

COPY NO 2

R.A.F. NARRATIVE

(FIRST DRAFT)

THE LIBERATION OF NORTH WEST EUROPE

VOLUME I

THE PLANNING AND PREPARATION OF THE ALLIED
EXPEDITIONARY AIR FORCE FOR THE LANDINGS IN NORMANDY

AIR HISTORICAL BRANCH (1)

AIR MINISTRY

RESTRICTED

P R E F A C E

This narrative is the first of a series of five volumes which deal with the campaign in north west Europe from 1944-1945. It covers approximately the period from the reorganisation of the Metropolitan R.A.F. for cross-channel operations up to the launching of the assault against the Normandy beaches on 6 June 1944. It is concerned exclusively with planning and policy at the high command level and for a detailed account of the subsequent air-ground operations during 1944-1945 the reader should consult Volumes III to V. Volume II describes the administrative preparations for the liberation of north west Europe.

The eight chapters of the volume do not follow a chronological sequence and there is consequently some repetition. It is hoped that these defects will lead to greater clarity. No attempt has been made to cover the whole field of planning for Overlord. In particular, there is little mention of defensive commitments, both in the United Kingdom and across the Channel, security and cover, signals, and attacks against the flying bomb sites. These subjects are for the most part described in other narratives compiled by the Air Historical Branch.

The starting point of the narrative is the directive from the Combined Chiefs of Staff issued on 2 April 1943 to Lieutenant General F.E. Morgan, Chief of Staff to the Supreme Allied Commander (Designate). This directive charged General Morgan with the preparation of plans for three separate operations: first, an operation designed to test the degree of enemy resistance in 1943 known as Cockade; second, a return to the Continent at any time from April 1943 onwards, in the event of German resistance disintegrating, called Operation Rankin; third, an opposed landing on the Continent in 1944 called Operation Overlord. These three operations are considered in Chapters 3 to 8.

The first two chapters which deal with the organization of the Allied Expeditionary Air Force affect all three operations and although the system of command is more particularly relevant to Overlord, it has been considered appropriate to include this section in Chapter 2. The subject matter of these eight chapters trespasses outside the bounds of the particular period under review but, without some reference to the background against which the landings on the continent were conceived and the reorganisation of the Metropolitan Royal Air Force planned, subsequent events would be less intelligible. Data for pre-1943 history have been taken from personal files left to Air Chief Marshal Sir Trafford Leigh-Mallory by Air Chief Marshal Sir Sholto Douglas, the former's predecessor as Air Officer Commanding-in-Chief Fighter Command.

Plans for the employment of airborne forces, although properly a part of Overlord, have been dealt with separately because of the intricacy and length of their history. Chapters 4 to 8 should, however, be read as a whole. The task of delaying enemy reinforcements into the assault area was, in fact, one of the most important of those assigned to the Air Forces and two chapters have been devoted to describing the tactical and strategic plans; the latter which became known as the transportation plan gave rise to an important controversy, the repercussions of which were far reaching.

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The narrative is built largely upon the files and other documents belonging to the late Air Chief Marshal Sir Trafford Leigh-Mallory now in the keeping of the Air Historical Branch. Where important documents are not obtainable in these files they have been included as appendices, and form four separate volumes. Owing to their voluminous nature they are held by the Air Historical Branch in original only. Reference has also been made to the files kept by the Chief of Air Staff, Sir Charles Portal and by the Deputy Supreme Commander, Air Chief Marshal Sir Arthur Tedder, who became responsible for all air operations in Overlord on 15 April 1944.

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(1) Appendix II appertains to Chapter 3 of the narrative

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(1) Appendix VI appertain to Chapters 6, 7 and 8 of the Narrative.

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<u>CODE NAMES</u>	<u>DEFINITIONS</u>	<u>DATE</u>
ANVIL/DRAGOON	Operation against the south coast of France designed to serve as a diversion to the main Overlord offensive.	15 Aug. 1944
ARABIAN	Plan for an isolated operation to secure the Brittany peninsula. This operation was later re-christened "Lethal". It did not take place.	4 Oct. 1942
ATLANTIS *	Revised plan for landings in Norway 1943.	1943
AVALANCHE	The Anzio landing, designed to assist the advance of the Fifth Army held up at the Gustav Line.	22 Jan. 1944
AXEHEAD	Plan to capture the ports of Le Havre and Rouen. Not executed.	
BODYGUARD	Overall strategic deception plan for 1944.	1944
BOLERO	Operation of transferring American armed forces from the U.S. to the U.K.	1942-44.
COCKADE	Northwest European deception plan. Embodied three separate but co-ordinated operations designed to reach a culminating point in September 1943; these operations were:- Starkey - Wadham - Tindall.	1943
CONSTELLATION	A projected operation against the Channel Islands (Alderney) in 1943. (The only possible operation with the limited resources of landing craft).	1943
CROSSBOW	Attacks on flying bomb supply and launching sites.	
CRUIKSHANK	Plan to secure a foothold in the Low Countries. Not executed.	17 Nov. 1942.
DIVER	Defence measures against the flying-bomb.	1944.
DRAGOON	Operation against the south coast of France designed to serve as a diversion to the main Overlord offensive. (Originally Anvil)	15 Aug. 1944.
ECLIPSE	Revised - Talisman	1944-45.
FERDINAND	Cover plan for Dragoon	June 1944
FESTIVAL	Operation of sending American forces from the U.S. direct into French ports which have been previously captured.	1944.
FORTITUDE	Tactical Cover Plan for Overlord to induce the Germans to believe that the Pas de Calais was the assault area. (Formerly Torrent, then Mespot).	1944.

* This plan was not translated into operations.

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<u>CODE NAMES</u>	<u>DEFINITIONS</u>	<u>DATE</u>
GOOSEBERRIES	Component parts of Mulberry	1944
GRAFFHAM	Part of the overall deception plan for 1944 to induce the enemy to believe that operations against Norway were intended.	1944
GREENBACK	Plan for landings on the continent during 1943 by Anglo-American Forces based on England in conditions in which German morale appeared to be cracking and a rapid advance on Germany from northeast France.	1943
HADRIAN	Plan to capture the Cotentin peninsula in 1943. (Operation did not take place).	1943
HARLEQUIN	Army exercise - a feint to convey to the Germans that a force was being concentrated for embarkation.	9 Sept. 1943
HUSKY	Invasion of Sicily.	10 July 1943
IMPERATOR	Plan for large scale raid on continent during 1942 with the object of bringing on air battles and thus aiding Russia. (Did not take place).	1942
JAEI	Original strategic deception plan for 1944 superseded by Bodyguard.	1943
JANTZEN	Combined training exercise, carried out from 27 to 29 July 1943 to practise beach organization and rapid airfield construction.	27 July 1943
JUBILEE	The Dieppe raid designed to gain a temporary foothold on the continent and to bring the German Air Force to battle.	19 Aug. 1942
JUMPER	Plan for combined operations during 1943 in the event of Russia being defeated during 1942.	1943
JUPITER *	Plan for landings in Norway	1943
MALLARD	Glider operation by No. 38 Group and 6th British Airborne Division.	6 June 1944
METROPOLE *	Plan to assist Mediterranean operations by containing as many enemy forces as possible in Northwest Europe, and bringing the German Air Force to battle if possible.	
MULBERRY	Artificial harbours for cross-channel operations.	1944
NEPTUNE	Inner code-name given to the assault stage of Operation Overlord.	1944

* None of these plans was translated into operations

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<u>CODE NAME</u>	<u>DEFINITIONS</u>	<u>DATE</u>
NOBALL	Air operations against ski sites in Northern France from which the Germans began to launch flying bombs on -	12 June 1944
OVERLORD	Liberation of north west Europe by Allied Forces	6 June 1944
OVERTHROW	Deceptive operation planned in October 1943 for an assault and occupation of a bridgehead in the Pas de Calais to lead the Germans to believe that actual invasion of the continent was to take place.	Oct. 1943
POINTBLANK	The progressive destruction and dislocation of the German military and industrial and economic system, the disruption of vital elements of lines of communication and the material reduction of the German air combat strength by the successful prosecution of the combined bomber offensive from all bases. This operation began in May 1943.	
QUADRANT	Series of conferences held by the Prime Minister and the President of the U.S. to discuss plans for the defeat of the Axis in Europe - 1943-45 (Quebec)	Aug. 1943
RANKIN	Plan for return to the continent in face of German disintegration.	1943-44
ROUNHAMMER) RUDGE	Original code-names given to Overlord in April 1943.	
ROBROY	Re-supply missions for 6th British Airborne Division by No. 38 Group.	7-10 June 1944
ROUND-UP	Plan for landings on the continent during 1943 by Anglo-American forces based on England in conditions in which it was necessary to fight for a firm base in France before advancing further against the Germans. Superseded by Overlord.	1943
SEXTANT/EUREKA	Conferences held by the Prime Minister and President of the U.S.A. to discuss Allied Strategy in 1944. (Cairo-Teheran).	Nov. 1943
SHINGLE	The invasion of Italy, (Salerno).	10 Sept. 1943
SICKLE	U.S. Air Force build-up (within operation Bolero) for Operation Overlord.	
SLEDGEHAMMER	Plan for a landing on the continent during 1942 to take advantage of a crack in German morale. Did not take place.	
SPARTAN	Exercise to test newly formed Mobile Composite Group.	Mar. 1943

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<u>CODE NAME</u>	<u>DEFINITIONS</u>	<u>DATE</u>
STARKEY	An amphibious feint to force the G.A.F. to engage in intensive fighting over a period of fourteen days by building up a threat of an imminent large-scale landing in the Pas de Calais area.	Sept. 1943
SYMBOL	Conference at Casablanca	Jan. 1943
TALISMAN	Revised Rankin 'C'	1944
THUNDERCLAP	Presentation of the Overlord plan to the Prime Minister by the Commanders-in-Chief.	7 April 1944
TINDALL	A purely deceptive operation designed to pin German forces in Norway by the threat of a major British operation to seize the port and airfields of Stavanger.	1943
TONGA	Paratroop operation carried out by Nos. 38 and 46 Groups and 6th British Airborne Division in support of Overlord.	5 June 1944
TORCH	The landings in north west Africa.	8 Nov. 1942
TRIDENT	Conference held in Washington by the Prime Minister and the President of the U.S.A.	May 1943
WADHAM	A purely deceptive operation to give the impression of preparations for a large-scale American landing in Brittany.	1943
WETBOB	Plan to gain a permanent foothold on the continent in the Cotentin peninsula in the autumn of 1942. (Not carried out; Operation Torch was selected in its place).	

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CHAPTER I

ORGANIZATION OF THE ALLIED EXPEDITIONARY

AIR FORCE FOR CONTINENTAL OPERATIONS

Reorganization of the Metropolitan R.A.F.

TLM/MS.96.

In the spring of 1942 the scheme for a return to the continent, known by the code name of Operation Round Up, began to take shape, and in May of that year plans were set in motion to reorganize the Metropolitan Royal Air Force for offensive operations. On 21 May the Joint Planning Staff recommended that British commanders should be selected to plan operations under the general direction of a Supreme Commander. Ground and air forces were to be detailed for cross channel operations and their training was to start at an early date. At the same time agreement was to be reached with the American Chiefs of Staff on the system of command and the immediate appointment of a Supreme Commander. In addition, an American commander-in-chief, who would control U.S. forces on the continent, was to be appointed as soon as possible.

TLM/MS.136/9.

A British Air Commander-in-Chief was to control the Air Striking Command, as it was termed. The Assistant Chief of Air Staff (Policy) (Air Vice-Marshal Slessor) made a number of proposals on the system of command and composition of the R.A.F. for Operation Round Up in July 1942. They were modelled to a large extent on the organization of the German Air Force for the reason that the problem facing the Allies, i.e. land invasion of their neighbours supported by air power, was similar to that which had confronted Germany.

The requisites of such a force were as follows. It was to be flexible so that the air effort whether for direct support, reconnaissance, cover or more distant bombing, could be rapidly switched from one part of the battlefield to another. It must be able to carry out close support tasks at very short notice. The Army commander fighting the battle on the ground was to select objectives for supporting aircraft and was to determine the proportion of available striking power to each objective. One air commander was to be appointed who would see the air situation as a whole and co-ordinate support and reconnaissance operations (the latter to be controlled by the Army) with fighter operations and thus maintain supremacy in the air.

The reorganization suggested by Air Vice-Marshal Slessor and eventually approved by the Chief of Air Staff was that the Air Officer Commanding-in-Chief would control British and U.S. Air Forces, the former covering the front of the British Army and occupying initially the three eastern sectors of No. 11 Group area, while the latter would be the VIIIth U.S. Air Force, which would cover the U.S. Army front, occupying No. 10 Group area and the Tangmere sector. The British Air Force would have three Groups, corresponding to Fliegerkorps in the G.A.F., occupying respectively the Kenley, Biggin Hill and Hornchurch Sectors. This force would consist of fighters, light bombers, army support and reconnaissance squadrons. The Air Commander-in-Chief was to control a reserve which would reinforce any Group when required.

The Air Commander-in-Chief was to control both British and U.S. heavy bomber forces, which might be employed collectively on any part of the front. He would also be

/responsible

G.323100/MJG/1/52/30.

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responsible for the Air Defence of Great Britain, but No's 9, 12, 13, 14 and 82 Fighter Groups and the appropriate A.A. formations were to be controlled for ordinary air defence operations by a deputy and separate operational staff.

The principle which governed the proposed plan was that the existing R.A.F. organization would, once it had been adapted as above, project itself over the continent and the necessity would not arise to form a new and cumbersome command overseas as happened in France in 1940. In the initial stages, as aerodromes in France were captured, they would be used as advanced landing grounds for squadrons based in England. The aircraft would be serviced by servicing commandos, each commando being capable of servicing fighters, light bombers, or reconnaissance aircraft, and would be operationally controlled by an advanced headquarters (Sector and/or Army Support wing). The Group areas would then be extended into France. When the Army had occupied sufficient ground in France to enable squadrons to be based there, stations, each organized to maintain up to three squadrons would cross the Channel with an advanced Group headquarters and the necessary supply echelons.

Other points in the scheme for reorganization were as follows. Squadrons situated geographically in one Group area might have to be employed in the air over a neighbouring Group area and the signals organization would have to provide for this requirement. The administrative unit would be the station, and the maintenance and administrative system would correspond as closely as possible to the operational chain of Command. The necessary mobile signals and R.D.F. would extend the Group's communication and warning system into France leaving the necessary permanent installations behind in the old sector areas. Each Group was to continue to be responsible for the air defence of the sector which it occupied and the appropriate sector control and A.A. artillery and searchlight organization would have to be provided in the Group area, both in the United Kingdom and subsequently in France on a mobile basis.

The object of the reorganization was the re-adaptation of the Metropolitan Royal Air Force to overseas operational conditions in which the whole Army and Air Force in North West Europe would be engaged in a gigantic operation against enemy occupied France. Consequently the Chief of Air Staff recommended in August 1942 that his proposed reorganization of the Metropolitan Air Force should be implemented as soon as was practicable. He stated that the U.S. commander had agreed with the principles outlined in his paper, and that organization of the U.S. Air Forces, while differing in certain respects from that proposed for the R.A.F. would conform generally to these principles. 'In particular,' he added 'it has been agreed that the organization and procedure must be identical to the extent that U.S. Air Forces can be reinforced by British Air Forces, and vice versa, according to the needs of the situation, and that the essential degree of strategic flexibility be ensured'.

TLM/MS.96.

The Round Up planners agreed with the Air Ministry scheme but made it clear that the R.A.F. Commanders or their deputies whether at General Headquarters, B.E.F. or Army Headquarters level must accompany it overseas and be responsible for the control of all the Squadrons allotted for support of the Expeditionary Force or Army. All R.A.F. Headquarters and squadrons should be trained and organized on a fully mobile field force basis. Air support squadrons were to be equipped with aircraft adapted for low level attack. Reconnaissance squadrons, whilst forming part of the Group, would remain under the operational control of the Army Commander.

/Formation

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Formation of No. 83 Group

The Special Planning Staff, however, pointed out that the organization proposed for Round Up did not solve the long term question of air support for the Army, which they considered as part of the same issue. They maintained that it was essential to develop Army air support and training in its technique for both Army and R.A.F. personnel. They suggested that the first requirement of such a plan was the immediate formation on a fully mobile field force basis of a composite Group of fighter, light bomber and reconnaissance squadrons which should include not less than twelve ground air support squadrons.

The Composite Group would become a model for the formation of other Composite Groups and would be responsible for developing the technique of ground air support, the command and training of squadrons allocated for this task, and it would carry out exercises in conjunction with the Army. The Group would be a separate entity and would not share any of the operational commitments of R.A.F. Fighter Command.

The Special Planning Staff also made further proposals for the system of higher organization, liaison and control. In general R.A.F. Fighter Command should become responsible for the training and organization of air ground support units and the new Composite Group would form part of R.A.F. Fighter Command. Army Co-operation Command would be abolished. R.A.F. Bomber Command was to become responsible for the R.A.F. organization of airborne forces and No. 38 Wing was to be transferred to Bomber Command.

Towards the end of August 1942 it became apparent that Round Up had receded into the more distant future and had given way to Operation Torch ⁽¹⁾ which involved the withdrawal from the U.K. of 17 day fighter squadrons. To meet the new conditions, counter-proposals to those put forward in the paper drafted by Air Vice-Marshal Slessor, already mentioned, were now made by Air Ministry. It was emphasised, however, that these counter-proposals (which, briefly, envisaged an Army Support Group being formed within Army Co-operation Command) were purely temporary and designed to cover the needs of Torch alone. When Round Up again became a serious possibility the reorganization outlined in Air Vice-Marshal Slessor's paper was to be put into effect. Alternatively, if invasion of the U.K. by Germany looked likely, this reorganization would still be undertaken.

TLM/MS.96.

The first reaction of the General Staff was a flat rejection of the Chief of Air Staff's proposals for re-organization, and it was not until some six months later that they were prepared to agree to them. All these plans and negotiations took place prior to Air Marshal Leigh-Mallory's appointment as Air Officer Commanding-in-Chief, Fighter Command, and he did not come into the picture until December 1942.

On the 8th of that month Air Marshal Leigh-Mallory, in his capacity as one of the Combined Commanders Designate, wrote to the Air Ministry ⁽²⁾ recommending that units of Fighter Command should be put on a mobile basis well in

/advance

- (1) Torch was the code-name given to the landings in N.W. Africa.
- (2) Reference FC/S.29991 dated 8 December 1942.

G.323100/MJG/1/52/30.

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advance of any contemplated move to the continent, and that trials (to be known as Exercise Spartan) should be carried out early in 1943 to determine how mobility could best be achieved. Air Ministry was asked to approve the placing of certain specified units on mobile establishments. The problem of mobile air warfare was examined in an attached paper entitled "Formation and Trial of Continental Model Units". (1)

FC/S.32151

On 22 February 1943, Air Marshal Leigh-Mallory again wrote to Air Ministry putting forward proposals for forming a Mobile Group Headquarters with the object of:-

- (a) Testing projected methods for the organization and control of air forces in mobile operations on the continent.
- (b) Training personnel in mobile operations.
- (c) Providing a nucleus on which to form a mobile air contingent for continental operations.

FC/S.32151

In this letter he urged most strongly that the units formed for Exercise Spartan be retained on a mobile basis, instead of being dispersed on the conclusion of the exercise. (2) Two days later Air Marshal Leigh-Mallory wrote to the Chief of Air Staff elaborating his proposals. On 7 March 1943 Air Ministry informed the Groups concerned of their decision to retain in being after the end of Exercise Spartan all the ground units of 'Z' Group (3) participating in the exercise. (4)

Exercise Spartan showed clearly that the time had come for the abolition of the combined service unit known as an Army Air Support Control, and for the complete reorganization of the system for the provision of air support to an army in the field. (5)

FC/S.13487

In a letter to the General Officer Commanding-in-Chief Home Forces, Air Marshal Leigh-Mallory outlined his proposed new system as follows:-

- "(a) That the Army should organise the rapid transmission of requests for direct support and for reconnaissance to the point where the Army and R.A.F. Headquarters meet at Army and Corps levels.
- (b) That at that point Army Staffs should co-ordinate and give priority to these requests in accordance with the military plan. These Army Staffs should be in the closest touch with their opposite numbers in the R.A.F. so that the military requirements are fitted into the air picture in the manner best calculated to serve the common interest.
- (c) That thereafter the execution of the requests is solely an R.A.F. responsibility for which the R.A.F. will provide all the necessary communications, including those to enable the R.A.F. Headquarters at a Corps level to exercise control on occasion and for use in the event of the breakdown of normal communications".

/The proposal

- (1) See Appendix I/1.
- (2) See Appendix I/2.
- (3) Later No. 83 Group.
- (4) Air Ministry Signal AK.557
- (5) See reports on Spartan at Appendices I/3 and I/4.

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AEAF/S.13487

The proposal was accepted (1), the signals organization of the Composite Group was completely revised and early in May 1943 was put under trial in No. 83 Group.

FC/S.32421

Other points arising out of Exercise Spartan affecting, inter alia, the basic organization of a Composite Group, the arrangement of Advanced Headquarters vis a vis the Army, size of Intelligence staffs at Group, Sectors, Airfields and Squadrons, channels of information, reconnaissance and aircraft recognition, were tabled in the form of a questionnaire which was sent to Headquarters COSSAC and Headquarters No. 83 Group for study.

TLM/Folder 4.

These questions had all been resolved by the end of May 1943, and by the end of that year an official manual on the "Organization and Training of a Tactical Air Force" had been prepared and issued as the standard doctrine under the signature of the Air Commander-in-Chief, A.E.A.F.

TLM/Folder 4.

On 19 March 1943 notice of the formation of No.83 (Composite) Group, Fighter Command was formally promulgated by the Director of Organization Air Ministry (2). The Chiefs of Staff were informed of the establishment of the new Group Headquarters by the Chief of Air Staff in a memorandum dated 23 March 1943 (3).

Visit of Air Marshal Leigh-Mallory to North West Africa.

With the formation of a Composite Group the first step had been taken to prepare the R.A.F. for continental operations. The next step was the establishment of a British Expeditionary Air Force Headquarters and an appropriate system of command and organization.

TLM/MS.129.

After consultation with the Chief of the Air Staff, Air Marshal Leigh-Mallory left for north west Africa on 25 March 1943, with a twofold object; first, to study the working of the general system of command and organization in the Mediterranean theatre, and its application to north west European operations, secondly, to examine the detailed methods of tactical control which could be applied to the formation of a Composite Group.

TLM/MS.129

In his report on this visit Air Marshal Leigh-Mallory referred to two outstanding features of the general system of command and organization. The first was that, with one major exception, there was direct contact between the Army and Air Force commands and their staffs, with the consequent assurance that both in strategy and tactics land and air forces were directed and employed in a common plan. The exception was at Headquarters North West African Air Forces, where the Air Force Commander had no direct contact with an Army Commander, but only a system of liaison and directives. Air Marshal Leigh-Mallory recommended that at all levels down to and including an Army Headquarters there should be direct contact between Army and Air Force commanders.

/The second

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- (1) See General Paget's letter HF/1686 dated 26 March 1943.
 - (2) L.M. 1029/A.D.O.1. dated 19 March 1943.
 - (3) COS (43) 149 (0).

G.323100/MJG/1/52/30.

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The second notable feature, to which attention was drawn in the report, was the integration of British and U.S. Staffs, and the appointment of a deputy commander of American nationality where the commander was British, and vice-versa. That the smooth working of this system was dependent on personalities and the selection of the right individuals for the key posts was continually impressed on Air Marshal Leigh-Mallory in north Africa, and it was a point that he was not to be allowed to forget throughout his planning and preparation for Operation Overlord.

TLM/MS.129

Other significant items of Air Marshal Leigh-Mallory's conclusion were as follows. Unity of command was essential and an Air Commander-in-Chief should control all the Air Forces. Under him should be a tactical commander who would control both British and U.S. squadrons. The Allied Naval, Army and Air Force commanders and their staffs must be in close contact with each other down to and including Army headquarters level. The principal air unit would be the Composite Group. It would be self contained with fighter, fighter bomber and reconnaissance aircraft but which could be augmented by additional aircraft in the event of an emergency. A light and medium bomber force assembled in a single group would be controlled by the Air Headquarters at Army Group level.

In the latter part of his report the Air Marshal developed these ideas at length, in particular, the procedure for controlling operations within a Composite Group. He emphasised that the headquarters of the Composite Group should not concern itself with the intimate details of operations but merely define their scope with special directions for their execution. The guiding principle in planning fighter and fighter bomber operations was simplicity and the delegation of responsibility for operations to fighter formation headquarters. With regard to tactical reconnaissance the Air Marshal noted that a large amount of information was brought back by fighter and fighter bomber pilots which considerably reduced the work of the tactical reconnaissance squadrons.

After lengthy discussion with the Inspector General, Air Chief Marshal Sir E. Ludlow-Hewitt, Air Marshal Leigh-Mallory forwarded to the Air Ministry his proposals for the formation of Expeditionary Air Force headquarters within R.A.F. Fighter Command. The gist of his suggestions were that this headquarters should be responsible for training the composite groups and light bomber squadrons and exercising them on operations while it should also study the air aspect of the employment of airborne forces. It would carry out detailed planning when the outline and cover plan has been issued.

TLM/MS.129.

In addition Air Marshal Leigh-Mallory recommended that the following formations and units should be transferred to the Expeditionary Air Force Headquarters when formed.

No. 83 Group
No. 2 (Bomber) Group
No. 140 (Recce) Squadron
No. 38 Wing.

He also requested that a deputy should be appointed to concern himself not only with the Composite Groups and Army

/Co-operation

Co-operation Wings but also with the Army support aspect of training throughout R.A.F. Fighter Command. (1)

Bracknell was recommended as the initial location of Expeditionary Air Force Headquarters, and Hillingdon House, Uxbridge as the subsequent location during Phase I of the main operation. The commander of the U.S. equivalent of the Expeditionary Air Force was expected to make use of the staff facilities of No. 10 Group, and the co-ordination of the two tactical Headquarters was to be exercised from Stanmore by the Commander-in-Chief, Allied Air Force. (2)

The Inspector General, Air Chief Marshal Sir E. Ludlow-Hewitt agreed in general with Air Marshal Leigh-Mallory's proposals. (3) He considered, however, that the bulk of the staff of Headquarters A.E.A.F. should come from Army Co-operation Command and not from Fighter Command as Air Marshal Leigh-Mallory had suggested. The Inspector General also disagreed over the importance of tactical reconnaissance and held that not only should a larger number of tactical reconnaissance squadrons be allotted to Composite Groups but that a reconnaissance squadron should work with each corps in the line and that an Air Force officer of the rank of Wing Commander should be attached to each corps headquarters in the theatre of operations. This was contrary to the views both of Air Marshal Leigh-Mallory and General Montgomery (then Commander of the Eighth Army) who strongly opposed the attachment of any R.A.F. organization permanently to Corps headquarters.

Formation of Second (No. 84) Composite Group

TLM/Folder 4.

On 29 April 1943 the Chief of Air Staff in a memorandum to the Chiefs of Staff Committee (4) gave in outline his proposed reorganization of the Metropolitan Air Force for cross-Channel operations. His proposals included the abolition of Army Co-operation Command, the staffs of which were to assist in building up the new organization within and under R.A.F. Fighter Command Headquarters. Headquarters Expeditionary Air Force was to form initially as a subordinate formation of R.A.F. Fighter Command, and to transfer to the control of Allied Air Headquarters when the Allied Air Commander-in-Chief was appointed. The Air Officer Commanding-in-Chief British Expeditionary Air Force,

/together

- (1) Early in March the Chief of Air Staff had suggested to Air Marshal Leigh-Mallory that he should have a deputy, and on 16 March (Ref. TLM/MS.19) Air Marshal Leigh-Mallory wrote to the Chief of Air Staff stating his preference as (i) Air Vice-Marshal Coryton, (ii) Air Vice-Marshal D'Albiac. The latter was chosen, but he was to act as Commander of the Tactical Air Force and not Deputy to the Allied Air Commander-in-Chief (Designate).
- (2) The full text of this letter, Ref. TLM/MS.129, together with diagrams illustrating (i) the position of the Expeditionary Air Force in relation to the other Commands involved in continental operations, and (ii) the organization of Fighter Command after the proposed changes had taken place, is at Appendix I/5
- (3) See Appendix I/6
- (4) COS (43) 224 (0)

together with his American counterpart, were to be subordinate to the Allied Air Commander-in-Chief, the latter of whom would control through appropriate channels the strategic bombing forces allotted to the operation, the formations concerned with the Air Defence of Great Britain, the Photographic Reconnaissance Unit, the air element of the Airborne Forces and all transport aircraft.

The Chief of Air Staff further proposed that, in order that all concerned might gain progressive experience of the new organization, an Expeditionary Air Force Headquarters should be formed immediately and a commander appointed. The initial functions of the Expeditionary Air Force Headquarters followed those proposed by Air Marshal Leigh-Mallory.

Subject to a rewording of the paragraph dealing with the forces which the Allied Air Commander-in-Chief was to control, the Chiefs of Staff Committee endorsed the arrangements set out in the Chief of Air Staff's memorandum. The revised wording was as follows:-

"The latter will also control through appropriate channels the strategic bombing forces allotted to the operation, the formations concerned with the Air Defence of Great Britain, the air element of the Airborne Forces, all transport aircraft and such photographic reconnaissance units and Coastal Command squadrons as may be allotted to him for the purpose of the operations", (1)

TLM/Folder 4.

The Vice-Chief of Air Staff later gave more detailed information (2) to the Chiefs of Staff Committee of the forthcoming inauguration, within Fighter Command, of the Tactical Air Force with effect from 1 June 1943. The title "Tactical Air Force" had superseded "Expeditionary Air Force" on the advice of the Controller and Planning Staffs, in whose opinion the consideration of security and cover plans made the former title more suitable. (3) The Tactical Air Force was to include:-

No. 2 Group (Transferred from Bomber Command),
No. 83 (Composite) Group,
No. 38 Wing,
No. 140 Squadron,

Army Co-operation Command was to be abolished with effect from the same date and Army Co-operation Wings were to retain their identity and existing locations and were to be allocated to appropriate Fighter or Composite Groups. No. 70 Group was to be placed directly under Fighter Command to continue its training functions. This Group was to take over the Light Bomber Officer Training Unit and A.A. Co-operation Units. Headquarters, Tactical Air Force was to form initially at Bracknell, and an Air Officer Commanding, Tactical Air Force (referred to heretofore as Deputy to Air Officer Commanding-in-Chief, Fighter Command) was to be appointed.

/The Chiefs

- (1) COS (43) 91st Meeting (O) Item 2.
- (2) COS (43) 248 (O) dated 10 May 1943.
- (3) On 18 October 1943, A.O.C.-in-C Fighter Command was informed (Ref.S.95860/(S.9) that the Air Council had provisionally chosen the title of 2nd Tactical Air Force for the British Tactical Air Force based in the U.K. to differentiate from the 1st and 3rd Tactical Air Forces based respectively in the Mediterranean and South East Asia Command, the designation Air Marshal Commanding was to be given to the 2nd Tactical Air Force Commander.

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TLM/Folder 5.

The Chiefs of Staff Committee approved the Vice-Chief's note, but Sir Alan Brooke (Chief of the Imperial General Staff) drew the attention of the Committee to the need for forming a second Composite Group to work with the First Canadian Army. (1)

General Paget (Commander-in-Chief, Home Forces), had already discussed with Air Marshal Leigh-Mallory the formation of a second Composite Group, and had repeatedly urged that it should be set up without delay. Air Marshal Leigh-Mallory agreed that the early formation of a second group was desirable, but stated that the needs of No. 83 Group coupled with repeated demands for personnel and equipment for north Africa had inevitably retarded its formation. Both armies were anxious to start training at once, but until No. 84 Composite Group could be set up, it was necessary to satisfy the conflicting claims of Second British Army and First Canadian Army out of the meagre resources of No. 83 Group.

A compromise was arranged whereby No. 83 Group was to be affiliated to the Second British Army with an advanced Headquarters at Oxford and at the same time the Canadians would be afforded facilities for training with No. 83 Group whenever possible. In time a second Composite Group would be formed. (2)

FC/S.33275

But owing to pressure from Canadian quarters it was later decided at a meeting held on 29 May 1943 between the Air Officer Commanding-in-Chief Fighter Command and the General Officer Commanding-in-Chief Home Forces, that No. 83 Group should henceforward be affiliated to the First Canadian Army and that the new Group, when formed, should work with the Second British Army. The target date for the formation of No. 84 Group was given as 15 July 1943, and the Group was to set up at Cowley under the command of Air Commodore McEvoy. (3) Air Ministry was informed of this decision in a letter dated (4) 1 June 1943 from Air Officer Commanding-in-Chief, Fighter Command. (5)

FC/S.33216

The formation of No. 84 (Composite) Group was formally authorised by Air Ministry in a Secret Organization Memorandum IM/1144/ADO1 dated 22 July 1943.

/Air

- (1) COS (43) 99th Meeting (0) Item 3.
- (2) Reference FC/S.32279 dated 14 May 1943 at Appendix I/7
See also HF/11437/9 Ops dated 28 May 1943 on FC/S.32151.
- (3) See Appendix I/8.
- (4) Appendix I/9.
- (5) The decision to affiliate No. 83 Group to the First Canadian Army was rescinded in January 1944, when the "Overlord" plan was modified and it was decided that the Second British Army, supported by No. 83 Group, should be the first to assault. The First Canadian Army, to which No. 84 Group was now to be affiliated, was to land after the Second Army. (See-minutes of Air Commander-in-Chief's 4th Planning Conference, TLM/Folder 17.)

Air Vice-Marshal Whitworth-Jones was appointed Air Officer Commanding the new Group with Air Commodore McEvoy as Senior Air Staff Officer.

Target Force for the Tactical Air Force

COSSAC/RAF/21

On 27 September, Air Marshal Leigh-Mallory wrote (1) to Air Ministry on the subject of the composition of the single engined fighter target Force for 1944, for the Tactical Air Force and Air Defence of Great Britain. The total number of squadrons laid down by Air Ministry for this force, excluding night fighters, was 85, of which 18 were to be fighter bombers, eight reconnaissance and 59 fighter squadrons.

