft in the surrounding area. Finally, by making use of native transport, it was possible to examine a number of German bombers. Also in this area the first specimen of the Piaggio 108, Italian four-engined bomber, was inspected. Two complete turrets from this aircraft, which were of much technical interest, were shipped to the United Kingdom.

4. During the period from March to May several aircraft of interest were examined, including the first specimen of the Me.109G-6 series in the theatre. Some good specimens of F.W.190 and Me.109 were shipped both to R.A.E. Farnborough and Wright Field, U.S.A. Coincident with the arrival of a signal specialist from Middle East, the first example of Funkgerat 16 Z fell into our hands near Blandan. The introduction of this VHF radio equipment into single-seater fighters corresponded with a striking change in Luftwaffe fighter tactics and the information was thus of much value.

5. Fall of Tunis

On the fall of Tunis, a further 600 abandoned German and Italian aircraft were examined in the Tunis, Cape Bon and Bizerta areas. This total provided much new and valuable technical information, together with a rich yield of production data. At El Aouina, the first specimens of the Me.323 six-motored giant transports which had played such an active part in ferrying men and supplies to the Afrika Korps were examined. At Bizerta, the first example of the Ju.290 transport was found. Several further specimens of the Henschel 129 were captured. At El Aouina, the first specimen of a Ju.52 with a mine-sweeping ring was found which, although burnt out, yielded useful technical details for both Air and Naval Intelligence.

6. Other landing grounds, including the Protvilles, Ariana, La Sebala and La Marsa, were inspected together with aircraft scattered across the surrounding country and on Cape Bon. Further interesting finds were made, including the only specimen of the Me.109G-1 pressurised cabin version so far to be found. On Cape Bon was discovered the first specimen of the Italian Macchi 205 single-seat fighter. On the radio side, enemy radar sites were examined at La Marsa, Hammamet and Soliman and a good deal of technical information on both mobile and giant Wurzburgs, Freyas and Coast Watchers was obtained.

7. In the combined Western Desert and Tunisian campaigns, over two thousand enemy aircraft were examined by Technical Intelligence. Dating back to 1941, the total was not far short of three thousand.

8. In this report, the following points were stressed. At no time during either the Western Desert or Tunisian Campaigns was any special organisation for the salvage of enemy aircraft made available to Technical Intelligence, in spite of the fact that continual requests were being received for whole aircraft, engines or items of equipment to be shipped back to the United Kingdom and the U.S.A. Throughout the entire African Campaign, the question of looting from crashed and captured enemy aircraft remained acute. Despite the long series of orders on the subject, the situation was as bad in the Tunis area as it had ever been in Egypt. It cannot be said that airmen were always to blame, since very often R.A.F. officers were the chief offenders. The absence of any organised salvage facilities or general policy for the disposal of enemy aircraft made the problem more difficult, since in most cases, after inspection, the aircraft had to be abandoned and were thus fair game for looters who were able to say that they assumed the aircraft had been abandoned. The situation was alleviated somewhat in the later stages by the R.A.F. Regiment detachments which were provided. This was particularly so later on in Italy. However, so far as Africa was concerned, looting was a most serious menace and unquestionably deprived us of a good deal of valuable information.

Authority: A.H.B./IIM/A36/2H

SECRET

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APPENDIX 4

NOTES ON THE ESTABLISHMENT OF FIGHTER WINGS AT
ADVANCED LANDING GROUNDS BY AIR TRANSPORT

Authority A.H.B./IIJ1/122/68(A)

General

1. These notes are based on practical experience gained in the course of the preparation and execution of three forward moves of a fighter Wing of four Squadrons with Air Transport. They cannot, naturally, apply in detail to all conditions but they should be of assistance to those concerned with the planning of operations when it is intended to move a fighter Wing or part of a Wing to an advanced base and to maintain it by air, either for the duration of the operation or until S. & T. Columns can be brought up.

General Organisation

2. There are certain general principles which should be followed in moves of this kind. These are:-

- (i) A Reconnaissance Party must be flown in as much in advance of the main body of aircraft and personnel as possible in order to organise the reception of the main body and ensure a quick turn round of transport aircraft.
- (ii) Up to 12 lorries must be made available on this L.G. at the time the Recce Party arrives. These must be provided by the Army formation controlling the forward area. It may be possible to return some of these when the Wing has been established but it will be necessary to retain some until the arrival of R.A.F. transport.
- (iii) Lt A.A. Defence must be installed before the arrival of the main force. These must be provided by the forward troops pending the arrival of the A.A. batteries allotted to the Wing concerned by the A.A. Cdr. responsible for the gun defences of landing grounds.
- (iv) Smoke must be used whenever there is a possibility that the main air party may have some difficulty in locating the landing ground. A mobile W/T D/F set should be with the Base Party if one can be made available.
- (v) The landing ground should be protected by means of standing patrols until the airborne A.M.E.S. has been established.
- (vi) Fighters should fly in on their long range tanks so that they can drop them on landing and come to readiness immediately.
- (vii) The Wing concerned should be responsible for the protection of the transport aircraft.

Preparations for a move

3. The personnel considered necessary for the operation of the Wing and Squadrons for a short period must be held readily available for emplaning. For the three air moves during the advance the total number was on each occasion limited to 240 excluding Squadron pilots.

4. The Wing concerned must ensure that all Wing and Squadron equipment required is stacked in suitable dumps on the landing ground.

5. The controlling administrative authority (e.g. A.O.C. at A.A.H.Q.) is responsible for providing the necessary supplies of petrol, oil,

ammunition, water and rations and for ensuring that they are suitably packed into the transport aircraft at the landing ground from which they are going to operate.

6. The controlling operational authority (e.g. S.A.S.O. at A.A.H.Q.) is responsible for arranging with the Army for the A.A. defence of the landing ground and also for arranging that they loan transport to the Wing and Squadrons which is available immediately on their arrival. About 12 lorries are desirable, distributed 2 to each Squadron and 4 to the Wing until all essential personnel and stores have arrived, when 7 can probably be released. It is advisable to include sufficient R.A.F. drivers in the air party because they are accustomed to the general layout of landing grounds.

Reconnaissance and preparations at Advanced Landing Ground

7. A reconnaissance party should be flown in to the advanced landing ground at least 1 hour (preferably 3 or 4 hours) before the main body. This party should be composed as follows:-

(a) The Wing Commander (in his own aircraft)

(b) From Wing H.Q. and each Squadron:-

One N.C.O. Marker
Wing or Squadron flag on post
Telephone and 1,500 yards of wire

(c) From Transport Group:-

Control Officer
Two Runners
Ground strips for marking bad ground
Landing 'T' or wind sock
Aldis lamps
Six smoke generators
Mobile W/T D/F set

(d) Type 6 A.M.E.S. and crew

(e) From Wing H.Q.

Ten-line switchboard, telephones and operators and
A.F.S. Personnel for line laying.
V.H.F. or H.F. pack set
Two motor cycles or 'Jeeps'

(f) From Fighter Group H.Q.

Airborne Operations room if available
(Provision of Operations Room consisting of 4
Jeep trailers has been recommended to and is
under consideration by, H.Q. R.A.F. M.E. Ops
room and personnel complete could be carried in
3 D.C.'s.)

8. Immediately on arrival the reconnaissance party should:-

(a) Reconnoitre the landing ground and mark bad ground.

(b) Mark out Wing H.Q. and Squadron dispersal areas.

(c) Establish telephone communications between Wing H.Q. and each Squadron area.

- (d) Erect a wind sock or lay out a 'T' to give the direction of landing.
- (e) Arrange aerodrome control and direction for aircraft when they arrive.
- (f) Set up fighter control at the Wing H.Q. together with a warning system (Type 6 A.M.E.S.)

Installation of Wing and Squadrons

9. It will probably be necessary in the first instance to maintain a standing patrol over the advanced landing ground. When however the ground control is established fighters should be flown forward on their long range tanks. After landing they should drop their tanks and immediately come to readiness.

10. Requirements for the first sortie, together with rations and water for one day, should be dumped at Squadron dispersal areas. Subsequently central dumps should be set up according to the type of supply viz (i) fuel (ii) bombs and ammunition (iii) rations and water and (iv) other supplies. These dumps should be under the control of the Wing Equipment Officer.

11. The arrival and departure of Transport aircraft should be adequately spaced to ease congestion and facilitate protection.

Maintenance

12. Initially maintenance must be in accordance with a pre-arranged pattern. Subsequently, and until normal maintenance by S. & T. Columns becomes possible, supplies should be demanded in proportion to expenditure through the Wing Equipment Officer and the local Air Transport Control Officer.

APPENDIX 5

ORDER OF BATTLE, R.A.F. WESTERN DESERT

2 SEPTEMBER 1942

AIR HEADQUARTERS WESTERN DESERT

No. 1 Air Ambulance Unit	D.H.86
Western Desert Communication Unit	Various
<u>No. 3 (S.A.A.F.) Wing (Light Bombers)</u>	
<u>Squadrons</u>	
Nos. 12 (S.A.A.F.), 24 (S.A.A.F.)	Boston
No. 21 (S.A.A.F.)	Baltimore (re-equipping)
81st Bombardment (U.S.A.A.F.)	Mitchell (attached)
<u>No. 232 Wing (Light Bombers)</u>	
(forming mid-September)	
<u>Squadrons</u>	
No. 14	Marauders (training)
No. 55	Baltimore II (operating under No. 3 (S.A.A.F.) Wing)
No. 223	Baltimore III do.
<u>No. 285 Wing (Reconnaissance)</u>	
<u>Squadrons</u>	
Nos. 40 (S.A.A.F.), 208	Hurricane & (No. 40 Squadron Tomahawk withdrawn for training)
No. 60 (S.A.A.F.)	Maryland
<u>Flights, Other Units</u>	
No. 2 Photographic Reconnaissance Unit (Det.)	Spitfire
No. 1437 Strategic Reconnaissance Flight	Baltimore & Maryland
<u>No. 211 Group (Fighter)</u>	
<u>No. 233 Wing (Fighter Bombers)</u>	
<u>Squadrons</u>	
Nos. 2 (S.A.A.F.), 4 (S.A.A.F.)	Kittyhawk
No. 5 (S.A.A.F.)	Tomahawk
No. 260	Kittyhawk (Mark II)
64th, 66th (Fighter (U.S.A.A.F.))	do. (attached)
<u>No. 239 Wing (Fighter Bombers)</u>	
<u>Squadrons</u>	
Nos. 3 (R.A.A.F.), 112, 250, 450 (R.A.A.F.)	
<u>No. 7 (S.A.A.F.) Wing (Fighter Bombers)</u>	
(later under No. 212 Group)	
<u>Squadrons</u>	
No. 6 Squadron ('Tankbusters')	Hurricane IID
No. 7 (S.A.A.F.)	Hurricane I and IIB
Nos. 127, 274	Hurricane IIB
<u>No. 243 Wing (Fighters)</u>	
(later under No. 212 Group)	
<u>Squadrons</u>	
Nos. 33, 73, 213/134	Hurricane IIC
No. 145/74, 601	Spitfire

No. 211 Wing (Fighters)Squadrons

Nos. 1 (S.A.A.F.), 238

No. 80/123

No. 92

Hurricane IIB

Hurricane IIC

Spitfire

(Also Detachments of Fleet Air Arm Albacores and Medium Bomber Squadrons of No. 205 Group as allocated by H.Q. R.A.F. Middle East)

No. 212 Group forming to target date 15 September 1942.

APPENDIX 6

BUILD-UP OF SQUADRONS FOR THE BATTLE OF EL ALAMEIN

PART I. Comparison of Strengths. (Col. (a) immediately after Alam Halfa) with -- (Col. (b) immediately before Alamein)

	Category A		Category B		No. of Squadrons Formed & Forming		Establishment I.E. (at 16 per Sqdn.)	
	(a) 11/9	(b) 23/10	(a) 11/9	(b) 23/10	(a) 11/9	(b) 23/10	(a) 11/9	(b) 23/10
<u>Fighters</u>								
Spitfire	52	51	32	29	8	3	96	36
Hurricane	333	417	73	60	12	11	192	176
Tomahawk	20	35	14	6	1	1	6	16
Kittyhawk	66	126	52	25	7	7	84	84
Gladiator	16	24	10	9	-	-	-	-
Beaufighter	63	57	23	34	5	5	-	-
	550	710	204	163	33	27	-	-
∅ To rearm with Kittyhawks								
<u>Heavy Bombers</u>								
Liberator	14	9	9	6				
Halifax	11	8	8	8				
	25	17	17	14	-	-	-	-
<u>Medium Bombers</u>								
Wellington	91 ⁽¹⁾	78	39	42				
Marauder	16	19	3	9	-	-	-	-
	107	97	42	51				
<u>Light Bombers</u>								
Blenheim	41	40	20	13	4	2	(I.E. @ 24 per Sqdn.) 96	48
Bisley	36	40	13	23				
Boston	59	71	28	35	2	2	48	48
Maryland	9	6	6	12	-	-	-	-
Baltimore	57	96	39	37	3	3	72	72
	202	253	106	120	9	7	-	-
<u>Torpedo Bombers</u>								
Beaufort	18	15	16	15	1	2	(I.E. @ 16 per Sqdn.) 16	32
Wellington	39	48	8	15	4	4	64	64
	57	63	24	30	5	6		

(1) The decline in Wellington strengths had been very rapid since July when there were 136 aircraft in Category A.

(Authority - A.M.W.R. Weekly Statistical Analysis (A.H.B./VE/11))

Build-up of Squadrons for AlameinPART II. Aircraft arrivals and issues to units.
8/9 - 20/10A.H.B./TIJ1/
31/1

Baltimore	36	67
Beaufighter	43	29
Beaufort	13	36
Boston	1	36
Blenheim IV & V	14	46
Halifax	3	1
Hudson	16	26
Hurricane	124	238
Kittyhawk	119	210
Liberator	5	-
Marauder	25	6
Spitfire	32	62
Tomahawk	1	8
Wellington	48	93
TOTAL(1)	<u>480</u>	<u>858</u>

Aircraft Maintenance Position (Note by A.O.C.-in-C.)