The existing equipment of these squadrons was the Typhoon for all fighter bombers and the Mustang for fighter reconnaissance squadrons. The 59 fighter squadrons were to be made up of Spitfires (eventually all Mark IXs, but originally including some Mark V squadrons), and Typhoons (due to change to Tempests when available).

Air Marshal Leigh-Mallory's policy was originally to have 25 per cent high altitude squadrons and 75 per cent medium altitude. Six weeks later, he again wrote (2) to Air Ministry to say that he had reconsidered the composition of Nos. 83 and 84 Groups and had decided to enlarge these Groups and to effect a better balance as between fighters and fighter/bombers. The proposed combined A.D.G.B./Tactical Air Force single engined fighter target force had now been increased by four photographic squadrons (3) two of which were to be at Tactical Air Force headquarters and one at each of Nos. 83 and 84 Groups. The allocation of the 89 squadrons as between A.D.G.B. and the Tactical Air Force was set out as follows:-

(a) A.D.G.B.	Day Fighter Squadrons	Fighter Bomber Squadrons
No. 10 Group	3	1
No. 11 Group	7	1
No. 12 Group	4	
No. 13 Group	3	
	<u>17</u>	<u>2</u>

(b) For the projected Overseas Base Group (No. 85)

Day Fighter Squadrons - 6 (to remain within A.D.G.B. one in R.A.F.N.I., until required to move overseas).

(c) Tactical Air Force Headquarters

Photographical Squadrons - 2

(d) No. 83 Group

Fighter Squadrons - 18
 Fighter/Bomber Sqdns. - 8
 Fighter/Reccs Sqdns. - 2
 Photographic Sqdns. - 1

/(e)

(1) Appendix I/10.

(2) Appendix I/11.

(3) Six had been asked for five months earlier (See A.M. Leigh-Mallory's letter to Air Ministry at Appendix I/11/1).

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(e) No. 84 Group

Fighter Sqdns.	- 18
Fighter/Bomber Sqdns.	- 8
Fighter/Recce Sqdns.	- 3
Photographic Sqdns.	- 1

(f) Reserve

Fighter/Recce Sqdns.	- 3
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(g) GRAND TOTAL

Fighter Sqdns.	- 59
Fighter/Bomber Sqdns.	- 18
Fighter/Recce Sqdns.	- 8
Photographic Sqdns.	- 4

Air Ministry's approval of these proposals was sought and eventually given, and the equipment of the force was decided at a conference held at Fighter Command on 11 November 1943.⁽¹⁾

First Directive to 2nd T.A.F.

FC/S.33164
AEAF/S.13488

On 12 June 1943 Air Marshal Leigh-Mallory issued his first directive to the Tactical Air Force.⁽²⁾ He outlined the organization for cross-channel operations and the initial composition of the Tactical Air Force (83 and 84 Composite Groups, No. 2 Light Bomber Group, No. 38 (Airborne) Wing and an unspecified Reconnaissance Wing). The primary function of the Tactical Air Force was to plan and prepare for continual operations in close collaboration with Army Group Headquarters. This would entail exercises in combined operations, the study of airborne operations and the subsequent training of the R.A.F. component (No. 38 Wing) with the airborne force allotted to the Army Group. The Tactical Air Force would also be responsible for the training and exercise on active operations of the Composite Groups and light bomber squadrons. Finally it was to fulfil immediately all requirements for strategical reconnaissance in connection with continental operations.

FC/S.33164

The directive ordered that, whilst the Groups in the Tactical Air Force were to be fully operational from the outset, Headquarters Tactical Air Force would, during the preliminary planning phase, be relieved of the responsibility for operations except those required for strategical reconnaissance. With this exception, current operations were to be conducted in accordance with instructions to be issued separately.

Air Marshal Leigh-Mallory had deliberately framed the directive⁽³⁾ to ensure that the primary activity of Air Officer Commanding, Tactical Air Force would, for a limited time, be the building-up and training of his command. He considered that, so long as the defence of Great Britain against air attack remained a primary factor governing air operations, unity of control over No. 11 Group (which served both Composite Groups as well as being responsible for the air defence of South east England and for covering major offensive operations against the continent) was essential. That control he intended to exercise himself, although, in order to give the Composite Group commanders some practice in conducting offensive operations, he provided that they

/should

(1) See minutes at Appendix I/12

(2) See Appendix I/13

(3) See letter from Air Marshal Leigh-Mallory to Air Vice-Marshal Medhurst (VCAS) as Appendix I/14

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should regularly control minor operations against the continent, using their own control organization and making use of the fighter resources of No. 11 Group.

As a later stage (when Tactical Air Force Headquarters had moved to Uxbridge) Air Marshal Leigh-Mallory intended (vide para. 8 of the directive) that the Air Officer Commanding Tactical Air Force should assume responsibility for the planning and direction of all offensive operations carried out from No. 11 Group area, and that Air Officer Commanding No. 11 Group should conduct such operations under the direction of the Air Officer Commanding Tactical Air Force, using the No. 11 Group control organization.

It was clear to Air Marshal Leigh-Mallory that thorough training for offensive warfare of squadrons whose primary role had hitherto been defensive would prove of vital importance in landings on the continent.

ATAF/S. 13223

Moreover the Chief of Air Staff (1) in outlining the functions of the Tactical Air Force Headquarters had laid stress on training. In December 1943 Group Captain Atcherley had joined A.E.A.F. as head of the Training Branch, and one of his first acts was to make proposals for the drastic reorganization of the Fighter Leaders School, which had been inaugurated in 1942 at Aston Down. (2) Group Captain Atcherley recognised that our urgent need was for a Central School of Air Support for the immediate training of A.E.A.F. Wing and Group Leaders, both R.A.F. and U.S.A.A.F. (3) These proposals were supported by the Senior Air Staff Officer A.E.A.F. and on 10 January 1944, the Air Commander-in-Chief wrote (4) to the Air Ministry recommending that the Fighter Leaders School then at Aston Down should be enlarged, move to Milfield and absorb the Low Attack School, and that the principle of turning out a large number of pilots of Officer Training Unit standard should be discarded in favour of raising the standard of existing pilots. To this end the intake to all Officer Training Units was to be stopped and these converted into Tactical Exercise Units making a total of six, each holding 180 pilots, who would be given advanced training. These proposals were agreed in principle, (5) and the first of a series of special courses was begun at Milfield in February 1944.

Air Marshal Leigh-Mallory's decision to limit the operational control of the Air Officer Commanding Tactical Air Force was opposed by the first holder of that appointment - Air Marshal D'Albiac - who considered that he should at once assume control of all offensive operations. Air Vice-Marshal Medhurst also wrote to Air Marshal Leigh-Mallory (6) suggesting that greater operational responsibility should be given to the Tactical Air Force Commander. Air Marshal Leigh-Mallory in his

/reply

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- (1) COS(43) 224 (0)
 - (2) See letter from Air Marshal Leigh-Mallory to Air Ministry at Appendix I/15.
 - (3) See minute from Group Captain Training to Air C.-in-C. at Appendix I/16 and Senior Air Staff Officer's comments at Appendix I/16/1.
 - (4) Text at Appendix I/16/2.
 - (5) See Air Ministry's reply at Appendix I/16/3.
 - (6) ACAS(F) 2485/83 dated 24 June 1943

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FC/S.33164

reply (1) set forth his reasons (as given above) for limiting the scope of the Air Officer Commanding Tactical Air Force's operational command. These reasons were accepted by Air Ministry. (2)

TLM/MS.136/40

Further directives were sent to the Air Officers Commanding 2nd T.A.F. and A.D.G.B. on 17 November 1943, immediately after Air Marshal Leigh-Mallory had been confirmed in his appointment as Allied Air Commander-in-Chief. (3) A third and more detailed directive (4) was sent to Air Marshal Commanding 2nd T.A.F. on 6 December. The new Directive indicated the object of operation Overlord ("to secure a lodgement area on the continent from which further offensive operations can be developed"), gave the target date as 1 May 1944, and outlined the system of command and control and the responsibilities for planning. (5)

In January 1944, Air Marshal D'Albiac was superseded as Air Marshal Commanding, 2nd Tactical Air Force, by Air Marshal Coningham late Commander of the Mediterranean Tactical Air Force. By 2 February 1944, the 2nd Tactical Air Force had moved to its tactical headquarters at Uxbridge, and intensive training of squadrons in preparation for continental warfare had begun. (6)

Formation and Development of the United States IXth Air Force

TLM/Folder 4.

Composition of the Force

It had been decided by the Combined Chiefs of Staff as early as 14 April 1942 to convert the U.K. into an advanced base for operations in western Europe, and shortly after that date initial steps were taken to provide the necessary aerodromes and accommodation for a large number of American forces. (7)

It was not until June in the following year that a detailed estimate of U.S. and British forces available for cross-channel operations in 1944 was made. At the Trident conference it was decided by the Combined Chiefs of Staff that a total of one hundred and twelve and a half U.S.A.A.F. Groups (some 7,300 U.E. aircraft) would form the American contribution to the Allied Air Forces to be used in the entry

/into

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- (1) Reference FC/S.33164 dated 1 July 1943
 - (2) ACAS(P) 2648/43 dated 3 July 1943
 - (3) See Appendices I/17 and I/18
 - (4) Reference AFAF/MS.471/Air Plans.
 - (5) See Appendix I/19
 - (6) Further Details of the organization of 2nd T.A.F. will be found on AFAF/10057. Files dealing with training and combined assault exercises are:- AFAF/S.13206, 13223, 13372 and TLM/S.136/11/1.
 - (7) COS(42)103(0)

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into north west Europe. Of these one hundred and twelve and a half Groups approximately 61 would be medium and light bomber, fighter and reconnaissance groups which would go to compose the U.S. Tactical Air Force. (1)

TLM/Folder 4.

Although the existence of a U.S. Tactical Air Force was implicit in the proposals for the Command of Air Forces made by the Chief of Air Staff and accepted by the Chiefs of Staff in April 1943, the appointment of a commanding general of this force was delayed until the following September. While on the British side the 2nd Tactical Air Force and Twenty First Army Group had set up their organization and begun their joint training and study of mutual problems early in May, no comparable organization of the American component of the Expeditionary Forces existed, and by July American planners had not yet laid down the method of employment of U.S. Air Forces, nor even begun to form the tactical units. This delay was occasioned largely by a reluctance on the part of established U.S.A.A.F. units (VIIIth Air Force and ETOUSA) to recognise the necessity for A.E.A.F. or for a separate American Tactical Air Force. (2)

TLM/MS. 144

Air Marshal Leigh-Mallory had hesitated to take action before the appointment of a Commanding General U.S. Tactical Air Force, but by July 1943 he was genuinely anxious whether, if immediate action was not taken, the U.S. Tactical Air Force would be ready and fully trained in time to take its part in the invasion. Accordingly, on 5 July 1943 he wrote to COSSAC setting out his views on the organization and training of the U.S. Tactical Air Force and urging the need for the immediate setting up of U.S. Army and Air Force Headquarters. (3) In this letter, Air Marshal Leigh-Mallory outlined the reporting and control systems in force in the 2nd Tactical Air Force and recommended that similar systems be enforced in the U.S. Tactical Air Force. He urged that the U.S. ground and air headquarters together with the forces under their command should be formed as soon as possible so that training of the Allied forces and exercise in operations could begin; it would also ensure that the system of control and organization would be working smoothly before the main battle began. The Chief of Staff to the Supreme Commander approved Air Marshal Leigh-Mallory's recommendations and Brigadier General Hansell, in his capacity as Deputy Air Commander-in-Chief (Designate) hastened to put them in effect.

TLM/Folder 9.

On 10 September at COSSAC's twenty-fifth Staff Conference, Air Marshal Leigh-Mallory announced the forthcoming formation of the IXth U.S. Air Force, which would in effect, be the counterpart of the British Tactical Air Force, under the control of Major General Brereton. To ensure co-ordination of command, General Eaker had been designated as Commanding General U.S. Air Forces in Europe (i.e. of both VIIIth and IXth Air Forces). The Air Commander-in-Chief, A.E.A.F. was to have operational but not administrative control over the IXth Air Force for the following reasons:-

- (a) Administrative requirements for all U.S. personnel in U.K. were centralised in Headquarters, ETOUSA. The IXth Air Force would, therefore, have little administrative responsibility, except within its own formation.

/(b)

- (1) COS(43)295(0)
- (2) COS (43)224(0)
- (3) COS (43)224(0)

- (b) The IXth Air Force was a self-contained administrative and maintenance organization, except that major overhauls were not undertaken by it. The maintenance policy for the IXth Air Force had its own service command controlling service groups on a scale of one service group per two tactical groups. Service groups were under the technical control of the service command but came under the station commander for local administration, etc. These service groups undertook 1st and 2nd echelon repairs, 3rd echelon repairs being carried out either at a U.S. aircraft repair depot in the U.K. or in U.S.A.

At the Quadrant conference held at Quebec in August 1943, certain alterations were made to the Trident figures of air forces available for cross-Channel operations in 1944. It had been discovered that the types of aircraft used in the Mediterranean for dive bombing, observation and reconnaissance tasks were unsuitable for work in north west Europe. Consequently the U.S. light and dive bombers were reduced from 13 groups to two. At the same time day fighter bomber groups were increased to a new total of 1875 aircraft as opposed to 1500 aircraft. Troop-carrier Groups were also increased from eight and a half to nine and a half; a move of four groups from the Mediterranean to the north west European theatre of operations was also contemplated. This meant that in addition to the 51 heavy bomber groups also allotted at the Quadrant Conference some 115 U.S. groups had to be accommodated in the U.K. by April 1944.

Airfield Dispositions

TLM/MS.157

During the summer and autumn of 1943 there was prolonged discussion over the allocation of airfields between the British and U.S. air forces. This was complicated by the fact that the air forces for Operation Overlord were increased at both the Trident and the Sextant conferences. In July 1943, without warning, the Director General of Organization had to find an additional 26 airfields for the Americans (1) while in November the day fighter forces alone were increased by 612 aircraft to an Allied total of 4155 single engined and twin engined fighter type. By 21 November substantial agreement had been reached between the Air Forces and Commands concerned. By January 1944 Headquarters A.E.A.F. had set up an airfields committee under the chairmanship of an American, General Johnson, which settled all disputes over airfields and arranged any necessary changes of disposition.

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The main principles guiding the allocation of airfields were that the Americans were to be encouraged to send over all available aircraft and that the squadrons of the A.E.A.F. should be concentrated as far as possible in the area from which they would eventually operate. On 23 September 1943, Air Marshal Leigh-Mallory suggested to the Commanding General U.S.A.A.F. that the air forces engaged in Overlord should be divided into offensive and defensive units and their operational control should be similarly divided; he proposed that the British Tactical Air Force should control defensive operations, i.e. fighter cover, while the IXth Air Force would control offensive operations, in particular close support targets.

/By 12

(1) See Appendix I/21.

Ibid

By 12 October 1943 the detailed plan of airfield dispositions were complete. It covered the period of the American concentration of aircraft in the U.K., the preparations for the assault and the assault itself up to about D Day plus eight and finally the subsequent move of British and U.S. air units over to the continent. General Brereton approved this plan on 23 October provided that the availability of aircraft synchronized with the arrival in the U.K. of IXth Air Force units. By 15 April 1944 all moves to permanent airfields were completed.

TLM/Folder 17

Conflicting Claims of VIIIth and IXth U.S. Air Forces

In his organization of the IXth Air Force General Brereton was continually handicapped by the opposing needs of the VIIIth Air Force, and by the fact that the latter, being longer established, was more likely to receive sympathetic consideration when the operational and administrative requirements of the two Air Forces were in conflict. General Brereton more than once asked the Air Commander-in-Chief to intervene on behalf of the IXth, but he failed to appreciate the difficulties involved in interference with the forces of another nation.

In December 1943 General Spaatz, who had now succeeded General Eaker as Commanding General of all U.S. Army Air Forces in the European Theatre, had agreed to the reorganization of the Air Service Command, which henceforward was to serve all American Air Forces in the theatre. General Brereton had good reason to complain that the allocation of priorities for modifications favoured the VIIIth rather than the IXth Air Force. In January and February 1944 IXth Air Force pilots were forced to fly unmodified Mustangs on operations which the 2nd Tactical Air Force considered should be grounded.

Preferential treatment for the VIIIth Air Force in addition to compromising the technical efficiency of the IXth, also adversely affected the build-up of General Brereton's command. At a conference between representatives of the VIIIth and IXth Air Forces and U.S.S.T.A.F., held on 24 January 1944, on the redistribution of fighter groups between the two forces, it was decided that the VIIIth Air Force (which badly needed long-range fighters to escort their bombers on deep penetrations into Germany) should be given the five Lightning Groups originally allotted to the IXth Air Force, who were to receive in exchange two Thunderbolt and three Mustang Groups, the exchange was to be effected immediately with units then in the U.K. and the aircraft and crews were to be handed over to General Brereton so that he could initiate training at once. General Spaatz subsequently withdrew from this agreement and ruled that only one Thunderbolt Group would be handed over to the IXth Air Force complete. The remaining Thunderbolt Group and the three Mustang Groups required to complete the transfer would be handed over with aircraft only and without personnel. General Brereton took the strongest exception to this reversal of policy and urged the Air Commander-in-Chief to intervene and insist that transfers of groups take place immediately, complete with personnel, equipment and ancillary units. On 2 February the Air Commander-in-Chief wrote a minute to the Deputy Supreme Commander asking him to take the matter up with General Spaatz. Air Chief Marshal Tedder agreed to do so. The transfer of the three Mustang Groups did not, however, take place, as General Spaatz insisted that these could not be released by the VIIIth Air Force and must instead be diverted from groups intended for the Mediterranean theatre.

TLM/MS. 144

In addition to the three long-range groups added at the Sextant conference, when in January, the Overlord plan was revised to cover a wider area of assault, the Air Commander-in-Chief had asked for eight more short-range fighter squadrons

/to be

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to be added to the target force. Of these eight the U.S. Chiefs of Staff agreed to provide one from Iceland, but the only possible source for the remaining seven was M.A.A.F. The British Chiefs of Staff were anxious not to deprive M.A.A.F. of any long-range groups, all of which they recognised would be needed for Operation Anvil.⁽¹⁾ They accordingly undertook to try to obtain the U.S. Chiefs of Staff's sanction for leaving the three long-range groups in the Mediterranean provided General Wilson would release the seven short-range squadrons still required for Overlord.⁽²⁾ The U.S. Chiefs of Staff agreed to the retention in the Mediterranean of the three long-range groups and to the transfer instead of three short-range groups (two Spitfire and one Thunderbolt, the latter to arrive in the U.K. on or shortly after 1 April and to be re-equipped there with long-range aircraft on arrival.⁽³⁾ They would not, however, agree to the return to the U.K. of the eight British Spitfire Squadrons also required for Overlord, unless and until a decision was taken against Operation Anvil.⁽⁴⁾

Perversely, the Prime Minister, who had been instrumental in producing the conditions that made the additional eight squadrons vital for Overlord (for it was he who had suggested at Quadrant widening the assault area and adding at least 25 per cent to the strength of the initial assault), opposed most strongly their transfer from the Mediterranean to the U.K. On 18 March he minuted the Secretary, Chiefs of Staff Committee, in the following terms:-

"I entirely agree with JSM.1582 irrespective of Anvil. I was surprised yesterday at the COS telegram. These Fighter Squadrons are far more necessary in the Mediterranean than they will ever be here." (COS 91st Meeting (O) Item 1.)

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General Wilson's reply to the British Chiefs of Staff was that M.A.A.F. could provide seven R.A.F. Spitfire Squadrons provided no long-range or Mustang Groups were withdrawn. Alternatively they might release one U.S. Group instead of the R.A.F. squadrons. But if they had to release more than one U.S. Group or, alternatively, more than the seven R.A.F. Squadrons they could not undertake Anvil.⁽⁵⁾ On receipt of this telegram the British Chiefs of Staff signalled the Joint Staff Mission in Washington asking them to use their utmost endeavour to persuade the U.S. Chiefs of Staff to agree to the terms of General Wilson's telegram. This the U.S. Chiefs of Staff did.⁽⁶⁾

Air Marshal Leigh-Mallory was firmly opposed to this compromise, realising how badly the long-range fighters would be needed for offensive purposes in Overlord. The Deputy Air Commander-in-Chief (now Major-General Hoyt Vandenberg) also strongly opposed acquiescing in the

/Chiefs

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- (1) See Chap.4 P.73
 - (2) Ref. COSMED 62 dated 15 March 1944
 - (3) Ref. JSM/1576 dated 16 March 1944
 - (4) Ref. JSM/1582 dated 17 March 1944
 - (5) Ref. IZ.2734 dated 20 March 1944
 - (6) Ref. JSM.1603 dated 30 March 1944

TLM Folder 17.

Chiefs of Staff's decision not to send the three long-range Groups to the U.K., and undertook to approach the Commanding General U.S.St.A.F. in an attempt to reverse the decision. (See minutes of Air Commander-in-Chief's twelfth Staff Conference held on 23 March 1944).⁽¹⁾ The Deputy Supreme Commander, however, although he agreed with Air Chief Marshal Leigh-Mallory and General Vandenberg, was not prepared to force the issue, and the decision of the Combined Chiefs of Staff was accepted. (COS (44) 95th (O) Meeting).

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Not only was General Brereton baulked in the build-up of his Force, but he was further hampered by the VIIIth Air Force on the training and operational side. On 15 December 1943, the Air Commander-in-Chief, A.E.A.F., assumed operational control of the U.S. IXth Air Force.⁽²⁾ "Operational Control" however, was to prove a euphemistic term. For months the Air Commander-in-Chief continued to press for full operational control of the IXth. Finally he asked the Deputy Supreme Commander to use his influence and on 3 March 1944 he saw the Supreme Commander in company with Air Chief Marshal Tedder, and both suggested that the time had come for the U.S. IXth Bomber Command to be employed primarily on preparatory bombing for Operation Overlord and for the Air Commander-in-Chief, A.E.A.F., to assume complete operational control of that Force. General Eisenhower agreed, and the following day Air Chief Marshal Leigh-Mallory again saw the Supreme Commander and obtained his approval of a draft directive to the Commanding General IXth Air Force which he had himself drawn up. This stipulated that from henceforward the IXth Air Force should operate exclusively under command of Headquarters A.E.A.F. The Mustangs were to continue to operate in support of Operation Pointblank but the Lightnings and Thunderbolts were to be held at top priority for all IXth Air Force requirements. In its operations in support of Overlord the IXth Air Force was to provide the maximum diversionary effort to the operations of the VIIIth Air Force over Germany. He devoted the remainder of the directive to describing the role of the IXth Air Force during the preparatory phase of Overlord, which was, in effect the attack of rail communications in ear of the projected battle front.⁽³⁾

TLM/MS
136/15/2.

At his meeting with the Supreme Commander on 4 March 1944 Air Chief Marshal Leigh-Mallory also discussed and obtained General Eisenhower's approval of two drafts (one a directive from the Supreme Commander to the Air Commander-in-Chief A.E.A.F. and the other a note for the Supreme Commander to send to the Combined Chiefs of Staff)⁽⁴⁾ both relevant to the change in operational control of the IXth Air Force. Copies of these drafts were subsequently sent by Air Chief Marshal Leigh-Mallory to the Deputy Supreme Commander. On 10 March the Air Commander-in-Chief spoke on the telephone to General Spaatz and understood that he too agreed that the new directive should be issued to the Commanding General, IXth Air Force. The directive was accordingly sent to General Brereton.

TLM/MS
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But at the Air Commander-in-Chief's 11th Staff Conference held on 16 March 1944, in the course of discussion on the new directive, the Air Officer Commanding No. 11 Group said that the IXth Fighter Command was still apparently unaware that the

/primary

(1) Appendix I/24

(2) See COSSAC's Directive to the Air Commander-in-Chief (COSSAC (43) 81 dated 16 November 1943)

(3) This plan will be dealt with more fully in Chaps. 7 - 8.

(4) See App. I/27 and I/28.

TLM/MS. 136/15/2.

primary role of the Thunderbolts was now to support the IXth Bomber Command rather than the VIIIth Air Force as formerly. The Air Commander-in-Chief accordingly requested the Commanding General, IXth Air Force to make clear this change of directive. On 18 March Air Chief Marshal Leigh-Mallory received a letter from General Spaatz in which he objected to the withdrawal of all the long-range fighters except the Mustangs from the first priority of supporting the long-range penetration of the Strategic Air Forces and he stated that the current directive of the Combined Chiefs of Staff gave this as the primary mission of the IXth Air Force. He believed it possible for the IXth Air Force to carry out both training for Operation Overlord and to continue to give cover to Pointblank operations.

AEAF/S. 13165
dated 1 April
1944 also
TLM/MS. 136/15/8

As the Supreme Commander himself was not prepared to force the issue, the Air Commander-in-Chief, had no option but to bow to General Spaatz's decision, and the directive was accordingly changed again to allow Thunderbolts as well as Mustangs of the IXth Air Force to continue to operate as first priority in support of the VIIIth Bomber Command on Pointblank missions.

AEAF/MS.
13165/Air
TLM/S. 136/15/18

Thunderbolts in addition to Mustangs were now to support Pointblank subject only to training requirements, for which the Commanding General IXth Air Force was permitted to retain two groups daily. (1) This meant that out of a total of 18 day fighter and fighter bomber groups the Commanding General, IXth Air Force, was allowed to exercise operational control over only five. (2)

TLM/MS. 136/15/2

It was not until 15 April 1944 - some seven weeks before the landings took place - that the Supreme Commander was given the direction (note "direction", not "control") of the U.S. Strategical Air Force and of R.A.F. Bomber Command, with the implication that such forces could, if necessary, be employed exclusively in support of Overlord rather than Pointblank. But even then Pointblank still retained first priority. On 17 April the following instruction was sent out by A.E.A.F. to all subordinate commands - "Mustang aircraft of the IXth Air Force and Mustangs of the 2nd Tactical Air Force will continue to operate in support of Pointblank operations as and when required by the VIIIth Air Force. Subject to training requirements of the IXth Air Force, the Thunderbolt aircraft will also support, until further notice, the Pointblank operations of the VIIIth Air Force when required to do so. Training requirements will necessitate the retention by the IXth Air Force of three Thunderbolt Groups daily until adequate training is completed (AEAF/TS. 22296 Standard Operating Procedure)." This instruction was not rescinded until 26 June 1944.

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This divided control of the IXth Air Force was to prove a stumbling block over which General Brereton had repeated and bitter reason for complaint. The fact that the Combined Chiefs of Staff had given priority to Pointblank

/operations

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- (1) See AEAF/MS. 13165/Air dated 1 April 1944 - Directive on Tactical Bomber Operations to subordinate Commanders of the AEAF. (Appendix I/25).
 - (2) The Day Fighter Groups of the IXth Air Force then consisted of 13x Thunderbolt Groups, 3 x Mustang Groups, and 2 x Lightning Groups (each Group comprising 3 Squadrons) (See AEAF Tactical Order of Battle dated May 1944 on TLM/136/5).

G. 323100/MJG/1/52/30.

operations until mid April 1944 meant that the VIIIth Air Force had prior call over the IXth on escorting Spitfires of No. 11 Group. This in turn meant that fighter cover for Overlord and Noball⁽¹⁾ operations was cut to a bare minimum, with the result that not only IXth Bomber Command but 2nd Tactical Air Force also suffered. No. 11 Group Spitfires were frequently obliged to carry out two operational sorties a day, one squadron being responsible for a formation of 54 Marauders. The Air Marshal Commanding 2nd Tactical Air Force added his complaints to those of General Brereton, for he considered it "vital to the success of Overlord that both Tactical Air Forces should concentrate on their legitimate Overlord tasks rather than continue to operate in support of Pointblank, if the necessary standard of training was to be attained in time".⁽²⁾

TLM/Folder 17

So insistent were General Spaatz and General Doolittle (Commanding General VIIIth Air Force) on the priority of Pointblank over Overlord that even when they had sufficient VIIIth Air Force fighters available for the task they still persisted in calling upon fighters of the IXth to escort Pointblank operations (see Minutes of Air Commander-in-Chief's 13th Staff Conference). But in spite of this, not only was the IXth Air Force ready and trained to play its part by D Day Overlord, but by that date also the preparatory bombing programme was nearly 100 per cent complete.

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- (1) Noball was the code name given to the air operations against the flying bomb sites in northern France from which the Germans began to launch flying bombs on 12 June, 1944 and the existence of which was made known to the R.A.F. some six weeks earlier.
 - (2) See Minutes of Air Commander-in-Chief's 8th Staff Conference held 23 February 1944. (Appendix I/26).

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CHAPTER 2

ORGANISATION OF HEADQUARTERS A.E.A.F. AND
THE SYSTEM OF COMMAND AND CONTROL

TLM/MS.132

Levels of Administrative Responsibility for Planning

On the appointment of Lieutenant-General F.E. Morgan as Chief of Staff to the Supreme Commander an establishment of the R.A.F. Component of COSSAC's staff at Norfolk House was drafted. The staff was purposely kept small on the assumption that the information necessary for planning would be readily available from Air Ministry and the appropriate R.A.F. Commands. The establishment provided for a total of 18 officers and 33 other ranks, and was divided into Air and Administrative Branches, both responsible to an Air Vice-Marshal who was to act as co-ordinating authority and air adviser to COSSAC.

TLM/MS.132

The Director General of Organisation (Air Vice-Marshal Pirie) in his original draft on the "Administrative Responsibilities of Norfolk House, A.E.A.F. H.Q. T.A.F. etc." (1) proposed that planning on both the Supreme Command and Allied Air Force Headquarters levels should be conducted simultaneously by the R.A.F. Norfolk House Staff. He believed that these proposals would lead to an economy in manpower and would avoid duplication of effort. In the second place he understood that planning for the Supreme Commander would come to an end in two or three months when the Outline Plan for Overlord should be complete in its final form. The Director General of Organisation considered that then the R.A.F. Norfolk House Staff should transfer all their activities to planning on the Allied Air Force Headquarters level.

Another school of thought, represented by Director of Operations Air Ministry, held very strongly that the planning staffs at Supreme Headquarters and at Allied Air Force Headquarters should be kept quite separate. The majority of opinion at Air Ministry (which was shared by Air Officer Administration, Fighter Command, but not by the Senior Air Staff Officer) was that a small administrative planning staff, concerned exclusively with planning for cross-Channel operations on the Allied Expeditionary Air Force Headquarters level, and, although in close touch with the Fighter Command Staff, free from the responsibility for day-to-day administration of that Command, should be set up at once. That is to say that Air Marshal Leigh-Mallory should deal with one staff in his capacity as Air Officer Commanding-in-Chief, Fighter Command, and with another in his capacity as Allied Air Commander-in-Chief (Designate). The Director General of Organisation, in a demi official letter put this proposal to Air Marshal Leigh-Mallory and suggested that it should apply not only to the Administrative Staff, but to the Operational and Intelligence Branches as well. (2)

TLM/MS 132

/Air Marshal

- (1) See Appendix I/29
- (2) See Appendix I/30

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Air Marshal Leigh-Mallory, on the other hand, considered that no additional staffs were necessary until after the Outline Plan for Overlord had been approved by the Combined Chiefs of Staff (estimated at about mid-August, 1943). He believed that, when that time came, the Allied Expeditionary Air Force Headquarters should be set up with a suitable Allied Staff and Air Defence of Great Britain should be thrown off as a separate Command on a par with the Tactical Air Force. Until then, he proposed that on the administrative side, Air Officer Administration Fighter Command and his existing staff, working in close touch with Air Officer Administration (Designate) of 2nd Tactical Air Force, should put forward proposals to Air Ministry for the future maintenance and administration of the Tactical Air Force, which proposals the Air Ministry should implement as they thought fit.(1)

With regard to Air Staff planning, Air Marshal Leigh-Mallory was opposed to a separate planning staff, believing that once the Outline Plan had been approved, operational planning should be done by the normal operational staff of the Headquarters. Until then he considered that the R.A.F. staff at Norfolk House should be considered on his staff rather than COSSAC's, so as to avoid dual responsibility, and to ensure that he, who would ultimately have to implement the assault plan, should have complete control over the air aspect of its planning.

TLM/MS/132

Agreement as to the levels of responsibility for planning and preparations for cross-Channel operations was finally reached between Commander-in-Chief, Fighter Command, Director General of Organisation and the Principal Staff Officer to COSSAC (R.A.F.) at a meeting held on 31 May 1943. They decided that until the formation of Headquarters A.E.A.F. (due to take place sometime after 1 August), the R.A.F. portion of the COSSAC staff would represent the Air Commander-in-Chief. These plans would be supervised by the Principal Staff Officer, R.A.F., COSSAC. In addition it was considered essential that the Tactical Air Force Headquarters should contain a good administrative staff which apart from its normal duties would make plans for Rankin (2) in collaboration with the Air Ministry and Norfolk House. Administrative plans to move the Tactical Air Force to the continent in the event of a German collapse were also to be made.

TLM/MS/132

Inter-relationship of A.E.A.F. and Subordinate Commands

Once the levels of responsibility for preliminary planning had been decided, it was necessary to determine the precise organisation of the Allied Expeditionary Air Force and its ultimate functions and relationship to other Commands.

TLM/MS.132

The Director General of Organisation, in a letter to Air Officer Administration, Fighter Command, suggested that by the autumn of 1943 there should be located at Starmore, together and fully integrated, the old Fighter Command Headquarters and the new Allied Expeditionary Air Force Headquarters (Rear only) both under the supreme command of Air Marshal Leigh-Mallory, with a Deputy appointed for Fighter Command operations proper (A.D.G.B.) and a common Administrative staff, an Air Officer Administration of Air Vice-Marshal rank administering both.

At Supreme Command Headquarters there should be located the Advanced Headquarters of the Allied Expeditionary Air Force, which would be mainly operational, but would have a senior administrative representative of Air rank together /with full

(1) See Appendix I/31 and I/32

(2) See Chapter 3.