AOC/28/34A

Only the formation of (the) additional maintenance units required to support (the) sixty squadron programme, in advance of Air Ministry permission, has enabled the squadrons to put up their unprecedented effort in recent months. With the continued restricted flow of aircraft from the United States and the United Kingdom, it is only by the tireless and superhuman efforts of these so-called "surplus" fitters and riggers that we have been able to come anywhere near meeting the wastage in the Western Desert.!

(1) It will be noted that out of 858 aircraft issued only 480 were new arrivals. The remaining 378 aircraft were repaired in Middle East an indication of the great effort made by the maintenance organisation.

APPENDIX 7

DISPOSITION OF LUFTWAFFE IN THE MEDITERRANEAN THEATRE

OCTOBER - NOVEMBER 1942

	Close Recon		Long Range Recon		S.E. Fighters		T.E. Fighters		Ground Attack		Bombers		Dive Bombers		Coastal		Strength	Serv.
	Strength	Serv.	Strength	Serv.	Strength	Serv.	Strength	Serv.	Strength	Serv.	Strength	Serv.	Strength	Serv.	Strength	Serv.		
<u>31 October 1942</u>																		
Libya	9	5	5	4	131	68	-	-	29	7	17	7	58	39	-	-	249	130
Greece & Crete	-	-	20	6	22	18	87	32	-	-	178	95	-	-	11	7	318	158
Italy, Sicily, Sardinia	-	-	30	20	32	28	-	-	-	-	89	58	33	22	-	-	184	128
Total in Mediterranean	9	5	55	30	185	114	87	32	29	7	284	160	91	61	11	7	751	416
<u>10 November 1942</u>																		
Libya	7	3	4	2	67	37	12	9	38	19	-	-	43	23	-	-	171	93
Tunis	-	-	-	-	34	31	-	-	-	-	-	-	24	14	-	-	58	45
Greece & Crete	-	-	16	5	5	2	68	34	-	-	101	47	-	-	11	6	201	94
Italy, Sicily, Sardinia	7	3	34	18	65	39	59	35	-	-	304	165	7	-	-	-	476	260
Total in Mediterranean	14	6	54	25	171	109	139	78	38	19	405	212	74	37	11	6	906	492

APPENDIX 8

Ref: AAHQWD/16/1/Air

THE PRESENT SITUATION - OCTOBER, 1942

Object of memorandum

1. This memorandum is issued with the object of providing Officers Commanding Formations and Units with a general review of the present situation and an interpretation of the probable trend of the forthcoming operations. It is hoped that it may be of assistance to Commanders in representing the situation to subordinates in preliminary talks, in accordance with the instructions of the Air Officer Commanding, while at the same time serving as an 'aide memoire' on particular points of importance which must never be lost sight of throughout the period of operations.

Review of present situation

2. Offensive operations designed to defeat the enemy in his present positions are imminent.

Land Operations

3. From the aspect of land operations, it is well known that the enemy occupies very strong defensive positions on a front which precludes the possibility of wide manoeuvre and compels direct assault. The natural strength of this position was demonstrated by the failure of a victorious and aggressive enemy to break through a comparable position of ours in July held by hastily re-organised troops. It must be expected therefore that the land battle will bring very hard and bitter fighting. The task confronting the land forces is to break through the strong enemy defensive barriers of minefields covered by concentrated artillery fire and destroy his armoured forces in rear. The operations will call for leadership and fighting qualities of the highest order. The Eighth Army is fully prepared and trained for its task and is now ready; it will go into battle with superior forces to the enemy, but at a tactical disadvantage. The aim of the land forces will be to defeat the enemy in detail in his present positions. The greater the defeat inflicted now, the more speedy will be our advance into CYRENAICA and beyond.

Air Operations

4. It must be assumed that, as a direct result of the effect of our previous air operations in weakening the enemy, he will endeavour to challenge the degree of local air superiority held by our air forces in this theatre of operations. The German Fighter Force is likely to have been re-inforced with this end in view.

Our air forces, however, have also been very appreciably strengthened and we are now stronger in the Western Desert than ever before. We are in a position to accept and liquidate any challenge from the enemy and provide maximum assistance to our land forces, while denying the enemy air forces the power to interfere effectively with our land operations. These are the objects that our air forces are to strive to achieve in full measure.

Our aim will not be achieved without hard and resolute air fighting, for which we are fully prepared. Recent air operations have been designed to weaken the air forces of the enemy and from the results achieved, it is clear that the enemy will commence operations inferior in numbers and at a moral disadvantage.

Outside the battle area, air forces under No. 201 Group, No. 205 Group and the American Heavy bomber force will continue to hit at the enemy L. of C. by sea, rail and land, and upset his re-inforcement.

Duration of the Battle on the EL ALAMEIN Line

5. As the enemy has had ample time to prepare his defences in the forward area, and as he cannot withdraw to a defensive position with a secure southern flank this side of AGHELLA, or accept any loss of prestige through retirement, allowing us to give increased assistance to MALTA, he may be expected to fight desperately where he is now.

6. In consequence, the struggle at EL ALAMEIN is likely to continue for some 7-10 days, and we must be prepared to maintain the most intensive effort for this period.

The Air Battle

7. In the coming battle, we shall not enjoy the advantage we had during the recent 'reconnaissance in force' by the enemy, when his land forces by their advance shortened the distance from our fighter landing grounds to the battle area, while lengthening the distance from his own. The position will in fact be reversed and although the disadvantage will to some extent be reduced by the use of forward landing grounds for two Fighter Wings, the difficulty of intercepting enemy aircraft must be outweighed by our ruthless determination to engage and destroy all enemy aircraft on sight when engaged on this specific role.

8. Our task during the battle will be to assist and protect the Eighth Army. However large the number of enemy aircraft we destroy and however great our ascendancy in the air, it will avail us nought if our Army fails to break through. The enemy therefore must never be permitted to divert our sorties from the specific task they have been ordered to carry out in support of land operations.

9. The enemy air forces will start on the defensive. He must be kept on the defensive by our aggressive fighting and high cost of his efforts to interfere with our operations.

Probable enemy fighter-bomber and bomber employment - dispersal measures

10. It is probable that he may employ a proportion of his fighter bomber effort against our aerodromes and particularly our forward landing grounds by day, and his bomber force from CRETE in strength against them by night. In consequence, there must be no relaxation of dispersal measures at aerodromes throughout the period of operations. The tendency with squadrons may well be to increase the state of preparedness of aircraft by closing the dispersal; this must be resisted and full measures to conceal aircraft with nets by day and for wide dispersal at night must continue. The A.A. defences at aerodromes will be quite ready to maintain increased vigilance throughout a period of intensive operations.

R/T Discipline

11. The importance of good R/T discipline cannot be over-emphasised, particularly in the situation envisaged in which our interception problem will be enhanced by the increased distance of our forward troops from our landing grounds. No opportunity should be lost of impressing on pilots and Controllers the value to the enemy of any lax discipline on our part. Why assist him and make our own task more difficult to perform?

Ground organisation of Units

12. Without doubt, it is fully realised by Formation and Squadron Commanders that without careful ground organisation a squadron will not maintain intensive effort for any prolonged period. The organisation of most units has now been fully tried, but commanders are asked to review periodically their ground organisation, particularly during intensive operations, in units new to the desert, or where key posts are filled by new personnel, so that weaknesses may be eliminated at an early stage before the structure fails altogether.

13. The efforts of the ground personnel in previous campaigns have been beyond praise and their solid excellence can well be relied on to continue. It should however be remembered that appreciation of the work of these personnel can be repaid by keeping them in the general picture of operations and a period devoted daily to talk to ground personnel will be fully repaid in work which will assist the operational efficiency of the unit.

Exploitation of the retreat of the enemy

14. When the enemy cracks, it is likely to happen suddenly, and our land and air forces must be prepared to exploit any advantage gained to the full. In these circumstances, the work of the R.A.F. will be of paramount importance in increasing the disorganisation and demoralisation of the enemy.

The need for increasing the range of our aircraft in these circumstances will be most pressing, while supplies are being established at forward landing grounds.

In this connection, therefore, the necessity for having long range tanks, tested and ready for immediate fitment to aircraft must be appreciated by all units. This, however, is only a temporary expedient and the main factor in mobile warfare will be the ability of units to 'up sticks', move and come into full operation as soon as possible after arrival at the new location. This requirement is met only by adequate ground organisation.

Discipline

15. Good ground organisation signifies a careful plan implemented by orders fully understood and obeyed, and implies good basic discipline within the unit. The sense of discipline being the force inspiring personnel to a common end.

During movement forward into enemy territory, the need for this inspiration is greater than ever. The physical weariness of personnel, the opportunity for loot, the genuine curiosity of human nature are all factors which tend to weaken personnel in achieving their purpose. The purpose is clear and it is the duty of personnel to move without loss of time and in a proper manner.

Conclusion

16. For the battle which is now imminent, the position is definitely in favour of our forces. The prize we are fighting for is large, as the successful outcome may well alter the whole aspect of the war, while the immediate benefits can readily be envisaged.

To this end, each individual must do his utmost; it is felt that this will be automatic, provided the situation is understood. Formation and Unit Commanders must therefore accept the responsibility of making the issues known to personnel, so that their full effort will be enlisted.

(Sgd.) G. R. BEAMISH A/Odr.

for Air Vice Marshal,
Air Officer Commanding,
Royal Air Force, Western Desert.

14. October, 1942.

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APPENDIX 9

Reference:
AAHQWD/16/1/Air

12 October, 1942

B U S T E R

Memorandum by Air Officer Commanding,
Royal Air Force, WESTERN DESERT

The Army plans for the battle, codeword 'Lightfoot', are complete and after a meeting with Corps Commanders on Friday, 16 October, 1942, which I am attending, nothing remains to be done but the final concentration.

2. The coming offensive is being discussed in Cairo and elsewhere and the enemy expect it. He does not know D day however and the essential requirement, tactical surprise, can therefore be obtained. To this end secrecy is of paramount importance.

3. Army Officers are being brought fully into the picture in stages. Brigadiers, C.R.Es and main unit Commanders have already been informed. Company and Battery Commander level are being informed on 17 October. Remaining officers are being informed about the 20th.

4. On Wednesday, October 21st, all Army leave is quietly being stopped and a definite stop being put to all journeys by officers and other ranks to Cairo, Alexandria, etc. for the purpose of shopping or any other reason.

5. Both Wednesday, 21st, and Thursday, 22nd, are being devoted to the most intensive education of the troops for the Battle. All ranks are to understand that this is probably the decisive battle of the war and that when it is won and the Panzer Army destroyed it will probably be the turning point of the war. The Germans are to be hit for 6 right out of Egypt and Libya and we ourselves are to go to Tripoli and Tunis.

6. The Army have trained hard for this battle, they are on their toes and with their great preponderance of Armoured Strength, Artillery and our air superiority the result seems clear. But the enemy will not surrender and a killing match, lasting anything up to 10 days will probably result. Heavy casualties and hard fighting and then difficult exploitation.

7. The final plan for the R.A.F. day action is not yet decided. I am consulting Group and Wing Commanders on the result of the operations on the 9th. We shall have our plans ready by the 17 October. In the meantime current operations continue at normal intensity with the force training and strengthening for the day.

8. Secrecy is a more difficult matter with our Service because of the constant risk of capture. It is therefore advisable not to inform pilots of details until just before the operations commence. I therefore require the following instructions to be carefully and strictly carried out.

9. This Memorandum is Most Secret for you only until October 18 when Squadron Commander level are to be informed of the main details as given herein and augmented by operational matters which we have dealt with in discussions and knowledge of which will help the Squadron Commander's operational preparation and efficiency.

10. In discussing the battle on this occasion you are to emphasise that it is likely to be a hard gruelling and extended fight and that the Army will require every possible help that maximum and continuous air operations can give. Every R.A.F. officer and airman must do his

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very best. We should have overwhelming air forces and it is an opportunity to prove that we can do as well in the offensive as in the defensive.

11. Squadron Leader level on the 18th and from that day no Squadron Leader must cross the lines until the day the air battle starts.

No more leave is to be given from A.M. on 21st inclusive nor are any visits to be made to Alexandria, Cairo or other Delta towns or neighbourhoods from A.M. 21/10 onwards. This ban applies to all personnel of all formations forming the Western Desert Air Force. This order is to be strictly enforced as a slip up here might have serious consequences. The order applies to base units.

The reason to be given is that all personnel are required for the moon period which is normally quite intensive.

12. On the 21st, Squadron Commanders are to assemble their units and explain to them the importance and significance of the battle. Maps should be explained and from this day onwards the ordinary machinery of keeping the units informed of both land and air operations should begin to function.

13. From this day no pilots will cross the lines or risk being captured until the air battle commences. Certain units may be required for operations on these days but in that case special security briefing will be given.

14. I shall be seeing all operational units between now and 18/10 and shall give personnel a brief preliminary picture.

15. To summarise:

- 12 October. A.O.C's Memorandum to Wing Commander level.
No Wing Commander to cross lines.
- 18 October. Squadron Commanders informed.
No Squadron Commanders to cross lines.
- 20 October. All leave ceases.
- 21 October. All W.D. personnel prohibited from visiting Delta.
All personnel to be informed of coming operations.
No pilots to cross lines.

16. Secrecy must be stressed all the time and must be referred to at the end of the informative talks to units and personnel.

The cover plan is:

- (a) the present concentration is for the moon period and is not much more than normal.
- (b) there is talk of an offensive for the dark period in November.

(Sgd.) A. CONINGHAM

Air Vice Marshal,
Air Officer Commanding,
R.A.F. WESTERN DESERT.

APPENDIX 10

Date: 21 October, 1942

ADVANCED AIR HEADQUARTERS, WESTERN DESERT
OPERATION INSTRUCTION NO. 5 00,

Map Reference: 1/250,000 DABA Sheet

List of Appendices:

'A' Programme of Air Operations.