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with full U.S. representation. The two Tactical Air Force Headquarters (one British and one U.S.) would deal on operational matters entirely with Advanced Headquarters, A.E.A.F., and on administrative matters with Rear Headquarters, A.E.A.F. and (as far as the U.S. Tactical Air Force was concerned) partly with the VIIIth Air Force. Later, as the advance into Germany progressed, A.E.A.F. Advanced Headquarters would move to the Continent, their Rear Headquarters remaining at Stanmore. At some period (yet to be determined) the Commander-in-Chief, A.E.A.F., would delegate full responsibility for the Air Defence of Great Britain to his Deputy at Stanmore. The Director of Organisation was opposed to separating Fighter Command from A.E.A.F. Rear, and considered that the size of the latter would make it undesirable to move it on to the continent.

TLM/MS 132

After a meeting with the Director General of Organisation on 11 June 1943 to discuss the above proposals, Air Marshal Leigh-Mallory wrote to confirm the opinion he had expressed verbally on the future organisation of A.E.A.F. He agreed with the Director General of Organization on the desirability of making the maximum use of existing Fighter Command staff and machinery in setting up the new headquarters, but he did not (at that time) appreciate the need to split the headquarters into advanced and rear parties. He envisaged handing over the command of A.D.G.B. to the Air Officer Commanding, No.11 Group, immediately after the assault stage of Overlord was completed.

In this letter Air Marshal Leigh-Mallory proposed that the three main forces comprising the A.E.A.F. would be the U.S. Tactical Air Force, the British Tactical Air Force and the Air Defence of Great Britain (comprising Nos.9, 70 and 60 Groups, the night fighter squadrons and the residue of single engined fighter squadrons which would remain with the existing static fighter groups and lastly base units serving the British Tactical Air Force but which would remain in the U.K. (1) When Headquarters A.E.A.F. was established a U.S. Officer would become Deputy Allied Air Commander-in-Chief; there would be a British - U.S. operational planning and co-ordinating staff and a British U.S. administrative planning and a co-ordinating staff. The Operational Planning Staff already existed at Norfolk House, since the Chief of Air Staff had agreed with Air Marshal Leigh-Mallory that the R.A.F. element of COSSAC's staff should be considered as the Allied Air Commander in Chief (Designate's) rather than COSSAC's staff. The Air Officer Administration would assume responsibility for British administrative planning at A.E.A.F. Headquarters level and would begin immediately to collaborate with the Americans in setting up a combined British - U.S. administrative staff. Then, as the organisation of 2nd T.A.F. developed, its headquarters would assume administrative responsibility. The same would eventually apply to A.D.G.B. Air Vice-Marshal Pirie (now appointed Director General of Organisation) agreed to these proposals and reorganisation along these lines was subsequently put in hand. (2)

/On 2 July

(1) See Appendix I/35.

(2) For details of the reorganisation of Fighter Command and amalgamation of groups and sectors see Files FC/S.38870, 35282 and 30773.

TLM/Folder 9.

On 2 July 1943, Air Marshal Leigh-Mallory announced at COSSAC's thirteenth Staff Conference that he had set up a nucleus Allied Air Staff with Headquarters at Norfolk House. Brigadier-General Hansell was his Deputy, Air Commodore Groom his Senior Air Staff Officer. An American would be appointed as Chief Administrative Officer (1) and other appointments would follow. (2)

TLM/MS 160

On 14 August 1943, Air Marshal Leigh-Mallory held a conference at Headquarters, Fighter Command, attended by heads of branches and representatives from Tactical Air Force COSSAC (R.A.F.), U.S.A.A.F. and Air Ministry (Director of Organisation (Establishments)) to decide on the policy and general principles which should be followed in the organisation and establishment of the Allied Expeditionary Air Force, and to provide a basis for discussion at a conference (3) which had been called by the Air Member for Supply and Organization for 19 August.

At the Air Officer Commanding-in-Chief, Fighter Command's conference the following main points were agreed:-

- (a) A.E.A.F. should be fully administrative and responsible for base and line of communication units. It should contain operational and administrative planning staffs and a combined intelligence staff.
- (b) The staff would be Anglo-American and it was felt that the Air Officer Administration should be British with an American Deputy (probably of the same rank). Under these officers would be British and American executive staffs working closely together but parallel with U.S. and British heads of sections, each dealing with his own service. Certain resources, e.g. aircraft, petrol, etc., would be pooled and therefore handled by the staff in combination.
- (c) Headquarters A.E.A.F. should be set up at once making the fullest use of the existing Fighter Command and Norfolk House Staffs.
- (d) The Tactical Air Force should be fully administrative at its own (Army Group) level and directly responsible for the ancillary units in its own area but not for base or line of communication units.
- (e) The static side of Fighter Command should be renamed A.D.G.B. and become, under A.E.A.F., a subsidiary Command parallel with Tactical Air Force.

These points were examined in detail at the Air Member for Supply and Organization's conference and items (a) and (d) were approved. With regard to the other points raised, it was decided to work out fuller details concerning the maintenance organisation and, in the case of U.S. establishments, there was the problem of avoiding duplication with the American Air Service Command. (4) It was recognised that during

/the initial

- (1) The decision to appoint an American as Chief Administrative Officer was subsequently changed, Air Vice-Marshal Edmonds assuming that function with Colonel (later Brigadier-General) Langmead as his American Deputy.
- (2) See Appendix I/36
- (3) Notes at Appendix I/37
Notes at Appendix I/38/1
Notes at Appendix I/38/2
- (4) For a fuller account of this conference see notes at App. I/38.

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the initial phase the relationship between A.E.A.F. and A.D.G.B. would be inextricably joined together but that eventually A.D.G.B. with its many stations and far flung organisation would be separated from the Expeditionary Air Force. This was to be taken into account when planning the organisation of A.D.G.B.

The Air Officer Commanding-in-Chief, Fighter Command explained that Headquarters A.E.A.F. would control not only the entire force but also base and line of communication units. The Tactical Air Force would be responsible for Repair and Servicing Units and Air Servicing Points. Headquarters A.E.A.F. would control all appointments above Group Captain while the Tactical Air Force would be responsible for all postings below that rank. The Air Officer Commanding Tactical Air Force and not the Supreme Commander would hold a Court Martial Warrant. Headquarters A.E.A.F. was to deal with all questions of priorities and would maintain a number of statistics. The meeting agreed that, in order to keep the Composite Groups mobile and free to fight the battle, a Maintenance Group should be established. Air Marshal Leigh-Mallory also confirmed that the Army recognized the principle that Twenty First Army Group should deal with Headquarters A.E.A.F. at the same different level as the Tactical Air Force. (1)

Establishment of Headquarters A.E.A.F.

TLM/MS.160

On 30 August, Air Marshal Leigh-Mallory (who had now been appointed Commander-in-Chief, Allied Expeditionary Air Force (Designate) (see page 33) submitted to Air Ministry his proposals for the provisional establishment of the R.A.F. side of Headquarters A.E.A.F. This establishment provided for a total of 56 officers and was divided into Air and Administrative branches each under an Air Vice-Marshal. Air Marshal Leigh-Mallory pointed out that the U.S.A.A.F. were awaiting the approval by Air Ministry of this establishment before submitting their own table of organisation for the American side of the Headquarters, and further, that the detailed establishment of 2nd T.A.F., A.D.G.B. and the Composite Groups depended on a firm decision as to the organisation of Headquarters A.E.A.F.

TLM/MS.136/9/4

Brigadier-General Hansell, Deputy Air Commander-in-Chief (Designate), had left London early in August for Washington with the twofold object of assisting in the drafting of a directive to the Allied Air Commander-in-Chief and personally asking General Arnold to release certain key officer personnel for appointments on the A.E.A.F. Headquarters. In a letter to Air Marshal Leigh-Mallory, written on 25 August 1943 from Washington, he explained that he would be unable to obtain the officers he wanted unless he could assure General Arnold that he was acting with the authority of the Allied Air Commander-in-Chief (Designate) and that the latter's table of organization was firm, for General Arnold would only release officers for the European theatre to go to definitely established posts. In Mediterranean Air Command the U.S. component of Air Chief Marshal Tedder's staff had not been approved after having been in existence for a year, and neither General Arnold

/nor

- (1) For subsequent development of the internal organisation of 2nd T.A.F. see Apps.I/38/1, I/38/2, and I/38/3

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nor General Hansell wanted a repetition of this state of affairs in another theatre. This meant that Air Marshal Leigh-Mallory would be unable to keep his Headquarters small, as he had hoped, until, by a system of trial and error he had arrived at the optimum number of officers required.

TLM/MS.160

Accordingly, on receipt of General Hansell's letter, Air Marshal Leigh-Mallory wrote again to Air Ministry requesting approval of an increase on his original establishment. The revised establishment provided for a total of 120 officers of which 61 were to be American - an increase on his establishment of 30 August of seven R.A.F. officers. (1) A copy of the revised establishment was sent at the same time to the Commanding General, European Theatre of Operations U.S.A. for the formal approval of General Arnold.

This provision of establishment was by no means final. After Washington had made an allotment of 66 officers and 123 enlisted men to serve on Headquarters A.E.A.F., General Barker, Deputy COSSAG in November 1943, (2) requested a further increase to bring the U.S. component up to 86 officers and 168 enlisted men. By this time the R.A.F. component of the Headquarters had risen to 166 officers and 256 other ranks.

Washington was averse to increasing the size of Headquarters A.E.A.F., believing that its numbers should be limited to the minimum necessary "to affect co-ordinated direction of the Air Forces assigned to it" (3) Generals Marshall and Arnold both advocated the inclusion of strong air and naval representation in the Supreme Commanders Headquarters, while hoping to consign the Air Commander-in-Chief to the minor role of a tactical co-ordinator. This conception was unacceptable to either the Naval or the Air Commander-in-Chief, who discussed with General Barker the terms of the reply to be sent to Washington.

This reply pointed out that the Air and Naval Commanders-in-Chief were the principal advisors to the Supreme Commander for their respective services, that this arrangement had proved satisfactory, and that there was no reason to believe that it would not prove effective in the operational phases. (4) The functions of H.Q. A.E.A.F. were enumerated by General Barker as follows:-

- (a) To advise the Supreme Commander and his staff on all questions involving application of air power in combat.
- (b) To prepare the air element of the Supreme Commander's operational instructions.
- (c) To supervise and co-ordinate the training required to prepare the Tactical Air Forces for contemplated operations.
- (d) To direct the combat operations of the Tactical Air Forces.

/To perform

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- (1) See letters at Appendices I/39 and I/40
 - (2) Ref. SC.328.3, dated 30 November 1943
 - (3) See correspondence between Generals Marshall and Devers at Appendix I/40A and B.
 - (4) See also pages 41 and 42.

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To perform these functions General Barker was insistent that the minimum staff required was 252 officers and 424 other ranks in the proportion of 156 R.A.F. officers to 86 U.S. and 256 R.A.F. other ranks to 168 U.S. enlisted men.

The Air Commander-in-Chief was seriously perturbed by the growing strength of his Headquarters and made strenuous attempts to keep it down. On the other hand the last thing he wanted was the interposition of another Air Staff on the staff of the Supreme Commander. An A.E.A.F. Headquarters larger than was strictly necessary to fulfil its function appeared to be the only bulwark against such encroachment. It was not until after the assault had been launched in June 1944 that effective attempts were made to reduce the size of Headquarters A.E.A.F. (See minutes of Staff Meetings on TLM/MS.160/4 - Reorganisation of H.Q. A.E.A.F.)

On 1 June 1944, the number of Allied Officers and civilian advisers on the staff of Headquarters A.E.A.F. was 418, made up as follows:- (1)

	<u>U.S.A.A.F.</u>	<u>R.A.F.</u>	<u>TOTAL</u>
Operations	26	47	73
Air Plans	3	10	13
Intelligence	17	37	54
Signals	38	34	72
Air Information	3	11	14
Miscellaneous	17	58	75
Sub-Total - Air Staff	104	197	301
Sub-Total - Admin.	36	81	117
TOTAL A.E.A.F. STAFF	140	278	418

TLM/MS.160/2

While Air Ministry was considering proposals for the establishment of Headquarters A.E.A.F., weekly conferences (2) (the first convened on 23 September 1943) were in progress between the Staffs of Norfolk House and Stanmore to enable the heads of branches to keep in close touch with progress in planning and to give them the opportunity to raise points which required discussion and settlement.

TLM/MS.136/9

One of the causes of dispute in A.E.A.F. which was to create dissension throughout the period of planning for cross-Channel operations was the split Headquarters - the planners working at Norfolk House and the policy and executive staffs at Stanmore. The main reason governing the decision to split the Staff was that joint planning down to and inclusive of Army level had to be undertaken in London where easy access could be had to Service ministries. It was seemingly impossible to find in London a building large enough to house the complete staffs of Army, Naval and Air Headquarters Allied Expeditionary Force. Consequently, the Planning Staffs only, of each of the three Services,

/were kept

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- (1) These figures have been taken from the U.S. Component A.E.A.F. Historical Data.
It should be pointed out that important executive posts were on the whole divided impartially between British and U.S. officers. (See TLM/Folder 48, Chap. VII Historical Data.)
- (2) See Minutes of 1st and 3rd Weekly Staff meetings at Appendix I/41 and I/42.

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were kept together to work conjointly at Norfolk House. From time to time attempts were made to collect both planning and executive staffs of A.E.A.F. together under one roof, but the planners, headed by Air Commodore Strafford and supported by Brigadier-General Hansell, were insistent on the need for them to work alongside their opposite numbers in the Army and Navy, which meant remaining at Norfolk House. On the other hand, the executive staffs located at Stanmore deplored the fact that the planners frequently called ad hoc meetings and made executive decisions without the authority and sometimes without the cognisance of heads of branches. Thus it might happen that important technical aspects of problems were ignored by the planning staff. The need for shifting the centre of gravity of A.E.A.F. from Norfolk House to Stanmore was often referred to, but never in fact implemented until a few months before D Day. (See Minutes of Weekly Staff Meetings.)

What was not generally recognised was that the Joint Planning Staff at Norfolk House constituted the strategical planning call and as such should have functioned on a higher level than the tactical planners, (i.e Heads of Operational Executive Sections and Branches). In the original organisation the Chief of Operations (an American) was also given the title of Deputy Senior Air Staff Officer. In fact, he never fulfilled this capacity, and yet he expected all planning to pass through his hands. As Chief of Operations his responsibility lay in the tactical sphere and was, in fact the tactical implementation of the air aspects of major strategical plans. The "subordination of the strategical to the tactical" school of thought, strongly supported by the U.S. component of A.E.A.F., was, kept at bay until the dissolution of A.E.A.F. Thereafter, when A.E.A.F. was merged in S.H.A.E.F. the strategical planners were completely submerged, and although, after much argument Deputy Assistant Chief of Staff (Plans) figured in the chart of organisation on the same level as Assistant Chief of Staff (Intelligence) and Assistant Chief of Staff (Operations), in fact it was the tactical planners who were in a position to dictate to the strategical rather than the strategical to the tactical. Had this inversion been brought about prior to Overlord, combined joint planning for the invasion would have been well-nigh impossible.

TLM/MS.160

It was not until 13 November 1943 that authority was given for the formation of the A.E.A.F. under the command of Air Marshal Leigh-Mallory. (Reasons for the delay are given on pages 33 to 43. The formation of A.E.A.F., Headquarters A.D.G.B. and the disbandment of Headquarters, Fighter Command were formally authorised under SD.155/1943 (1587) with the effective date given as 15 November 1943. From this date 2nd T.A.F., A.D.G.B., No.38 Group and No. 85 (Base) Group (then forming in nucleus) were placed directly under the command of the Air Commander-in-Chief, A.E.A.F. while the IXth U.S. Air Force was notified as coming under his command at some later unspecified date. The Air Commander-in-Chief was to be responsible to the British Chiefs of Staff and not to the Supreme Commander for the Air Defence of Great Britain. 2nd T.A.F. was to comprise Nos. 83, 84 and 2 Groups and No. 34 Wing, while A.D.G.B. included Nos. 9, 10, 11, 12, 13, 60 and 70 Groups. The squadrons in 2nd T.A.F. and A.D.G.B. were to be inter-changed and re-adjusted as necessary, under the instructions of the Air Commander-in-Chief.

The Air Commander-in-Chief was instructed to issue a directive to 2nd T.A.F. and A.D.G.B. to cover:-

/(a)

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- (a) The responsibilities of Air Officers Commanding subordinate Royal Air Force formations for the execution of the administrative policy laid down by the Air Commander-in-Chief for day to day administration and for the perfection of their organisation.
- (b) Unless it should appear operationally undesirable, the delegation of normal Command administration control of No. 38 Group and No. 85 (Base) Group to either Air Defence of Great Britain or 2nd Tactical Air Force.
- (c) Headquarters, Air Defence of Great Britain, was to remain responsible for all works services required in the United Kingdom for all R.A.F. formations of the Allied Expeditionary Air Force.

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These directives were issued on 17 November 1943 and (in greater detail) on 28 January 1944 (Ref: AEA/S.10020) when the administrative responsibilities of the respective Headquarters of A.E.A.F., 2nd T.A.F., A.D.G.B., Base and No. 38 Groups were clearly defined. (See Appendices I/43 and I/44).

Publicity

Although A.E.A.F. had now been formally established, the fact was still kept a closely guarded secret, for the Prime Minister had ruled that no publicity should be given to the new Command until the appointment of the Supreme Allied Commander had finally been settled (COS (43) 281st meeting (O) Item 6.)

TLM/MS.196

On 7 January 1944 the Air Commander-in-Chief A.E.A.F. wrote to COSSAC (1) informing him that Air Ministry had prepared a draft announcement explaining the composition of the A.E.A.F. and, in particular, the inclusion of the IXth Air Force, which had been agreed by all concerned with the sole exception of ETOUSA, who had refused to agree to mention of the IXth Air Force without the personal approval of the Supreme Allied Commander. The Air Commander-in-Chief, A.E.A.F. was satisfied that there was no security ground for such exclusion and was convinced that strong reasons existed, on the score of both operations and morale of aircrews, for releasing the news that this Air Force was now operating in the U.K. under a joint Allied command. Moreover, as he pointed out in his minute, the IXth Air Force was under the impression that its name was being withheld from the Press deliberately and without justification. The Air Commander-in-Chief added that he had obtained General Spaatz's agreement to the release of the Air Ministry announcement, and a cable to Washington had already been despatched from ETOUSA, and he now requested COSSAC to assist in obtaining the approval of the Supreme Allied Commander.

TLM/MS.196

COSSAC, when he saw Air Marshal Leigh-Mallory on 7 January agreed to cable General Eisenhower (Supreme Allied Commander (Designate)) requesting his approval for the release of the announcement. On the following day, however, he changed his mind on the grounds of such release being prejudicial to the cover and deception plans for Overlord. While he was prepared to give publicity to the
/existence

- (1) For this and subsequent correspondence see Appendices I/45 - 49 inclusive.

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existence in the U.K. of the IXth Air Force under the command of Major-General Brereton, he would not support the release of the news that this Air Force was an integral part of A.E.A.F. on a par with the British 2nd Tactical Air Force, and he strongly deprecated the fact that a cable had been sent to Washington from ETOUSA requesting such release without prior consultation with him. (Ref: COSSAG/3116/Sec., dated 8 January 1944).

Air Marshal Leigh-Mallory pointed out in a subsequent minute written on 12 January 1944, that the cable was sent without his knowledge either, and arose out of the fact that General Spaatz, as Commanding General of all U.S. Air Forces in the European theatre was consulted by Commanding General ETOUSA over the head of the Air Commander-in-Chief A.E.A.F. It was this continuous side-tracking, facilitated by division of control, which made Air Marshal Leigh-Mallory all the more anxious for public recognition of his own position and that of the forces under his command. This was an aspect which COSSAG failed to appreciate, but it was to prove a stumbling block to the smooth working of A.E.A.F. throughout its existence as a command.

TLM/MS.196

COSSAG's reply to Air Chief Marshal Leigh-Mallory's second minute was to enclose a cable just received from Washington (Ref: R.8028, dated 13 January 1944) stating roundly that the release of the Air Ministry announcement was disapproved. There the matter had to rest until the arrival of General Eisenhower to take up his appointment as Supreme Allied Commander, and it was not until 15 February that the existence of the IXth Air Force in the U.K. and its relationship to A.E.A.F. was ultimately made known. The communique was issued in the following terms:-

"S.H.A.E.F. announce that elements (sic) of the IXth U.S. Air Force under the command of Major-General Lewis H. Brereton, have been incorporated within the A.E.A.F. controlled by the Allied Air Commander-in-Chief, Air Chief Marshal Sir Trafford Leigh-Mallory to whom Major-General W.O. Butler has been appointed as deputy." (1) The complete composition of Air Chief Marshal Leigh-Mallory's Command was not made public until 29 February 1944, when the Secretary of State for Air, Sir Archibald Sinclair, making his Air Estimates Speech before the House of Commons, outlined the chain of command and component forces of the A.E.A.F.

Command and Control - Directive to COSSAG

See P.22

TLM/Folder 5

Reference has already been made to the pre-Overlord planning for a re-entry into the continent, and to the system of combined commanders who were responsible for the planning and execution of cross-Channel operations. In May 1942 the British Chiefs of Staff had discussed the problem of command and planning for continental operations, having before them a report by the Joint Planning Staff in which the latter had reviewed the existing system of planning and made certain firm recommendations. In particular, the Joint Planning Staff advocated a bold switch over from a defensive to an offensive policy and the immediate appointment of a Supreme Commander to be /responsible.

- (1) Major-General Butler succeeded Brigadier-General Hansell as Deputy to the Air Commander-in-Chief in October 1943.

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responsible for general control and direction of all continental operations including raids. They further recommended that the British commanders who would execute such operations should be selected forthwith and charged with responsibility for planning under the direction of the Supreme Commander. Thirdly, they recommended the creation of a new Air Striking Command under the British Air Officer Commanding-in-Chief selected. After discussion the Chiefs of Staff agreed "that the control of land and air operations on the continent in the final stage would have to be exercised by a Supreme Commander." (1)

There was considerable difference of opinion, however, as to whether the plans and preparation for the assault and subsequent operations should be controlled by a Supreme Commander, or whether better results would not be obtained by a "Soviet" system of three Allied Commanders-in-Chief with their staffs working in close co-operation. It was thought that the United States would, sooner or later, press for the appointment of a Supreme Commander and that the U.S. Chiefs of Staff would be more ready to authorise such a one to take decisions on their behalf. (2) The British Chiefs of Staff agreed that if this happened, then the sooner the Supreme Commander and his staff were appointed the better. In the meantime they were unanimous that the Commanders who were to execute the operation must plan it.

Sir Sholto Douglas (then Air Officer Commanding-in-Chief, Fighter Command), was of the opinion that Fighter Command would provide the best basis for the formation of an air striking force for continental operations, and that the Air Officer Commanding-in-Chief of that Command should retain a dual defensive/offensive role, since it would not be possible until a much later stage to divest him of responsibility for the Air Defence of Great Britain. His main reason for this proposal was that if two separate fighter organisations were set up there would be a tendency towards competition between them for the allocation of resources. He proposed that when, ultimately, Air Officer Commanding-in-Chief, Fighter Command moved to France with the Headquarters of his Air Striking Force, he should leave behind him a subordinate commander to conduct the air defence of Great Britain. (3)

TLM/Folder 5.

It was not clear then how the American Air Force would fit into the picture, but it was agreed that there must be full American representation in the chain of command. It was considered essential that an American Corps or Army Commander, and an equivalent Air Force Commander, together with their staffs, should be appointed as soon as possible to plan and prepare for the U.S. share in the operation, in close co-operation with the Commander-in-Chief of the Expeditionary Force and the Air Officer Commanding-in-Chief of the Air Striking Force. It was further agreed that the British commanders who would carry out Round-up should be selected forthwith and charged with the responsibility for planning the operation.

/Early in

- (1) COS (42) 45th Meeting (0)
- (2) On the 11 June the U.S. Chiefs of Staff stated definitely that they wanted a Supreme Commander for continental operations, (ref: J.S.M.264).
- (3) COS (42) 45th Meeting (0)

G.323100/BF/1/52/30.

S E C R E T

Early in June 1942 a number of American General Officers, headed by General Eisenhower, (1) arrived in the U.K. to assist in planning for offensive operations. Representing General Marshall's view, General Eisenhower said that it was essential to have a Supreme Commander for any large-scale landing operation, but that he did not appreciate that there was any urgency in nominating one. He emphasised that there must be one American Commander for all the U.S. forces, land, air and sea. (2) The British Chiefs of Staff stated that the immediate need was to agree on the system of command. This done, and provided a U.S. Force Commander was appointed so that plans and preparations could go ahead, it was agreed that nomination of the Supreme Commander could wait. General Eisenhower informed the Chiefs of Staff Committee that General Chaney had been appointed U.S. Force Commander.

TLM/Folder 5

The system of command and planning for a re-entry onto the continent again came under review in December 1942, when General Eisenhower, just before leaving the U.K. to take up an appointment in the Mediterranean theatre, in a memorandum to the Chiefs of Staff strongly urged that operational planning for landings on the continent be centralized under the Chiefs of Staff in the hands of one man. No agreement was reached other than a decision that no change should be made for the time being in the system of planning. (3)

Argument and fruitless discussion continued until April 1943 when it was decided that the only possible solution to the problem of planning for cross-Channel operations was one advocated by the Prime Minister, namely to appoint a Chief of Staff to the Supreme Commander forthwith, but to postpone the appointment of the Supreme Commander himself for the time being. Accordingly a directive and proposed lay-out of the system of command were prepared in consultation with General Andrews, Commanding General ETOUSA, and Lieutenant General F.E. Morgan was selected for the appointment of Chief of Staff to the Supreme Allied Commander (COSSAC). Lieutenant General Morgan was to be given a U.S. Deputy, later nominated as Major General R. Barker.

The directive issued to COSSAC in April 1943 by the Combined Chiefs of Staff stated that, until the appointment of a Supreme Allied Commander, he would be responsible for carrying out the former's planning duties and would report direct to the British Chiefs of Staff and the U.S. Commander of ETOUSA who was acting as the representative of the U.S. Chiefs of Staff in the U.K. The task of COSSAC was threefold. He was to prepare plans for an operation in 1943 which would test the degree of resistance on the continent. This might lead to a situation in which a return to the continent would be possible owing to the disintegration of German resistance. Plans would have to be ready in the immediate future for this operation. Finally a plan was to be prepared for an opposed landing on the continent in 1944.

Sections of this directive were modified during the month, in particular, the paragraph relating to the preparation of plans. During 1943 there was to be a deception

/scheme which

- (1) General Eisenhower was appointed Commanding General of the European Theatre by the U.S. Chiefs of Staff in June 1942.
- (2) COS (42) 4th Meeting (0)
- (3) COS (42) 203rd Meeting (0)

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scheme which would lead the enemy to believe that an invasion of the Continent would take place that summer. This was to include an actual landing operation in which British and U.S. Air Forces would attempt to bring the G.A.F. to battle.

TLM/MS.136/9

But COSSAC had been given no executive authority and there did not yet exist a clearly defined system of command and control. In a report to the Chiefs of Staff Committee on 19 July 1943 COSSAC complained of the divided allegiance of his staff and asked that British and U.S. officers be appointed to the Air Staff with full responsibilities. He stressed that it was becoming increasingly difficult to define the position of his Staff in relation to other commands. It was not until 9 September 1943 that the British Chiefs of Staff gave COSSAC executive power to implement the plans approved by the Combined Chiefs of Staff. (1)

TIM/MS.136/9.

Meanwhile COSSAC had circulated a paper to the Naval, Army and Air Commanders and the Commanding General EFOUSA which contained his views on the system of command and control. The latter, now General Devers, criticized the lack of simplicity in this plan and also the proposed merging of British and U.S. ground forces. He advocated separate zones of action for British and U.S. forces, each being controlled by their own headquarters. The Supreme Commander would direct and control these forces and during the assault a small advanced headquarters composed of British and U.S. staff officers and the Commander of each Army would co-ordinate operations. The British and U.S. Tactical Air Forces, while independently commanded, would come under the operational and administrative control of the Commander-in-Chief, A.B.A.F.

Ibid

On 10 September, COSSAC again urged the Chiefs of Staff Committee to appoint Naval, Army and Air Commanders and on 16 September the Chiefs of Staff approved the recommendations made by COSSAC in his paper on Command and Control, (2) but they still had not appointed a Supreme Commander, or Commander-in-Chief of either Naval, Land or Air Forces. This omission became more serious as time went on. On 10 November COSSAC informed the Chiefs of Staff Committee that four months was the minimum amount of time required for training and rehearsal and for mounting the operation from the time of receipt of outline plans by the Assault Force Commander. An additional month would be required to allow Army Group Commanders to examine and elaborate the plan. He stated that if a decision on command and control had not been taken by 1 December 1943 the prospects of launching the operation by the target date might be seriously prejudiced.

TLM/MS.189

Directive to the Allied Air Commander in Chief

See Chap.1
Page 1

Air Marshal Leigh-Mallory's name was first mooted as a possible tactical air commander for a re-entry into the continent in July 1942. Air Marshal Douglas (then Air Officer Commanding-in-Chief Fighter Command) commenting on Air Vice-Marshal Slessor's proposed reorganisation of the R.A.F. for Operation Round Up suggested that Air Vice-Marshal Leigh-Mallory should be considered as Air Officer Commanding /Eastern

(1) COS (43) 206th Meeting (0) Item 2.

(2) COS (43) 217th Meeting (0)

Eastern (or British) Air Forces, remarking "there is literally no officer with his qualifications for the job".

Negotiations on the Combined Chiefs of Staff level continued for the next seven months for it was not until 11 March 1943 that Air Marshal Leigh-Mallory was privately notified by the Chief of Air Staff of his selection as Allied Air Commander-in-Chief (Designate), which appointment had been approved by the British Chiefs of Staff, but approved only in principle by the Combined Chiefs of Staff at Casablanca in December 1942.

It was clear to Air Marshal Leigh-Mallory from the first that his position would be compromised by lack of official status and executive authority. Without such authority he was unable to make basic decisions affecting the air aspect of plans for offensive operations. Only a clear-cut directive from the Combined Chiefs of Staff could give him the necessary status and power. To this end Air Marshal Leigh-Mallory urged both COSSAC and the Chief of Air Staff to use their influence in expediting the issue of his directive, but it was not until September that COSSAC himself was given any executive authority, his responsibility up till that time having been confined to the preparation of plans. (1)

TLM/Folder 4

On 21 June 1943 the Chief of Air Staff in a note (2) to the Chiefs of Staff Committee, referred to the invidious position of Air Marshal Leigh-Mallory, and informed the Committee that planning for landings on the continent had reached a stage where basic decisions on air matters affecting both British and American air forces must be given. He suggested that such decisions ought to be made by COSSAC, after consultation with the Allied Air Commander-in-Chief, but since no such officer had been nominated he proposed to request the Combined Chiefs of Staff to give Air Marshal Leigh-Mallory authority to make any decisions on air matters which COSSAC might require of him without prejudice to the eventual appointment of the Air Commander-in-Chief. If this course of action was undesirable he would recommend Air Marshal Leigh-Mallory to the Combined Chiefs of Staff for appointment as Commander-in-Chief, Allied Expeditionary Air Force.

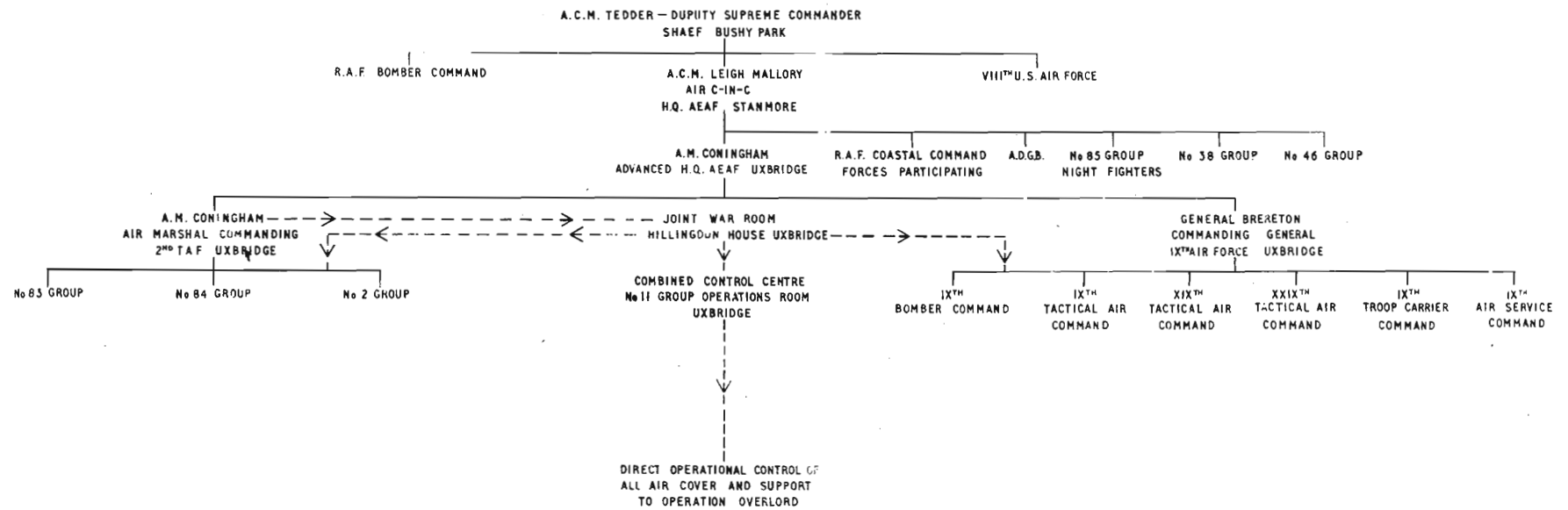
Sir Charles Portal informed the Committee that he had obtained General Dever's (Commanding General ETOUSA) approval to the first alternative but not to the second. He recommended, therefore, that the Joint Staff Mission in Washington should discover the reactions of the U.S. Chiefs of Staff on this matter. The Committee approved the recommendations of the Chief of Staff and a telegram was despatched to the Joint Staff Mission. (3)

On 26 June 1943 the Chiefs of Staff Committee received the following telegram from the Joint Staff Mission which stated that Generals Marshall and Arnold believed that Air Marshal Leigh-Mallory should make decisions without prejudice to his eventual appointment of Commander-in-Chief, A.E.A.F. The Committee accordingly authorised Air Marshal Leigh-Mallory "to make any decisions on air matters which COSSAC might require of him without prejudice to the eventual appointment of the Air Commander-in-Chief" (4)

/The Combined

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- (1) See COS (43)501(0) dated 31 August 1943.
 - (2) At Appendix I/52
 - (3) See COS 134th Meeting (0) Item 3
 - (4) See COS (43) 138th Meeting (0)

CHAIN OF AIR COMMAND FOR THE LANDINGS IN NORMANDY



A.H.B. DIAG. No. 837

LEGEND

- CHANNELS OF COMMAND
- - - - CHANNELS OF OPERATIONAL CONTROL IN THE U.K.

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TLM/MS.136/9

The Combined Chiefs of Staff went one step further on 20 August 1943, when they agreed to the designation of Air Marshal Sir Trafford Leigh-Mallory as Allied Air Commander for Operation Overlord. (1) The fact that he had now been designated, however, added little to the authority of Air Marshal Leigh-Mallory's position, for still no directive was given to him.

TLM/MS.136/9/4

Brigadier-General Hansell, Deputy Air Commander-in-Chief (Designate) had returned from the U.K. to Washington in July, and in late August was engaged with the U.S. Air Staff in preparing a directive to the Air Commander-in-Chief. A memorandum outlining the terms of this directive was sent on 22 August by General Arnold to the Chief of Air Staff and on the 25th Brigadier General Hansell forwarded a copy to Air Marshal Leigh-Mallory. (2) In his covering letter Brigadier General Hansell commented with disappointment on the fact that the directive was still in draft form and did not commit the Air Staff, either U.S. or British, to any definite agreement. He remarked that time was slipping by and his Chief's hands were tied until his duties, authority and responsibilities had been clarified to all concerned.

The most controversial of the points listed by General Arnold which he considered the directive should cover were:-

- (a) The degree of operational control and command over R.A.F. and U.S.A.A.F. tactical air forces.
- (b) The phases and timing of the divorcement of the tactical and strategic air forces.
- (c) The method of providing direct assistance to the operations of the tactical air forces by the strategic air force of the VIIIth Air Force and by R.A.F. Bomber Command.

It is clear from General Arnold's memorandum that he still regarded as a distinct possibility that the strategic bomber offensive from the west (Pointblank) combined with the Russian offensive from the east and the Allied offensive in the Mediterranean theatre, might bring about the collapse of Germany without the need for landings in France - an opinion that was widely shared. He was insistent on both Tactical Air Forces (U.S. and British) participating to the greatest possible extent in Pointblank. Furthermore, he, in company with both U.S. and British Chiefs of Staff, steadily refused to commit himself to a precise definition of the time when preparations for Overlord should take priority over Pointblank. The definition that he gave was - "after Pointblank has progressed with sufficient success to warrant the initiation of Overlord. (3)

TLM/MS.164

COSSAC, in his "Notes on a critical examination of the extracts from the report on Conference Quadrant" drew

/attention to

- (1) See COS 113th Meeting
- (2) See Appendix I/52
- (3) COSSAC (43) 47.

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attention to the inter-relationship of Operations Pointblank and Overlord. He noted that Quadrant had clearly shown that "one of the main pre-requisites of Overlord is indeed the successful accomplishment of their mission by the combined bomber forces operating not only from the British Isles but substantially also no doubt from Italy".

TLM/MS.136/1

Air Marshal Leigh-Mallory and his staff, in planning Overlord had consistently maintained that "the most significant feature in the situation of the G.A.F. in western Europe is the steady increase in its fighter strength which, unless checked and reduced, may reach such formidable proportions as to render an amphibious assault out of the question. Above all, therefore, "(they maintained)" an overall reduction in the strength of the German fighter force between now and the time for the surface assault is essential".⁽¹⁾ They further believed that there was little likelihood of substantially reducing the German fighter strength in a short space of time by the prosecution of Operation Pointblank. Their contention was that the enemy, mindful of the need of husbanding his fighter strength, would only be induced to fight in defence of vital centres or under conditions which were favourable to him. His vital centres were for the most part out of range of Allied fighter escort. They therefore argued that the best method of inflicting heavy casualties on the G.A.F. in a limited time was by a major feint operation to bring on large-scale air battles in areas advantageous to the Allies.

TLM/MS.136/15
TLM/MS.136/9/3

Thus, while there was agreement on all sides that there should be an overall reduction in the strength of the German fighter force before an assault could take place, there was divergence of opinion as to the manner in which such reduction could best be achieved. Both British and U.S. Chiefs of Staff and, to a certain extent, COSSAC, held that Pointblank was the most effective means of imposing wastage. Air Marshal Leigh-Mallory, on the other hand, believed in a major feint operation followed later by a widespread disorganisation of rail communications.⁽²⁾ He never had the same fear of the German Air Force as was expressed by the Chiefs of Staff and even his own staff, maintaining implicit belief in the superior quality of his fighter force and in their ability not only to protect the Allied Armies from the G.A.F., but also to assist them to overcome ground opposition in a re-entry into the Continent (COSSAC (43) 23rd Meeting). The Combined Chiefs of Staff, however, adhered to their thesis that Pointblank was an essential pre-requisite of Overlord, and when it became obvious to all that, despite the priority accorded to this operation, the German fighter strength, so far from being reduced was actually increasing, General Arnold attempted to lay the blame on the R.A.F. for failure to employ their forces in adequate numbers against the German Air Force in being.⁽³⁾

In his memorandum to the Chief of Air Staff General Arnold proposed that the strategic bombing forces (both U.S. and British) should continue to be controlled by the Combined Chiefs of Staff through directives allotting specific proportions of the strategical bomber effort to the Allied Air Commander-in-Chief to use in direct support of Overlord. He

/suggested that

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- (1) COS (43) 416(0) para. 35
 - (2) The plan for the delay of enemy reinforcements by road and rail will be dealt with in Chap. 7.
 - (3) See General Arnold's letter to the CAS and Air Marshal Leigh-Mallory's comments thereon at Appendix I/53.

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suggested that Air Marshal Leigh-Mallory should "select targets and co-ordinate the timing without actually exercising direct operational control over the strategic air forces".

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This view was shared by the Chief of Air Staff, who, on 23 December 1943 wrote to Air Chief Marshal Harris, Commander-in-Chief Bomber Command (copy to Air Marshal Leigh-Mallory) saying - "It has always been my view, which has hitherto been accepted by the Chiefs of Staff, that the co-operation of the heavy bombers should be achieved by placing all or part of them 'at the disposal' but not 'under the control' of the Supreme Commander. In other words, the Supreme Commander would convey to you and Eaker (1) through the Air Commander-in-Chief serving under him, what he required you to achieve, the method of achieving it being left to you except for the actual timing where this affected other major operations in a tactical sense."

Air Marshal Leigh-Mallory was apprehensive of continued control of strategical bombers by a committee once the preparatory phase of Overlord had begun. He believed that, when that time came, it should be for the Supreme Commander rather than the Combined Chiefs of Staff, to decide what proportion of the strategical bomber effort was required for Overlord, and for the Allied Air Commander-in-Chief to control such effort. He considered it essential that the intentions of the Allied Air Commander-in-Chief for the employment of the allotted strategical effort should be faithfully carried out and not merely regarded as a basis for discussion and argument. With the lessons of Starkey (2) fresh in his mind he was, above all, anxious to avoid a repetition of the failure that can result from divided control and lack of a clear-cut system of command.

Early in September 1943 Air Marshal Leigh-Mallory interviewed the Chief of Air Staff in order to state his views on the proposed directive. The main points of the directive were as follows. Air Marshal Leigh-Mallory assisted by a combined staff of U.S. and British officers, was to control the 2nd T.A.F., the Air Defence of Great Britain and the American Tactical Air Force (later known as the IXth U.S. Air Force). It was envisaged that Air Defence of Great Britain under a separate headquarters would break away at a later date. The Air Commander-in-Chief was to give the maximum amount of support during the preparatory phase to the strategic air offensive. He was to be responsible for the training of all the forces under his control. In addition he was responsible for the training and operations of the British and U.S. air forces allocated to airborne operations and transport and communications duties.

There were two passages over which controversy was to rage. The first concerned control of the Strategic Air Force. The R.A.F. Bomber Command and the VIIIth U.S. Bomber Command were to fulfil the requirements of the Supreme Commander. The Air Commander-in-Chief was to select objectives and co-ordinate the timing of attack but he was not

/to exercise

- (1) General Eaker, then Commanding General U.S.S.T.A.F.
- (2) See Chap. 3.

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to exercise direct control of their operations. The second controversial clause referred to administration. Air Marshal Leigh-Mallory was to be responsible for the administration of all the forces placed under his command with the exception of the American tactical air force which was to be the responsibility of the Commanding General ETOUSA after consultation with the Air Commander-in-Chief and would be carried out by the U.S. Services of Supply and the European Air Base Service Command under the former's control.

Air Marshal Leigh-Mallory was opposed to this arrangement because, while recognising its administrative convenience, he foresaw that the Allied Air Commander-in-Chief's operational role might well be prejudiced by such control. In fact, he had good grounds for his fears, for the conflicting claims of the VIIIth and IXth Air Forces were rarely adjudicated in favour of the latter force. The Air Member for Supply and Organisation and the Air Member for Personnel held the same opinions as Air Marshal Leigh-Mallory and the former stated in a minute to the Chief of Air Staff that the "Air Commander-in-Chief ought to have full ultimate powers over his own Command and not merely be a figurehead".

TLM/MS.136/9/4
Encl.7A.

The paragraph concerning administration was subsequently re-worded but without any concessions to the Air Commander-in-Chief. He was now to be "responsible for making such administrative decisions in relation to the forces placed under his command as are not within the province of subordinate commanders and are necessary for the successful accomplishment of your task".

At their 228th Meeting held on 29 September 1943, the Chiefs of Staff Committee approved of the draft directive (Annex to COS (43) 550(0) subject to two amendments. The first of these made a reference in the first paragraph of the directive to a military commander to command the land forces under the Supreme Commander, but on a par with the Naval and Air Commander-in-Chief. The second was the addition of a paragraph stating that for the Air Defence of Great Britain the Air Commander-in-Chief should be responsible to the Air Ministry and not to the Supreme Commander, until such time as the Air Commander-in-Chief moved his Headquarters overseas, when separate arrangements for the control of A.D.G.B. would be made. The Chief of the Imperial General Staff was in agreement with the draft but urged that the Air Commander-in-Chief should control the Strategic Air Forces as he believed that the heavy bombers might play an important part in the initial phase in support of the ground forces.

TLM/MS.136/9/4

TLM/MS.136/9/4

This objection was disposed of by Sir Charles Portal but so far as Air Marshal Leigh-Mallory was concerned the major objection, (i.e. divided control), remained, for the strategic bomber forces were now to be handled by four separate authorities. (i) the Combined Chiefs of Staff, who were to state what proportion of these forces was to be detailed to meet the requirements of the Supreme Commander; (ii) the Supreme Commander, who through the agency of his Air Commander-in-Chief was to detail the objective to be achieved by these forces; (iii) and (iv) Commanders-in-Chief R.A.F. Bomber Command and VIIIth Air Force, who would select targets and control the actual operations of their respective forces.

/The revised

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The revised draft directive was sent to Washington for approval by the Combined Chiefs of Staff early in October, where it was found wholly unacceptable to the U.S. Chiefs of Staff in those paragraphs which dealt with the employment of the Strategic Air Forces. The American objection to the British formula was, broadly, that it conflicted with the principle of unified control by the Supreme Commander of all forces to be employed in Overlord. "A Committee", they said, "cannot fight a battle". The American view was that the Supreme Commander must command all the forces that were to be allocated at any time to the operation. On the other hand, the Americans did not want the control of the American Strategic Air Forces (the VIIIth and possibly the XVth, operating from the Mediterranean) to pass under the control of the British Air Commander-in-Chief. They were already contemplating a unified control of these two Strategic Air Forces by a new command to be known as the U.S. Strategic Air Forces in Europe (U.S.St.A.F.), and their proposed amendment to the draft directive separated the Strategic from the Tactical Air Forces, and set up under the Supreme Commander two Air Commands with two Air Commanders, a British Commander commanding the Allied Tactical Air Force and an American General commanding the Allied Strategic Air Force. They further proposed that all these Air Forces (both Strategic and Tactical) should come under the general directions of the Supreme Commander some three or four months prior to the target date. (Ref: JSM. 1273 - See Appendix 1/54)

The Prime Minister's comment on the American proposals was as follows:-

"This all looks very simple from a distance and appeals to the American sense of logic. However, in practice it is found not sufficient for a Government to give a General a Directive to beat the enemy and wait to see what happens. The matter is much more complicated. The General may well be below the level of his task, and has often been found so. A definite measure of guidance and control is required from the staffs and from the High Government authorities. It would not be in accordance with the British view that any such element should be ruled out." (1).

TLM/MS.136/9/4

In a signal to the Joint Staff Mission the Chiefs of Staff pointed out how necessary it was that the highly specialised operations of the Strategic Air Forces should be controlled by the Combined Chiefs of Staff, that Operation Pointblank would pave the way for Overlord and that when the industrial condition of Germany and the G.A.F. was considered weak enough the Supreme Commander would have general control through the Air Commander-in-Chief of bomber forces allocated to him.

TLM/MS.136/9/3

Such was the position when, at the end of October 1943, the Allied Air Commander-in-Chief (Designate) was summoned to Washington. Ostensibly, the reason for his visit was to advise on the employment of airborne forces in the re-entry into north west Europe (the American High Command having expressed a wish to employ these forces in much greater numbers than the British Chiefs of Staff believed either practicable or desirable), (2) but, in fact, the

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(1) Annex II to COS(43) 259th meeting (0) held 25 October 1943.

(2) See Chapter 5 Page 89

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main object in getting Air Marshal Leigh-Mallory to Washington was the desire on all sides to resolve the deadlock which had arisen over his directive.

Air Marshal Leigh-Mallory arrived in Washington on 31 October 1943 and had a long conversation with Lieutenant General Morgan (who had left the U.K. some weeks previously). From him Air Marshal Leigh-Mallory gained the impression that there was considerable distrust in Washington of the Prime Minister, the Americans believing that, while he had agreed to the plan for Operation Overlord, he was making no serious effort to implement that undertaking. General Marshall was convinced that the landings could only succeed if the Allies were prepared to throw their maximum resources into it, and of this he saw no evidence in the U.K.

General Marshall's views on the draft directive to the Allied Air Commander-in-Chief were that the division of control referred to above might operate unfavourably in the preparatory stage of Operation Overlord, i.e. preparatory bombing might start too late and be directed against the wrong targets. At this time (November 1943) it was thought that General Marshall was likely to be appointed Supreme Commander. Had this appointment in fact been made, General Marshall would never have agreed to continued control by a committee of the strategic bomber effort for Overlord. He made it quite clear both to COSSAC and the Air Commander-in-Chief (Designate) that he, as Supreme Commander, would insist on deciding when the time had come to switch from Pointblank to operations in direct support of Overlord, and, thereafter, against what targets the strategical effort should be directed. (1)

TLM/MS.136/9/3

COSSAC further informed the Air Commander-in-Chief (Designate) that the American Chiefs of Staff wanted to co-ordinate strategical air operations from the Mediterranean and Northern European theatres, but had apparently not yet made up their minds as to how this should be done. Neither General Marshall nor General Arnold trusted the slow machinery of the Combined Chiefs of Staff to effect such co-ordination once active operations were in progress in both theatres. General Arnold had as yet made no firm proposal that the Supreme Allied Commander should command the whole of Europe.

The following day Air Marshal Leigh-Mallory wrote a memorandum, entitled "Command and Control of Strategic Bombers in Operation Overlord", copies of which he forwarded to General Marshall and the Chief of Air Staff (full text at Appendix 1/56). In this paper Air Marshal Leigh-Mallory set out his views (which he made clear were his own and had not received the concurrence of the British Air Ministry), which can be summarised as follows:-

- (a) Until the beginning of the 'preparatory phase' of Overlord the whole of the strategical bomber effort should continue to be controlled by the Combined Chiefs of Staff.
- (b) The Supreme Allied Commander should decide when the 'preparatory phase' (and consequent

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(1) See D.O. letter from Air Marshal Leigh-Mallory to Sir Charles Portal dated 1 November 1943 on TLM/S.136/S. 136/9/3 (Appendix 1/55.)

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change in priorities from Pointblank to Overlord) should begin.

- (c) From the opening of the 'preparatory phase' the Supreme Allied Commander should dispose of the strategical bomber effort as between Overlord and Pointblank.
- (d) The Supreme Allied Commander should, therefore logically command all strategical bomber forces in north west Europe.
- (e) The Supreme Allied Commander should also co-ordinate the operations of the Mediterranean Command, land, sea and air, the Mediterranean Command being the junior partner and retaining the right of appeal to the Combined Chiefs of Staff in the event of conflict between the two Commands.

Air Marshal Leigh-Mallory pointed out that no adequate machinery existed to enable the Supreme Allied Commander to exercise command over the strategical bomber forces. He suggested that Overlord would render anachronistic the system of directives whereby the Combined Chiefs of Staff exercised general control, and which were intended to cover operations for some months ahead. Without making precise recommendations Air Marshal Leigh-Mallory suggested that the Air Commander-in-Chief was the proper agent through whom the Supreme Allied Commander should control all his air forces, including strategical, and that he should now be charged with setting up the necessary organisation for effective control and co-ordination of such air forces.

Shortly after drafting this memorandum Air Marshal Leigh-Mallory was introduced for the first time to the American proposal for two Air Commanders to command respectively the Allied Strategical and the Allied Tactical Air Forces. This proposal, set out in a document prepared by the U.S. planners and entitled "Draft of a Proposed Appendix 'C' - Responsibilities of the Commander of the Allied Tactical Air Forces under the Supreme Allied Commander", (1) came as a complete shock to Air Marshal Leigh-Mallory, who objected to it most strongly on the following grounds: first, that "it would not be possible during major land operations to divide the Strategical from the Tactical Air Forces, because the air plan must be one plan and the two forces would, to a great extent, be operating in the same area"; secondly, that if the Supreme Commander was to deal with two air commanders and co-ordinate their activities and plans, it would be necessary for him to have his own air staff to direct the operations of the Strategical and Tactical Air Forces. "To interpose a Staff Officer between an Air Commander-in-Chief and the Supreme Commander" (he wrote) "would be, in my opinion, entirely wrong and would create a situation which would be wholly unacceptable to the Air Commander-in-Chief". These comments will be found in a memorandum entitled "Comments on the U.S. Draft of a proposed Appendix 'C' to the

/Directive

(1) See Appendix I/57

TLM/MS.136/9/3 Directive to the Supreme Allied Commander". (1)

On the same day, Air Chief Marshal Leigh-Mallory had a discussion on the subject with General Marshall. General Marshall's idea was that the Air Commander-in-Chief should control all Air Forces participating in the land battle, including such part of the Strategical Air Forces as should be allocated for that purpose; and that it should be the function of the Supreme Commander to deal directly with the Commander of the Strategic Air Forces and decide the allocation of effort as between the Strategical and the Tactical Air Forces. He considered that continued exercise of control by the Combined Chiefs of Staff would be too slow and cumbersome, and he appeared unwilling to accept the post of Supreme Commander unless he himself could exercise this control.

At a meeting of the Combined Chiefs of Staff on 3 November it became apparent to Air Marshal Leigh-Mallory that the Americans intended forcing immediately the issue of the control of the strategical bombers, impetus having been added by the impending creation of the U.S. XVth Air Force with effect from 1 January 1944. (2) On the following day, therefore, Air Marshal Leigh-Mallory telephoned the Chief of Air Staff to inform him of the proposed severance of the Strategical from the Tactical Air Forces and of the protest he had lodged. He further informed him that the only hope of reaching agreement on his directive was to delete all controversial paragraphs dealing with the control of Strategical Air Forces and to state merely that a further directive on this subject would be issued in due course. This course had already been proposed by Air Marshal Leigh-Mallory at the Combined Chiefs of Staff Meeting on the 3rd, and the Chief of Air Staff approved the action he had taken. The Combined Staff Planners reported (3) inability to agree on the terms of the Directive, and two days later the Joint Staff Mission (4) telegraphed the British Chiefs of Staff informing them of those paragraphs in the directive on which agreement had been reached and referring the remaining paragraphs to them for their comment.

Comment of the British Chiefs of Staff (set out in COS.3699 dated 10 November 1943) was fairly uncompromising, and they directed the Joint Staff Mission to endeavour to convince the Americans that they (the British Chiefs of Staff) could not accept the use of the phrase 'command' as suggested by the U.S. Chiefs of Staff. They insisted that, since the operations of the Strategic Air Forces affected all fronts (including the Russian) the Combined Chiefs of Staff must retain control over such forces, only allocating part or all of them to operate under the Supreme Commander as and when they thought fit. They did not propose, however, to change the percentage of allocation more often than was necessary, so that the Supreme Commander would know in advance what effort was likely to be available to him. The Commander-in-Chief, Bomber Command, once the percentage of effort had been allotted by the Combined Chiefs of Staff, would be "under orders to do

/his utmost

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- (1) See Appendix I/58
 - (2) Ref. S.7657/5246/6385 on TLM/S.136/9/3.
 - (3) COS 304/7 dated November 1943.
 - (4) Ref: J.S.M. 1303 dated November 1943.

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his utmost to achieve the task given him by the Supreme Commander with the means allotted".

On 16 November 1943 a directive was formally issued to the Air Commander-in-Chief, A.E.A.F., by the Chief of Staff to the Supreme Commander (Designate) (1) the terms of which were as follows:-

"You have been designated by the Combined Chiefs of Staff as 'Air Commander-in-Chief, Allied Expeditionary Air Force' under the Supreme Allied Commander to exercise operational command over the British and American Tactical Air Forces, supporting the invasion of North-West Europe, from the United Kingdom. A United States Air Officer has been appointed as 'Deputy Air Commander-in-Chief, Allied Expeditionary Air Force'.

The Allied Expeditionary Air Force will comprise the Royal Air Force Tactical Air Force and its administrative units, the United States IXth Air Force and, initially, such forces as may be allotted to the Air Defence of Great Britain. Other units may be assigned to the Allied Expeditionary Force at a later date.

- (a) The Royal Air Force Tactical Air Force and the formations for the Air Defence of Great Britain pass to your command at once.
- (b) The United States IXth Air Force will pass to your operational command on 15 December 1943.
- (c) Command will be exercised in accordance with the provisions of C.G.S. 75/3.

You will be directly responsible to the British Chiefs of Staff for the Air Defence of Great Britain, until such time as your Headquarters moves overseas, when separate arrangements for the Air Defence of Great Britain will be made.

Directives as to the control of the strategic air forces will follow at a later date. In the meantime, subject to the satisfactory progress of preparations for the invasion, you should, during the preparatory period, exercise operational control of the air forces under your command in such a manner as to lend maximum support to the Strategic Air Force offensive."

The 'later date' alluded to in the last paragraph was not to be until 17 April 1944. This was the date when the first directive was issued by S.H.A.E.F. to the U.S. VIIIth Air Force and R.A.F. Bomber Command, indicating that the preparatory phase of Operation Overlord had begun and the change in control of the strategic air forces from the Combined Chiefs of Staff to the Supreme had taken place. In the interval since November 1943, General Eisenhower had been appointed Supreme Commander, and a British Air Officer had been

/appointed

(1) COSSAO (43)81

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appointed Deputy Supreme Commander - Air Chief Marshal Tedder.

Supervision by Deputy Supreme Commander of all Air Forces
in Overlord

ID3/1959
(Pt.2)

Both General Eisenhower and his Chief of Staff, General Bedell Smith had expressed dissatisfaction over the system of air command in Overlord to the Prime Minister during the Sextant conference in Cairo. It was evident that General Eisenhower wanted complete control over all the Air Forces in a manner similar to the Mediterranean command. He also did not approve of the U.S. Tactical Air Force being placed under control of a British air commander.

The British Chiefs of Staff, on the other hand, believed that such a system of unified control could not work in the U.K. where the British, Fighter, Bomber and Coastal Command had functions apart from supporting Overlord while the British and U.S. Strategic Air Forces were waging a highly specialised campaign of their own. It would be impossible for the Supreme Commander to control these operations when he and his headquarters moved to the continent. At the same time the Prime Minister was anxious that full use should be made of the Deputy Supreme Commander's great experience of air-ground operations.

D.S.C./T.S.100
Pt.1.
Encls.4A-5A

Discussions and negotiations over the control of the Strategic Air Forces continued throughout February and into March 1944. In the third week of February the Chief of Air Staff had shown the Deputy Supreme Commander a draft directive for heavy bomber support to Overlord. He suggested that the Air Commander-in-Chief's Bombing Committee should recommend the most suitable date for the heavy bombers to be placed at the Supreme Commander's disposal. Air Chief Marshal Tedder was very pessimistic about the effectiveness of the present organization for plans and operations. In a letter to Sir Charles Portal, written on 22 February, he said that he did not believe that a joint plan could be evolved by a number of committees and he urged unified control such as appertained in the Mediterranean theatre. He strongly disapproved of the un-co-operative attitude adopted by the Strategic Air Force Commanders. (1) He believed that if the British Chiefs of Staff and the Prime Minister took up an uncompromising attitude with regard to R.A.F. Bomber Command there might be an irremediable split in Anglo-American unity.

ID3/1959
(Pt.2)

General Eisenhower's appointment as Supreme Commander was not promulgated until 14 February. By the 29th the Prime Minister had learnt that General Eisenhower was still dissatisfied with the arrangements for air command and as no plan for the support of Overlord had so far been agreed upon

/he set

- (1) On 2 March A.C.M. Harris wrote to the Deputy Supreme Commander enclosing a paper produced by R.A.F. Bomber Command which attempted to analyse the value of the heavy bomber offensive against Germany during 1943 and he warned him of the danger of allowing this effort to slacken. Similar views were held by U.S. St. A.F. Both Strategic Air Commanders overlooked the fact that since Overlord was the principal operation for 1944 it was essential to ensure the success of the preliminary phase. (See D.S.C./T.S.100 Pt.I. Encls.8A-9A.)

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he set out his views in a minute to the Chief of Air Staff. He believed that Air Chief Marshal Tedder should ensure that the Air Forces were used to their best advantage for he was most unwilling that Air Chief Marshal Leigh-Mallory should exercise any control over the Strategic Air Forces. At the same time there should be no question of handing over Bomber Command to the Supreme Commander or his Deputy indefinitely.

This minute was discussed at an informal meeting held on the same day and attended by the Prime Minister, the Chief of Air Staff and General Eisenhower and his Chief of Staff. General Eisenhower held to his view that he should have complete control over the Strategic Air Forces. The Chief of Air Staff pointed out that there would be two phases in the air plan for Overlord, the strategic and the tactical. The latter would start shortly before the assault and control of the heavy bomber by the Supreme Commander would then be essential. The first phase, however, presented difficulties because two separate objectives, Pointblank and the preliminary bombing operations for Overlord, would have to be pursued side by side. The meeting agreed that Air Chief Marshal Tedder should prepare a plan for the first phase and that the Chief of Air Staff should instruct the Strategic Air Force Commanders to co-operate in it.

D/SAC/H20
Pt.1 Encl.144.
(A.H.B./115/112/1/20)

Afterwards General Eisenhower informed Air Chief Marshal Tedder of this decision and, in a covering note, stated that, if necessary, he himself could supervise all air operations directly through his Deputy, using the existing headquarters facilities. Air Chief Marshal Leigh-Mallory would continue to control the Tactical Air Forces but the Strategic Air Forces would not come under his (Air Chief Marshal Leigh-Mallory's) command.

On 7 March, after consultations with the Prime Minister and Air Chief Marshals Tedder and Leigh-Mallory, the Chief of the Air Staff dispatched a draft for an arrangement of the air command on the above lines to General Eisenhower. General Eisenhower agreed to these proposals and sent the Chief of Air Staff a draft memorandum outlining the proposals which was to be sent to the Combined Chiefs of Staff in Washington. All this was approved by the Prime Minister on 11 March.

On 13 March the Air Ministry telephoned the Joint Staff Mission in Washington to inform them that agreement had at last been reached between the British Chiefs of Staff, the Prime Minister and General Eisenhower. (1) It had been decided that although plans were being devised so as to bring the maximum effort to bear against Germany the time was approaching when Overlord targets would take precedence over Pointblank targets, (when conditions of weather and tactical dispositions compelled a choice). The Supreme Commander recognised that the Combined Chiefs of Staff might find it necessary to overrule his control of the air forces allotted to Overlord and Pointblank if they wished to impose extra tasks upon him. At the same time the

/British

(1) The full text of this signal will be found at Appendix I/59.

G.323100/BE/1/52/30

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British Chiefs of Staff might intervene should their requirements for the security of the British Isles not be fully met.

TLM/MS.136/9/3

When the air plan in preparation for and in support of operation Overlord had finally been approved both by the Chief of the Air Staff acting as executive to the Combined Chiefs of Staff and the Supreme Commander the responsibility for the supervision of air operations on the continent, including the British and U.S. Strategic Air Forces should pass to the Supreme Commander. He would exercise this control through his Deputy, Air Chief Marshal Tedder. Various exchanges by signal on the wording of the directive during which the word 'direction' was substituted for supervision, then took place. The British Chiefs of Staff also added a final paragraph which stated that after Allied forces were established on the Continent the directive for the employment of the Strategic Air Forces would be reviewed. The directive was at last issued with the approval of the Combined Chiefs of Staff on 27 March 1944.

Air Chief Marshal Leigh-Mallory's Plan for Overlord (to be dealt with in Chapter 6) was a single plan, employing both tactical and strategic air forces. He had intended it to be directed by a single headquarters staff. This the Combined Chiefs of Staff had made impossible, for the Allied Air Commander-in-Chief was empowered to direct the operations of the Tactical Air Forces, but only Air Chief Marshal Tedder, Deputy Supreme Commander, could direct the operations of the Strategic Air Forces. Much therefore depended on a close understanding and liaison between Air Chief Marshal Tedder and Air Marshal Leigh-Mallory. Such liaison was difficult to achieve since Air Chief Marshal Tedder had his own operations planning staff at Supreme Headquarters who were responsible for issuing directives to U.S.St.A.F. and R.A.F. Bomber Command, while Air Marshal Leigh-Mallory with his operations planning staff at Stanmore was responsible for notifying Air Chief Marshal Tedder of his requirements in strategic effort.

TLM/MS.136/9/1

This arrangement proved so cumbersome that it was later (in mid-May) agreed that all air operations for Overlord should be planned and laid on at a single Headquarters. A joint Bomber Operations Planning Staff was formed comprising representatives of S.H.A.E.F., A.E.A.F., U.S.S.T.A.F., VIIIth Air Force, R.A.F., Bomber Command, Twenty-First Army Group and the Railway Research Service. (1)

It was further agreed between the Air Commander-in-Chief and the Deputy Supreme Commander that regular conferences would be held at Headquarters, A.E.A.F., which would be attended by the Deputy Supreme Commander, Commanding Generals U.S.St.A.F. and VIIIth Air Force, Commanders-in-Chief Bomber and Coastal Commands and Tactical Air Force Commanders. At these conferences plans for the future employment of Air forces in Overlord would be discussed and tasks allotted. The presence of the Deputy Supreme Commander would enable operational orders to be given to the Strategic Air Force Commanders which the Air Commander-in-Chief was not empowered on his own authority to give.

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The first conference of Allied Air Commanders was held on 23 May 1944. Further conferences were held on 26 May and 29 May 1944. Further conferences were held on 26 May and 29 May.

/However,

(1) The history of this planning staff is dealt with more fully in Chapter 6.

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However, between 28 May and 31 May, the VIIIth Air Force undertook operations against targets in Germany that were outside the Overlord plan. These attacks had been sanctioned by Air Chief Marshal Tedder, without reference to the Air Commander-in-Chief, an example of the divided control that the latter had been so anxious to avoid. Further examples were to follow later in the campaign. It would appear that Generals Spaatz and Doolittle took full advantage of the clause in the Combined Chiefs of Staff directive on the control of strategic bombing in Overlord stated that considerations of supporting Overlord must take precedence over Pointblank objectives as such, when conditions of weather and tactical dispositions compel a choice. Whereas they sought every excuse to evade operations over north west France, both were convinced that the best contribution they could make to Overlord was by bombing Pointblank targets.

Machinery of Control of Allied Tactical Air Forces.

In drafting the outline plan for Operation Overlord it was recognised that air power would play a predominant part in the liberation of north west Europe, and Air Chief Marshal Leigh-Mallory intended that the whole weight of the R.A.F. and U.S. Air Forces should be employed on one plan, the entire effort being directed by the Allied Air Commander-in-Chief. The control of British fighter, reconnaissance and direct support effort was to rest in the hands of the Tactical Air Force Commander, and that of heavy bombers was to remain with the Bomber Commands concerned, acting under the direction of the Air Commander-in-Chief, A.E.A.F.

In his plan for command and control (1) COSSAC had taken into account the need for making use of the existing system of communications and siting the various headquarters accordingly. This meant that the operational Headquarters of A.E.A.F. must be at Starmore and that of the 2nd T.A.F. at Uxbridge. It was clearly desirable that the Headquarters of Twenty-First Army Group, who would have to work in close touch with the 2nd T.A.F., should be alongside the latter Headquarters, but, from the point of view of movement control and co-operation with Naval staffs, Portsmouth was the most suitable location. Army communications, however, had already been planned on the assumption that Main Army Group Operational Headquarters would be in London. It was therefore decided that during the preliminary phase of Overlord Twenty-First Army Group Headquarters should be at St. Paul's School and that good communications between St. Paul's and Uxbridge should be provided, while Twenty-First Army Group would maintain permanent representation at Headquarters 2nd T.A.F.

The problem of finding the most suitable form of control for both British and U.S. Tactical Air Forces during the assault and follow-up phases was less easy to solve. It was complicated by the impossibility of making a geographical division of the air over the American and British assault beaches. This and other factors - e.g. inequality in size of British and U.S. Tactical Air Forces, unsuitability of types of American aircraft for certain tasks - ruled out the possibility of national control.

/Possible

Possible alternatives were control at A.E.A.F. level, functional or joint control between 2nd T.A.F. and IXth U.S. Air Force.