INFORMATION

1. A full scale attack on the enemy position on the EL ALAMEEN Line will be commenced by the Eighth Army on the night 23/24 October.
2. The initial task confronting the land forces is to break through the strong defensive barrier; subsequently to destroy the enemy forces holding the line and his armoured forces in rear, and achieve a decisive victory over the enemy in his present position.
3. The task is formidable and will call for maximum effort by all arms. Air Support can materially assist the land operations.
4. Preliminary air operations have been undertaken against the enemy air forces and as a result, the potential scale of enemy air attack against our land forces is expected to be materially reduced, while also allowing greater freedom of action for our air operations.

INTENTION

5. To provide maximum direct support for the operations of Eighth Army.

EXECUTION

Programme of Operations

6. The detail of air operations in direct support of the land forces is shown at Appendix 'A'.

Night Operations in Battle Area

7. Night Landmarks

Night landmarks will be available as aids to navigation in the battle area. The positions of these landmarks will be made known separately to No. 205 Group and Nos. 821 and 826 Squadrons.

8. As a guide for land forces during movement, vertical searchlights located at Map references 430902; 425904 and 426892 will be illuminated nightly for 5 minutes after every hour, quarter hour and half hour. On the night of 23/24 October, these searchlights will be diverted from the vertical and concentrated in a cone for 5 minutes over the battle area at 22.00 hours and 0055 hours (L.T.). These searchlights may also be of assistance to aircraft in fixing their positions.

Albacore-Wellington co-operation

9. Albacore aircraft will normally fly at 5-6,000 feet when illuminating over the battle area, with flares bursting at 3,000 feet approximately.

10. Wellington aircraft are required to maintain, as far as possible, a minimum height of 6,000 feet when bombing in the battle area.

11. Albacres will fire a coloured light to draw the attention of Wellington aircraft to targets of particular value. The colour of the light will be nominated by this Headquarters for each night and made known to all concerned.

(Sgd.) G. R. BEAMISH A/Cdr.

21 October, 1942

for Air Vice Marshal,
Air Officer Commanding,
Royal Air Force, Western Desert.

(84234)595

Programme of Air Operations
Night 23/24 October and a.m. 24 October

Appendix 'A' to Operation Instruction
No. 5 Oc.

Serial No.	Date	Time over Target	Unit	Type of Operation	Objective	Scale of effort	Remarks
50	Night 23/24 Oct.	At readiness throughout night	162 Sqdn.	Special Wellington Jamming operations	Battle area	4 aircraft	Aircraft to be located at L.G. 86 under control of No. 232 Wing. Separate instructions will be issued to O.C. Sqdn.
51	Night 23/24 Oct.	0100 hours	216 Sqdn.	Parachute dropping	FUKA area	4-5 aircraft	Separate instructions will be issued to O.C. Squadron.
52	Night 23/24 Oct.	Selected time	3 SAAF Wing 12 Sqdn.	Smoke laying	M.BAGUSH area HIMEIMAT area SIDI ABDEL EL RAHMAN area	4-5 aircraft	Separate instructions will be issued to O.C. No. 3 S.A.A.F. Wing.
53	Night 23/24 Oct.	Throughout night commencing 2230 hours	205 Group	Night bombing in battle area	Enemy concen- trations and artillery positions	Maximum effort as allocated by H.Q.R.A.F.M.E.	Confirmatory instructions regarding detailed locations of objectives and times of attack will be issued to No. 205 Group. The pro- portionate importance of each objective will be indicated to No. 205 Group.
54	Night 23/24 Oct.	As for Serial 53	821) 826)	Illumination and bombing of targets in battle area	As for Serial 53	In proportion to strength of Wellington Force.	As for Serial 53. Details of operations will be passed direct to Squadrons concerned.

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APPENDIX 10

Serial No.	Date	Time over Target	Unit	Type of Operation	Objective	Scale of effort	Remarks
55	Night 23/24 Oct.	To be determined by completion of bombing of artillery targets in Serial 53	73 Sqdn.	Low flying attacks	Enemy gun positions in Northern Sector	6 aircraft	Separate instructions will be issued direct to Squadrons concerned. This task will be additional to the special night fighter tasks specified in the Operational Directive issued to O.C. No. 73 Squadron.
56	24 Oct.	Throughout morning from 0700 hours	Squadrons under control 212 Group	Fighter protection in Northern Sector	To cover advance of Armoured Forces through gaps in minefields	Fighter Force as allocated for offensive patrolling to be determined by O.C. 212 Group	
57	24 Oct.	0730 hours	239 Wing Sqdn.	Fighter bombing in support of N.Z. & S.A. Divisions	Enemy forces forming up for counter attack in area Map Ref. 868283	12 aircraft	In addition to the normal bomb line which will be passed to No. 211 Group, positions of our forward troops will be indicated by green smoke. Information required from this sortie as to positions of forward troops.
58	24 Oct.	0730 hours	239 Wing Sqdn.	Fighter bombing in support of XIII Corps	Enemy forces forming up for counter attack in area Map Ref. 886270	12 aircraft	As for Serial 57

Serial No.	Date	Time over Target	Unit	Type of Operation	Objective	Scale of effort	Remarks
59	24 Oct.	0800 hours	232 Wing	Light bomber attack	Enemy concentration at Map Ref. 86783003	18 aircraft	Target will be indicated by smoke shell on E.T.A. of aircraft.
60	24 Oct.	As requested by X Corps on Air Support Link up to 0800 hours	3 S.A.A.F. Wing 12 Sqdn.	Smoke laying	Screening of 10 Corps advance	2 sorties	The employment of these aircraft will only be in emergency and must also depend on suitable weather conditions obtaining

NOTE:

1. The above programme represents pre-arranged air operations calculated to assist the operations of Eighth Army and requested by them.
2. Following completion of these sorties, air operations will be planned on information available from the Air Support Link and from reconnaissance and intelligence sources within the framework of the Combined Army - Air Force Plan.
3. While the battle remains in the EL ALAMEIN area, the continuance of Serials 53 and 54 will be required each night. Confirmatory instructions as to targets and times of attack will be issued daily to the Formations and Units concerned.

APPENDIX 11

OFFICER ONLY

PLAN FOR THE OPERATION OF WESTERN DESERT
AIR FORCES IN SUPPORT OF AN ADVANCE INTO
CYRENAICA AND TRIPOLITANIA
(CODE NAME -- 'BUSTER')

Source A.H.B./ILJ1/122/69(B)

SECTION I - INTRODUCTION

1. We are preparing to deliver a knock-out blow to the enemy in NORTH AFRICA while he is in his present positions. Plan 'BUSTER' deals with the manner in which the Western Desert air forces will be organised, disposed and maintained during the process of exploiting the defeat of the enemy in the main battle. It is issued so that recipients can examine its implications and make the necessary detailed preparations for its execution.
2. The degree to which we are able to exploit our success and occupy enemy territory will depend on our ability to destroy the retreating remnants of the enemy's forces and to advance quickly enough to forestall the arrival of any considerable armoured reinforcements through TRIPOLI.
3. If NORTH AFRICA is to be won without further deliberate operations following the defeat of the enemy in the EL ALAMEIN area, the speed of our advance must be very high. In view of the administrative problems involved in an advance at the required speed it will only be possible for a comparatively small air force to go forward in direct support of the Army.
4. The decisive defeat of the enemy's land forces does not necessarily imply any considerable reduction in the enemy air opposition. His immediate reaction to a defeat is, in fact, likely to be a strong reinforcement of his air forces in NORTH AFRICA in an endeavour to slow down our advance and so enable land reinforcements to arrive and establish themselves before we can reach the vital AGHEILA positions. Thus, we must be prepared for air opposition on a considerable scale throughout the extent of our advance, particularly in the AGHEILA area where the enemy's forces will have much greater room for deployment than we shall. The enemy's large air transport facilities and his well placed bases give his air forces exceptional flexibility. Strength can be drawn from a quietened Eastern front.
5. In order to combine compactness with ability to overcome stiff opposition, the air forces directly supporting our advance must be maintained at full strength and must have no commitments outside direct support. Further, the A.A. defences of our forward landing grounds must be formidable, if necessary at the expense of landing grounds in rear. Our advance will entail considerable responsibilities for the protection of our extended lines of communication, but these must be provided for by air forces not involved in direct pursuit of the enemy.
6. Until BENGHAZI has been captured and is in operation as a Port, it will only be possible to maintain the air forces employed in direct support of the Army, together with those squadrons required for the protection of L. of C., further West than the Tobruk area.

SECTION II - ORGANISATION OF AIR FORCES

7. In order to provide the required scale of direct support to the Army, while at the same time providing for the protection of lines of communication, our air forces will in effect be divided into two

components for the advance. For easy reference, these two components will, for the purposes of this Plan, be referred to as Force 'A' and Force 'B'.

Role of Forces

8. The role of our air forces during the advance will be:

- Force 'A' Direct support to our land forces.
- Force 'B' (a) To sustain the fighting strength of Force by the transfer of aircraft and personnel and the exchange of squadrons as required.
- (b) Protection of Lines of Communication.

Composition of Forces

9. The operational organisation and control of Force 'A' and Force 'B' is detailed at Appendix 'A'. Casualties incurred by Force 'A' in the opening battle may necessitate detailed reinforcement of the squadrons concerned and in an extreme case may require the replacement of a squadron by exchange from Force 'B'. Similar adjustment may be required at various stages of the advance.

Employment of fighter-bombers and light bombers

10. Bombing targets during the advance are, in the main, likely to be more suitable for attack by fighter-bombers than light bombers. Further, difficulties of supply will preclude the possibility of maintaining a light bomber force right forward until adequate communications have been established.

11. Our fighter-bomber force must be capable of sustained effort and provision will be made for about 100 fighter-bomber sorties daily. Nevertheless, occasions will undoubtedly arise from time to time which require the concentrated weight of light bomber attacks.

12. Light bombers will be operated through a Forward Light Bomber Control of 3 (S.A.A.F.) Wing located in the vicinity of No. 211 Group and in communication with 3 (S.A.A.F.) Wing and No. 232 Wing so that aircraft can be brought forward from either Wing or 12th Group U.S.A.A.F. as required, returning to Base on completion of each sortie.

13. Forward Light Bomber Control will consist of a senior Officer, an Intelligence Officer, a small servicing party and a W/T link with No. 3 (S.A.A.F.) Wing and No. 232 Wing.

14. Although No. 3 (S.A.A.F.) Wing will not move forward until it can do so without placing a strain on the supply organisation, it will be the aim to keep an Advanced Wing controlling two Squadrons not more than 200 miles in rear of the Forward Control.

Anti-Tank Squadrons

15. Anti-tank aircraft are not included in Force 'A' but No. 212 Group will be required to hold one Flight at readiness to operate from the forward area. No. 7 (S.A.A.F.) Squadron will be surplus to requirements and will continue training at SHANDUR after the advance begins.

16. Aircraft called forward will not normally be required to remain forward, but will return to Base on completion of the task.

Reece

17. Extensive Reece will be required throughout the advance and No. 285 Wing will be kept as near as possible to Advanced A.H.Q.W.D.

No. 40 (S.A.A.F.) Squadron will be the tactical Recce Squadron moving forward.

SECTION III - FORWARD MOVES OF AIR FORCES

18. The actual speed of advance of our land forces will depend on several variables. Preparations must be made to ensure that the supporting air forces can keep pace with the maximum rate of which the Army may be capable. An indication of what the speed might be is given at Appendix 'B'.

Special Operation

19. It is possible that conditions may be suitable for the despatch of a small land force along the Coastal Road to seize TOBRUK ahead of the main body of the pursuing forces. The rate of the advance of this special force will be largely governed by our ability to maintain air support.

20. If such a force is despatched, air support will be provided by an advanced echelon of No. 233 Wing controlling two or possibly three of its squadrons. Provision must be made for the maintenance of these air forces for a period of 5/6 days of intensive operations calling for the highest possible degree of mobility.

21. The land lines of communications of this force may be insecure. It will therefore be maintained by an echelon travelling with the land force supplemented as necessary by air transport; it will probably be necessary to make considerable use of the latter in order to obtain the required degree of mobility, and to simplify the protection of the road convoy by keeping it as small as possible.

22. The maintenance organisation will allow for 'Leapfrogging' so that air support can be continuous during the advance which may be at the rate of up to 90 miles in a day.

Forward Movement of Force 'A'

23. It is impracticable to detail the locations of air forces during the advance, but probable stages of the forward move of Force 'A' are:-

- (a) DABA area.
- (b) BAGUSH area.
- (c) SIDI BARRANI area.
- (d) GAMBUT area.
- (e) GAZALA - TMIMI - MECHILI - MARTUBA area.
- (f) MSUS.
- (g) JEDABYA.
- (h) MARBLE ARCH.
- (j) TAMET - SIRTE.
- (k) BUERAT.
- (l) MISURATA.
- (m) TRIPOLI.

24. The actual locations of units at each stage will be governed by the military situation and the availability of serviceable L.G.'s. Possible location areas during the advance to TOBRUK are given in Appendix 'C'.

Force 'B'

25. Force 'B' will move forward to the TOBRUK area approximately one stage behind Force 'A', establishing 80 and 274 Squadrons in the BAGUSH area for the protection of L's of C. from Alexandria to Barrani.

26. Probable location areas during the forward move to TOBRUK are given at Appendix 'G'.

27. Force 'B' will halt in the TOBRUK area, providing for the protection of TOBRUK and later of the coastal route to BENGHAZI by establishing a squadron at MARTUBA and a squadron at BENGHAZI.

28. When communications as far West as BENGHAZI have been organised on a sound basis, a proportion of Force 'B' will be established in the BENGHAZI area as being a more convenient location for the reserve of aircraft and personnel for Force 'A'.

Recce of Forward Landing Grounds

29. The Army is aware of the landing grounds which we may require and will be responsible for ensuring that they are cleared of mines and for their protection. In order to ensure that this Headquarters is kept informed without delay of which Landing Grounds are available, a small R.A.F. Recce Unit with a R.A.F. Armoured Car will keep as far forwards as possible and will keep in W/T touch with this Headquarters.

SECTION IV - PROTECTION OF L's OF C.

General Control

30. The control of forces detached for the protection of our Lines of Communication will be vested in No. 212 Group. This control will be exercised through Sectors established as our advance progresses.

Sector Control

31. The first Sector will be established at BAGUSH by No. 234 Wing which will control No. 80 Squadron and No. 274 Squadron detached from No. 7 (S.A.A.F.) Wing, and located at L.G. 104 and L.G. 121 respectively.

32. A second Sector will be established at TOBRUK by No. 212 Group with the assistance of No. 234 Wing. Hurricane Squadrons will be established at MARTUBA and BENGHAZI, where a third Sector will be established by No. 7 (S.A.A.F.) Wing, as soon as the military situation permits.

33. No. 233 Wing may be used to establish any Sector eventually required in TRIPOLITANIA.

SECTION V - No. 201 GROUP AND No. 205 GROUP

34. The establishment of Advanced Wings of No. 201 Group and No. 205 Group and for the American Heavy Bombardment Group as far forward as possible will be an urgent requirement.

35. Immediately the advance begins, Landing Grounds vacated in the AMIRIYA area will become available for their use. Further advance must however be governed by the rate of development of rail, sea and road communications which cannot be forecasted.

SECTION VI - ADMINISTRATION

36. The Administrative Plan for the forward movement and maintenance of Western Desert air forces is being issued separately by A.O.A.

SECTION VII - SIGNALS

37. The Signals Plan for the forward movement and operation of Western Desert air forces is being issued separately by C.S.O.

Adv. A.H.Q. Western Desert.

Near BURG EL ARAB.

(Sgd.) S. H. V. HARRIS G/Capt.

26 September, 1942.

for Air Vice Marshal,
Air Officer Commanding,
Royal Air Force, Western Desert.

Ref: A.A.H.Q.W.D./46/Air.

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APPENDIX 12

ADVANCED AIR HEADQUARTERS, WESTERN DESERT
OPERATION INSTRUCTION NO. 1 Oc.

Issued in conjunction with
Plan 'BUSTER'

Map Reference: 1: 500,000 CAIRO)
MATRUH) Sheets

Red and Purple Grids

List of Appendices:

'A' - Programme for Air Operations

INFORMATION

1. When active operations commence, it is a reasonable assumption that the enemy will endeavour to challenge the degree of local air superiority held previously by our air forces in this theatre of operations.
2. There is evidence to indicate that the enemy air forces, and in particular, the German Fighter Force, may be augmented in the near future both in quantity and quality.
3. Simultaneously, our air forces are being strengthened, and while we will be in a position to meet any challenge made by the enemy air forces, our air effort in support of land operations would be reduced while repelling such a challenge. Consequently, prior to any offensive operations by our land forces, it will be desirable to concentrate our available bomber effort for the sustained attack of enemy air bases with the object of destroying material and reducing the potential offensive power of the enemy air forces.
4. The main enemy fighter forces are generally located within easy range of our short range aircraft, permitting escorted bomber attacks; the main enemy bomber base is within range of night bomber aircraft.

All aerodromes can readily be located by bomber aircraft at night.

AIM

5. To weaken the enemy air forces.

EXECUTION

6. Models of Aerodromes

Models of the main enemy aerodromes, showing normal dispersal areas are being constructed and will be distributed in the near future to the formations and units concerned.

7. Date and Programme of Operations

The detailed programme of air operations, covering the period of attack is given at Appendix 'A'.

Variables of weather and the disposition of the enemy air forces necessitate the operational programme being flexible. Any alteration to the programme will be made known to the formations and units concerned as specified in Paragraph 9.

8. The date of commencement of the operations scheduled will be notified separately.

INTER-COMMUNICATION

9. Confirmatory instructions concerning the operations of No. 205 Group will be passed to Controller, H.Q.R.A.F.M.E. for onward relay to No. 205 Group by 1600 hours daily.

Formations directly under this Headquarters, and Albacore Squadrons will receive confirmatory instructions and amplifying detail direct from Advanced A.H.Q.W.D. to the Wing or Squadrons concerned respectively by 1900 hours daily.

10. ACKNOWLEDGE by signal.

(Sgd.) G. R. BEAMISH A/Cdr.

Air Vice Marshal,
Air Officer Commanding,
Royal Air Force, Western Desert.

Ref: A.A.H.Q.W.D./16/1/Air.

PROVISIONAL PROGRAMME OF AIR OPERATIONS

APPENDIX 'A'
TO ADV. A.H.Q.W.D.
OPERATION INSTRUCTION 1 Oc.

D Minus 4 to D Day.

Serial No.	Operation	Date and time of Attack	Units to be employed	Scale of Attack	Remarks
1	Night Bombing Attack L.G. 13	Night D minus 4/D minus 3 2130 to 2230 hrs.	Nos. 12) Sqdns. 24)	18 aircraft	All landing ground targets are subject to confirmation by Recce. on the day of the attack. Albacore aircraft to carry an adjusted load of bombs and flares.
2	-ditto- L.G. 104 L.G. 20 50% effort on each L.G.	Night D minus 4/D minus 3 2300 to 0030 hrs.	Wellingtons No. 205 Group Albacores No. 201 Group	Wellington effort allocated by H.Q.R.A.F. M.E. Albacore effort in proportion to provide illumination	
3	Night Bombing Attack L.G. 21	Night D minus 3/D minus 2 2200 to 2300 hrs.	Nos. 12) Sqdns. 24)	18 aircraft	Delay action bombs or spikes are not to be used unless specifically stated. Bomb load to be normal for the attack of dispersed aircraft at aerodromes.
4	-ditto- L.G. 21	Night D minus 3/D minus 2 2330 to 0130 hrs.	Wellingtons No. 205 Group Albacores No. 201 Group	As for Serial 2	
5	-ditto- L.G. 17 L.G. 18	Night D minus 2/D minus 1 0130 to 0230 hrs.	Nos. 12) Sqdns. 24)	18 aircraft	High proportion of delay action bombs and spikes.
6	-ditto- L.G. 17	Night D minus 2/D minus 1 0300 to 0430 hrs.	Wellingtons No. 205 Group Albacores No. 201 Group	As for Serial 2	
7	-ditto- L.G. 21	Night D minus 1/D Day 0430 to 0530 hrs.	Nos. 12) Sqdns. 24)	12 aircraft	High proportion of delay action bombs and spikes.
8	-ditto- L.G. 104 L.G. 20 50% on each L.G.	Night D minus 1/D Day 0100 to 0300 hrs.	Wellingtons No. 205 Group Albacores No. 201 Group	As for Serial 2	

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APPENDIX 12

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Serial No.	Operation	Date and time of Attack	Units to be employed	Scale of Attack	Remarks
9	Escorted day bombing raid L.G. 21	D Day 0900 hours.	No. 223 Squadron) 12th Bombardment Group) Escort No. 233 Wing supported by No. 57 Fighter Wing. No. 244 Wing to provide covering fighter force operating independently.	24 light bomber aircraft	
10	-ditto- L.G. 104 L.G. 20	D Day 0900 hours.	Nos. 12, 24, 21 Squadrons Escort No. 233 Wing supported by No. 57 Fighter Wing. No. 244 Wing to provide covering fighter force.	24 light bomber aircraft	
11	-ditto- L.G. 17	D Day 1300 hours.	No. 12 Bombardment Group) No. 55 Squadron) Escort No. 233 Wing No. 57 Fighter Wing No. 244 Wing to provide diversionary fighter cover over DABA aerodromes.	24 light bomber aircraft	

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NOTE 1: Depending on the degree of success obtained from operations, Serial Nos. 9 and 10 may be repeated during the afternoon of D Day.

NOTE 2: In addition to this programme, a bomber force will be retained to answer support calls.

NOTE 3: Separate Operation Instructions will be issued concerning the employment of air forces on night D/D plus one.

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APPENDIX 13

ORDER OF BATTLE IN THE MIDDLE EAST COMMAND AS AT 27 OCTOBER, 1942

UNIT	BASE	ADV.	AIRCRAFT	I.E.	I.R.	FUNCTION	REMARKS
<u>HEADQUARTERS, ROYAL AIR FORCE, MIDDLE EAST - CAIRO</u>							
2 P.R.U.	(L.G. 219 (Kilo. 8, (Suez Road Kabrit		Spitfire Hurricane Beaufighter Wellington IC	18	3	Photo/R.) Training)	Admin. Control:- A.H.Q. Egypt Detachments in the Western Desert and Levant. (Parachute School). Admin. Control:- No. 205 Group
4 M.E.T.S.							Admin. Control:- A.H.Q. Levant.
60 Sqdn. Det. SAAF. 74 O.T.U. 162 Sqdn.	Beirut Rayak Bilbeis		Maryland Hurricane/Harvard (Wellington IC. (Lodestar (Transport) Gladiator I/II	8	2	P/S O.T.U.)Signals)Bombing also)carried out Met.	Admin. Control:- A.H.Q. Levant. Admin. Control:- A.H.Q. Levant.
1411 Met. Flight	Almaza						Admin. Control:- A.H.Q. Egypt. Admin. Control:- A.H.Q. Egypt.
<u>216 TRANSPORT AND FERRY GROUP</u>	<u>HELIOPOLIS</u>	<u>L.G. 29 (AMIRIYA)</u>					Admin. Control:- A.H.Q. Egypt.
117 Sqdn. 173 Sqdn. 216 Sqdn. 267 Sqdn.	Bilbeis Heliopolis Kharka Bilbeis East	Amiriya Amiriya Amiriya	Hudson VI Lodestar/Various Lodestar/Hudson/Bombay Lodestar/Hudson/VI/DO/III			Transport) Communication) Transport) transport)	Admin. Control:- A.H.Q. Egypt.
<u>283 WING</u>	<u>ASMARA</u>					<u>TRANSPORT</u>	Admin. Control:- 203 Group
163 Sqdn.	Asmara		Hudson VI			Transport	Admin. Control:- 203 Group
<u>203 GROUP</u>	<u>KHARTOUM</u>						<u>Detachment at Asmara</u>
15 Sqdn. Det. SAAF. 71 O.T.U. 1412 Met. Flight Comm. Flight	Kufra Carthago Khartoum Khartoum		Blenheim V (Bisley) Hurricane/Tomahawk/Various Gladiator I/II Bombay/Various			Light Bomber O.T.U. Met. Communication	

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UNIT	BASE	ADV.	AIRCRAFT	I.E.	I.R.	FUNCTION	REMARKS
<u>206 GROUP</u>	<u>HELIOPOLIS</u>		<u>AIR HEADQUARTERS, EGYPT - CAIRO</u>				<u>Maintenance and Supply of Aircraft.</u>
1 M.E.T.S.	Ballah		Various (Maryland, Blenheim IV, (Fulmar,) (Hurricane, Gladiator,) (Gordon.)			Training	Conversion courses.
A.D.C.U.						Calibration Unit.	(Searchlights, A.M.E.S., Balloons, etc.)
<u>249 WING (CADRE)</u>						<u>TRANSPORT</u>	Re-forming.
<u>250 WING</u>	<u>ISMAILIA</u>					<u>DEFENSIVE FIGHTER</u>	(Detachment at CHARIS)
89 Sqdn.	Abu Suair N.		Beaufighter F.	16	5	Night Fighter	(Long-range). Detachment at Malta.
94 Sqdn.	Port Said		(Hurricane IIC. (Spitfire V.B./V.C.	18 4	3))	S.E. Fighter	Detachment at Shandur.
<u>252 WING</u>	<u>NEX</u>					<u>DEFENSIVE FIGHTER</u>	
46 Sqdn.	Edu		Beaufighter F.	16	5	Night Fighter	
417 Sqdn. R.C.A.F.	Edu		(Hurricane IIC. (Spitfire V.	18 4	5))	S.E. Fighter	Detachment at Heliopolis.
<u>234 WING</u>	<u>EL RUS</u>					<u>DEFENSIVE FIGHTER</u>	(Complete control:- A.H.Q. Egypt)
889 Sqdn. F.A.A.	Burghada		Fulmar II/Hurricane IIC.			Fighter Protection	Control:- C.-in-C. Med. through A.H.Q. Egypt. Operational Control:- 234 Wing.