The advantage of A.E.A.F. control was that there would be a single centre to which the military commander could apply for air support and from which priorities could be allotted. But it was considered that this advantage was outweighed by the fact that it was not practicable for one commander to deal at the same time with current activities and long-term plans. The main function of A.E.A.F. was to concentrate on the strategic situation, and this would necessitate delegation to a lower formation of the control of tactical forces.

Functional control, while suitable for a pre-arranged programme, might have serious disadvantages if the battle did not proceed according to plan. The fighter commander, watching the fighter situation only, might be unsympathetic towards the bomber commander in his demands for fighter cover. Moreover, functional control would present serious difficulties with regard to routing and tying up of bombers and fighter escort. Another disadvantage of this form of control was that the military commander would have two separate tactical air commanders with whom to deal. It would further necessitate the mixing of U.S. and British forces under a commander not necessarily of their own nationality.

There remained the alternative of joint control by a combined U.S./British Tactical Headquarters exercising control through two or more subordinate headquarters. Apart from the inherent disadvantage of joint control this method seemed the most suitable, in that it provided one centre with which the military headquarters would deal, it ensured both air commanders being fully conversant with the changing situation and enabled the allotment of tasks to the various forces to be effected smoothly and with the necessary degree of co-ordination.

These various alternatives were thrashed out by A.E.A.F., 2nd T.A.F. and the IXth Air Force during the autumn of 1943, and it was finally agreed at a conference held on 25 October that during the assault phase, control of the two Tactical Air Forces would be exercised from an Allied Tactical Air Force Headquarters by a British commander with a U.S. deputy. Once a bridgehead on the continent had been firmly established the two Tactical Air Forces would split, each operating thereafter under its own national commander.

TLM/S.136/9/2
AEAF/TS.378

Consideration of the detailed method of control during the assault phase led to the two main alternatives: Scheme 'A', whereby defensive and offensive operations would be divided, the former, (i.e. beach and shipping cover and normal No.11 Group defensive work) being controlled by the No.11 Group Operations Room at Uxbridge, while offensive operations (medium and light bombers and their escorts, ground attack fighters, fighter/bombers and fighter reconnaissance) would be controlled by a War Room at Uxbridge; and Scheme 'B', which envisaged direction by the Allied Tactical Air Force Commander at Uxbridge and operation and execution by subordinate commanders.

The advantages of Scheme 'A' were that it would enable the two Tactical Air Force Commanders to keep in close touch with the minute-to-minute situation and would provide a centre near A.E.A.F. where the detailed picture could be studied by the Allied Air Commander-in-Chief.

/Against

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Against these were a formidable list of disadvantages:-

- (a) Middle Wallop would be responsible for no less than 80 squadrons engaged in three separate and distinct roles.
- (b) Tactical Air Force Commanders and their staffs would be so concerned with a mass of detailed information that it would tend to fog the general air picture.
- (c) Limitation of space at Uxbridge where a special War Room would have to be constructed and in which intelligence received from over a hundred squadrons would have to be sorted and displayed.
- (d) The almost insuperable telecommunications problem involved.

The advantages of Scheme 'B' were:-

- (a) That by allotting functional tasks to each subordinate commander control would be simplified.
- (b) That as Tactical Air Force Commanders would be concerned only with issuing directives to their subordinate commanders they would be free to plan ahead unencumbered by a welter of detail.
- (c) That no special War Room would have to be constructed, since detailed intelligence from squadrons would be sifted and summarised by subordinate commanders.
- (d) That closer contact between the headquarter ships and the commander of beach and shipping cover would be maintained.
- (e) The telecommunications problem would be simplified.

The only apparent disadvantage of Scheme 'B' was that the Tactical Air Force and Army Commanders would not be in possession of detailed information. The Air Commander-in-Chief decided to adopt Scheme 'B'. Diagrams depicting the system of control for the two phases (assault and post-bridgehead), the detailed systems of executive control and the organisation for Twenty-First Army Group representation at Allied Tactical Air Force Headquarters are shown at Appendix 1/60. The original intention of the Allied Air Commander-in-Chief was to appoint Air Marshal Coningham as Commander of the Allied Tactical Air Forces and Air Vice-Marshal Saunders as Air Marshal Commanding 2nd Tactical Air Force. This proposal, however, was so vehemently opposed by General Brereton (Commanding General IXth Air Force) who flatly refused to serve under Air Marshal Coningham, that a modified solution had to be found.

TLW/S.136/9/2

The agreed compromise was that for a limited period (i.e. from the opening of the assault phase until such time as the Air Commander-in-Chief with his Command Post could establish himself in France) Air Marshal Coningham

/should act

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should act in a dual role analogous to that of Commander-in-Chief Twenty-First Army Group (i.e. he would command the 2nd Tactical Air Force and would also function as Commander Advanced A.E.A.F. as the agent of the Air Commander-in-Chief).

Later, when the Air Commander-in-Chief had moved to France, Air Marshal Coningham would revert to the sole position of Air Marshal Commanding 2nd Tactical Air Force. Staff for Advanced Headquarters A.E.A.F. was to be provided by Headquarters A.E.A.F. and no separately established Headquarters was to be set up.

This solution was agreed at a conference (1) held by the Air Commander-in-Chief on 26 April 1944 attended by his subordinate commanders and by the Deputy Chief of Air Staff and was later accepted by the Chief of Air Staff. (2)

At this conference also decisions on the control of bomber forces were made, as summarised below:-

- (a) That the Air Commander-in-Chief should lay down the general policy for the employment of strategic and tactical bombers, which latter policy would be implemented by Air Marshal Coningham.
- (b) That the strategic effort would be allotted by the Deputy Supreme Commander, on the recommendation of the Air Commander-in-Chief, when such forces would be used in a tactical role. This allotment was likely to be of a fluctuating nature according to the needs of the situation.
- (c) That the majority of tactical tasks for strategic bombers would be arranged 24 hours in advance, except in cases where it was desirable to retain a proportion of this effort to take advantage of current information.
- (d) That a tactical conference would be held nightly at Uxbridge to determine the allotment and employment of tactical effort for the following day. Based on a knowledge of Commander-in-Chief Twenty-First Army Group's intentions Air Marshal Coningham would allot pre-arranged air support as a result of information received from all sources, and particularly from reconnaissance by Tactical Air Force squadrons or those allotted to the Army. (3) (General Brereton pointed out that allotment of reconnaissance squadrons of U.S. Air Forces to Army Commanders was contrary to U.S.A.A.F. procedure and asked for an amendment to his directive).
- (e) That, during the secondary phase (after the establishment of two or more Armies on the continent) a varying proportion of the tactical bomber force remaining in the U.K. would be allotted to the Composite Groups and/or Tactical Air Commands as the situation required. The balance was to be used for special tasks as directed by A.E.A.F. The Tactical Air Forces remaining in the U.K. would be controlled and their operations co-ordinated

/by the

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- (1) Minutes at Appendix I/60/1
 - (2) See copies of correspondence between the Chief of Air Staff and Air C.-in-C. at Appendix I/61 and I/62
 - (3) It was anticipated that only 10% of available effort need be held back for direct calls from the Army; 50% would be allotted as a result of reconnaissance; and 40% would be held in reserve.

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by the Combined Control Centre at Uxbridge.
(See minutes of Conference at enclosure 13 on
TLM/S.136/9/2).

TLM/MS.136/9/2

On 1 May 1944 a directive was issued to Air Marshal Coningham consequent on his appointment as a Commander Advanced A.E.A.F. The salient points were as follows. He was to co-ordinate, under the direction of the Air Commander-in-Chief the planning and operations of 2nd Tactical Air Force and the IXth U.S. Air Force. His headquarters would be established at Uxbridge with effect from 1 May 1944 and was later to move to the continent. In the assault phase operations were to be controlled at the Combined Control Centre at Uxbridge. The centre was to be controlled by the Air Officer Commanding No.11 Group in collaboration with the Commanding General of the IXth Fighter Command. The Advanced Headquarters A.E.A.F. was to be an operational headquarters and would have no administrative responsibilities. Air Marshal Coningham was to co-ordinate all requests for direct support and reconnaissance and would pass to Main Headquarters A.E.A.F. requests for strategic bombing and other air support beyond the capacity of the air forces under his command. This organisation would provide one authority with whom the Commander-in-Chief Twenty-First Army Group would deal direct during the assault phase. The Air Commander-in-Chief on moving to the Continent later in the battle would then assume the responsibilities of the Commander Advanced A.E.A.F.

TLM/MS.136/9/2

TLM/MS.136/15/7

On 17 May the Air Commander-in-Chief held another conference (1) to discuss the control of medium and fighter bomber forces in Overlord. He had long been convinced that the biggest problem confronting the Allied Air Forces was the delay of enemy strategic reserves. It had been estimated that the German rate of build-up in France would exceed that of the Allies up to D plus 25, and that from D plus 1 till about D plus 30 the total number of enemy divisions which could be brought to oppose the Allies in the bridgehead would exceed the combined American and British forces. (2) Success or failure of the invasion, therefore, might well depend on the ability of the Allied Air Forces to impose delay on the bringing up of enemy reserves. To accomplish this delay flexibility was essential and Air Chief Marshal Leigh-Mallory was convinced that he could only have flexibility if he retained control during the early stages of the battle not only of the heavy, but also of the medium bomber forces. (3)

Opposition by Air Marshal Coningham to Air Commander in Chief

TLM/MS.136/9/2

Air Marshal Coningham strongly opposed this decision of the Air Commander-in-Chief on the grounds that the Army Commander might make calls on him for direct support which he could not meet with fighter bombers owing to heavy concentration of flak. The Air Commander-in-Chief guaranteed

/that if

- (1) Minutes at Appendix I/60/2
- (2) See comparative rate of build-up at E.19 on TLM/MS.136/15/7 (Appendix I/67)
- (3) Appendix I/63

G.323100/BP/1/52/30

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that if this happened Air Marshal Coningham had only to call for assistance from the medium or heavy bombers when his demands would instantly be met. Air Marshal Coningham, however, questioned the practicability of divided control, which would result in the mediums operating one day under his command and the next under that of the Air Commander-in-Chief. He considered that there would be serious danger of overlapping if part of the medium bomber force operated under command of the Air Commander-in-Chief outside, and another part under his own command inside the tactical battle area. The Air Commander-in-Chief, however, maintained that, provided the tactical area was clearly defined and operations were properly coordinated there need be no fear of overlapping, and he was insistent that he must be in a position to use the whole weight of the bomber force in an area which would not necessarily be the tactical battle area. For this reason, he must have control of the medium bomber forces.

TLM/MS.136/9/2

Air Marshal Coningham, reluctant to accept the Air Commander-in-Chief's decision, represented to General Montgomery that this decision might preclude him from answering expeditiously calls from the Army for direct air support. Whereupon General Montgomery immediately sought an interview with the Supreme Commander and insisted that he must have one Air Commander and only one to whom to apply for air support. General Eisenhower agreed with General Montgomery and Air Marshal Coningham, and despite the Air Commander-in-Chief's protestations the only concession allowed him was that on occasion when the Commander-in-Chief, Twenty-First Army Group became aware of targets of special importance connected with the battle area he, (Commander-in-Chief Twenty-First Army Group) could make requests to the Air Commander-in-Chief for air action. How the Air Commander-in-Chief was to meet such requests was not stated. While Air Marshal Coningham as Commander, Advanced A.E.A.F. was to "have the necessary executive authority to implement all requests for air action required by the Army", the Air Commander-in-Chief was merely to "exercise general direction of air operations", to enable him to do which, Advanced A.E.A.F. was to keep him informed of the tactical situation in the field and of the general intention of the Commander-in-Chief, Twenty-First Army Group. (The full text of this order issued by the Supreme Commander on 19 May 1944, ref: SHAFF/17100/13/Cps, is at Appendix I/64).

There is a marked similarity between this order of the Supreme Commander and a draft entitled "Role of Advanced H.Q. A.E.A.F." dated 17 May 1944, prepared by Air Vice-Marshal Trafford, Senior Air Staff Officer, Advanced A.E.A.F. (1) who later submitted suggested amendments to the Overall Air Plan pages 13 and 14 and to Appendix 'C'. These amendments were not, however, agreed to by the Air Commander-in-Chief, and the final amendment to the section on "Command and Control of Air Forces", issued by Headquarters A.E.A.F. at the end of May 1944 appears to conflict with the above-quoted order of the Supreme Commander.

TLM/MS.136/37

Conclusion

What it amounted to was that General Montgomery could call on one air commander (Air Marshal Coningham) for any air

/support he

(1) See E 16A on TLM/MS, 136/9/2.

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support he wanted, with the exception of special targets outside the tactical area, for which the Air Commander-in-Chief was the authoritative controller of air forces. The Air Commander-in-Chief could withhold a proportion of the light and medium bomber forces for use against targets outside the battle area, but if the remainder of the force under Air Marshal Coningham's control was inadequate to meet the Army's demands, the Air Commander-in-Chief was obliged to surrender the necessary number of bombers to enable Air Marshal Coningham to fulfil his task. In point of fact during the assault phase of Operation Overlord the Air Commander-in-Chief on no occasion attempted to control the operation of medium bombers, contenting himself merely with issuing a general directive for their employment in the battle area, and only after D plus eight allotting specific target priorities.

On 5 August 1944, Advanced A.E.A.F. ceased to exist and Air Marshal Coningham reverted to his position as Air Marshal Commanding 2nd T.A.F. A revised Directive on Command and Control of Allied Air Forces was accordingly issued by A.E.A.F.(1) which, inter alia, provided "that the Air Commander-in-Chief may retain under his direct operational control a proportion of the whole of the medium and light bombers as a general reserve for employment in a tactical role on either or both battle fronts, possibly strengthening one at the expense of the other.(2) The two Tactical Air Force Commanders were, in consultation with their associated Army Group Commanders, to arrange the normal day-to-day co-ordination of their forces within the resources allotted to them, applying to the Air Commander-in-Chief for additional air forces should those immediately available to them be considered inadequate for the particular task to be undertaken.

The history of evolution of the system of command and control of Allied Air Forces for the entry into north west Europe clearly demonstrates the difficulty of the task of Air Chief Marshal Leigh-Mallory, for although as Allied Air Commander-in-Chief he was responsible for the success or failure of the air plan, he had in fact no control of the air forces nominally under his command. While the operations of the Tactical Air Forces were controlled by Air Marshal Coningham and those of the Strategic Air Forces "directed" by Air Chief Marshal Tedder, the Air Commander-in-Chief was inevitably reduced to endorsing the decisions of other Commanders without any sphere in which he himself could exercise direct control.

(1) Ref: AEA/TS.378/Air Plans.

(2) For full text of this directive see Appendix I/65.

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CHAPTER 3

DECEPTION POLICY FOR 1943 AND OPERATION RANKIN

Operation Cockade

TLM/MS.155

On 3 April (J.S.M. 856) the Combined Chiefs of Staff had approved the deception policy for 1953, which, insofar as it affected COSSAC, had as its broad object the containing of enemy forces in Norway and Western Europe. To achieve this object the Allies were to extend their threat of invasion over as wide an area as possible, including such areas as they were actually intending ultimately to attack. They were to indicate, in the first instance, that invasion would take place in July. Later this date was to be postponed till the end of September when the deception threat was designed to end. An integral part of the deception scheme was an amphibious feint with the object of bringing on an air battle employing the Metropolitan R.A.F. and U.S. VIIIth Air Force and inflicting the greatest possible damage on the G.A.F.

The deception plan produced by COSSAC consisted of three operations, the conquest of Norway to be planned by the General Officer Commanding Scottish Command, the establishment of a bridgehead in the Pas de Calais area supported by naval and air forces and the seizure of certain ports in north western France. These operations were to take place in the autumn of 1943 but the only one to be actually conducted was the assault on the Pas de Calais in which after the necessary air and naval bombardment troops were to embark in landing craft. It was hoped that the G.A.F. would come out in strength against the Allied air forces.

TLM/MS.155

Plans for these operations were ready at the beginning of June 1943. The three schemes were co-ordinated under the collective code name Operation Cockade. The operations in the Pas de Calais called Starkey were to cover a period of fourteen days during which it was hoped to wear down the G.A.F. Operation Wadham was the deceptive operation for U.S. landings in Brittany and Operation Tindall was designed to pin down German forces in Norway by a threat against the port and airfield of Stavanger.⁽¹⁾

Operation Starkey

TLM/MS.142

COSSAC proposed that the command and control of Operation Starkey should be delegated to the Air Officer Commanding-in-Chief, Fighter Command in collaboration with the Commanding General VIIIth Air Force and the naval and military commanders nominated by the Commander-in-Chief, Portsmouth and the Commander-in-Chief, Home Forces.

Both COSSAC and the Air Officer Commanding-in-Chief Fighter Command believed that the G.A.F., because of its need to conserve aircraft, could only be brought to battle by an imminent threat of invasion. In order to make the operation realistic a large number of landing craft were to be assembled in the Channel: the air effort would be diverted from targets in Germany to the Pas de Calais from mid-June onwards and during the period just before the assault a considerable proportion of the heavy bomber effort would be diverted to attacks against batteries and

/communications

(1) See Appendix II/I

TLM/MS.155

communication centres in the threatened area. The Joint Planning Staff realised that this might have an adverse effect on Operation Pointblank but agreed that if the operation was to be at all realistic there must be a powerful heavy bomber effort.

TLM/MS.155
Encls. 9-10

The Chiefs of Staff approved the plan for Operation Cockade but they were unable to decide what proportion of the heavy bomber effort should be diverted from Pointblank targets. General Devors Commanding General ETOUSA while approving the scheme stated that only the surplus effort of the U.S. fighter command would be made available for Starkey and that the U.S. heavy bombers would only make attacks on strategic targets in rear of the Pas de Calais area together with about 300 sorties against special targets in the Pas de Calais area.

TLM/MS.142
Encl. 5A

All the commanders concerned with Starkey were agreed that any diminution of the naval and air effort in support of the assault would make the operation pointless. On 6 July a conference took place presided over by the Assistant Chief of Air Staff and attended by the Air Officer Commanding-in-Chief Fighter Command and an American air officer on the staff of COSSAC. (1) It was decided that the Strategic Air Forces should continue to attack Pointblank targets but particular regard was to be paid to G.A.F. objectives in or near the Pas de Calais. R.A.F. Bomber Command was to fly 1,100 sorties in support of the operation. The Air Officer Commanding-in-Chief Fighter Command was to define the tasks, allowing the Commander-in-Chief Bomber Command to decide on the number of sorties. The VIIIth Air Force was to fly a total of 300 heavy day bomber sorties for the entire preparatory period instead of the 720 sorties demanded in the plan. However it was to employ 240 medium bombers on tasks earmarked for the heavy bombers. (2)

TLM/MS.142
Encl. 28A-30A

Air Marshal Leigh-Mallory had stated emphatically that if the day bomber effort involving 300 heavy bomber sorties on each of the days D minus eight and D minus five and 120 sorties on D Day were not forthcoming the object laid down for Operation Starkey could not be fulfilled. Nevertheless he was persuaded by the Chief of the Air Staff to modify his requirements (3) and on 15 July the Assistant Chief of Air Staff (Policy) authorised the Air Officers Commanding-in-Chief of Fighter and Bomber Commands to make plans for the implementation of Operation Starkey. (4)

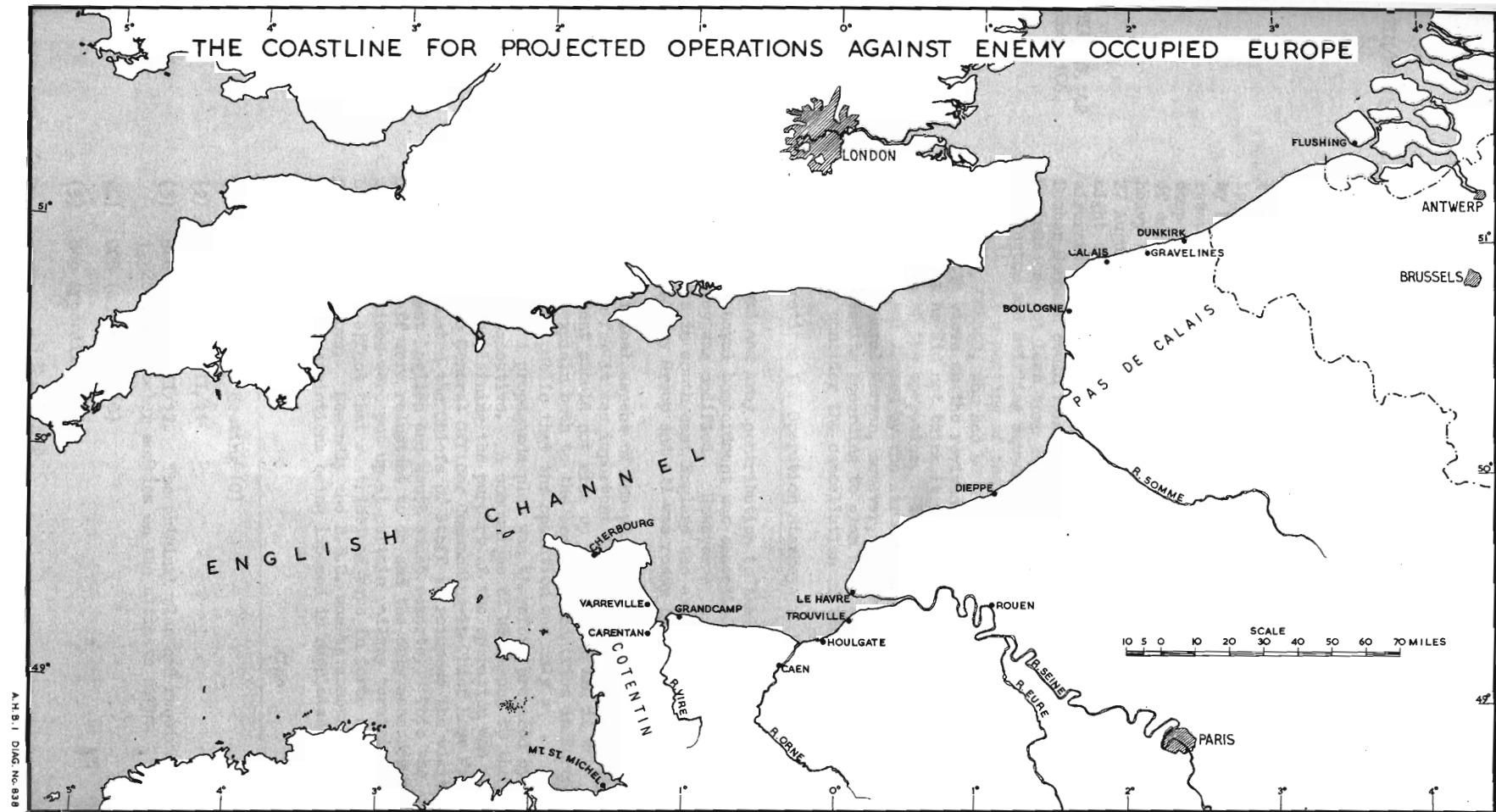
The requirements for R.A.F. Bomber Command included attacks on troop concentrations and the dropping of leaflets over the threatened area for two weeks before D Day. Attacks were to be made on ten railway centres in rear of the Pas de Calais area to simulate an isolation plan. However during the two days preceding the start of the operation, as many of these targets were unsuitable for heavy bombers and would have to be attacked at night, it was proposed that this effort should be dispatched against gun positions in the Boulogne-Gris Nez area.

TLM/MS.142
COSSAC/RAF/363

Various objections to the attack of these targets were put forward by Bomber Command and Air Marshal Leigh-Mallory requested COSSAC that firm decisions should be obtained from the Chiefs of Staff as to the extent of the heavy bomber effort, both British and American, which would definitely be available

/for

- (1) See Appendix II/5
- (2) Air Marshal Leigh Mallory was dubious of the usefulness of this offer since insufficient fighters were available to provide escort for the mediums.
- (3) See Appendix II/6
- (4) See Appendix II/7



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TLM/MS. 142

for Starkey. A memorandum by COSSAC was subsequently considered at a Chiefs of Staff Committee meeting on 21 August. (1) The Vice-Chief of the Air Staff stated that if Starkey did not achieve a major diversion of enemy fighter aircraft, it might become necessary to review plans.

TLM/MS. 142
Encl. 106

Signals dispatched to R.A.F. Bomber Command requesting them to confirm their preparedness to participate in Starkey appear to have been negative. (2) The offensive then being launched by R.A.F. Bomber Command against Berlin was taxing all its resources. Similarly the American daylight offensive was compelling the G.A.F. to give battle and was inflicting a number of casualties on enemy fighters. Thus it came about that the heavy bomber effort for Starkey was reduced still further. On 27 August Air Ministry stated that the effort required on the night of D minus two would be provided by Wellingtons and aircraft from Operational Training Units up to the limit which Bomber Command could find possible at the time. On the night D minus one not less than 200 sorties were to be flown by Wellington and Stirling squadrons of the Operational Training Unit. (3) At a meeting of the Chiefs of Staff (4) held on 28 August, COSSAC, who had been invited to attend so as to express his views on the revised bombing programme for Starkey, stated that he did not think it would materially detract from the realism of the operation. This point of view, it must be stated, was not shared by the Air Officer Commanding Fighter Command. General Morgan, however, admitted that the operation was not proceeding according to plan and that it might be necessary to consider the cancellation of the operation.

Other preparations for Operation Starkey

TLM/MS. 142

The Naval and Army contribution to the operation was also cut down; a naval bombardment was cancelled and the route of assault convoy was modified. However a large scale movement towards ports in south east England was executed by troops of Twenty-First Army Group and all was ready by 27 August.

TLM/MS. 142/3

TLM/MS. 155
TLM/MS. 142
Encl. 43

The political aspect of the plan also needed careful consideration for it was important that the Resistance movement on the continent should not rise up prematurely and it was necessary to explain both to the occupied countries in Europe and the British public that the operation was only a rehearsal. (5) A propaganda plan was therefore prepared by the Political War Executive. A communique to be issued to the British Press explaining the purport of the operation was also prepared. The General Officer Commanding-in-Chief Home Forces had also requested the Chiefs of Staff to reimpose the visitors ban on all east Anglian and south coast resorts. This the Chiefs of Staff were reluctant to do and the only measures taken were that notices were put up at certain railway termini in London to the effect that restrictions were in force at Brighton and Hove. Secondly the B.B.C. was to announce the possibility of restrictions being imposed in regulated areas.

TLM/MS. 142

/Tho

- (1) COS (43) 194th Meeting (0)
- (2) See Appendix II/11
- (3) See Appendix II/12. The original plan had required 1,228 heavy bomber sorties on the ultimate night.
- (4) COS (43) 199th (0)
- (5) See Appendix II/13

The decision to implement Starkey

TLM/MS. 142

By 3 September the Chiefs of Staff had not yet decided whether to launch Operation Starkey although D Day was timed to take place on 9 September. At a meeting of the Chiefs of Staff on the 3rd, General Morgan, reporting on the progress of Starkey, stated that bad weather had interrupted naval and air operations. The enemy had shown very little reaction. Air Chief Marshal Leigh-Mallory confirmed this report at a further meeting on the following day. He said that the scale of enemy reconnaissance and attack prior to the Dieppe raid had been very much higher, and the enemy had shown greater interest in Exercises Jantzen and Spartan than in Starkey. Nevertheless valuable lessons had been learnt on all sides and he was in favour of continuing the operation in the hopes that the last phase would bring about a large scale air action.

FC/S. 33911
Signal AO.791

As a result of this report and others made by Sir Neville Syfret, the Naval Commander-in-Chief, and General Morgan the Committee decided that the last phase of Operation Starkey should be completed according to plan. On 7 September commands were notified that D Day would be on 9 September.

TLM/MS. 142/2

TLM/MS. 142

The attacks against coastal batteries by R.A.F. Bomber Command proved to be more successful than had been anticipated and some damage was done. But the enemy did not react to the sailing of the assault and motor transport convoys either by air attack or by fire from the coastal batteries. Air operations were virtually unopposed. The Flag Officer Commanding, Dover, who was responsible for the naval contribution to Starkey gave it as his opinion that the objects of the operation were not achieved because the naval and air attack had been on such a small scale.

Operations Wadham and Tindall

TLM/MS. 141

COSSAC/3135/Sec

Operation Wadham was to take place in two phases. The first was to be a threat from the U.K. against the Brittany peninsula to seize and re-open the port of Brest. Forces sailing from the U.S.A. were to follow up and land on the west coast of France. Lack of appropriate U.S. air resources in the U.K. was responsible for the failure of this operation and by 9 September it was apparent that the Germans had not been deceived by it. On 9 September Operation Wadham was cancelled by COSSAC.

TLM/MS. 140

Whereas Operation Wadham was essentially a diversionary operation intended to reinforce Operation Starkey the Tindall scheme was by nature independent, being designed to contain the German forces in a comparatively isolated portion of occupied Europe. The main feature of the plan was an assault by two Air landing brigades operating from Scotland. It was hoped that the enemy would observe concentrations of gliders on airfields in Scotland. The scheme came to grief largely because of the shortage of tug aircraft as it was found impossible to concentrate more than 58 Horsas and 36 Hotspurs on the 18 airfields in Scotland. Other difficulties arose. Training and Coastal Commands R.A.F. objected to the interference with their normal flying activities. Finally it was found impossible to construct sufficient numbers of dummy gliders and glider hides.

On 18 August the Chiefs of Staff decided that Operation Tindall should be postponed on or about 25 August and remounted after the conclusion of Starkey to culminate in mid November. (1)

/By

(1) See COSSAC (43) 49, dated 18 August 1943

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By 5 November about 70 gliders had been displayed on 18 airfields in north east Scotland and the display of dummy weapons had been brought up to full scale. Enemy reaction, once again, was disappointing although there was some very slight increase of reconnaissance activity.

It can be fairly said that Operation Cockade was a failure, for it was designed to make the enemy believe that an invasion of north west Europe would take place in 1943, and to bring on a major air battle which would cause serious casualties to the G.A.F. In both of these aims it failed completely. As an exercise rather than a deception scheme, it may have been worth while. Exercise Harlequin (the embarkation scheme carried out by Twenty-First Army Group in Starkey) resulted in the development of a successful technique for forward concentration, assembly and embarkation, and experience was gained in smoke-screening, the effect of bombardment on coastal batteries, railway centres, and airfields, which was to prove of value in planning for the landings on the continent in 1944.

Plans for a Return to the Continent in the event of German disintegration.

Operation Rankin

TIM/Folder 5.

Planning for a return to the Continent following a collapse of German morale had proceeded spasmodically since 1942. In June of that year the Prime Minister had ruled that there could be no substantial landing in France in 1942 unless Germany were demoralised by another failure against Russia.⁽¹⁾ Consequently, Operation Sledgehammer, an operation conceived with the twofold object of inflicting severe wastage on the German Air Force and establishing a bridgehead in the Pas de Calais was redefined as "a landing on the Continent during 1942 to take advantage of a crack in the German morale."⁽²⁾ The Combined Commanders accordingly produced an Appreciation and Outline Plan, which they submitted to the Chiefs of Staff on 31 July 1942.⁽³⁾ In their covering memorandum, however, the Combined Commanders made clear that the plan was only suitable under conditions of German demoralisation. No such demoralisation took place, and the plan was shelved.

TIM/Folder 1.

It was not until 1943 that instructions were again issued by the Chiefs of Staff (this time to Lieutenant General F.E. Morgan) to plan for a return to the continent in the event of German disintegration. According to his directive,⁽⁴⁾ as Chief of Staff to the Supreme Commander (Designate) General Morgan was charged by the Combined Chiefs of Staff, inter alia, with preparing plans for "a return to the Continent in the event of German disintegration at any time from now onwards with whatever forces may be available at the time".

/Preliminary

- (1) COS (42) 51st Meeting (0) Item 4
- (2) Ref: HF/00/144/G (Plans) - Progress Report by Cs-in-C. Home Forces, Fighter Command and COS.
- (3) C.C. (42) 45 (Final)
- (4) COS (42) 51st Meeting (0) Item 4.

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Preliminary thought on this project led General Morgan to ask for clarification of his directive and a more exact definition of 'German disintegration'. Accordingly the Joint Planning Staff issued a report⁽¹⁾ on 21 June 1943, defining disintegration as a cessation of armed resistance by sea, land or air to United Nations forces except by isolated or independent groups, but not necessarily involving the complete breakdown of all German organised power at the centre. Conclusions of the Joint Planners were as follows. Plans were to be made for the occupation of three important areas of Germany, that of Berlin-Stettin, Hamburg-Kiel and the Ruhr. In addition token forces were to be dispatched to the capitals of the occupied countries. A line of communication was to be opened up into Poland and Czecho Slovakia. The Joint Planning Staff recommended that if their plan was approved by the Combined Chiefs of Staff it should be given to General Morgan as a basis for planning and submitted for information to the Combined Chiefs of Staff.

The Chief of Air Staff did not think that German disintegration would come about as rapidly as the plan envisaged and, if it came at all, would be only likely to affect the western front. He proposed that the Allies should establish air superiority over as large an area of Germany as possible. Secondly they should paralyse the enemy's fighter defences, destroy the communication system and then proceed to the systematic destruction of principal aircraft factories, depots and railway centres. This action would be coupled with sabotage and patriot risings and might within a few weeks cause the enemy to surrender.

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General Morgan (COSSAC) on the other hand, with his knowledge of the Allied lack of resources for a return to the Continent, realised that large scale opposed landings on the Continent would not be possible before mid 1944. He saw the problem as one mainly of mobilisation and transport - of producing on the Continent as many formations in as short a time as possible. The plan was to be capable of variation between, on the one hand, complete disruption and collapse of the enemy, and on the other rupture by assault of an enemy still fighting but lacking support or reserve. The Air Forces were to plan for the use of all available lift not only from Transport but also from Bomber and Training Commands, whose function would (in the case of a complete disintegration) be at an end.

Planning for Rankin was very difficult because not only was the date for its realisation dependent on circumstances which could not be forecast but available resources varied from day to day and month to month. The possible immediate objective might include any port in occupied Europe the location of which would be unknown until the last minute. However, planning continued during July 1943 at a time when it was considered, in some circles, that Overlord could be avoided and a German collapse would be precipitated by the success of Allied operations in Italy. Nevertheless there was a lack of reality about the scheme which was keenly felt by the staff officers responsible for Rankin.