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UNIT	BASE	ADV.	AIRCRAFT	I.E.	I.R.	FUNCTION	REMARKS
<u>260 WING</u>	<u>ISMAILIA</u>					<u>BALLOON</u>	
971 Sqn.	Alexandria					Balloon	
974 Sqn.	Port Tewfiq					"	
975 Sqn.	Port Said					"	
976 Sqn.	Kasfareat					"	
977 Sqn.	Kantara					"	
<u>276 WING</u>	<u>SUEZ ROAD</u>					<u>SIGNALS</u>	
<u>AIR HEADQUARTERS, WESTERN DESERT. REAR:- L.G. 100 - MADI NATRUN. ADVANCED:- M.R. 47518, BURG EL ARAB AREA</u>							
Comm. Unit W.D. Air Transport Force	L.G. 100 L.G. 29	L.G. 171	Various			Communication	(Non-operational aircraft). Advance unit of 216 Transport Group. (Moving from Almaza to L.G. 29 - 20/10/42).
Air Transport Centre	L.G. 90	L.G. 90				Loading and unloading freight.	
No. 1 Air Amb. Unit	L.G. 90		D.H. 86			Ambulance	Admin. Control:- H.Q. M.E.
<u>211 GROUP</u>	<u>L.G. 91</u>						<u>Only Fighter Wings and Squadrons operationally controlled by No. 211 Group.</u> (Close support - TK-B). Administra- tive control (" " " ") A.H.Q. W.D. N.B.:- 57 Fighter Group and 64/65 Sqdns. U.S.A.A.F. operationally controlled by 211 Group.
6 Sqn.	L.G. 203	L.G. 89	Hurricane IID.	18	3	S.E. Fighter	
7 Sqn. S.A.A.F.	L.G. 203	L.G. 89	Hurricane IID.	8	3	S.E. Fighter	
<u>233 WING</u>	<u>L.G. 97</u>					<u>OFFENSIVE FIGHTER</u>	
2 Sqn. S.A.A.F.	L.G. 97		Kittyhawk I/II/III	18	3	S.E. Fighter	
4 Sqn. S.A.A.F.	L.G. 97		" " "	18	3	"	
5 Sqn. S.A.A.F.	L.G. 97		Tomahawk	18	3	"	
260 Sqn.	L.G. 97		Kittyhawk I/II/III	18	3	"	

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APPENDIX 13

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UNIT	BASE	ADV.	AIRCRAFT	I.E.	I.R.	FUNCTION	REMARKS
<u>239 WING</u>	<u>L.G. 91</u>					<u>OFFENSIVE FIGHTER</u>	(66 Squadron U.S.A.A.F., operationally controlled by 239 Wing).
3 Sqn. R.A.A.F.	L.G. 175		Kittyhawk I/II/III.	18	3	S.E. Fighter	
112 Sqn.	L.G. 91		"	18	3	"	
250 Sqn.	L.G. 91		"	18	3	"	
450 Sqn. R.A.A.F.	L.G. 175		"	18	3	"	
<u>244 WING</u>	<u>L.G. 92</u>					<u>OFFENSIVE FIGHTER</u>	(Wing and Squadrons V.H.F.)
73 Sqn.	L.G. 89		Hurricane IIC.	18	3	S.E. Fighter	Used at night also.
92 Sqn.	L.G. 92		Spitfire V	18	3	"	
145 Sqn.	L.G. 92		"	18	3	"	
601 Sqn.	L.G. 92		"	18	3	"	
<u>212 GROUP</u>	<u>M.R. 468898.</u>					<u>FIGHTER</u>	(Only Fighter Wings and Squadrons operationally controlled by 212 Group)
<u>7 S.A.A.F. WING</u>	<u>(Near L.G. 172)</u>						
	<u>L.G. 37</u>						
80 Sqn.	L.G. 37		Hurricane IIC.	18	3	S.E. Fighter	
127 Sqn.	L.G. 37		Hurricane IIB.	18	3	"	
274 Sqn.	L.G. 37		Hurricane IIE.	18	3	"	
335 (Hellenic) Sqn.	L.G. 37		Hurricane IIA.	18	3	"	
<u>243 WING</u>	<u>L.G. 172</u>					<u>OFFENSIVE FIGHTER</u>	
1 Sqn. S.A.A.F.	L.G. 172		Hurricane IIC.	18	3	S.E. Fighter	Re-arming Spitfires.
33 Sqn.	L.G. 172		Hurricane IIC.	18	3	"	
215 Sqn.	L.G. 172		Hurricane IIC.	18	3	"	
238 Sqn.	L.G. 172		Hurricane IIC.	18	3	"	
<u>285 WING</u>	<u>L.G. 28</u>					<u>RECONNAISSANCE</u>	
2 P.R.U. Det.	L.G. 28		Various			Photo./Recce.	
40 Sqn. S.A.A.F.	L.G. 201	L.G. 39	(Hurricane I. Hurricane II A-B.	18	6)	Army Co-operation.	

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UNIT	BASE	ADV.	AIRCRAFT	I.E.	I.R.	FUNCTION	REMARKS
60 Sqn. S.A.A.F.	L.G. 201	L.G. 201	Baltimore			Re-arming	(Detachment Flight at Beirut. (Operational control:- H.Q. M.E.
208 Sqn.	L.G. 202	L.G. 39	Hurricane IIA-B	18	6	Army Co-operation With 13th Corps. Strat/Recce.	
1437 Strat/R Flight	L.G. 201	L.G. 28	Baltimore I/II/III	8	3		One non-operational Maryland also on Mayfly.
<u>3 WING S.A.A.F.</u>	<u>L.G. 207</u>	<u>L.G. 99</u>				<u>LIGHT BOMBER</u>	
12 Sqn. S.A.A.F.	L.G. 99	L.G. 99	Boston III.	24		Light Bomber	
21 Sqn. S.A.A.F.	L.G. 98	L.G. 98	Baltimore I/II/III	24		"	
24 Sqn. S.A.A.F.	L.G. 99	L.G. 99	Boston III	24		"	
<u>232 WING</u>	<u>SUEZ ROAD L.G. 86</u>	<u>L.G. 86 (M.R.508905)</u>				<u>LIGHT BOMBER</u>	<u>(12 M.B. Group and 82, 83, 434 Sqdns. USAAF, operationally controlled by 232 Wing.</u>
55 Sqn.	L.G. 86	L.G. 86	Baltimore I/II/III	24		Light Bomber	
223 Sqn.	L.G. 86	L.G. 86	"	24		"	
<u>240 WING</u>						<u>LIGHT BOMBER</u>	<u>Reduced to Cadre.</u>
<u>S.A.A.F. BASE DEFOT</u>	<u>ALMAZA</u>		<u>201 GROUP, ALEXANDRIA</u>				
1 G.R.U.	Ismailia		Wellington D.W.1.	4	2	G/R	Torpedoes.
5 M.E.T.S.	Shallufa		Beaufort/Wellington (T-B)			Training	Detachment at Kufra, 203 Group
15 Sqn. S.A.A.F.	Mariut		Blenheim V (Bisley)	24	8	Light Bomber	Detachment at St. Jean with
47 Sqn.	Shandur		Beaufort I	16	5	G/R	Wellesleys.
203 Sqn.	L.G. 227		(Blenheim IV/V (Baltimore I/II/III (Maryland			G/R	Detachment at Gianacelis (247 Wing).
230 Sqn.	Aboukir		(Sunderland (DO.22			G/R	Detachment at Alexandria (Ras el Tin).

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UNIT	BASE	ADV.	AIRCRAFT	I.E.	I.R.	FUNCTION	REMARKS
252 Sqn.	Edou		Beaufighter	16	5	Fighter	(Day-Coastal)
272 Sqn.	Edou.		"	16	5	"	"
459 Sqn. R.A.A.F.	L.G. 208		Hudson III	16	5	G/R	Detachment at St. Jean and at Aden
701 Sqn. F.A.A.	Beirut		Halrus			G/R	(Control:- C.-in-C. Med. through (201 Group. (Detachment at Latakia.
Sea Rescue Flight.	L.G. 206		(Wellington IC. (Airchild Ambulance	4	2)	Sea Rescue	
Comm. Flight	Marfut		(Various Various)	Communication	(201 Group).
<u>235 WING</u>	<u>ST. JEAN</u>	<u>(ADV.) BEIRUT</u>				<u>G/R</u>	<u>NAVAL CO-OPERATION</u>
13 (Hellenic) Sqn.	(Gaza East, (L.G. 376		Blenheim IV. Blenheim V.	16	5)	G/R and A/S	(Detachment at Latakia). Detachment at St. Jean.
47 Sqn. Det. (Air Echelon)	Shallufa		Wellesley			G/R	
459 Sqn. Det. R.A.A.F.	St. Jean		Hudson III	16	5	G/R	
<u>F.A.A. SQUADRONS</u>							
815 Sqn.	Dekheila		Swordfish			G/R	(Control:- C.-in-C. Med. (through 201 Group
821 Sqn.	Dekheila		Albacore			Shipping Strike	
826 Sqn.	El Birwa		Albacore			Shipping Strike	
<u>247 WING</u>	<u>GIANACLIS</u>					<u>NAVAL CO-OPERATION</u>	
203 Sqn. Det.	Gianaclics		(Maryland, Baltimore I/II/III-) (Blenheim IV/V)			G/R	
221 Sqn. Det.	Gianaclics		Wellingtons			T/B	
<u>248 WING</u>	<u>SHALLUFA</u>					<u>NAVAL CO-OPERATION</u>	
38 Sqn.			Wellington T-B	16	5)	Medium and	Detachment at Gianaclics. Some a/c shown on Malta Mayfly. Det. & Ground Party at Shandur.
39 Sqn.	Shallufa		Wellington IC. Beaufort I/II			Torpedo Bomber Torpedo Bomber	

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UNIT	BASE	ADV.	AIRCRAFT	I.E.	I.R.	FUNCTION	REMARKS
221 Sqdn.	L.G. 211		(Wellington VIII Wellington IC	16	5)	A.S.V./T.B.	Detachment at Giaraclis (247 Wing)
458 Sqdn. R.A.A.F.	L.G. 211		Wellington VIII	8	3	Medium Bomber.	
<u>205 GROUP, ISMAILIA</u>							
2 M.E.T.S.	Aqir		Wellington IC/II/Halifax II			Training	(Bomber Refresher). Non-effective at present.
Comm. Flight Special Liberator Flight	Ismailia Fayid		Maryland/Various Liberator II			G/R Special Duties	(See Mayfly).
<u>231 WING (MAIN H.Q.)</u>							
37 Sqdn.	Abu Suair		Wellington IC	20		MEDIUM BOMBER Medium Bomber	
70 Sqdn.	Abu Suair		Wellington IC	20		Medium Bomber	
<u>249 WING (CADRE)</u>							
	c/o H.Q. M.E.					TRANSPORT WING	(CADRE).
<u>236 WING</u>							
	L.G. 237		Wellington IC			MEDIUM BOMBER	} Base Detachment at Kabrit. }
108 Sqdn.	L.G. 237		Wellington IC	20		Medium Bomber	
148 Sqdn.	L.G. 237		Wellington IC	20		Medium Bomber	
<u>238 WING</u>							
	KABRIT					MEDIUM BOMBER	
40 Sqdn.	Kabrit		Wellington IC	20		Medium Bomber	
104 Sqdn.	Kabrit	L.G. 235	Wellington II	20		Medium Bomber	
<u>242 WING</u>							
	AQIR		LIBERATOR II			HEAVY BOMBER	Total operational strength on Wing:- 3 aircraft.
147 Sqdn.	Aqir		-			Transport	Serviced by 147 Squadron.
160 Sqdn.	Aqir		Liberator II			Heavy Bomber	

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UNIT	BASE	ADV.	AIRCRAFT	I.E.	I.R.	FUNCTION	REMARKS
<u>205 GROUP (Contd.)</u>							
<u>245 WING</u>	<u>FAYID</u>					<u>MEDIUM BOMBER</u>	<u>Will be Heavy Bomber Wing shortly.</u>
14 Sqn.	Rayid		(Marauder Boston III)	20		Medium Bomber per S.D. 225.)	Training at present. Re-arming Marauders for shipping strikes.
227 Sqn. Det. 462 Sqn.	Rayid L.G. 224 Rayid L.G. 224		Halifax II			Heavy Bomber	Ground Party only.
			<u>AIR HEADQUARTERS, IRAQ. HABBANIYAH</u>				
<u>IRAQ</u>							
<u>218 GROUP</u>	<u>HABBANIYAH</u>						Operational Control:- H.Q. M.E.
<u>237 WING</u>	<u>MOSUL</u>						
52 Sqn. 237 (Rhodesian) Sqn. 244 Sqn.	Mosul Kermanshah Sharjah		Blenheim IV Hurricane I (Blenheim IV/V (Vincent ?)			Light Bomber Army Co-operation Light Bomber	Re-equipping
1415 Met. Flight	Habbaniyah		?			Met.	Formed 18.7.42. (No aircraft specified). (See Mayfly).
'X' Flight Comm. Flight	? Habbaniyah		Catalina Various			Flying Boat Communication.	
<u>214 GROUP</u>	<u>KIRKUK</u>						
<u>215 GROUP</u>	<u>BASRAH</u>						
<u>IRAN</u>							
<u>A.H.Q. DEEFORCE (NUCLEUS)</u>	<u>TEHERAN</u>						<u>Forming</u>
74 Sqn. 125 Sqn. 454 Sqn. R.A.A.F. 1434 Flight	Teheran Teheran Teheran Teheran		None yet. None yet. None yet. Blenheim IV.			S.E. Fighter S.E. Fighter Light Bomber Communication	(Move to Teheran in process) Warning order issued for move to Levant.

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UNIT	BASE	ADV.	AIRCRAFT	FUNCTION	REMARKS
<u>275 WING</u>	<u>ABADAN</u>			<u>BALLOONS</u>	
980 Sqdn.	Abadan			Balloons	
981 Sqdn.	Shaibah			"	
982 Sqdn.	Ahwaz			"	Forming.
<u>217 (PERSIAN GROUP)</u>	<u>HAMADAN</u>		<u>Vincent. (See Mayfly)</u>		Forming. Awaiting personnel from U.K.
<u>HEADQUARTERS, BRITISH FORCES, ADEN. STEAMER POINT</u>					
8 Sqdn.	Khormaksar		Blenheim I/IV/V	G/R	
73 Q.T.U.	Aden		None	Q.T.U.	(Arrangements for move to East Africa in process as at 27.10.42. (Nucleus). No aircraft on Mayfly.
459 Sqdn.	Aden (Khormaksar)		Hudson III	G/R	
436 Flight	Aden			Balloons	
Comm. Flight	Khormaksar (Aden)		Blenheim/Vincent/Various	Communication	
Defence Flight	Khormaksar (Aden)		Hurricanes II/Harvard II	S.E. Fighters	
Station Flight	Khormaksar (Aden)		Harvard II	Station Flight	
<u>AIR HEADQUARTERS, LEVANT. JERUSALEM</u>					
2 P.R.U. Levant Det.	Beirut		Hurricane I	P.R.U.	(Servicing 1st Prov. Bombardment Group Squadrons. (Operational control:- (U.S.A.A.F.
134 Sqdn.	Lydda		None	S.E. Fighter	
1413 Met. Flight	Ramleh		Gladiator	Met.	(Forming. Warning order issued for move to Teheran ((Iran) E.T.D. 1st November, 1942.
1438 Flight	Aleppo		Blenheim IV.	Strat/R.	
Comm. Flight	Lydda		Various	Communication	
Greek F.T.S.	Gaza		Hurricane/Various	Training	In Mayfly, but not in S.D. 225.

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UNIT	BASE	ADV.	AIRCRAFT	I.E.	I.R.	FUNCTION	REMARKS
<u>213 GROUP</u>	<u>BEIRUT</u>						
<u>241 WING</u>	<u>BEIRUT</u>						
451 Sqn.	Estabel		Hurricane I	18	6	Army Co-operation	Detachments at Lakatomia, El Bassa and Saza.
<u>259 WING</u>	<u>NICOSIA</u>					<u>DEFENSIVE FIGHTER</u>	
603 Sqn.	Nicosia (Cyprus)					S.E. Fighter	
<u>263 WING</u>	<u>RAMLEH</u>					<u>DEFENSIVE FIGHTER</u>	
972 Sqn.	Haifa					Balloon	
973 Sqn.	Beirut					Balloon	Detachment at Tripoli.
			<u>207 GROUP, NAIROBI</u>				
16 Sqn. S.A.A.F.	Majunga (Madagascar)		Beaufort/Maryland			Light Bomber	Detachment at Kilifi (Advance party only).
34 Flight	Dar es Salaam		Ansons			Coastal Reconnaissance	
35 Flight	Kilifi		Blenheim IV.			" "	
70 Q.T.U.	Nakuru		Blenheim I/IV/V/Various			O.T.U.	
72 Q.T.U.	Nanyuki		" " " " "			O.T.U.	
209 Sqn.	Kapiru		Catalina			Flying Boat	Admin. Control:- 207 Group. Opl. Control: 222 Group Ceylon.
209 Sqn. Detachments	(Pananzi, Kisumu, Mayette Island Nairobi)		"			" "	" "
805 Sqn.			None at present			Fighter Protection	Control:- C.-in-C. Indian Ocean through 207 Group.
1414 Flight	Eastleigh		Gladiator			Met.	
1433 Flight	Ivato (Madagascar)		Lysander			Reconnaissance	On strength of M.E. Command:- 11.4.42.
Comm. Flight	Eastleigh		D.H. Rapides/Various			Communication	Detachment at Port Reitz.
321 Sqn.			Catalina			Flying Boat	(See Mayfly only).

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UNIT	BASE	ADV.	AIRCRAFT	FUNCTION	REMARKS
<u>246 WING</u>	<u>FORT REITZ</u>			<u>DEFENSIVE FIGHTER</u>	
41 'A' Flight S.A.A.F. 41 'B' Flight S.A.A.F. 41 'C' Flight S.A.A.F. 259 Sqn.	Giggiga) Gilgil) Gilgil) Port Reitz		Hartbees and Hurricane IIB. None	Fighters	Re-equipping Hurricanes Ground Party only. On strength of M.E. Command: 30.8.42.

UNIT	BASE	AIRCRAFT	FUNCTION	TOTAL NUMBER OF AIRCRAFT ON STRENGTH	REMARKS
		<u>AIR HEADQUARTERS, MALTA. VALETTA</u>			
39 Sqn.		Beaufort	Torpedo Bomber	2	(See Mayfly). 201 Group only in S.D.225 until 13/11
69 Sqn.	Luqa	(Wellington (Baltimore	G/R G/R	6 5	
69 Sqn. Det.	Luqa	Spitfire	P.R.U.	6	
89 Sqn. Det.	Luqa	Beaufighter	Night Fighter	8	
126 Sqn.	Luqa	Spitfire	S.E. Fighter	16	
185 Sqn.	Hal Far	Spitfire	S.E. Fighter	16	
227 Sqn.	Luqa	Beaufighter	(Day Fighter and) (Shipping Strike)	8	Air Party only. (Ground Party:- 205 Group).
229 Sqn.	Takali	(Hurricane IIC	S.E. Fighter	9	
249 Sqn.	Takali	(Spitfire	S.E. Fighter	16	
1435 Flight	Luqa	Spitfire	S.E. Fighter	16	
Kalafra		Catalina	Flying Boat	1	At M.U.
Station Flight	Halfar	?	Station Flight		
			<u>A.H.Q. MALTA</u>		
<u>F.A.A. SQUADRONS</u>					
828 Sqn. 'Y' Flight	Hal Far	Albacore	Shipping Strike	3	(Control:- C.-in-C. Med. (through A.H.Q. MALTA.
830 Sqn. 'X' Flight	Hal Far	Swordfish	Shipping Strike	2	

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APPENDIX 13

U.S.A.A.F. UNITS IN THE MIDDLE EAST

HEADQUARTERS, U.S. ARMY MIDDLE EAST AIR FORCE - CAIRO (ALSO AIR SERVICE COMMAND)

UNIT	BASE	AW.	AIRCRAFT	FUNCTION	REMARKS
<u>1st Prov. BOMBARDMENT GROUP</u>	<u>LYDDA</u>			<u>HEAVY BOMBER</u>	
Hal. Sqdn. 9 Sqdn.	Lydda Lydda		Liberator (B.24) Fortress (B.17)	Heavy Bomber) Heavy Bomber)	Serviced by 134 Sqdn. R.A.F.
<u>98 H.B. GROUP</u>	<u>RAMAT DAVID</u>			<u>HEAVY BOMBER</u>	
343 (B) Sqdn. (Air Echelon)	St. Jean		Liberator (B.24/D)	Heavy Bomber	
344 (B) Sqdn. (Air Echelon)	" "		"	" "	
345 (B) Sqdn. (Air Echelon)	Ramat David		"	" "	
415 (B) Sqdn. (Air Echelon)	" "		"	" "	
<u>12 H.S. GROUP</u>	<u>DEVERSOIR</u>	<u>L.G. 88</u>		<u>MEDIUM BOMBER</u>	
81 (B) Sqdn. (Air Echelon)	Deversoir		Mitchell (B.25C/D)	Medium Bomber	
82 (B) Sqdn. (Air Echelon)	"	L.G. 88	"	" ")	Operationally controlled by 232 Wing, R.A.F.
83 (B) Sqdn. (Air Echelon)	"	"	"	" ")	
434 (B) Sqdn. (Air Echelon)	"	"	"	" ")	
<u>57 FIGHTER GROUP</u>	<u>L.G. 174</u>	<u>(Det. MARIUT (H.Q.))</u>		<u>FIGHTER</u>	<u>Operationally controlled by 211 Group, R.A.F.</u>
64 (F) Sqdn. (Air Echelon)	L.G. 174		Warhawk (P.40F/K)	Fighter) Operationally controlled) by 211 Group, R.A.F.) Operationally controlled by 239 Wing - 211 Group.
65 (F) Sqdn. (Air Echelon)	"		" (P.40 F)	"	
66 (F) Sqdn. (Air Echelon)	L.G. 91		" "	"	

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APPENDIX 14.

ORDER OF BATTLE - WESTERN DESERT AIR FORCE

23 January 1943 (Fall of Tripoli)

(Authority A.H.B./IIJ15/4)

Fighters:

244 Wing 5 Squadrons Spitfires.
(Increased to 5½ squadrons on 1 March
with addition of Polish Combat Team).

Fighter/bombers:

239 Wing }
7 (S.A.A.F.) Wing } 16 Squadrons Kittyhawks and Warhawks.
57th U.S. Group }
79th U.S. Group }

Light Bombers:

232 Wing }
3 (S.A.A.F.) Wing } 3 Squadrons Baltimores; 2 Squadrons Bostons.

Medium Bombers:

12th U.S. Group 2 Squadrons Mitchells.
(Later increased to 4 squadrons with
addition of 340th U.S. Group).

Night Bombers:

205 Group 4 Squadrons Wellingtons; 1 Squadron Halifaxes.

Reconnaissance:

285 Wing 1 Tac/R Squadron; 1 Strat/R Flight;
Photo Recce Detachment.

Night Fighters:

73 Squadron Hurricanes.

Tank-busters:

6 Squadron Hurricane IID's.

Night Reconnaissance:

Detachment 821 Squadron (Fleet Air Arm) ... Albatrosses.

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APPENDIX 15

LOCATIONS OF UNITS - WESTERN DESERT

23 February 1943

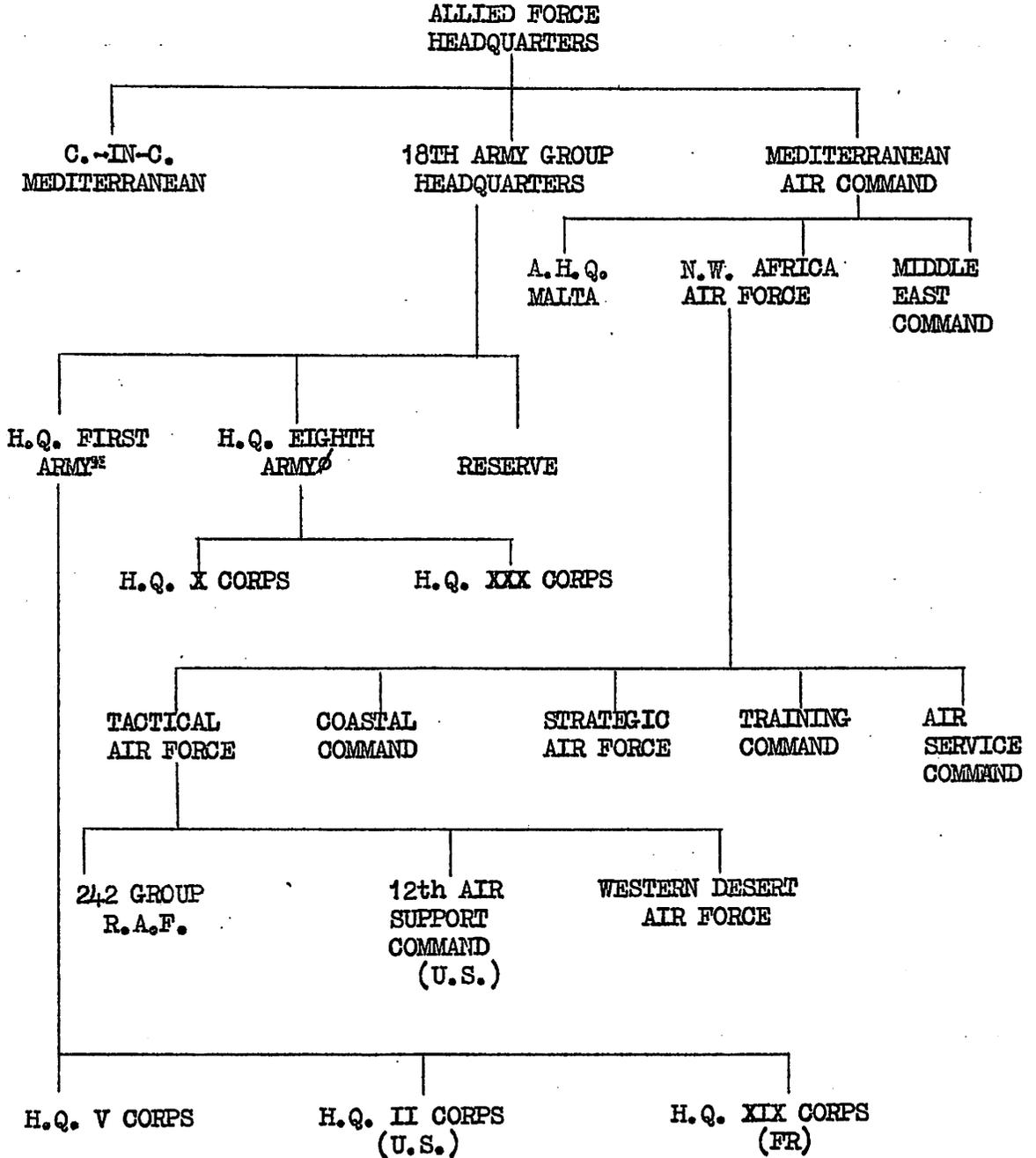
(Authority A.H.B./11J15/4)

Unit	Advance	Base	Remarks
Adv. A.H.Q./W.D.	Nr. Tripoli (R)L.5363		Visiting aircraft Castel Benito.
Rear A.H.Q./W.D.		Nr. Tripoli (R)L.5761	Visiting aircraft Castel Benito.
W.D. Comm. Unit.	Castel Benito.		
249 Wing	Marble Arch.		Previously known as
Adv. 117 Sqn.	" "		Adv. 216 Group.
Adv. 216 Sqn.	" "		
3 (S.A.A.F.) Wing.	Sertan		3 Wing Forward
12 Sqn.	Sertan West. R.7795		Bomber Control at
21 Sqn.	Sertan Main. R.8389		Castel Benito.
24 Sqn.	Sertan North. R.8095		
232 Wing	En route Misurata area		E.T.A. 4 March 1943
55 Sqn.	" " " "		
223 Sqn.	" " " "		
12th U.S. Group	Castel Benito		81st & 82nd Sqdns.
81st Sqn.	" "		crews and aircraft
82nd Sqn.	" "		located Algiers.
83rd Sqn.	" "		
434th Sqn.	" "		
211 Group	Medenine area (Y)E.7473		1A ⁺ Sector located (Y)E.6485.
239 Wing	El Assa.		
3 Sqn.	" "		
112 Sqn.	" "		
450 Sqn.	" "		
250 Sqn.	" "		
260 Sqn.	" "		
244 Wing	Hasbub Main. (Y)E.7475		
1 (S.A.) Sqn.	" " "		
92 Sqn.	" " "		
145 Sqn.	" " "		
601 Sqn.	" " "		
6 Sqn.	En route		
57th U.S. Group	Zuara		
64th Sqn.	"		
65th Sqn.	"		
66th Sqn.	"		
7 (S.A.A.F.) Wing	Neffatia. (Z)A.0256		
2 Sqn.	" "		
4 Sqn.	" "		
5 Sqn.	" "		
285 Wing	Castel Benito	Castel Verde	73 Sqn. Admin. control 285 Wing. Operational control direct by 211 Group.
40 (S.A.) Sqn.	El Assa		
60 (S.A.) Sqn.	Castel Benito		
73 Sqn.	El Assa		
1437 Strat./R.	Castel Verde.		
680 Sqn. Det.	Castel Benito		Formerly 2 P.R.U.
79th U.S. Group & Sqdns.	Castel Benito		
315 American Service Group	en route Castel Verde.		
1 Air Ambulance Unit.	Castel Benito.		