/On

(1) J.P. (43) 178

S E C R E T

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On 28 July 1943 a paper on Rankin was issued by COSSAC's staff. The operation was divided into four phases which were as follows. First, continuous reconnaissance was to be carried out and all intelligence reports were to be sifted. Second, advance guards were to be landed in the selected area to prepare the way. A covering force would then consolidate and develop airfields. Finally an Army would be built up on the continent to secure vital areas. Europe was divided into four areas. Norway; the area from the mouth of the Somme to Denmark inclusive; the area from the mouth of the Somme to St. Malo including the Channel Islands and finally the coastline from St. Malo to the Spanish frontier.

A number of criticisms of this paper were made by COSSAC Air Staff. They stated that, as it was essential to establish air superiority over Germany, air bases must be established in the Netherlands. For that reason the early capture of Antwerp was essential. They pointed out that it would be necessary to secure a wide lodgement area to develop a group of airfields rather than to seize a port and then build up forces. For that reason they believed that the Caen area was the most favourable as the large ports of Le Havre and Cherbourg were at hand. The ground forces would then advance on Antwerp and the frontier of Germany establishing airfields as they went.

The first draft of the plan for Operation Rankin was produced on 9 August 1943. It was divided under three separate heads excluding Norway. First, Case 'A'. Courses of action in the event of substantial weakening of German resistance in France and the Low Countries. Second, Case 'B' German withdrawal from the occupied countries. Thirdly, Case 'C'. German unconditional surrender with their forces still in occupation of the coastline of northwest Europe. The planners recommended that in the event of Case 'A' being put into operation an attempt might be made early in 1944 to capture the Cotentin peninsula or alternatively in March or April 1944 to put a modified Overlord plan into effect. For Case 'B', they recommended that Cherbourg should be the first port of entry as Antwerp would be too close to the German dispositions to make its use practicable. For Case 'C' they suggested that the coast line of north Germany be occupied by ground and air forces as soon as opportunity presented itself and that the Ruhr and Rhine valleys be occupied by forces from the U.K. Rankin (Norway) was treated as a separate plan on a much smaller scale. Norwegian operations, it was suggested, should be the responsibility of Scottish Command in collaboration with suitable naval and air authorities.

On 11 August at a conference held by COSSAC the draft plan was approved after a number of amendments had been decided upon. The plan was then reviewed by the Joint Planning Staff. They considered that Rankin Case 'B' would be unlikely to occur in isolation as they did not think Germany would evacuate the European coastline abandoning the submarine bases and admitting the Allied Air Forces to within close range of her frontier. They concluded that Case 'A' was the most probable and recommended that it should be planned to take place at any date from November 1943, while similar operations would be mounted from the Mediterranean against southern France.

A number of objections were made both by the Air Staff of COSSAC and the Vice-Chiefs of Staff on these criticisms; the

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latter believed that conditions giving rise to Cases 'A', 'B', and 'C' would occur in that order.⁽¹⁾ On the other hand Air Chief Marshal Leigh-Mallory believed that Case 'C' should have top priority. His contention was that Rankin 'A' and 'B' were, in effect, modifications of Overlord and their execution depended not only upon the disintegration of German Forces but on the availability and state of readiness of the Allied forces. Rankin Case 'C' was a totally different operation which might occur at any time at short notice. It would require a rapid occupation of Germany as well as the occupied countries of north west Europe. At a staff meeting over which Air Chief Marshall Leigh-Mallory presided on 6 September 1943 he directed that Case 'C' should be the responsibility of A.E.A.F. and in Case 'B' the joint responsibility of the Commanders of the British and U.S. Tactical Air Forces. Case 'A' was to be planned by the same staffs responsible for the detailed planning of Overlord. Planning for Rankin (Norway) was to be undertaken by the Air Officer Commanding No. 13 Group.

TLM/Folder 9

At the Quadrant conference held at Quebec in August 1943 the Combined Chiefs of Staff approved in principle the digest of the plan for Operation Rankin and voted that the U.S. Chiefs of Staff would consider at an early date the appointment of a Commanding General, Staff and Headquarters for the U.S. Army in the U.K. The British Chiefs of Staff discussed the plan for Rankin on their return from Quebec. At this meeting the Chief of the Imperial General Staff urged that there should be a greater use of air power to constitute a threat instead of the close occupation of territory by ground forces. The Chiefs of Staff endorsed the Joint Planners' recommendation that priority should be given to Case 'A'. But after objections had been put forward by COSSAC on the same lines as those made by the Air Commander-in-Chief they reconsidered their opinion and on 27 September COSSAC ruled that Rankin Case 'C' was to be given first priority. He added that France should be regarded as a U.S. sphere of influence. Planning accordingly proceeded in the order Case 'C', Case 'B', Case 'A'.

In point of fact Case 'A' was never regarded by COSSAC's staff as a practical possibility, for they recognised that resources would hardly permit the Allies to be ready by the target date for Overlord, let alone earlier. Thus as Overlord became more of a certainty Rankin 'A' receded into the background, and no detailed plan for this latter operation was ever produced. On 17 December 1943 COSSAC stated that Case 'A' had become merged into Overlord and that if it occurred at all it would take the form of a premature Overlord.

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Rankin Case 'B' was divided into three separate plans dealing respectively with Europe (excluding Norway), Norway and the Channel Islands. Only Rankin 'B' Norway reached the stage of detailed planning, the other two, after frequent revisions, being finally approved as staff studies on the head planners level and submitted to the Supreme Commander on 28 March 1944 with the recommendation that they be filed away for future reference if and when required.

/Rankin

(1) COS (43) 191st Meeting (O) Item 6 held 18 Aug. 1943

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Rankin Case 'C'

TLM/MS.135

TLM/MS.135/1

In the final outline plan for Rankin Case 'C' (1) enemy occupied Europe and enemy territory was divided between the United States and Great Britain. The United States was to be responsible for France, Belgium, Luxembourg and the Rhine valley from the Swiss frontier up to and including Dusseldorf. The British were to be responsible for Holland, Denmark, the Ruhr and north west Germany. However, it was desirable that the British should be in a position in Germany from where they could effectively exercise control over the remnants of the German armed forces and industrial organisation. The staff of COSSAC agreed that Belgium and the Rhine north of the Moselle should be within the British sphere of control.

On 9 December 1943 COSSAC learned that the U.S. Chiefs of Staff had proposed a drastic change in the British and U.S. spheres of responsibility on the continent. They held that the U.S. sphere should comprise the general area Netherlands - northern Germany as far as a line Berlin - Stettin, Denmark, Norway and Sweden. The British sphere was to be the territory to the west and south of the American western boundary. This move by the U.S. Chiefs of Staff was entirely unexpected and created a stir amongst the planning staffs of all three Services at Headquarters, COSSAC. Naval, Military and Air Staffs were united in opposition against the proposed revision of spheres. The change would have involved the complete replanning of Rankin 'C'. Moreover there would be immense administrative difficulties as the Americans were to operate on the right and the British on the left in the original plan for a re-entry into Europe. The U.S. forces being based in south west England were to move conveniently to the Brittany ports and the British could debouch through Cherbourg and the Neptune ports without lines of communication crossing. There were a number of administrative difficulties which concerned for example, the Norwegian and French forces, the former equipped with British and the latter with U.S. equipment. Under a revised plan they would find themselves under different administrative systems.

A sharp controversy then began which started on the Chiefs of Staff level and was taken up by the Prime Ministry and the President. The Americans however remained adamant. By March 1944 it appeared unlikely that Rankin Case 'C' would ever be put into operation. Since most formations concerned in Rankin planning were also heavily involved in planning Overlord, the Supreme Commander (appointed in February 1944) directed that with the exception of Norway, no revision of existing Case 'C' plans need be made.

TLM/MS.189

After the commencement of Overlord the Rankin plan became known by the code name of Talisman and was taken over by the Combined Planning Staff of SHAEF. Towards the end of 1944 boundary lines denoting the respective spheres of responsibility of Russia, U.S.A. and Great Britain were laid down, thus facilitating subsequent planning of Operation Talisman.(2) Existing military dispositions were, however to govern the first phase of post-war occupation.

/Employment

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- (1) COSSAC (43) and COS (43) 465 (0)
 - (2) SHAEF (44) 19, later amended and issued as SHAEF (44) 33. The operation was subsequently renamed Eclipse.

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S E C R E T

Employment of Air Transport

AEAF/96

In 1942 the only effective transport squadron in the United Kingdom was No. 271, stationed at Doncaster and equipped with nine troop carrying Harrows with a payload of 6,500 lbs each, and 14 unconverted Harrows with a payload of 4,000 lbs each. This squadron was operationally controlled by Movements 5, and was mainly used for internal moves of squadrons. In addition, No. 24 Squadron at Hendon was established with approximately 80 aircraft of various types,⁽¹⁾ mostly impressed civil aircraft, organised into three flights, two of which were under the operational control of the Director of Movements. These operated outside the United Kingdom, and were mainly used for the transport of passengers. Movements 5 had repeatedly urged the building of more Harrows, which, after conversion, were each capable of carrying 38 fully armed troops and could land on and take off from quite small aerodromes. But Harrows were found to be unsuitable as freight carriers by reason of their limited capacity and unsatisfactory access. Instead, it was decided to experiment with Albemarle in No. 271 Squadron. The prospects of conveying large numbers of troops and supplies by air were not particularly favourable.

In July 1943 Air Marshal Leigh-Mallory began a correspondence with Air Ministry on the subject of an air lift and asked it to clarify policy governing the employment of transport aircraft, firstly, in the event of the complete collapse of Germany with the cessation of air attack and secondly in the case of German forces withdrawing from Western Europe but resisting in Germany. In reply the Air Ministry said that they did not consider the complete collapse of Germany to be a feasible proposition but in the event of a German withdrawal from occupied Europe they believed it might be possible to convert about 50 per cent of Bomber Command Operational Training Unit twin engined aircraft and 25 per cent of twin engined aircraft in R.A.F. Training Command to a transport role.

AEAF/96

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By September 1943 the Air Ministry had decided that a complete collapse of Germany was, after all, a practical possibility. A further request was made by Air Marshal Leigh-Mallory for the use of R.A.F. Bomber Command aircraft as transport aircraft. After a third request⁽²⁾ the Air Ministry on 17 October 1943 informed Air Marshal Leigh-Mallory that their policy was to introduce no modifications into operational aircraft which would detract from their primary role, and that all questions of clearance had been referred to the Ministry of Aircraft Production. Replies to the Air Commander-in-Chief's questions were subsequently received within a few days.

Not long after this, COSSAC began to press the Air Commander-in-Chief to provide more transport aircraft for Rankin Case 'C' as he regarded sea transport as being too slow a method of transportation in the event of a sudden German collapse. Air Marshal Leigh-Mallory, in reply, said that the use of operational aircraft as transports must be regarded as an adjunct to normal methods and could not be regarded as part of the basic plan. He was strongly opposed to the suggestion

/that

- (1) Hudsons, Flamingos, Wellingtons, D.H.86s, Lockheed IIs Dominics and a Stinson, mainly unsuitable for the carriage of freight or troops
- (2) See Appendix III/13

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that bombers should be modified for a transport role, but agreed that, unmodified every machine capable of carrying a useful load should be used for transportation to expedite the establishment of ports and subsequent build up until such times as adequate sea transport could be organised.

AEAF/662

TLM/Folder 17

The insistence of COSSAC and further examination into the problem of moving the Army to the continent by air led to the establishment of an Air Transport Section of A.E.A.F. under a Wing Commander from Transport Command. This was a timely move since no organisation existed whose responsibility it was to handle and control an air lift. On 20 December 1943 Air Vice-Marshal Wigglesworth, Senior Air Staff Officer to the Air Commander-in-Chief announced that a Transport Command Group (No. 46) was to be formed within A.E.A.F., to be controlled operationally by No. 38 Group when employed on operations in connection with airborne forces, but otherwise to come directly under A.E.A.F. for air transport purposes.

Acting on a directive from COSSAC, A.E.A.F. prepared a paper summarising the available air lift from all sources and indicating the operational limitations to be considered and the type of organisation required to utilise such lift.⁽¹⁾ The gist of this was that R.A.F. Transport Command would be responsible for meeting the air lift requirements of 2nd T.A.F. and Twenty-First Army Group. The IXth U.S. Air Force would be responsible for meeting the requirements of First U.S. Army Group. The allocation of aircraft resources between R.A.F. Transport Command and IXth U.S. Air Force was to be the responsibility of the Air Command-in-Chief acting on the instructions of the Supreme Commander.

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This paper was prepared by the newly appointed Wing Commander of the Air Transport Section A.E.A.F. as there was not yet an Air Transportation Planning Committee. Moreover the Americans were reluctant to collaborate with the British in a joint air transport organisation. Having no shortage of transport aircraft themselves, and knowing that the British were extremely short of this type, they were unwilling to pool resources.

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On 21 February 1944 S.H.A.E.F. (now established in place of Headquarters COSSAC) produced a revised memorandum dealing with transport requirements in Rankin Case 'C'. The object of the paper was to see how the best possible use of aircraft could be made to transport troops to the continent. An examination of the demands of S.H.A.E.F. made by Headquarters A.E.A.F. showed that the air transport organisation by itself could not handle the amount of traffic which would have to be moved daily, and that considerable assistance in loading would have to be rendered by trained Army personnel to be provided under arrangements made with the War Office and Commanding General ETOUSA.

No provision was made in the A.E.A.F. paper for supplying prisoners of war (included, but not firm in the S.H.A.E.F. demands), but it was pointed out that this additional commitment could not be undertaken without using aircraft from R.A.F. Bomber Command and the VIIIth U.S. Air Force. An estimate of 250 heavy bombers was given. Authority for the use of these aircraft had to be obtained from the Chiefs of Staff. The

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(1) See Appendix III/18

final version of this memorandum⁽¹⁾ was approved by the Air Commander-in-Chief and forwarded on 4 April to S.H.A.E.F. There the vexed question of air lift for Rankin 'C' was to rest, while planning gave way to Overlord.

(1) See Appendix III/19

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CHAPTER 4

PLANS FOR OPERATION OVERLORD

Plan for a three Divisional Assault in the Caen Area

According to the terms of the Combined Chiefs of Staff directive,⁽¹⁾ Lieutenant General F.E. Morgan was instructed in April 1943 to prepare for three particular operations. The first two have already been referred to in Chapter 3. The third and most important of all was a full scale assault against the Continent in 1944. On 27 May 1943 the Combined Chiefs of Staff issued a supplementary directive to COSSAC, outlining the ground, naval and air forces ⁽²⁾ to be available in the U.K. on 1 May 1944, and instructing him to submit his outline plan for Overlord not later than 1 August 1943 ⁽³⁾. The decision to re-enter Europe in 1944 implied at once the abandonment of long term policies of attrition in favour of the short term policy of direct assault. In effect, this mounted to a radical revision of priorities on the part, not only of the fighting services, but also of practically every other department of state.

AEAF/MS. 378

Although the Russians had recaptured Stalingrad on 31 January 1943 the course of events on the Russian front could not, in the spring of that year, be accurately foretold. The Germans were still building up for a summer offensive on the eastern front, and rumours were circulating that the Russians were about to make a separate peace with Germany. It was, therefore, necessary to legislate from the outset for the possibility that at some period the enemy might become free to shift his weight from the east to the west. If this happened the achievement of the Allies main object - the destruction of the German forces in north west Europe - would involve a prolonged land campaign on the continent, employing on an enormous scale the united resources of Great Britain and America. Clearly a re-entry could not be attempted if such a transfer of forces from east to west had already taken place, and, in the absence of forecasts, it was necessary to assume that it would not take place at least until a late stage in our operations. The essential preliminary, however, was to plan for the ultimate concentration on the continent of an Anglo-American force of the order of a hundred divisions. This in turn demanded that the strategic bridgehead should be sited in France to include an adequate number of deep water ports readily accessible from the Atlantic.

The zones of concentration of the advanced guard armies in England tended to define their zones of action on the continent - The British and Canadians assaulting on the left flank from their bases in south eastern England and the Americans on the right from the south-west. In planning the course of action concession had to be made to the inescapable fact that, whereas the armies of the assault would be for the most part untried in battle, those of the defence might well contain strong cadres of experienced soldiers. This inequality was further emphasised by the fact that the attack must consist

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(1) COS (43) 214(0) dated 26 April 1943

(2) See figures at Appendix IV/1

(3) COSSAC (113) 13, dated 28 May 1943

of that most intricate of all military operations - the seaborne assault. To offset this inequality maximum fire support was essential. The determining factor was thus the range of fighter cover. In selecting the area of assault, full account had, therefore, to be taken of the optimum zone for such cover. This pointed conclusively to the Pas de Calais.

At the Trident Conference held in Washington in May 1943 by the President and Prime Minister, and attended by the Combined Chiefs of Staff, it was decided that a considerable body of battle - hardened troops, both British and American, would be transferred from north Africa in time to take part in the invasion of north west Europe. Furthermore, it was decided that the naval assault forces for the European project would be sufficient to provide a lift of five divisions in all (three for the assault and two for the immediate follow up), and that the total number of divisions operationally available in the U.K. on 1 May 1944,⁽¹⁾ would amount to approximately 29. Of the three assaulting divisions two were to be British and one American with the follow up divisions drawn, one from each nation ⁽²⁾.

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COSSAC's deduction from the first of these facts was that, other things being equal, we might look farther afield than the Pas de Calais for an area of assault. His deduction from the second fact was that any question of dispersion of effort must be ruled out.⁽³⁾ The subdivision of so small a force would inevitably lead to defeat in detail. COSSAC's opinion was that the Allies must be content up to a late hour with the contemplation of two major alternative courses of action, and that the Supreme Commander must ultimately decide between the two.

A study of the character of the campaign showed that, whereas the ultimate aim was to fight a land campaign in Europe, the preliminary and preparatory phases were all important. The final phase could not be determined until the course of the opening phases had been thoroughly examined. The first task of the naval sections was to ensure the freedom of the seas, that of the air to ensure nothing less than air supremacy.

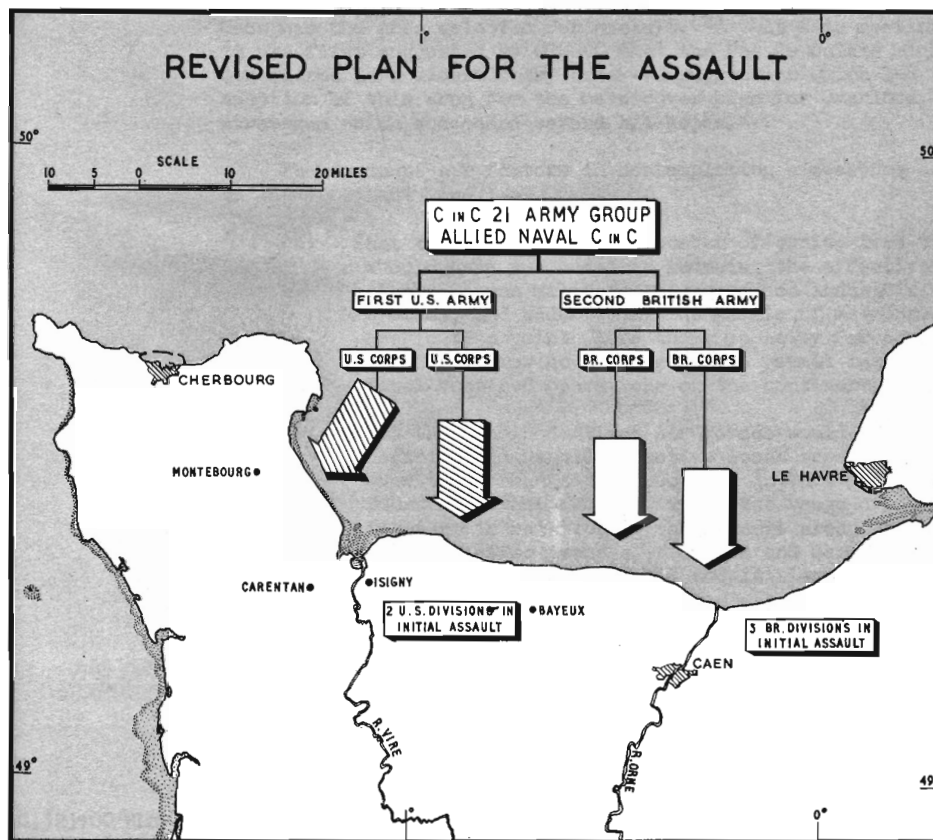
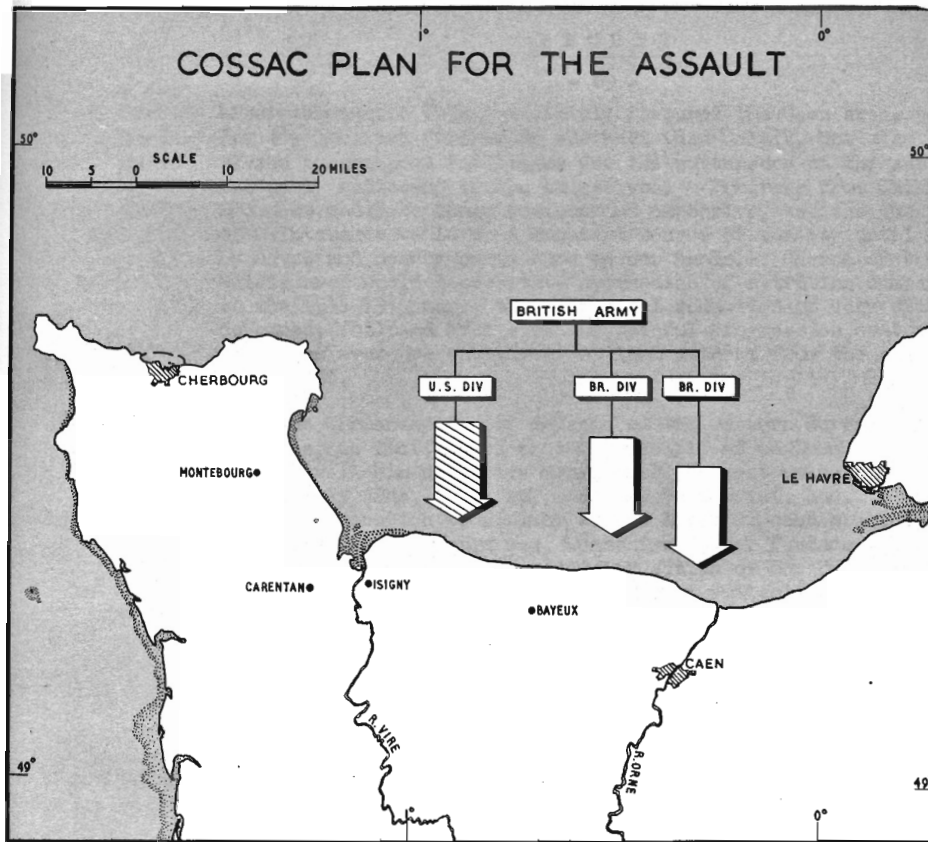
Reasons for the selection of the Caen area

Long previous study by the Round-Up staffs had shown that, from the technical aspects involved, the area most favourable to an amphibious assault was that centering about Caen. Alternatives thus presented themselves in Calais or Caen. Taking into consideration the respective zones of concentration of British and American forces, it followed that an assault in the Calais area would be a predominantly British enterprise with American participation, while the choice of the Caen sector would be by nature an American enterprise with British participation. Experience had shown that the sharing of a common line of communication was well nigh impossible. The Trident decision that the assaulting divisions should be in the proportion of two British to one American was, from the military standpoint, open to grave objection, as the acceptance of this limitation as immutable tended to hamper impartial judgment.

The immediate aim of the Allies had been defined as the seizure of a lodgement area which would include the facilities for importing direct into Europe the bulk of the American follow-up troops brought straight from the United States. It implied in the first instance a general westward trend in our operations

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- (1) Then the target date for the landings.
 - (2) COS (43) 25 (0)
 - (3) COSSAC (43) 22 dated 7 June 1943



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after landing. This immediately favoured the Caen area, not only for its location further to the west than Calais, but also because of its nearby port facilities for the sustenance of the assault and early follow-up troops themselves. Progress from Calais to the west would be long, tedious and expensive, and the question of maintenance would be a constant source of anxiety until Le Havre and nearby ports were in our hands. Choice of the Calais area would necessitate a campaign of attrition comparable to the 1914-1919 war - the methodical reduction of very strong defences, followed by a slow and painful progression westwards under the ever present threat of land attacks from the east and south-east.

The German system of defence of the western European coastline was, in fact, based on the principle of maximum concentration of all available defensive measures at the most vulnerable points; i.e. Calais area, Le Havre, Cherbourg and Brest, etc., with a gradual diminution to minimum at the least exposed points. The adoption of this system was, apart from other fundamental factors, largely influenced by the radius of action of our own fighter forces. Thus the selection of the most suitable area for the assault resolved itself into finding the least defended area possessing sufficient beaches yet within optimum radius of action of our own fighters. The Caen area alone fulfilled this condition.⁽¹⁾

In addition, Caen showed every prospect of richer and earlier rewards. The establishment of a British port in Le Havre and an American port in Cherbourg would be the immediate objects of a central assault, with the subsequent development of a south-westward thrust by the American forces, covered to the east and south-east by the British.

TLM/Folder 9

At a meeting of Principal Staff Officers held on the 19 June, Caen was the area selected for assault.⁽²⁾ At this meeting it was first suggested by COSSAC that the Pas de Calais might be considered as a diversionary area - a suggestion which led to the adoption of this area for the main cover plan for Overlord, a strategem which succeeded beyond all hopes.

The dominant air factors in contemplating a seaborne assault on the continent were :-

- (a) That the combined Allied bomber offensive from the U.K. should have succeeded in reducing the effectiveness of the German military, economic and industrial systems, and undermining the morale of the German people to a point where their capacity for armed resistance was so weakened as to permit initiation of final combined operations on the continent.
- (b) That the combined Allied Air Forces would enjoy a definite and highly effective local superiority over the German Air Forces, was in turn dependent on other important factors, viz: the range of Allied fighters in relation to the assault area, the relative effectiveness of Allied and German fighters and the need for the rapid acquisition of airfields in the forward area.

/During

(1) The principles governing selection of the area were laid down in a Combined Commanders' Paper, CC (42)108 written in February 1943 (See TLM/Folder 3).

(2) COSSAC (42) 11th Meeting, Section III

During the assault the Allied sea and land forces would become highly vulnerable to air attack, and it would be essential to provide continuous cover over both shipping and beaches during daylight. Even if our short range aircraft were deployed close to the south east coast, our fighters would be operating at extreme range, and could maintain effective defensive patrols for relatively few minutes at a time, and hence must be constantly replaced. To maintain simple equality with the German Air Force, the Allies would need to have available many times as many aircraft as their opponents. Increase of the distance from the fighter bases to the assault beaches would correspondingly increase the number of fighter aircraft required.

Superior skill and morale of pilots (which the Allies undoubtedly possessed) will tend to minimise and sometimes outweigh weaknesses in other directions. But it was clear, that in an operation such as that contemplated the Allied fighters would be at a serious disadvantage. Pilots of damaged aircraft would be faced with a long sea crossing, with obvious dangers, whereas enemy fighters would be operating over or close to their own territory. In combat the Allies would be restricted by the need to retain sufficient petrol for the return journey, while the enemy, hampered by no such considerations, would be able to disengage from combat or re-enter a fight with comparative freedom.

The scale of effort at which the Allies would be able to operate their fighters would decline rapidly through having to operate at extreme range. This factor made it essential for the Allies to establish fighter units on the continent at an early date. Thus, the acquisition and development of suitable airfields was a primary importance in the selection of assault areas. Though the Pas de Calais was suitable in this respect, so also was the Caen area. To the south-east of Caen potential sites became increasingly abundant, particularly in the area between the Seine and the Loire immediately west of Paris. On the other hand, the area southward and westward of Caen, excluding the coastal strip as far as Isigny, was generally unsuitable, particularly the Cotentin peninsula where potential sites were few and far between.

The German policy for the defence of the west was to hold the coast line, and above all the major ports, at all costs. The enemy appreciated that if the latter were held the Allies would find it extremely difficult to build up forces while, on the other hand, the arrival of German resources to drive back the invaders into the sea would be facilitated by the excellent road and railway network in western Europe. The normal German system was to concentrate reserves well forward behind threatened sectors, so as to get the maximum forces into action on D Day. If once the Allies could secure an effective bridgehead, the Germans would be faced with increasing difficulties. Allied air superiority would daily weaken the G.A.F. and the danger of widespread patriot uprisings would increase hourly.

The main problem of the Allies was how to land forces quickly enough to hold the initial German counter attack and then to defeat and destroy the large German reserves which would be brought in against the Allied bridgehead. It was believed that the threat of landings in the south of France would affect the allocation of German Army Group reserves but Air Marshal Leigh-Mallory believed that in this matter the air could best help the Army, and second only in importance to the establishment of air superiority, he placed the task of delaying the movement of enemy's mobile reserves.

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On 22 June 1943 the head planners at COSSAC were instructed that the main landing for Overlord should take place on the Caen beaches, the object being to capture the Cotentin peninsula and the area comprising the Caen group of airfields. Care was to be taken not to dissipate airborne forces on any tasks other than those initially essential to the prosecution of the operation. The initial landing was to be planned to take place during the hours of daylight.

TIM/Folder 9

The outline of the plan which was evolved by 2 July 1943 was that during the initial assault the Allies would capture Caen and the hinterland to the south west while it was anticipated that the port of Cherbourg would be occupied by about D plus 14. In the next phase the left flank of the Allies would rest on the Seine while the right went forward to cut off the Brest peninsula and occupy the ports of St. Nazaire and Nantes. When sufficient troops had been landed the Allies would expand into the area between the Seine and the Loire.

The principal reasons for the choice of the Caen sector were that it was lightly defended, once a breakthrough had been achieved; the terrain was suitable for mobile warfare and except for an area between Caen and Bayeux the ground was unfavourable for a counter attack by panzer divisions. On the other hand the distance from the shores of southern England would make a great fighter effort necessary to provide adequate cover. It was for this reason that a special effort should be made by the ground forces to gain territory for the construction of airfields. It was obvious that an attack in this sector was unlikely to enable the Allies to capture the port of Cherbourg as quickly as a direct attack on the Cotentin peninsula. Nevertheless, the chances of a successful attack in adequate strength and of subsequent rapid developments to achieve the ultimate object were so much greater in this sector than in any other, that the advantages were claimed to outweigh the disadvantages.

At this time there was no clear plan on the use of airborne forces and it was decided to await until the results of the airborne landings in Sicily (Operation Husky) had been studied. Meantime it was planned that two airborne divisions, one British and one American, should take part, which were to be carried by a total number of 632 transport aircraft which would be available in the U.K.

The Timing of Operation Overlord

COSSAC reported that, in his opinion it would be possible to launch Overlord on or about the target date (1 May 1944) provided that there was an increase in the number of ships landing craft and transport aircraft available. The situation on the Russian and other fronts would have to be taken into consideration before deciding on the target date. Before the launching of Overlord three requirements were necessary. First there must be an overall reduction in this strength of the German fighter force. Secondly, the German reserves in France and the Low Countries should not exceed, on the day of the assault, the equivalent of 12 full strength first quality divisions. In addition the Germans must not be in a position to transfer more than the equivalent of 15 first quality divisions from Russia during the first two months. Finally the problem of beach maintenance over a prolonged period must be overcome. (1)

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- (1) The text of the digest of the plan for Overlord as forwarded by COSSAC to the Chiefs of Staff on 27 July 1943 is at Appendix IV/3

G. 323100/HFH/1/52/30

S E C R E T

The Joint Planning Staff believed that General Morgan's plan implied the taking of too great a risk and that the margin of superiority was too narrow. The Allied build up depended primarily on the rate at which the Allies could concentrate and maintain their forces within the beachhead. The Joint Planning Staff believed that every advantage should be taken to press forward with Operation Pointblank, knock Italy out of the war, and that the Allies should stage a diversionary attack against the south of France at the appropriate moment.

TLM/MS.164

At the Quadrant Conference held in Quebec in August 1943 the Overlord plan was considered by the Combined Chiefs of Staff. The Chief of the Imperial General Staff considered that the rate of advance envisaged in the plan was over optimistic both because of the slender margin of superiority in the early stages and the nature of the country behind Caen, which was suitable for delaying actions. The other Chiefs of Staff endorsed Sir Alan Brooke's opinion and directed that this part of General Morgan's plan be re-examined. Shortly afterwards the Prime Minister and the President examined the plan. Mr. Churchill thought that the assault was too weak and instructed that more landing craft must be produced. He agreed that the Caen area was the best place to land but thought that the east Cotentin beaches should be included in the assault. He believed that as many diversions as possible should be staged. The Combined Chiefs of Staff authorised General Morgan to proceed with the detailed planning and with full preparations for the operation.(1)

In their report to the President and the Prime Minister the Combined Chiefs of Staff set out their conclusions for Allied strategy in 1943 and 1944. Pointblank (the combined bomber offensive against Germany) was to have top priority until the start of Overlord. Operation Overlord was to be the primary U.S. British ground and air effort against the Axis in Europe. After strong forces had been established in France, operations designed to strike at the heart of Germany and the destruction of her military forces were to go forward. Resources for Operation Overlord were to have priority over those required for operations in the Mediterranean theatre.

This report was considered at COSSAC's 23rd Staff Meeting held on 30 August 1943 (2), in the course of which Air Marshal Leigh-Mallory said that he did not agree with the view that the launching of Overlord depended on the successful completion of Pointblank. He considered that by the spring of 1944 the Allies should have an appreciable superiority of air forces and could afford to engage in large scale air fighting (3) even if considerable German air forces were still in existence. This fundamental divergence of opinion was to have widespread repercussions which were to threaten the success of the preparatory phase of the assault.

The Overlord - Anvil Controversy

TLM/Folder 17A
TLM/MS.1361

It is not intended in this volume to enter into a detailed description of the controversy which took place between COSSAC, and later, General Eisenhower and the Combined Chiefs of Staff over the degree of priority which should be accorded to

/Operation

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- (1) COSSAC 23rd Meeting - Report on Quadrant.
 - (2) See Minutes at Appendix IV/4
 - (3) COSSAC (43) 23rd Meeting para. 10

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Operation Anvil, the code name for offensive operations on the southern coast of France.⁽¹⁾ This took place during a period when COSSAC's staff were straining to complete their preparations for Overlord.

Suffice it to say that at the Quadrant Conference the Combined Chiefs of Staff had directed that landing operations should take place in the Toulon - Marseilles area and that a subsequent advance northwards would take place to create a diversion to Overlord. It was evidently expected that by that time the Allies in Italy would have reached the Brenner Pass and that the front in southern France would become the principal theatre of operations in the Mediterranean. In the autumn of 1944 consultations between the Staffs of COSSAC and Allied Force Headquarters took place and both agreed that a large scale threat would pin down more enemy divisions than an actual assault.

After consideration of these plans COSSAC stated that A.F.H.Q. had two distinct tasks to perform in connection with Overlord. First, to assist in reducing the German mobile reserve divisions in France to a maximum of twelve and secondly to pin down in the south of France two of the mobile reserve divisions remaining in France on Overlord D Day. The first of these tasks could be accomplished by operations on the Italian and Balkan fronts but the second could only be done by operations threatening the south of France.

At the Sextant Conference at Cairo held in November 1943 the Prime Minister and President agreed that Overlord and Anvil were to be the supreme operations for 1944. At this conference the character of Anvil changed completely. It became an amphibious assault to be launched in conjunction with Overlord and French troops were to participate.

In January 1944, General Montgomery, then conferring with COSSAC and the air and naval commanders for Overlord on the plan for the assault, stated firmly that nothing should be diverted from Overlord and that Anvil should revert to being merely a threat. COSSAC consequently asked the Combined Chiefs of Staff for the requirements which would have converted Anvil into a two or three divisional assault to be redirected for Overlord purposes.

The British Chiefs of Staff were reluctant to abandon the idea of landings in the south of France, not only because of the French participation, but because they believed in the possibility of a patriot rising in the French interior (which, in the event, did not materialise on the scale anticipated). A decision on Anvil was not forthcoming. On 23 January 1944 the Supreme Commander requested the Combined Chiefs of Staff to make a decision on Anvil urging them that the balance of the forces should be sent to swell the Allied Expeditionary Force in England. The Combined Chiefs of Staff agreed with the Supreme Commander but insisted that every effort should be made to undertake Anvil on a two divisional basis.

On 23 February the situation in Italy was such that the British Chiefs of Staff informed their colleagues in Washington that the campaign there must have priority over all existing and future operations in the Mediterranean. Anvil was to have second priority. A decision on this latter operation was still further delayed. Meantime an acute shortage of tank landing

/ships

(1) For an account of the controversy the reader should consult A.H.B. Narrative. The Campaign in Southern France. Chap. 1.

ships for Overlord had arisen. On 13 March Overlord was fifteen tank landing ships short in the interests of keeping Anvil alive.⁽¹⁾ At last on 27 March the U.S. Chiefs of Staff were persuaded to transfer the ships and craft needed for Overlord from the Mediterranean to the U.K. and to replace them by lift, at that time scheduled for use in the Pacific, so that Anvil could be mounted with a target date for 10 July. This date was later postponed and on 2 July General Eisenhower was directed to release to the Supreme Allied Commander, Mediterranean the additional resources required for Anvil. Operation Dragoon (the revised name for Anvil) was finally launched with a three divisional assault on 15 August 1944.

Revision of the Overlord Plan

TLM/MS. 136

At a meeting between COSSAC and the three Commanders-in-Chief on 5 January 1944, General Montgomery ⁽²⁾ expressed dissatisfaction with the existing plan of assault, which was confined to the beaches in the Caen area. He was convinced that the assault should include landings on the east coast of the Cotentin peninsula, with the object of accelerating the capture of Cherbourg. His proposal was that on D-Day, elements of five divisions should be put ashore on the first tide between Cabourg in the east and Quineville in the Cotentin - to strengthen the landing in the latter area an American airborne division should be dropped in the rear of the German defences.

General Montgomery enlarged on this plan at a further conference of Commanders-in-Chief held at St. Paul's School on 10 January. In addition to the six divisions (three U.S. and three British) which would land on D-Day, he wanted two more divisions as well as a second airborne division landed on D plus One. A five - divisional assault would involve, for the Navy, five columns of ships approaching the beaches on D-Day, for which additional fighter cover would be needed. Additional coast defence guns would also be required to be knocked out by the Navy and/or Air Force.

General Montgomery outlined his plan for the Air Forces as follows:-

- (a) Continuously from then (January) until D-Day to reduce the strength of the German forces to such a state that landings were made possible for our armies.
- (b) To conceal the actual area of the landings by bombing coast-defence batteries and other objectives in the Pas de Calais to give the impression that this was the intended landing place.
- (c) From D minus 14 to D-Day to deny to the German forces movement towards the lodgement area by rail within 150 miles of the assault area.
- (d) No bombing of the actual assault area should be carried out prior to D minus One.
- (e) On the night of D minus one D maximum bombing effort was to be directed against selected strong points, but no general drenching of the beach area should be undertaken.

/(f)

(1) SHAFF 8th Meeting. See Appendix IV/9

(2) General Montgomery succeeded General Paget as C-in-C Twenty-First Army Group at the end of December 1943

- (f) On D-Day all day bomber effort should be directed against special objectives, such as communication centres, German headquarters, concentration areas and coast defence guns, not already neutralised.

General Montgomery said that he was prepared to accept a reduction of fighter support over the Caen beaches and shipping in the interests of providing cover over the Cotentin beaches and shipping lanes. He also offered to forego fighter protection for the Army thrusts southward from the Caen beaches.

At a meeting held two days later by General Montgomery attended by the Air Commander-in-Chief and Army Commanders, the plan for the ground forces was discussed. At its conclusion General Montgomery stated that although it increased the task of both the Navy and the Air Forces, he felt strongly that the landing on the Cotentin peninsula should take place on D-Day in addition to the main landings. He supported a proposal made by General Bradley to drop an airborne division to assist the Cotentin landing, but was not, at that stage, prepared to give a decision as to the role of the second airborne division. In his view the aim of the joint plan should be to seize main communication centres as early as possible, whence armour could be pushed forward to pivotal positions from which the Allies could attack the advancing German armour.

TLM/MS.136

Reaction of the Navy and R.A.F.

Neither the Navy nor the Air Force liked the new plan, not only because of the additional burden thrown on them for escort and protection, but also (from the air point of view) because the development of airfields in the forward area was dependent on the early capture of Caen. Even the Army Operation Branch of COSSAC were afraid that General Montgomery's plan prejudiced success of the operation. Nevertheless, at a Supreme Commanders Meeting on 21 January, General Eisenhower decided to adopt the revised plan, and instructed the head planners to draft a signal to the Combined Chiefs of Staff, outlining its features, indicating the additional resources required and requesting their immediate approval.

On the following day the Chief of Staff to the Supreme Commander (now General Bedell Smith) instructed the head planners not to dispatch this signal until they had produced an alternative paper for consideration by the Supreme Commander.⁽¹⁾ The head planners came to the unanimous decision that the revised plan prejudiced success in the Caen area, which was essential to the success of the whole operation. The original plan (an initial assault by four divisions in the Caen sector only), on the other hand, by ensuring greater superiority in the Caen area would, in the opinion of the head planners enable the Allies to defeat the enemy decisively by D plus seven to D plus ten. The original plan concentrated on the defeat of the German reserves and the capture of the good airfield country in the Caen area, followed later, by the capture of Cherbourg while General Montgomery's plan envisaged the accomplishment of all three objectives simultaneously.

TLM/MS.136

From the air point of view an even greater effort would be required for the revised plan although our fighter and bomber forces could barely meet the requirements for the original plan.

/Thus

(1) See Appendix IV/13

Thus by spreading the assault the contribution that the air forces were capable of making towards the success of the assault as a whole was correspondingly diluted.

COS(W)1094
28 Jan 1944

The Supreme Commander was not, however, given an opportunity to discuss the new plan as was intended by General Bodell Smith, for General Montgomery dispatched a signal to the British Chiefs of Staff requesting approval of his plan on the evening before the Supreme Commanders Meeting. The British Chiefs of Staff agreed with the new plan (1) and also, in principle, with General Eisenhower's request for additional resources. They stated finally that Overlord must have overriding priority over all other operations.

In the original plan COSSAC had intended to secure the line of the River Eure from Dreux to Evreux, and thence the line of the Seine to the sea. His aim was to ensure that by D plus 90, 75 per cent of the airfields constructed were within 60 miles of the Seine and the remainder within 90 miles. Airfield construction in Brittany was to be kept to the minimum.

The main difference between the two plans was that General Montgomery's laid more stress on the capture of Cherbourg and Nantes at the expense of the development of airfields. This meant that airfields constructed in Brittany and the Cotentin peninsula would be of little use in the eventual advance to the Seine. Moreover, without using the area south east of Caen it would be impossible to provide sufficient airfields elsewhere to give adequate cover in the bridgehead. While there was very little difference between the two plans up to about D plus 74, there was a very grave difference from this time onwards. The Twenty-First Army Group plan provided for a long pause near the coast after D plus 25 up to D plus 60, and again up to D plus 90, and almost as great a pause farther south from D plus 35 to D plus 60 and then to D plus 90.

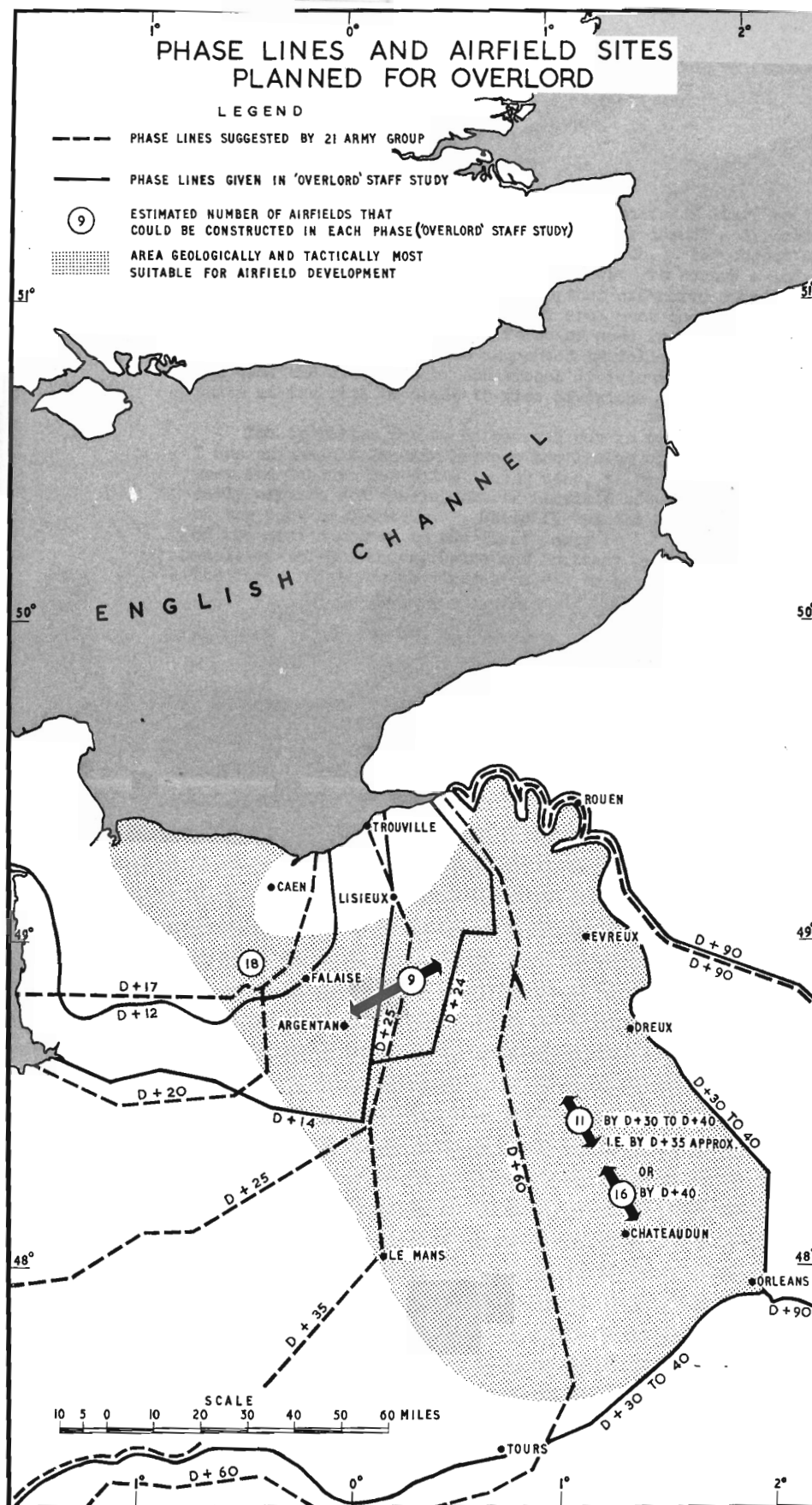
Another aspect to the revised plan was that a great deal of congestion would arise in the beachhead in the initial phase. It was anticipated that there would be conflicts in demands for space by Armies and Tactical Air Forces for base depots, dumps and road facilities. Further the congested base area, beach exits and Mulberries whose operation was vital to the continuance of the operation would be subject to short range day and night air attack. It might well be difficult to counter this threat if there was insufficient space to deploy an air warning system and a lack of airfields on the continent from which to operate fighter aircraft. A final difficulty was that the construction of airfields in the Cotentin and Brittany areas would involve additional labour, equipment and material especially square mesh track.

TLM/Folder 17A At a Supreme Commanders Conference held on 10 March the Air Commander-in-Chief enumerated these considerations. (2) The Supreme Commander said that it was necessary to strike a balance between Army and Air needs; but the balance was heavily weighted in the Army's favour and they did not, in fact, modify their plan.

/After

(1) See Appendix IV/16

(2) See Appendix IV/19



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TLM/MS.136/40

After the approval of the Combined Chiefs of Staff to the revised Overlord plan the Supreme Commander issued a directive to his three Commanders in Chief on 10 March. The object of Operation Overlord was defined as follows: to secure a lodgement area on the continent from which further offensive operations could be developed. The lodgement area must contain sufficient port facilities to maintain a force of some 26 to 30 divisions, and enable that force to be augmented by follow-up shipments from the U.S. and elsewhere of additional divisions and supporting units at the rate of three to five divisions a month.

The operation was to be carried out in two phases. Phase I was an assault landing between the limits of Quineville in the west and Cabourg Les Bains in the east, to be followed by the early capture and development of airfield sites and the capture of the port of Cherbourg. Phase II was the enlargement of the area captured in the first phase so as to secure the whole of the Cherbourg, Loire and Brittany groups of ports. The target date for the operation was to be 31 May 1944.

G.323100/HH/1/52/30

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CHAPTER 5

EMPLOYMENT OF AIRBORNE FORCES IN OPERATION

OVERLORD

Formulation of Basic Policy: Plan based on the Trident Allocation

The part that airborne forces would have to play in large scale landings on the continent was generally conceded, even in 1942, to be an important one. The measure of its importance to COSSAC's joint planning staff can best be judged by the role allotted to this particular force in the original assault plan for Operation Overlord. The success of the assault was held to hinge on the early capture of the town of Caen. This task was to be given to airborne forces.

TLM/MS.136

At the Trident Conference in May 1943, when land, naval and air forces were allotted for Overlord, the number of transport (troop carrier) aircraft was given as 632, of which 190 were to be British and 442 American. Two Airborne divisions - one British and one U.S. - were to participate. COSSAC was asked to assess and report his additional needs in transport aircraft and gliders. (1)

A firm estimate of transport aircraft obviously could not be given until the outline of the operation had been decided. COSSAC was reluctant to make such a decision until the airborne operations in the invasion of Sicily had taken place and their lessons had been studied. The Sicilian operation provided the first real test of Allied airborne forces. Until then, and indeed after, there was an influential school of thought in Great Britain which was highly sceptical of the value of such a weapon, believing that where, owing to limited resources, the choice lay between heavy bombers or airborne forces, there could be no question as to which should take priority.

TLM/MS.150

In America, both air transport and airborne forces had been treated with wider vision and appreciation of the value of such development, not only in war, but also in peace. Although of the two nations Great Britain was the pioneer in airborne forces, the U.S.A. quickly caught up and forged ahead quantitatively, though never in quality, and in July 1943 the respective effort of the two countries in provision of troop carrier aircraft was quoted as being one to fifteen and as one to ten in gliders. (2) Great Britain was unfortunately handicapped by her aircraft production capacity being strained to the utmost to provide not only for her own needs in fighter and bomber aircraft in two theatres, but also, in a large extent, for those of Russia.

/Whereas

(1) COS (43) 295 (0) dated 9 June 1943.

(2) See Letter from Air Commodore Primrose A.O.C. No 35 Wing, to Air Marshal Leigh-Mallory, reference 38/W/MS.3/26 Air dated 12 July 1943, at E.7A on TLM/MS.150. See also Report of General Plans, Troop Carrier Command at E.2 on TLM/MS.150. These figures are disputed by certain R.A.F. Troop Carrier authorities and may not be correct.

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Whereas, in the United Kingdom, the entire potential of the aircraft industry was being used on war production, America could afford to use a considerable percentage of her potential on building transport aircraft.

Early in June 1943, COSSAC asked Air Vice-Marshal Graham (then head of the R.A.F. Branch of his Headquarters) to draft a paper estimating Allied requirements in transport aircraft and gliders for Overlord. This Air Vice-Marshal Graham did on a basis of a simultaneous two divisional lift, calculating 14 paratroops per Dakota. The resulting figures, ⁽¹⁾ as Air Marshal Leigh-Mallory pointed out, ⁽²⁾ were astronomical - of the order of 1523 aircraft (including four engined) and 1018 gliders - out of all proportion to the number which it was estimated at Trident would be available by 1 May 1944.

TLM/MS.150

The original "Study of the Employment of Airborne Forces in Relation to a Given Plan", produced by the R.A.F. Branch of Headquarters COSSAC in March 1943, had envisaged the dropping of three separate forces, 'A', 'B' and 'C'. Force 'A', consisting of six parachute brigades (12,000 men), was to be dropped in the rear of the assault beaches between Isigny and Cabourg in six different areas as late as possible before dark on D minus one. Force 'B', in 1,200 parachute detachments (totalling 8,000 men), was to be dropped in the rough quadrangle bounded by Lessay Trouville in the north and Avranches and Argentan in the south. These troops were to be dropped at the same time as Force 'A'. Force 'C' composed of one airborne division, was to be given the task of seizing the vital ground south of Bayeux ⁽³⁾ and lying between the Rivers Vire and Orne. ⁽⁴⁾

The feasibility of the tactical employment of such forces could only have been assessed from a more detailed study of the plan, but the main factor was the limitation of resources. The minimum resources in aircraft and gliders needed to execute this plan amounted to 1436 Dakotas or 2,300 British converted bombers, and 600 Horsa gliders. Their provision would entail either direct protection at the expense of other vital demands or a diversion of bomber aircraft for a considerable period. Furthermore, if this latter course were adopted, and assuming no increase in our bomber strength, bomber support for the operation would not be possible. In addition, the provision of an adequate number of aircrews trained in parachute dropping and glider towing was an enormous commitment. If these were to be found from the then existing bomber operational crews, the entire crew strength of Bomber Command would be absorbed. If new crews had to be trained for the purpose, considerable time would be needed and the necessary training facilities could only be provided at the expense of other essential training. In either case, therefore, provision of crews for troop carriers and tugs could only be made at the expense of the heavy bomber effort.

/Provision

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- (1) Reference COSSAC/RAF/30, dated 12 June 1943
 - (2) TLM/MS.136 dated 15 June 1943.
 - (3) This "Study of the Employment of Airborne Forces in Relation to a Given Plan" became part of a plan called Skyscraper which, due to its impracticability, became a combined exercise and study in planning.
 - (4) See sketch map plan at Appendix V/I and TLM/MS.150.

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Provision of airfields presented another formidable problem. Only a proportion of the airfields in the United Kingdom were fit for operating paratroop and glider-towing aircraft, and all such airfields were already in use. The provision of airfields for airborne forces would involve the cessation of certain other vital operations and training, unless new airfields were to be built quickly.⁽¹⁾

Even if the problem of providing aircraft and aircrews could have been solved by provision from America, facilities for the operation of these forces from the United Kingdom would still be needed - tantamount to an organisation as great as R.A.F. Bomber Command as it existed then. Airfield facilities would have to be provided within range of the Continent, equal to about one-third of the ultimate programme for R.A.F. Bomber Command and the U.S.A.A.F. in the whole country.

This broad comparison gives some measure of the problem involved. The bottlenecks of aircraft, crews and airfields seemed to preclude the employment of airborne forces of the size contemplated.

TLM/MS.150
FC/S.33481

On 25 June 1943, Air Marshal Leigh-Mallory wrote to the Air Ministry representing that planning was being hindered and the success of Operation Overlord might well be jeopardised by lack of a clear and practicable policy on airborne forces.⁽²⁾ He pointed out two aspects that needed to be considered and reconciled: first, what facilities could the R.A.F. provide for the transport of airborne forces, and secondly, what sized force did the Army require to be transported? He went on to discuss the R.A.F. aspect with regard to provision of aircraft, sources of supply, training of pilots and the organisation of No. 38 Wing (the R.A.F. component of airborne forces). In terms of single-lift, the number of machines required to lift one division, were given as:-

- 470 paratroop aircraft
- 470 Horsa-tugs
- 25 Hamilcar-tugs
- 470 Horsa-gliders
- 25 Hamilcar Gliders

Possible types of aircraft for paratroopers and tugs were given as the Albermarle, the G.47 (Dakota), and Halifax and the Ventura. The Air Commander-in-Chief suggested that the source of aircraft for a major airborne operation should be Transport, rather than Bomber Command, (since the full resources of the latter would be likely to be required in their primary role), and that No. 38 Wing should be closely linked with that formation for training. He submitted that the Chiefs of Staff ruling that two pilots per glider should be allotted was

/excessive

- (1) In order to provide sufficient airfields, virtually all those with 2,000 yard and 1,600 yard runways in an area south-east of a line Wash-Bristol would have been required, with the result that Bomber, Coastal and other Commands and air formations would have been pushed up north, and many of the lower priority units would have been forced to find asylum in Scotland and Northern Ireland.
- (2) Reference FC/S.33481. See Appendix V/2

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excessive and further presented an almost insurmountable training problem. He considered one pilot per glider adequate. Finally, Air Marshal Leigh-Mallory strongly urged the need for early decisions on the highest level, and asked that a conference should be convened without delay with both War Office and Air Ministry represented for the purpose of making such decisions.

TLM/MS.150 -

In reply to Air Marshal Leigh-Mallory on 22 July the Air Ministry stated that the Chiefs of Staff had recently held a conference to discuss the future policy of airborne forces. (1) The Chief of Air Staff had stated that the Air Ministry was prepared to go ahead with training an additional 800 glider pilots who would take part in airborne operations in 1944. He made it clear, however, that the Air Ministry would not attempt to provide aircraft to lift all four airborne divisions which would be available: one British and two American in the U.K. and one British in the Middle East. He concluded that firm decisions should not be made until the result of Operation Husky - the airborne landings in Sicily had been examined. The Chiefs of Staff Committee agreed with and accepted the Chief of Air Staff's proposals.

It must be pointed out that at this time (July 1943) the total resources in tug aircraft of No. 38 Wing (in the U.K.), by which the Air Ministry proposed to train 1000 glider pilots amounted to 20 Albermarles (2) and thirty worn out Whitleys - an obsolescent type for which replacements were practically unobtainable. Albermarles - the type which was to replace Whitleys - were all going to either Russia or to the Mediterranean, and even in the latter theatre, they were, shortly after Operation Husky, grounded for want of space.

TLM/MS.150

COS (43)
24 July 1943

As a result of the Trident conference COSSAC submitted a report to the Combined Chiefs of Staff on his plan for troop carrier aircraft in Operation Overlord. This was based on an assumed available strength of 632 aircraft. The chief points in this report were as follows. The Overlord plan (3) required the simultaneous transportation of two thirds of a British airborne division and seven U.S. parachute battalions. This force required a total, allowing for reserves and wastage, of 1004 transport aircraft. Seventeen airfields were required to accommodate the force in southern and south east England. A total of 853 Horsa gliders or their equivalent were required to lift the British and U.S. airborne divisions. The Chief of Air Staff had already confirmed that the 632 aircraft, based on the agreed allocation to the British of 50 American Dakotas would be forthcoming.

The lessons of Operation Husky

On 9 and 14 July 1943 airborne landings were made by British and U.S. forces to assist the seaborne invasion of Sicily. (4)

/The lessons

- (1) See Appendix V.13. COS (443) 87th Meeting (0) dated 28 April 1943.
- (2) These were on the point of being flown out to reinforce No. 296 Squadron in North Africa and were about to be replaced.
- (3) This was the original three divisional assault plan distinct from General Montgomery's revised plan.
- (4) The most important reports on the airborne operations are those by Major General Browning (then G.O.C. 1st Airborne Division), Group Captain Cooper and Flight Lieutenant Grant to be found in Files TLM/MS.150 or A.E.A.F./180.

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TLM/MS.150
and AEAF/MS.
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The lessons learned from Operation Husky were shadowed by an acrimonious controversy between General Browning and Group Captain Cooper, Airborne Adviser to Air Chief Marshal Tedder, who both produced reports on the airborne landings. In brief, the argument of General Browning was that the air elements were lacking in proper training and navigation. He ignored the fact that No. 38 Wing had been placed under command of the U.S. 51st Wing, of which it had formed only one Group (approximately one quarter of the whole Wing). Nor did he mention that the training for the operation was entirely an American affair. In spite of this, the British detachment acquitted itself very creditably.⁽¹⁾ Moreover Group Captain Cooper, prior to the operation, had made strong representations against, what he believed to be, the unsoundness of the plan for the glider operation.

There is no doubt that the high rate of casualties on the flying side of the Sicilian operation was mainly due to lack of training. Some of the glider pilots had only done one and a half hours night flying on Horsas, other had completed only eight hours flying since 1942; many of the tug pilots had never done any night towing. Up to that time no glider pilot Officer Training Unit existed. British glider pilots had had no practice in night landing under operational conditions, and when they had finished their training they had little or no opportunity of flying. Without a drastic increase in the number of towing squadrons, there was no hope of improving the standard of training, which alone could ensure the success of a future airborne operation.

Another reason for both casualties and failure to face flak on the part of American tug pilots was that the C.47 (or DC.3), the only type used by the U.S.A.A.F. for tugging, was both unarmed and unarmoured and was not even provided with self sealing tanks. This meant that the chances of piloting this type of aircraft through flak without it bursting into flames were very slender.

TLM/MS.150

A report on airborne operations was produced by Allied Force Headquarters which soon became the basis of future War Office and Air Ministry policy on the employment of airborne forces. On 10 September 1943 these two departments issued an account of Operation Husky and the lessons of the airborne landings. The gist of the latter was as follows. The operation should be controlled by the Air Commander-in-Chief assisted by a joint staff. Part of the operational force should be trained to pathfinder standard and all crews participating should be up to R.A.F. Bomber Command standard and have operational experience. An airborne operation must be planned to achieve concentration in time and space. A continental operation would in all probability take place at night. If the role of airborne forces was a vital one, the occurrence of suitable weather conditions for the operation of airborne forces would have to govern the launching of the whole assault. Finally the report considered that No. 38 Wing should consist of 180 fully operational aircraft and that a maximum of 615 British glider pilots should be available in time for Operation Overlord.

Air Marshal Leigh-Mallory criticised the great reliance on gliders and gliderborne troops which was evident in this paper and drew attention to the difficulties inherent in the assembly

/and dispatch

(1) See R.A.F. Monograph History of Airborne Forces, Chap. 5 p. 90 and R.A.F. Narrative The Conquest of Sicily.

and dispatch of gliders from airfields in this country and the problem of landing gliders in sufficient numbers on the continent. But Air Marshal Leigh-Mallory's comments were not incorporated into the final version of the paper. It was obvious that General Browning's insistence on large numbers of glider borne troops had prevailed.⁽¹⁾

AEAF/S.676
Airborne
Plans

The Combined Chiefs of Staff did not publish their policy memorandum until February 1944.⁽²⁾ While the Americans laid greater stress than did the British on supply by air, and on the glider element of airborne forces, and considered that these forces should be organised as divisions and used on that scale at least until tests in combat showed that this policy was unsound, in other respects - e.g. the need for airborne operations to be controlled on the Supreme Command level, the necessity of capable airborne and troop-carrier advisers being on the staff to assist in preparation of plans, the importance of accurate navigation - both staffs were at one. Basic principles having now been laid down, there remained the tasks of reorganisation, training and preparation of a plan.

Reorganisation and Expansion of No. 38 Wing

AEAF/MS.80

The suggestion that No. 38 Wing should be expanded into a Group was made as early as August 1942 by Air Commodore Groom, Senior Air Staff Officer of the Special Planning Staff for Round-Up. His proposal was that the Group should be placed under R.A.F. Bomber Command but should be responsible in close co-operation with Headquarters Airborne Forces for all preliminary training, exercising and detailed planning of airborne operations. At that time it was assumed that for continental operations R.A.F. Bomber Command would be placed directly under the Allied Air Commander-in-Chief who would be responsible for the decision to launch the airborne force.⁽³⁾ This proposal was rejected.⁽⁴⁾

No. 39 Wing when formed, had been placed under Army Co-operation Command. It consisted of three squadrons, and its task was the operational training of the then single airborne division. No. 70 Group, in its Blenheim Operational Training Unit formed a Whitley flight for the training of replacement crews, and also a Parachute Training School at Ringway, which undertook the initial training of paratroops. An Elementary Flying Training School and Glider Training School and a Heavy Glider Conversion Unit (H.G.C.U.) for the advanced training of glider pilots for the Glider Pilots' Regiment were also started by No. 70 Group, but were later placed under Flying Training Command. To enable glider pilots in Flying Training Command to make practice flights on light-powered aircraft and Hotspur Gliders, until such time as there was a vacancy for them to be allotted in turn to squadrons for operational training, No. 38 Wing had to form a Glider Pilot Exercise Unit (G.P.E.U.)

/Such

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- (1) The reason why the Army was so anxious to have a high proportion of gliders to paratroops was that heavier equipment could be taken by the force. Previous experience had shown that airborne troops might have to fight heavy engagement without relief over a prolonged period. For such they must possess arms and ammunition in adequate quantity.
 - (2) See Appendices V/8 and V/8/1.
 - (3) See Air Commodore Groom's minute to Air Vice-Marshal Graham at E17A on AEAF/80.
 - (4) See Air Ministry letter to A.O.C.-in-C Bomber Command, Reference CS,8503/11/ACAS (Ops) dated 19 February 1944 (TLM/MS.150., E.87).

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Such dispersal of strength, as pointed out by Air Officer Commanding No. 38 Wing in a memorandum⁽¹⁾ to the Allied Air Commander-in-Chief, made it almost impossible to build up an efficient force whose task was specialised but vital to the success of the landings on the continent. Air Commodore Primrose suggested that a new organisation was needed, analogous to that of the Combined Headquarters of Commander-in-Chief, Western Approaches and No. 15 Group of R.A.F. Coastal Command, whereby the Army Airborne Force Commander and his R.A.F. counterpart should share a Headquarters, the latter being responsible for the direction of all training with the exception of the Glider Pilots course at Elementary Flying Training Schools and Glider Training Schools. Air Commodore Primrose further proposed that the R.A.F. Airborne Force Commander should have under him an operational headquarters responsible for the operational stations and squadrons, together with a Tactical Development Unit and a training headquarters in charge of the Parachute Training School, the Operational Training Unit for squadron aircrews, the G.P.E.U. and the H.G.C.U. Such an organisation would place the whole R.A.F. element of airborne forces under one commander who understood both operational needs and the limitations of his force and could adjust his training accordingly.

TLM/MS.150

In June 1943, Air Ministry decided to place No. 38 Wing under command of 2nd T.A.F. But as a prior decision had been to second two of the three operational squadrons of the Wing to North Africa to participate in Operation Husky, the expansion of the Wing was inevitably deferred. The original Air Ministry undertaking was to detach 40 aircraft from No. 38 Wing for one month - 15 June to 15 July 1943.

On 15 July 1943, General Eisenhower signalled American Headquarters in London and Washington, saying he considered it essential for the success of two further contemplated operations to retain and maintain his airborne forces at their original strength of 360 aircraft (320 American; 40 British). He continued that this might mean two-thirds replacements of aircraft and crews (200 U.S.A., 27 British). On 20 July the Director of Military Operations with War Office and Chief of Air Staff's approval, signalled that they would maintain British aircraft and crews at 40 until the end of October. This involved the provision from No. 38 Wing during the next two to three months of 20 Albemarle and seven Halifaxes with crews.⁽²⁾

At the end of July 1943, the strength of No. 38 Wing in England was 30 Whitleys and Albemarle in No. 297 Squadron with 20 trained crews and 12 under training, and 20 Whitleys forming part of No. 295 Squadron, with 15 trained crews and another 16 training - a total of 50 machines and 35 trained crews. The remainder of No. 295 Squadron was still in North Africa with 10 Halifaxes, as was the whole of No. 296 Squadron with 30 Albemarle.

The Air Ministry decision to reinforce in North Africa meant depriving No. 297 Squadron of 20 Albemarle and crews,

/leaving

(1) See Appendix V/9

(2) The Halifaxes, but not their crews were to be found by Air Ministry.

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leaving this Squadron with three flights of Whitleys. A further seven Halifaxes crews had to be provided. Thus not only had No. 38 Wing to lose 27 of its best crews, but the whole of their two new Albemarle flights, the replacement crews being given Whitleys - an obsolescent type for which spares were practically unobtainable. The Wing had to spend approximately 350 hours (about one-third of their then total monthly flying hours) on Albemarle and Halifax conversion flying, for the benefit of the detachment in North Africa and to the detriment of the training of the 6th British Airborne Division for Operation Overlord.

TLM/MS.150

For four months Air Commodore Primrose (1) struggled to get his squadrons returned from North Africa to enable him to train his force for the landings on the continent, but the position went from bad to worse. The Air Commander-in-Chief made representations to the Air Member for Supply and Organisation but all to no purpose.