APPENDIX 16

ORGANISATION OF COMMAND - NORTH AFRICA - FEBRUARY 1943

(Authority A.H.B./IIJ15/4)



Notes:

^{SE} Deals direct with Allied Force Headquarters on all administrative matters.

^{SE} Deals direct with G.H.Q. Middle East on all administrative matters.

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APPENDIX 17

AIR STAFF PLAN FOR THE ATTACK ON THE MARETH POSITIONS

20 MARCH 1943 - OPERATION "PUGILIST"

Authority A.H.B./IIJ15/4

Annexures: 'A' - Locations of formations and units for the attack on the Mareth positions.

(B) - Possible moves of Western Desert Air Force during the advance to Sfax.

SECTION I - INTRODUCTION

1. We are preparing to destroy the enemy land and air forces opposing an advance beyond the Mareth positions, and to capture Sfax as a preliminary to the expulsion of the enemy from Tunisia.
2. As a result of enemy successes in Central Tunisia it became necessary for the Eighth Army to demonstrate in strength before the Mareth positions and for the Western Desert Air Force to conduct operations by day and night at fairly high intensity in order to simulate the preparatory measures for an immediate offensive. These operations now appear to have achieved the desired result.
3. It is intended to resume the general offensive during the full moon period of March. It is possible that the enemy will endeavour to forestall our offensive by a quick thrust in order to inflict casualties and force us to postpone our attack. Such action on the part of the enemy would, however, be welcome; it would give us the opportunity to weaken him and then to put in our attack when he was disorganised as a result of his abortive offensive.
4. The operations of the Western Desert Air Force in support of the Eighth Army will be assisted as opportunity offers by the air forces based in Northwest Africa.

SECTION II - ATTACK ON THE MARETH POSITIONS

Eighth Army Intentions

5. While preparing for the offensive in the full moon period of March the Army is at the same time making dispositions to ensure that the enemy gains no success from any offensive he may contemplate.
6. Before the date of the main attack, it may be necessary to carry out preliminary operations to ensure that the main attack will be immediately effective and will cause immediate enemy reactions, and to ensure the security of certain forward landing grounds.
7. For the attack it is intended to employ 30 Corps, 10 Corps, and the New Zealand Corps. The direct attack on the Mareth positions will be undertaken by 30 Corps while the New Zealand Corps makes a very wide outflanking march with the ultimate object of getting astride the Gabes - Matmata road. 10 Corps will be in Army reserve and will be held ready to exploit success.

Air Forces Available

8. It is intended to deploy 5 Fighter Wings, 3 Light Bomber Wings, 1 Recce. Wing and 2 Medium Bomber Wings by the 12 March. Included in this force will be 1 squadron of Spitfire IX's, detached from N.A.T.A.F. as an antidote to F.W.190's, and 1 anti-tank squadron.

Location of Units

9. The location of units from the battle are detailed at Annexure 'A'. It is at present intended that these dispositions should be effected by the 12 March with a view to opening the offensive against the enemy forces on about the 15 March.

Intensity of Operations

10. It is certain that the enemy will offer stout resistance both in the air and on the ground and we must be prepared for operations from the locations detailed in Annexure 'A' for a period of up to 14 days at maximum intensity, followed by sustained effort for an indefinite period.

Employment of Air Forces Generally

11. All air forces operating under the control of the Air Officer Commanding Western Desert will be employed in accordance with the day to day requirements of the military situation in the battle area. This employment in the battle area may from time to time be in conjunction with operations in the same area by other air forces under the control of the Northwest African Tactical Air Force, of which the Western Desert Air Force is a part.

12. Air action in support of our land operations will be preceded by direct pressure on the enemy air forces, including attacks on his landing grounds within range, in order to obtain the maximum possible freedom of action to intervene in the land battle when it starts. It is at present intended that air operations with that object should be developed from 15 March onwards.

Employment of Fighters

13. The protection of the New Zealand Corps on its outflanking march west of the hills on the line Matmata - Fumm Tatouin calls for the provision of R.D.F. cover of the area if patrols are to be kept to a minimum. The problem is at present under examination.

14. In addition to the protection of our forward troops and the escort of light bombers, fighters will be employed offensively in the battle area and behind the enemy lines. It can be anticipated that up to a third of the Kittyhawk sorties will be fighter/bomber attacks.

15. No. 73 Squadron will be employed by night during the moon period for the attack of suitable ground targets behind the enemy lines, and for the protection of our forward troops and landing grounds from night bombing.

Employment of Light Bombers

16. The light bombers will be employed by day with escort against enemy landing grounds and against enemy concentrations in the forward area. They will also be employed by night during the moon period if, through lack of suitable targets, they are not being operated at maximum intensity by day.

17. A Forward Control provided by No. 2 (S.A.A.F.) Wing will be located with 211 Group. In the event of a breakdown in landline communications, instructions as necessary to all three light bomber wings will be issued through this Forward Control.

Employment of Medium and Heavy Bombers

18. Medium bombers of 205 Group will be employed by night against landing grounds and suitable targets in the battle area at maximum intensity during the moon period. During the period immediately preceding our land attack they are likely to be employed with the object of wearing out the enemy forces by continuous bombing throughout the night. An average of 15 heavy and 40 medium bomber sorties during the moon period can be expected.

SECTION III - THE ADVANCE TO SFAX

General

19. It will be possible for fighters and light bombers to operate as far as Sfax from the location detailed in Annexure 'A', but forward troops will be drawing away from effective fighter protection by the time that they are 20 miles or so north of Gabes.

20. Fighter wings established in the Gabes area should be able to provide a reasonable degree of protection beyond Sfax. The preparation of two landing grounds in the Gabes area as soon as it is secured will be an urgent requirement.

21. On arrival in the Sfax area it will be the aim to deploy the whole of the Western Desert Air Force between Medenine and Sfax for the final eviction of the enemy from Tunisia.

22. An indication of possible locations subsequent to the Mareth battle is given at Annexure 'B'.

23. Although all possible arrangements will be made to ensure that 'A' Parties move forward when required without avoidable delay, it may be likely that a landing ground becomes available for use before the road has been sufficiently cleared of mines to permit the forward move of the 'A' Parties. In this event, provided A.A. defence and limited transport are made available by the Army formations controlling operations in the forward area, skeleton maintenance parties will be moved forward by air transport, the Wing concerned becoming maintained by air until such time as the 'A' Parties and supplies can be brought forward by road.

24. No. 239 Wing will normally be the Wing selected for operations of this nature but it may also, or alternatively, be necessary to move No. 244 Wing in this manner.

Recce and Clearance of Forward Landing Grounds

25. The Army will be kept informed of the landing grounds which we may from time to time require and will be responsible for ensuring that they are cleared of mines and for their protection.

26. Required landing grounds are almost certain to be ploughed in addition to being thickly mined. It is essential therefore that landing ground construction parties with all available equipment should move as closely behind the leading troops as possible.

27. In order to ensure that the A.O.C. Western Desert is kept informed of the availability of landing grounds without delay, a small R.A.F. Recce Unit with a R.A.F. Armoured Car will keep as far forward as possible and keep a W/T link with Advanced A.H.Q., Western Desert.

SECTION IV - ADMINISTRATION

28. To be issued separately by A.O.A.

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SECTION V - COMMUNICATIONS

29. To be issued separately by C.S.O.
30. ACKNOWLEDGE by IMMEDIATE signal.

AAHQWD/42/Air.
3 March 1943.

(Signed) S. V. HARRIS,
Group Captain, for
Air Vice Marshal,
Air Officer Commanding
Royal Air Force, Western Desert.

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ANNEXURE 'A'

Locations of Formations and Units
prior to the attack on the Mareth
Positions

Advanced A.H.Q./E.D.	With Eighth Army H.Q. in vicinity of (Z)A.1174.
211 Group	Vicinity of Hazbub.
Forward Control, 3 (SAAF) Wing.	Vicinity of Hazbub.
239 Wing	Medenine.
244 Wing	Hazbub.
57th U.S. Group	Hazbub South.
7 (SAAF) Wing	Neffatia.
285 Wing (including 40 and 73 Squadrons)	Neffatia South with a detachment of 40 Squadron at Hazbub.
79th U.S. Group	Ben Gardan.
3 (SAAF) Wing.	Zuara.
12th U.S. Group	El Assa.
232 Wing	El Assa, unless L.G. in vicinity of Zuara has been prepared.
Adv. 216 Group	Castel Benito.
Adv. 205 Group	Castel Benito.
6 Squadron	Hazbub.

ANNEXURE 'B'

Possible moves of Western Desert
Air Force during the advance to Sfax.

I. Fighter Wings.

- | | |
|---------------------|--|
| (i) 239 Wing. | Medenine to Gabes area. |
| (ii) 244 Wing. | Hazbub to Gabes area. |
| (iii) 79th Group. | Ben Gardan to Medenine. |
| (iv) 7 (SAAF) Wing. | Naffatia to Hazbub. |
| (v) 57th Group. | Hazbub South to Gabes area
when a L.G. becomes available. |

The aim will be to concentrate the fighter force in the Sfax area as quickly as possible.

II. Light Bomber Wings

- (i) 3 (SAAF) Wing may be moved forward to Medenine as soon as 239 Wing have been established forward in the Gabes area.
- (ii) It may be possible to accommodate a second light bomber wing at Medenine if required.
- (iii) The light bomber wings will be concentrated in the Gabes area as quickly as possible. It may subsequently be possible to concentrate light bombers in the Sfax area.

III. Medium Bombers

Medium bombers will not be moved forward of Castel Benito.

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APPENDIX 18

ORDER OF BATTLE OF WESTERN DESERT
AIR FORCE
MEDENINE, BEN GARDAN AND EL ASSA AREAS.

	<u>Personnel</u>	<u>M.T.</u>	<u>Petrol</u> <u>Allnce.</u> <u>Galls.</u> <u>per veh.</u>	<u>Daily</u> <u>Entitle-</u> <u>ment</u>
Adv. HQ/WD. (Incl. HQ. 8th Fighter Wing, 9th USAAF)	500	150	3	450
Rear HQ/WD.	750	70	4	280
211 Group	300	80	3	240
Forward Control (3 SA. Wing)	20	5	3	15
239 Wing:				
3, 112, 250, 260 and 450 Sdns.	1650	280	4	1120
244 Wing:				
1, 6, 92, 145 and 601 Sdns.	1700	300	4	1200
7 (SAAF) Wing:				
2, 4, and 5 Sdns.	1100	190	4	760
57th US. Group:				
64, 65, 66 and 314th Sdns.	1200	200	4	800
79th US. Group:				
85, 86, 87 and 316th Sdns.	1200	200	4	800
285 Wing:				
40, 60 and 73 Sdns. 1437 Flight and P.R.U.	1550	300	4	1200
3 (SAAF) Wing:				
12, 21 and 24 Sdns.	1500	220	4	880
232 Wing:				
55 and 223 Sdns.	1100	160	4	640
12th US. Group:				
83rd and 434th Sdns.	400	55	4	220
31 A.S.P. Adv. Detachment	40	10	4	40
33 A.S.P.	240	90	4	360
40 A.S.P.	300	100	4	400
Advanced Salvage Unit	360	120	7	840
Advanced M.T.L.R.U.	50	25	8	200
124 M.U. (HQ. and fwd. dumps)	200	50	5	250
5, 6, 10 and 11 S. & T. Columns	535	200	15	3000
1 and 2 B.G.M. Coys.	290	100	15	1500
53 Refuelling Party	110	20	5	100
1 Armoured Car Coy. Det.	75	25	5	125
2 Armoured Car Company	140	35	5	175
21 M.R.S.	70	30	3	90
	(plus patients)			
25 M.R.S.	80	30	3	90
	(plus patients)			
216, 274, 522 and 889 A.M.E. Stations	300	70	3	10
	(approx. 60 each)			
13 Wireless Unit	130	25	3	75
15 Wireless Unit	150	25	3	75
carried forward	16040	3175		16135

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	<u>Personnel</u>	<u>M. T.</u>	<u>Petrol allnce. Galls. per veh.</u>	<u>Daily Entitle- ment</u>
Brought forward	16040	3175		16135
4 and 5 Field Units	80	20	4	80
1 Air Ambulance Unit	40	10	5	50
Communication Unit	230	30	3	90
Air Transport Centre	30	3	3	9
122 Mobile Met. Unit	6	1	10	10
E.A. Intelligence	35	6	5	30
TOTAL:	<u>16461</u>	<u>3245</u>		<u>16404</u>

Tripoli Area and East of Tripoli

Rear M.T.L.R.U.	150	30	8	240
2 R.S.U.	245	50	3	150
3 R.S.U.	260	50	3	150
51 R.S.U.	285	65	3	195
53 R.S.U.	305	55	3	165
59 R.S.U.	330	60	3	180
3 (SAAF) Wing B.L.G. Parties	500	80	3	240
232 Wing B.L.G. Parties	300	60	3	180
214 A.M.P.S. (Zuara)	60	14	3	42
124 M.U. (Zuara)	60	10	5	50
TOTAL:	<u>2495</u>	<u>474</u>		<u>1592</u>

Note: One or more of the light bomber wings may be located at Zuara and not El Assa in which case supplies will be drawn from Tripoli area.

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APPENDIX 19

ADVANCED AIR HEADQUARTERS WESTERN DESERT
OPERATION INSTRUCTION No. 1 AP (SCIPPIO)

INFORMATION

1. The Eighth Army intends to break through the Akarit position and to drive on towards Sfax. Infantry attacks will start during the night 5/6 April, the main attacks, however, being launched at 04.15 hours on 6 April (Zero Hour). Subsequently, the New Zealand Division, followed by 10 Corps, will pass through and advance northwards to the west of the main Gabes - Sfax road. Infantry will advance northwards along the axis of the main road.

INTENTION

2. To give direct air support to the Eighth Army during their break through the Akarit position and subsequent advance to Sfax.

EXECUTION

Outline of Air Support Requirements

3. Air support operations will be controlled through normal channels. So far as can be foreseen, Eighth Army requirements are likely to be as follows:

- (i) During infantry advance to first and second objectives, air support is not likely to be required.
- (ii) From about 0800 hours there may be calls to attack enemy gun areas outside the range of our artillery.
- (iii) At some time after 1200 hours, there may be a call to support the New Zealand break through.
- (iv) After the New Zealand break through, the enemy will be retreating and opportunity targets will be attacked.
- (v) During the entire operation, priority will be given to attacking enemy reserves, particularly armour formations which are likely to attempt to concentrate and to counter-attack our forces.
- (vi) The 1st Armoured Division, operating on the left flank, may possibly ask for enemy targets facing it to be engaged from first light until 1400 hours. This, however, is unlikely.

Detailed Land Situation

4. All A.L.O's are to be specially briefed. All pilots are to be made thoroughly familiar on the evening of 5 April with the details of the land situation; of the plans of advance; and of artillery barrages. Special attention is to be drawn to landmarks which are being put out by the Army and to other arrangements for identifying our own troops.

Special Briefing of Unit Commanders

5. O.C. No. 211 Group and C.O's of Wings and of 6 and 73 Squadrons are to assemble at Senem I.G. 1530 hours 5 April for special briefing by the A.O.C.

Moves of Headquarters

6. Advanced Air Headquarters Western Desert is likely to move into the area southwest of Gabes on or soon after 7 April.
7. No. 211 Group will move, on instructions from this Headquarters, to an area approximately 5 miles west of Gabes after the Akerit position is broken.

Code Name

8. The code name of the operation is 'SCIPPIO'.

Landing Ground Construction

9. Landing Ground Recce Party is to proceed with 51 Division up the main Gabes - Sfax road and is to select sites for L.G.'s in the following priority:
- (i) A.L.G. suitable for 1 Wing near Cekhira.
 - (ii) A.L.G. suitable for 1 Wing near Zaitouna.
 - (iii) A dust-free L.G. suitable for Spitfire Mk. IX's on coast northeast of Cekhira.
10. It may be necessary to select two sites in the Djebel Tebage area, in which case special instructions will be signalled to the Recce Party.
11. A.A. and R.E. construction parties will move with the L.G. Recce Party.
12. ACKNOWLEDGE.

(Signed) G. B. R. PELLY.
 Air Commodore, for
 Air Vice Marshal,
 Air Officer Commanding
 Royal Air Force, Western Desert

5 April 1943.

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APPENDIX 20

LOCATION OF UNITS - WESTERN DESERT - 15 APRIL 1943

(Time of the Battle of Enfidaville 19 April 1943)

<u>Unit</u>	<u>Advance</u>	<u>Base</u>	<u>Remarks</u>
Adv. AHQ/WD	Bou Hadjar (T)P.8238		Visiting aircraft Goubrins N.P.5926
Rear AHQ/WD.		Gabes (4 miles S.E.) On Main Road	Moving April 17th to Sfax area. Visiting aircraft Sfax el Mou.U.7730
WD.Comm. Unit	El Djem N. (T)U.7099	Sfax el Mou (T)U.7730	
249 Wing Adv. 117 Sqn. Adv. 216 Sqn.	Gabes " "		
3 (SAAF) Wing 12 Squadron 21 Squadron 24 Squadron	El Djem (T)U.6897 " " "		
232 Wing 55 Squadron 223 Squadron Britagne (Fr) Sqn.	La Fauconnerie South (T)U.2954 " " " " " " " " Ben Gardan N. (Q)J.6714		
12th U.S. Group 83rd Sqn. 434th Sqn.	Sfax el Mou " "		
211 Group	Msaken (T)P.5541		
239 Wing 3 Sqn. 112 Sqn. 250 Sqn. 260 Sqn. 450 Sqn.	El Djem (T)U.6897 " " " " " " " " " "		
244 Wing 1 (SA) Sqn. 92 Sqn. 145 Sqn. 601 Sqn. 417 Sqn. 6 Sqn.	Goubrins North (T)P.5926 " " " " " " " " " " " "		
57th US. Group 64th Sqn. 65th Sqn. 66th Sqn. 314th Sqn.	El Djem North (T)U.7099 " " " " " " " "		
7 (SAAF) Wing 2 Sqn. 4 Sqn. 5 Sqn.	Kairouan North (T)P.1040 " " " " " "		
285 Wing 40 Sqn. 60 Sqn. 73 Sqn. 1437 S/R 680 Sqn. Det.	El Djem North Goubrins El Djem North Sfax el Mou Castel Verde El Djem North		73 Squadron Admin. control 285 Wing Operational control direct 211 Group
79th U.S. Group 85th Sqn. 86th Sqn. 87th Sqn. 316th Sqn.	La Fauconnerie North (T)U.2756 " " " " " " " "		
275 (Bln) Wing (Mobile Station Staff)	Goubrins North		
315 U.S. Service Group	Castel Benito		
1 Air Ambulance Unit	Sfax el Mou.		

APPENDIX 21

ALLEGED WASTAGE OF PILOTS AND CREWS IN THE MIDDLE EAST - 1942

(Abstract from Secretary of State for Air Papers on 'Reinforcement of the Middle East' A.H.B. Ref.ID/5/5)

In June 1942, the Secretary of State told the Air Minister for Personnel that both the Commanders-in-Chief Bomber and Fighter Commands had been complaining strongly of the retention of pilots in the Middle East. According to the A.O.C.-in-C. Bomber Command, bomber pilots in the Middle East were being employed on all kinds of ground jobs and Wellington crews, which had been trained together for many weeks, were being dispersed for no other reason than convenience of posting. The A.O.C.-in-C. Fighter Command complained that he had sent no fewer than 2,200 pilots to the Middle East in the previous 13 months. The Secretary of State himself had noted that Middle East admitted to a surplus of 65 fighter pilots, with 126 trained and 400 awaiting posting. Surely, he argued, it would be possible to stop the drain on Fighter Command. He also questioned the Middle East figures which stated that they were deficient in Bomber pilots. He noted that 588 pilots were shown as being employed in non-operational units and he asked whether a larger proportion of them should not be sent back to the United Kingdom.

In his reply, the Air Minister for Personnel pointed out that about 500 of the 2,000 fighter pilots had gone to the Far East, India and Malta. A further 500 of this total had been sent direct from Fighter O.T.U.s and had not therefore been an actual drain on Fighter Command. The surplus of fighter pilots in the Middle East was not considered serious, bearing in mind particularly the fact that, in the United Kingdom, there was a surplus of 400 fighter pilots. He considered that the haphazard breaking up of trained bomber crews was most unlikely. It was probably due to the need to replace casualties - a common occurrence in Bomber Command itself. Of the bomber pilots in non-operational units, 211 were employed on ferrying alone. The establishment of these non-operational units was 610 and their strength 588. 'In view of the size of the Command,' he concluded, 'and the enormous quantity of communication work, I do not suppose that the establishment is unnecessarily high'.⁽¹⁾

On 31 July, the Secretary of State again returned to the subject when he wrote to the Air Member for Personnel that Mr. Eden, in turn, had heard that wastage from various causes of Air Force personnel, in the Middle East, was unduly high. The Air Minister for Personnel replied, on 3 August, that 'It is impossible to have a war without casualties and these are apt to become larger if there are retreats.' The Director of War Organisation, who had been brought into the controversy, stated that the wastage of aircrews had certainly been higher since May 1942, but that these had been months characterised by intensive operations. However, he did not consider that the losses were unduly high and, in fact, it had been possible to reduce slightly the flow of pilots and air crews from the United Kingdom to the Middle East.

These assurances were, apparently, not enough. On 13 August, the Air Officer Commanding-in-Chief Bomber Command addressed a strongly-worded personal letter to the Secretary of State for Air saying that, since September 1939, a total of 2137 bomber O.T.U. ferry pilots had

(1) This correspondence was taking place at a time when some of the bitterest air battles were occurring in the Western Desert. From 26 May to 13 June 1942, aircrew losses amounted to over 100 (68 killed and 33 wounded).

been sent to the Middle East and only 157 returned. In his opinion, at least 1,000 of these pilots had 'somehow or other, been thrown down the sink.' It meant that one half of the O.C.T.U. effort was being wasted in giving 'the highest type of bomber training to pilots who, thereafter, never bomb and who are wasted in ground jobs, communication flying and any sort of flying except that for which Bomber O.C.T.U. training is essential.'

The Secretary of State for Air again referred the matter to the Air Minister for Personnel who finally decided to send a member of his staff to investigate the matter, on the spot, in the Middle East. As a corollary to this correspondence, on 18 August, the Vice-Chief of Air Staff sent a Minute to the Chief of the Air Staff pointing out that the Air Officer Commanding-in-Chief Middle East had frequently complained of the poor quality of the officers posted to him, in the grades of Squadron Leader to Group Captain. The C.A.S. agreed to a system of central posting for officers of these ranks. 'We shall have a certain amount of trouble with C.s-in-C. at home,' he said, 'but I hope to be able to convince them that we take a wider view of the war than they can, and that we will hold the scales fairly.'

On 10 September⁽¹⁾ the Prime Minister intervened in the dispute by sending the following Minute:

'C.A.S.

Air Marshal Harris spoke to me the other night about the large number of bomber crews sent to the Middle East which were not returned to this country after having delivered the machines.

In view of the great importance of increasing the strength of Bomber Command at home, please look into this and draft something to Tedder.

W.S.C.'

The C.A.S. replied that he had been into the question most thoroughly. Middle East had already sent back quite a large number of crews in spite of the difficulty of finding aircraft for them. He mentioned that the officer who had been sent to investigate the matter by the Air Minister for Personnel, in the Middle East, was due back and he would await his report.

Three days after his first Minute, the Prime Minister addressed one to the Secretary of State for Air in which he asked for details of the number of bombers sent to the Middle East since May 1942 and the number of the crews of these bombers which had been returned to the U.K. 'Tedder,' he wrote, 'has got into the habit of keeping all, or nearly all, of the crews used for ferry purposes. This cannot be allowed'.

In his reply dated 17 September, the Secretary of State for Air said that, since 1 May 1942, a total of 32 Halifaxes, 25 Liberators and 259 Wellingtons had been sent to the Middle East. Six of the crews had been returned, but he pointed out that it was normal for reinforcing crews to complete an operational tour in the Middle East before returning to the United Kingdom. 'They are in no sense just ferry crews,' he said. During the same period, 322 bomber pilots, mostly tour-expired, had left the Middle East for the United Kingdom.

(1) This was directly after the Battle of Alam el Halfa (31 August to 7 September 1942) when the classic defeat of Rommel's forces was due to a great extent to the intensive operations carried out by the light and medium bombers.

'The fact that out of 316 bombers only 6 crews have returned to this country is really quite scandalous,' the Prime Minister commented on 20 September. 'You are getting a mass of sediment in the Middle East and are hampering your own development at home.' He then tabulated a further request for statistics, showing the strength in squadrons, men and machines in the Middle East, on 1 September 1941 and on 1 September 1942.

The Director of Personnel's Minute to the Air Minister for Personnel, on the subject of the Prime Minister's comment, was unequivocal. He said that the Prime Minister's statement could not have been made if he had understood the reply to the first query. The Directorate of Personnel had spent an enormous amount of time, at the expense of their normal work, answering a series of statistical queries on the same subject. As fast as one had been answered, another slightly different one was received. 'Would it not be possible for the S. of S. or the C.A.S. to explain the situation to the Prime Minister?' he pleaded. In his opinion, the situation regarding the return of bomber crews to Bomber Command was satisfactory. Group Captain Pearce had been sent out to investigate this specific question and, from what he had said, the Director of Personnel was 'quite satisfied that Middle East Command are playing perfectly fair and are doing all they possibly can to assist Bomber Command. They will continue to do so, if they are not driven mad by a deluge of statistical questions and general rudery. Could not this be explained to the C.-in-C. Bomber Command? In the light of all that has transpired during the past few months, I do not understand why the Prime Minister himself should have been approached personally on the subject.'

On 7 October, the Secretary of State for Air wrote to the Prime Minister giving the figures of the expansion of Middle East Command from 59½ Squadrons, 1,355 aircraft and 49,700 personnel, on 1 September 1941 to 74 Squadrons, 2,548 aircraft and 99,500 personnel on 1 September 1942. He reaffirmed the fact that, out of the 316 bomber crews sent to the Middle East, between May and mid-September, 1942, none should have been returned, as they were required to complete an operational tour on arrival there. 'But these 316 are not a dead loss,' he said, '328 crews left Middle East during the same period for this country.'

The report from the officer from the Directorate of Personnel had made it plain that the Middle East were not retaining trained crews unnecessarily and, 'indeed, are employing their trained pilots with notable economy.' He instanced the fact that, of 29 Operations Officers employed at No. 205 Group H.Q., their 5 bomber Wings and on liaison duties with the American forces, only 11 were G.D. officers. Furthermore, out of the 500 Intelligence Officers in Middle East Command, only two were G.D. There were also very few operationally trained pilots employed on ferry duties, and these were mostly tour-expired fighter pilots, pilots who had shown 'lack of dash' and pilots of low medical category. Finally, there was no accumulation of trained air-crew misemployed on ground duties.

(Authority A.H.B./ID/5/5.)