Early preparations for Operation Overlord

In the meantime the Air Officer Commanding No. 38 Wing, in consultation with the General Officer Commanding 6th British Airborne Division, had prepared a memorandum of the needs for a continental airborne operation and suggested composition of the troop carrier force in aircraft, crews and equipment. One brigade group was to be carried in a single air lift. The 6th Airborne Division was to be split into three groups, and it was considered that the airlift should be capable of transporting at least one brigade group on each of three successive nights.

The operation was divided into three phases. In the first phase the dropping/landing zones were to be marked by an air pathfinder force at zero hour. In the second phase at zero hour plus ten minutes, specially trained airborne troops were to be dropped at individual dropping/landing zones which they were to mark with ground flares etc. In the third phase zero hour plus ten minutes onwards the main airlifting force was to deliver the bulk of the airborne force on the illuminated dropping/landing zones.

In his conclusion the Air Officer Commanding No. 38 Group emphasised the importance of beginning the training of pathfinder crews. Furthermore it was essential to the success of airborne operations that all formations engaged should be brought together at the earliest possible moment. Planning for an airborne operation would be a complex matter. A force commander should be appointed without delay who would have the power to co-opt the different formations engaged. He stressed the necessity for a high degree of efficiency in the early stages of the operation and careful timing in all details.

A further memorandum produced by the Air Officer Commanding No. 38 Wing dealt with the type of aircraft to be used, the size of the force and the location of airfields. The aircraft recommended as the main equipment for the force was the Albemarle III, this type having proved itself in the Sicilian operations both as a paratroop and tug aircraft. The most suitable sites for squadrons were given as Stoney Cross, Hurn, Tarrant Rushton and Netheravon, these airfields being close to the 6th Airborne Division, with which No. 38 Wing would have to train.

/This plan

(1) Then A.O.C. No. 38 Wing.

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This plan was criticised by Headquarters A.E.A.F. in that it only envisaged the delivery of the British division. In addition it did not take into account the delivery of the reserve airborne forces and emergency supply by air. Difficulties arose over the location of airfields as meteorologists had stated that it would be essential to have the remaining 13 airfields south of the line of the South Downs. This presented an almost insuperable problem.

AEAF/MS.80

On 28 September 1943 a meeting was held at the Air Ministry to decide on how the expansion and re-equipment of No. 38 Wing was to be carried out. The meeting was attended by the Air Officer Commanding-in-Chief Fighter Command, the Tactical Air Force Commander, the Air Officer Commanding No. 38 Wing, the Director of Air at the War Office, and staff officers and interested parties at the Air Ministry.⁽¹⁾ Before turning to consideration of the agenda the Air Officer Commanding-in-Chief Fighter Command asked for a clear ruling as to whether No. 38 Wing alone would have the responsibility of transporting all airborne forces which it was proposed to employ in forthcoming operations, or whether it would be supplemented by a force of transport and other squadrons for this purpose. Air Marshal Leigh-Mallory pointed out that this had a direct bearing on the points to be discussed, because if supplementary squadrons were to be involved they would have to be trained, to some extent, in parachuting and towing by No. 38 Wing, and in this event it was important that the Wing should be re-equipped as early as possible to enable it to meet this commitment. The Director of Air, War Office said that some 400 aircraft would be needed for the first lift, and the question as to whether the balance was to come from Initial Equipment, from American sources or from R.A.F. Bomber or Transport Commands, was a matter for Air Staff decision. It was confirmed that in the joint recommendation which had been put forward to the Chiefs of Staff some supplementary effort by Transport and/or Bomber Command had been visualised, and it had been stated that some weeks of training would be necessary before operations began. Accordingly, there would be a training commitment on No. 38 Wing over and above their strength of 180 aircraft.

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The suggested Headquarters establishment ⁽²⁾ of the revised No. 38 Group was approved with certain modifications. The Air Officer Commanding was to be upgraded to an Air Vice-Marshal's appointment.⁽³⁾ Air Ministry decisions as to the re-equipment of No. 38 Group were viewed with considerable alarm by both that Group and A.E.A.F. They feared that the Stirling would not be available until 1944, that it would require considerable modification to make it suitable for the carriage of troops; moreover, it had not been tried or proved suitable for such a role and, finally the Wing would be largely dependant on R.A.F. Bomber Command for crews. To what extent their fears were justified is amply demonstrated in a letter⁽⁴⁾ written by Air Officer Commanding No. 38 Group to the Allied Air Commander-in-Chief on 7 March 1944, in which he showed in detail how his Group was suffering from the "close border" policy of Bomber Command, to draw experienced crews from which

/was tantamount

- (1) See minutes of Appendix V/14
- (2) See E.52 on TLM/MS.150
- (3) A.V.M. Hollinghurst was appointed almost immediately to fill this post.
- (4) For all this correspondence see Appendix V/15.

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was tantamount to drawing blood from a stone. The Air Commander-in-Chief was finally forced to take this matter up direct with the Chief of Air Staff.⁽¹⁾ Crews were not the only difficulty. Only by dealing direct with the Ministry of Aircraft Production was Air Vice-Marshal Hollinghurst able to have his force ready in time. Even so, aircraft promised by Air Ministry at latest by mid-March 1944 were not, in fact, allotted to No. 38 Group until the end of April 1944. Perusal of the minutes ⁽²⁾ of the A.E.A.F. Commanders Weekly Conference gives an insight into the appalling difficulties with which Air Vice-Marshal Hollinghurst had to contend, in order first to provide his Group with airfields, aircraft and crews, and then to get his force trained in time for Operation Overlord.

Situation in October 1943

By October 1943 the situation with regard to the airborne operation in Overlord was as follows. The Army still depended on the successful and timely delivery of a large airborne force including the extensive use of gliders. The lack of airfields necessitated the use of airfields north of the South Downs. This would reduce the chances of obtaining suitable weather for the airborne operation and would thus add another factor increasing the difficulties of selecting the day of assault. Nor had the allocation of airfields to No. 38 Group yet been decided. A decision also had to be made on the size and source of the follow up force before detailed planning could commence. Much remained to be done in the seven months left before the launching of the assault across the Channel.

During 1943 the U.S. Chiefs of Staff believed that the Allies had failed to take advantage of the air superiority which had already been obtained over Germany. This was manifest, firstly in the inability of the R.A.F. to destroy the G.A.F. 'in being' as well as the sources on which it depended for supply, and secondly, the limited horizon of the British with regard to the employment of airborne forces and the potentialities of air supply. General Morgan who had visited Washington in October 1943 was soon converted to the American point of view and wrote to him urging the largescale employment of bombers as transport aircraft.

Investigations into ways and means of increasing airlift had been in progress for some months at Headquarters COSSAC, where it was envisaged that the success of Operation Rankin would largely depend on the extent to which our inadequate shipping lift could be augmented by air supply and reinforcement. Little had emerged from the papers which had been produced.

It was agreed that the Air Staff should prepare and keep up to date a statement showing the maximum airlift available from all sources in the U.K. (U.S. and British) on 1 January 1944 and thereafter at monthly intervals. The percentage of this maximum lift to be made available for a specific operation could then be decided, taking into account the prevailing air and ground situation and weighing the military advantage to be gained for the price paid in diversion of aircraft from other tasks. The estimated total lift for 1 January 1944 from U.S. Troop Carrier Command, R.A.F. Transport Command and No. 38 Group was 8596 troops or 942 tons of stores provided the transports could land at their destination.

/If they

(1) For all this correspondence see Appendix V/15

(2) See minutes of 2nd Conference (para.18), 3rd (para. 9), 5th (para.18), 6th (para.14), 11th (para.18), 12th (para.17) and 13th (para.26) on TLM/Folder 17.

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If they could not land, the number would be reduced to 5,512 paratroops or 850 pannier loads in tons. Corresponding figures for March were given as 13,936 troops or 1,484 tons and 8,992 paratroops or 1337 pannier loads in tons.

Air Marshal Leigh-Mallory's visit to Washington.

On 23 October 1943 the Combined Chiefs of Staff requested that Air Marshal Leigh-Mallory should visit Washington before the return of COSSAC to the United Kingdom to discuss 'methods of deriving the maximum advantage from available aircraft and gliders in furtherance of Overlord assault plans.' At the same time COSSAC was to prepare a plan for the use of all types of aircraft and gliders to reinforce and deliver supplies to the Overlord area.

Air Marshal Leigh-Mallory believed this use of aircraft to be an impractical and unsound proposition in direct contradiction to the lessons learned in Operation Husky where it had been shown that a small and highly skilled force to deliver the airborne force at the right place and at the right time was essential. Already the Army, by their insistence on the number of vital tasks which in their opinion could only be accomplished by airborne troops, were forcing the issue of quality versus quantity. If, in addition to the lift of two airborne divisions and 15 parachute battalions demanded by the Army, the air was to be faced with the task of extended reinforcement and delivery of supplies to the lodgement area, their other commitments (on which the Army were equally insistent) of maintaining air superiority, neutralising coastal batteries, delaying the arrival of enemy reinforcements and disrupting German control centres, could not possibly be met. The reduction of the bomber potential for the purpose of increasing the airborne potential would also affect the rate of preparatory bombing for Operation Overlord. Finally, if Operation Overlord was to depend on the employment of large airborne forces the timing of airborne operations and seaborne assault would be a most difficult problem.

TLM/MS.150

Nevertheless the Air Commander-in-Chief directed his staff to prepare a paper on 'The use of aircraft to accelerate concentration of land forces in Operation Overlord and for their subsequent supply.'⁽¹⁾ This paper was written on the assumption that the general situation would allow of the whole of the bomber effort being concentrated in the assault area. Gross resources in bombers and troop carriers on 1 May 1944 were estimated at 5946 aircraft (U.S. and British). Of these it was appreciated that all the medium and light bombers would be needed in their primary role and probably all the heavy day bombers as well. It was recommended that night bombers, even if available, should not be used for transport purposes. The planning staff was very sceptical about the chances of success of a large scale landing and paratrooping operation at night.

The Chief of the Air Staff shared Air Marshal Leigh-Mallory's misgivings over the U.S. Chiefs of Staff proposal and directed that he should bear in mind the major lesson of airborne operations in the Mediterranean which was that the Air Commander should advise upon, and execute airborne operations.

/On 1 November

(1) See Appendix V/17

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TLM/MS.136/
9/3

TLM/MS.150
Encl. 76

Ibid
Encl. 78A

On 1 November the Air Commander-in-Chief had his first meeting with General Arnold, (1) Commanding General U.S. Army Air Forces and on the following day he heard an account of the recent successful airborne operation carried out by the Americans in the Markham valley (Pacific Theatre). The Americans were inclined to regard this admittedly successful operation as a yardstick by which all future airborne operations could be measured. It was in fact an operation carried out in ideal conditions without any enemy opposition. From the airborne point of view it was not dissimilar to an exercise. Air Vice-Marshal Hollinghurst (2) who accompanied the Air Commander-in-Chief to Washington, pointed out that these conditions were unlikely to pertain in Overlord. His ideas were elaborated in a paper which he wrote while in America which gave a more balanced view of the employment of airborne forces in Overlord. This paper, if it failed to convince General Arnold, went some way to persuade General Morgan of the futility of attempting to supplement shipping lift by the transformation of heavy bombers into general purpose aircraft.

It had already been shown that the principal reason why Air Marshal Leigh-Mallory was called to Washington was not to study the problem of airborne forces but to decide upon a system for the command and control of the Allied Air Forces. Very little of value emerged from the joint U.S./British study of the first problem though Air Vice-Marshal Hollinghurst and Wing Commander MacPherson, a member of the Air Commander-in-Chief's airborne planning staff, gained an opportunity of comparing American with British methods of training, and of watching American airborne troops on largescale exercises.

The Americans were fired with the novelty and spectacular appeal of large scale airborne operations and although the British Chiefs of Staff finally refused to sanction the diversion of heavy bombers (3) to air transport tasks (4) they did allow themselves to be persuaded in favour of quantity rather than of quality.

Airborne Air Planning Committee

TLM/MS.150

By the end of November 1943 because of the lack of any decision as to how the airborne force was to be composed there were at least five problems which required an immediate answer. It was essential to know what was the Army Commander-in-Chief's role for the airborne forces in Overlord; what should be the size of the first lift; whether the landings should take place by day or by night; whether the aircraft of the IXth Troop Carrier Command and the Dakotas of R.A.F. Transport Command would be used in the assault, and if so could they be used either by day or by night? These questions were posed by the Airborne Air Planning Staff in a memorandum to the Air Commander-in-Chief.

The Airborne Planning Staff pointed out that the vital difference between Operation Overlord and all previous amphibious operations undertaken was that the bridgehead was likely to be attacked within eight hours by one enemy panzer and one enemy motorised division. The Army had stated that for the landing to be successful the panzer counter-attack must be held off for at least twelve hours. It was then believed that the only means

/whereby

- (1) See D.O. letter from Air Marshal Leigh-Mallory to Sir Charles Portal at Appendix I/55.
- (2) A.O.C. No. 38 Group
- (3) With the exception of the Stirling aircraft and 15 crews transferred from Bomber Command to No. 38 Group. See page 97.
- (4) See Appendix V/19.

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whereby this could be done was airborne forces. This meant that the airborne operation was vital to the success of the whole Overlord plan.

TLM/MS.164

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It will be remembered that the Chief of Air Staff had challenged the soundness of such a plan at the Quadrant conference in August 1943, and COSSAC had been directed (1) to reconsider this aspect of his plan. The Army, however, still stuck obstinately to their thesis, and on 7 December 1943, General Paget (then General Officer Commanding-in-Chief, Twenty-first Army Group) re-affirmed the vital role of airborne forces in the assault. (2) The task assigned to these forces, viz: the holding off of two panzer divisions made it essential that they should be used in large numbers.

The Airborne Planning Staff accordingly prepared a possible plan assuming the simultaneous lift of two airborne divisions. The further assumed that glider operations would take place by daylight. Their plan involved:-

- (a) The use of 11 Stirling Squadrons for one towing trip.
- (b) Using 110 C.47s of R.A.F. Transport Command for one paratroop trip.
- (c) A second night lift by 150 British and 160 U.S. paratroop aircraft.
- (d) An armada of at least 800 towed gliders proceeding to a destination at dusk. (The satisfactory marshalling of this force in the air was recognised as an exceedingly difficult undertaking).
- (e) The use of 40 landing zones (on an average 20 gliders per landing zone). The finding of such a number of suitable landing zones was thought to be unlikely.)

The paper went on to discuss alternative possibilities for the timing of the operation. The great and perhaps over-riding advantage of a dusk first landing was that it made possible a second landing within a few hours of the first. A first landing during the night or at dawn, would make it dangerous to rely on a second lift until the following night - an interval of more than 12 hours. A further advantage of a dusk landing was that it would enable marshalling and take off to be carried out in daylight with a greater concentration in the air and less danger of confusion. Both navigation and fighter protection would be facilitated, and the chances of enemy fighter interference correspondingly would decrease. It was held that landing at dusk should be fairly easy, and darkness would quickly cover grounded gliders, thus protecting them from enemy strafing from the air. The airborne troops would have more time in which to form up without enemy interference at dusk than if they landed at dawn.

/The advantages

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- (1) COS (43) 180th Meeting (0)
 - (2) Joint C's-in-C 1st meeting held 7 December 1943, para. 6. "The C.-in-C. 21st Army Group said that, so far as could be seen at present the employment of airborne forces would be essential to plan. It would not, however, be the main factor in determining the time of the assault."

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The advantages of a night operation were greater protection en route to the target and greater surprise. But practically every other factor was unfavourable. Experience had shown beyond question that a very high standard was required of both tug and glider crews if a glider was to be released and landed at the correct spot at night. It was not expected that in the time remaining and with existing training facilities more than 300 (U.S. and British) crews of this standard could be prepared.

The main objection to a dawn landing was the difficulty of ground marshalling, concentrated take off and flight in the dark - a difficulty so great as to necessitate again a very high standard of training and to preclude the employment of large numbers. Moreover, enemy fighter and ground defences were likely to be at maximum alert at dawn; consequently, both the flight to and return from the target would be extremely hazardous.

It was concluded that the disadvantages of both dawn and night landings, outweighed those of a dusk landing.

In forwarding their paper, the Airborne Planning Staff pointed out that both American and British doctrine stressed the importance of airborne operations being planned well in advance, and of lower formations of affected services being consulted throughout planning. It was strongly recommended that an Airborne Air Planning Committee to include representatives of all interested parties, be formed without further delay.

On 9 December 1943, the Air Commander-in-Chief called a meeting to discuss planning procedure, operational control, timing of airborne operations, modifications of Dakotas and other pertinent matters. This meeting was attended by the Commanding General IXth Air Force, the Major General Airborne Forces, the General Officer Commanding 6th British Airborne Division and the Commanding General 101st U.S. Airborne Divisions and IXth Troop Carrier Command.⁽¹⁾

TLM/MS.150
Encl. 34

A number of important decisions were taken. The airborne plan was to be prepared at least in outline at A.E.A.F. level. This would be the responsibility of the Airborne Air Planning Committee which was to consist of the Allied Air Commander-in-Chief or his representative, the British and U.S. airborne commanders and the U.S. and British troop carrier commanders. The Air Commander-in-Chief would co-ordinate and control both U.S. and British troop carrier aircraft. The aircraft of the IXth Troop Carrier Command would be used in the assault role both by day and by night without self sealing tanks.⁽²⁾ The Air Ministry was to be requested for the use in the assault of 150 Dakota aircraft of R.A.F. Transport Command and also a number of R.A.F. Bomber Command aircraft. The crews of both No. 38 Group and the IXth Troop Carrier Command were to be trained to operate by day or by night. As far as possible U.S. and British troops were to operate with their troop-carrying national counterpart, using their own equipment. The system was to be flexible.

AEAF/MS.180
Pt.II

Shortly after this meeting the Air Commander-in-Chief informed the Air Ministry that the Army's demands for the initial airborne lift exceeded the combined British and U.S. troop carrier resources and stated that he must know at once what additional aircraft could be allotted so that necessary modifications could be made and aircrew training begun. He also inquired if there

/were

(1) See Appendix V/20

(2) See Appendix V/18

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were any chances of self-sealing tanks being issued for the Dakotas. He emphasised that a minimum of 150 aircraft (over and above the 150 Dakotas) would have to be provided from sources outside his control and suggested Stirlings of Bomber Command as being the most suitable type.

AEAF/MS, 80
Pt. II

The Air Ministry reply to this letter (1) was encouraging for the R.A.F. in that it re-affirmed the principle established after Operation Husky that "a highly-trained and suitable equipped force could achieve greater results than a much larger force composed of aircraft and crews pressed into service" but discouraging for the Army, since it stated that it was improbable that the troop carrier resources for which COSSAC had asked in his memorandum (2) dated 30 July 1943 - total of 1004 aircraft - would be increased. Planned proposals for realising this total were:-

No. 38 Group	180 aircraft
IXth Troop Carrier Command	702 aircraft (13½ Groups)
R.A.F. Transport Command (Dakotas)	122
Total	1004

Endeavour was being made to raise the Dakota total to 150, but it was extremely unlikely that these could be released by the U.S.A. before March 1944. Air Ministry went on to state: "There is no intention to divert squadrons from Bomber Command for this purpose, and it is considered advisable that you should draw the Army Commander's attention to this fact before any further progress is made in the preparation of his plan."

"With reference to para. 3 (ii) of your letter," the Air Ministry continued, "it is confirmed that none of the Dakotas which will be allotted for the operation will be fitted with self-sealing tanks or defensive armour."

Airborne tasks requested by Twenty-First Army Group

TLM/MS, 150/2

This reply, written on 1 January 1944, was not received until after the first meeting of the Airborne Air Planning Committee, which took place on the previous day. The most important items on the agenda was one of the tasks given by Twenty-First Army Group to the airborne forces. They were as follows:- (3)

- (a) To capture and hold Bayeux until relieved on D plus One, with the following objects:-
- (b) to prevent enemy armour and in particular, the division from St. Lo from penetrating between the American and British sectors.

/(c) to gain

- (1) See Appendix V/22
- (2) COSSAC (43) 36 - See para. 18 of Section 1.
- (3) 21 A Gp/100/239/8A/Ops Second Draft dated 21 Dec 1943 (E.3 on TLM/MS.150/2).

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- (c) to gain time for the reconnaissance and occupation of the covering position by the assault formations.

To carry out this task airborne forces were to secure Bayeux and occupy the high ground south and south west of the town, to deny to the enemy the approaches to Bayeux, thereby reducing the fronts to be held by the assault divisions on D Day.

TLM/MS.150/2

Army Intelligence had appreciated that the coast line between Isigny and Ouistreham was held by one coastal division of two regiments, the greater portion of which were disposed along the beaches, reserve battalions being held back in central positions as reinforcements. These last were located respectively at Bayeux and Caen. In addition, two panzer divisions - one at St.Lo and one at Lisieux - could, it was estimated be in action against assault formations on D Day. A battle group from each of these divisions was expected to be able to reach, one, Bayeux, and the other, Caen, by H plus five hours. While Twenty-First Army Group appreciated that very little delay could be imposed on the division located in St.Lo, movement of the Lisieux division might be appreciably hampered if the bridges over the River Orne, particularly those from Caen to the sea, could be destroyed.

While the airborne forces available for Overlord amounted to four divisions (two U.S. and two British) plus two U.S. Parachute Regiments, the lift to transport these forces was then given as:-

- (a) 282 British troop carrying aircraft.
- (b) 576 U.S. troop carrying aircraft
- (c) 800 Horsa gliders for the two British Divisions.
- (d) Hamilcar Gliders sufficient to carry the light tank squadron of 6th Airborne Division in two lifts.
- (e) Sufficient gliders for the airborne element of both U.S. divisions.

This represented a simultaneous lift for one airborne division and three fourths of the S.A.S. brigade. If the additional lift already asked for of 150 transports plus 300 bombers were allowed, an additional half-division could be lifted.

TLM/Folder 18

TLM/MS.150/2

At the second meeting of the Joint Commanders-in-Chief, it had been laid down that the main landing of airborne forces should take place after first light at approximately the same time as the seaborne assault, and that the state of the moon need not be taken into consideration in fixing the date of the assault. Twenty-First Army Group now stated that the first dropping of paratroops should not be later than two hours before daylight, so that the leading troops in the battle area could collect and organise themselves under cover of darkness. To land in a battle area in daylight was to court severe casualties. As the bombardment of the beaches was scheduled for H minus two hours, and as the dropping of the main force of paratroops would take about an hour and another hour would be needed to enable the pathfinder force to find and mark the dropping zones, the parachutists would have to land at about H minus four hours. Twenty-First Army Group was insistent that a daylight landing was unacceptable because the airborne troops could not be organised to meet the expected German armoured counter-attack from St.Lo until H plus six hours at the very earliest under ideal conditions, and because a very heavy tax on fighter escort would be imposed.

/To capture

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To capture and hold Bayeux would require one division to be landed in the shortest possible time. This in turn would need an adequate number of suitable landing zones for gliders. These had not yet been fully investigated. To resupply the airborne division until such time as the seaborne troops were able to link up, 150 aircraft would be needed.

A minimum of one-quarter moon conditions were needed to carry out this operation. This would limit the choice of D Day to the first 14 days in May.⁽¹⁾ To make full use of the first lift it was deemed necessary to allot all aircraft, both U.S. and British, to whichever formation was detailed to carry out this task.

TLM/MS.150/2

This plan was discussed at the first meeting of the Airborne Air Planning Committee on 31 December.⁽²⁾ The Air Commander-in-Chief said that he disliked the plan for the reason that it meant landing troops too near the battle area. Important items agreed upon at the meeting were first that it was held desirable that airborne troops should be landed in areas free from hostile interference where they could have time to assemble before being engaged by the enemy. Next, it was undesirable for the success of the main Army plan, to be dependent on the success of the airborne. Night glider training without moon was to be started by the IXth Troop Carrier Command and No. 38 Group forthwith.

The draft airborne operational memorandum was then considered, and it was agreed that after a small committee of U.S. and British Army and Air representatives had settled the draft, the memorandum ⁽³⁾ should be issued as an aide memoire to all services, supplementary to the War Office Training circular and the War Office/Air Ministry Joint paper on Airborne Forces. British and American Troop Carrier Commands were each to train their own pathfinder forces, and each airborne division was to have its special pathfinder troops.

It was further agreed that a draft training directive ⁽⁴⁾ should be prepared by the Airborne Air Planning Committee and that combined paratroop training should be undertaken by one U.S. troop Carrier Group and the Sixth Airborne Division in the Welford/Ramsay area. The adoption of common forms and standard operating procedure ⁽⁵⁾ for both No. 38 Group and IXth Troop Carrier Command was decided upon. Planning of airborne operation could go no further until the arrival of General Montgomery to replace General Paget as Commander-in-Chief Twenty-First Army Group.

/Revision

- (1) At this time (29 Dec. 1943) D Day still stood as approximately 1 May. It was not until General Eisenhower's assumption of the Supreme Command in January 1944 that the target date was postponed to 1 June.
- (2) See Appendix V/23
- (3) Final text at Appendix V/24
- (4) See Note regarding training directive at E.6B on TLM/MS, 150/2.
- (5) Issued at SHAEP Operational Memorandum No. 12 Text at Appendix V/25.

S E C R E T

Revision of the Airborne Plan

TLM/MS.136

It will be remembered ⁽¹⁾ that at the meeting of the Joint Commanders-in-Chief on 12 January 1944, General Montgomery, outlining his revised plan for a five divisional assault, said that he wanted to drop one airborne division to support the American landing on the east of the Cotentin peninsula or in the Caen area to which of the two he was not prepared to commit himself. This proposal meant a complete change of the airborne plan.

TLM/MS.150/2

At the second meeting ⁽²⁾ of the Airborne Air Planning Committee, the Air Commander-in-Chief informed those present that the first airborne landing would probably take place north of the town of Carentan (in the south east corner of the Cotentin Peninsula). This operation would be carried out by one U.S. Airborne Division. Sir Trafford Leigh-Mallory said that this proposal appeared altogether better from the air point of view than the Bayeux project, provided the new area proved satisfactory for glider landings. He considered the Army side of the plan sufficiently definite for planning of the air side to proceed forthwith. After full discussion of the proposal and examination of photographs of the new area, "it was ruled that an investigation of the terrain and of the air aspects of the operation, should be carried out by A.E.A.F. forthwith, and an outline air plan presented at the next meeting of the Committee."

The new plan necessitated five additional airfields in the south of England being found for the U.S. IXth Troop Carrier Command, since to lift the normal gliderborne element of a whole airborne division simultaneously, 400 Horsa Gliders were needed. The Air Commander-in-Chief rules that this matter should be taken up at once with the Air Ministry and A.E.A.F. Airfield Allocation Committee.

TLM/MS.150/2

At the next meeting ⁽³⁾ of the Airborne Air Committee, which took place on 27 January, the Air Commander-in-Chief confirmed that the first airborne lift would consist of a U.S. Airborne Division to be landed north of the town of Carentan. He stressed the importance of subsequent airborne operations being conducted some distance from the main battlefield.

TLM/MS.150/1

Further examination of General Bradley's revised plan for the U.S. Airborne Divisions revealed disadvantages. Of these the most serious were first, that the south east corner of the Cotentin peninsula was heavily defended, and one of the established principles governing the employment of airborne forces is that they should be landed well clear of enemy opposition; secondly, there was a shortage of suitable landing zones for gliders in the St.Mere Eglise/Carentan area. The possibility of landing gliders successfully by night in this area was doubtful.

The fundamental divergence of opinion of, on the one hand, the Army and, on the other, the Air, was this. The Army regarded the troop carrying side of airborne forces as their servants - to carry their soldiers to and land them at, the places of their (the Army's) choosing. What those soldiers were to do once on the ground was their affair. In other words, the Army were to select the tasks; the part of the Air was to be confined to saying whether the appointed place at the appointed time.

/This

(1) See Chap. 4 p. 74

(2) See Minutes at Appendix V/26

(3) See Minutes at Appendix V/27

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This thesis was directly opposed to the air point of view, and in contradiction to what the Chief of Air Staff considered to be the major lessons of Operation Husky - namely "That it is for the Air Commander to advise upon, plan and execute airborne operations." The rigid division of airborne operations into two separate compartments - the carriage of the troops on the one hand, and the task they were to perform on arrival on the other - militated against a unified, bold and decisive plan.

Several alternative plans were put forward by the Airborne Planning Staff of A.E.A.F. for what they considered to be a more proper employment of airborne forces but they were rejected by the Army. A plan which particularly appealed to the Air Commander-in-Chief proposed that paratroops should hold the line of the Rivers Seine and Loire including communication centres and airfields round Paris. Another plan dealt with concentrated attacks against keypoints such as G.A.F. headquarters fighter control rooms and R.D.F. stations. In the event of these plans proving too ambitious the Planning Staff recommended that airborne forces should attempt to capture Cherbourg and Brest, the latter being particularly recommended as there were a number of good airfields in the vicinity and several small ports through which supplies and reinforcements could be brought. This plan, too was unacceptable to the Army.

Intervention of the Prime Minister

TLM/MS.150/1

Although the Air Ministry was adamant in refusing to increase Nos. 36 and 36 Groups the Prime Minister was not satisfied and on 29 January 1944 in a minute to the Chiefs of Staff Committee asked why a greater effort should not be made to produce sufficient aircraft for General Eisenhower. He requested a statement on the number of aircraft available for airborne operations.

As a result of this query a meeting was held by the Air Commander-in-Chief on 2 February of which the object was to examine how the British airborne lift for Overlord might be increased assuming that the operation was to be postponed to 1 June 1944.⁽¹⁾ Once again it was affirmed that the important factor in the operation of airborne force was quality rather than quantity. The paper produced as a result of this meeting emphasised that the ability to provide trained aircrews was the limiting factor in the size of the force that could be used. Although the extra month could allow of an additional 50 Stirlings and 20 Albemarle ex production to be fully modified for airborne work, it would only allow of the provision of a further 11 Stirling and seven Albemarle crews. Even these additional 18 crews could not be fully trained, since No. 38 Group had already reached saturation point and could absorb no more aircraft or crews. Flying practice of trained crews in this Group had to be curtailed to ensure adequate training of the remainder.

The target force for 1 May 1944 was now 340 aircraft, 190 of which composed No. 38 Group and 150 were non-operational Dakotas in No. 46 (Transport) Group. An additional 58 aircraft constituted the 30 per cent estimated wastage of No. 38 Group which was originally to be used for the second divisional

/lift

(1) See Appendix V/29

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lift on D plus One. By putting this 58 into the first-line strength and robbing the D plus One lift, the British total for D Day could be brought to 398. Air crews for this force could only be provided, (a) by allotting the complete personnel of three operational Coastal Command Squadrons to fly 60 of the No. 46 Group Dakotas, (b) by transferring 15 Stirling and 10 Halifax crews to No. 38 Group to fly a proportion of the additional 58 aircraft constituting wastage in advance.

The 500 Dakotas produced by the U.S.A. were lagging in delivery and it was clear that this total was unlikely to be delivered before 15 April at the earliest. The number then (2 February) in the United Kingdom was 104, with an additional 61 en route, plus 24 awaiting exportation. A minimum of two weeks after arrival in the United Kingdom was required to complete the necessary specialist modifications to these aircraft. Thus there would be no time to train new crews and the only way in which these aircraft could be used on D Day was by transferring already trained crews from R.A.F. Coastal Command.

All these considerations were pointed out in a memorandum (1) by the Chief of Air Staff to the Chiefs of Staff Committee. The Committee met on 8 February to discuss this memorandum together with a note (2) from General Bedell Smith, Chief of Staff to General Eisenhower, setting out, in response to the Prime Minister's invitation, the Supreme Commander's minimum needs for the simultaneous launching of airborne forces on D Day. The note pointed out that General Eisenhower would like to launch by one lift two airborne divisions on D Day and a third 24 hours later. But, it added, since he appreciated the need for a well-balanced and well-trained force, he was not prepared to expand the force beyond the limits necessary to obtain good results. "Nevertheless", General Bedell Smith concluded, "the Supreme Commander feels that the airborne forces available to him for simultaneous launching at the opening of Overlord should not be less than one airborne division and one regimental combat team (brigade) of a second airborne division, with sufficient depth to enable a second division to be dropped complete 24 hours later."

The Supreme Commander's needs, set out in terms of lift were therefore:-

FIRST LIFT

One (American) Airborne Division	858
One regimental combat team	200
Total aircraft	1058

SECOND LIFT

One (American) Airborne Division	858
Total aircraft	

NOTE: A British Airborne Division
required aircraft 730

RESOURCES

Allied aircraft resources were:-

No. 38 Group (190 first line plus the 58 then being added)	248
No. 48 Group (Dakotas)	150
13 American T.C. Groups (each 73 aircraft)	949
	1347

/Assuming

- (1) COS (44) 135 (O) dated Feb. 1944
(2) COS (44) 140 (O) dated Feb. 1944

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Assuming an average overall serviceability of 90% the availability for operations should therefore be 1212.

At the Chiefs of Staff meeting, the First Sea Lord (Sir Andrew Cunningham) expressed concern at the suggestion that 10 Halifax crews should be taken from R.A.F. Coastal Command. He said that the Admiralty had not finally agreed to the disbanding of three Hudson Squadrons to provide crews for the Dakotas of No. 46 Group. He agreed that the ground crews could be provided, but that he would have to discuss the question with the Commander-in-Chief Coastal Command before committing himself to the provision of aircrew.

TLM/MS.150/1

The Chiefs of Staff met again that evening at a conference presided over by the Prime Minister and attended by members of the War Cabinet, Air Chief Marshal Sir Trafford Leigh-Mallory, Air Vice-Marshal Hollinghurst and General Bedell Smith. The Prime Minister reiterated his concern over the lack of available lift for the airborne operation in Overlord, and after the Chief of the Air Staff and the Air Commander-in-Chief had explained their reasons (which have already been enumerated) said he was disappointed to find there were so many difficulties and objections. He appreciated that heavy casualties must be expected and that a large reserve of aircraft would be required. The Committee took note that the first wave of airborne forces would be increased by 54 U.S. and 58 British aircraft, subject to satisfactory arrangements being concluded regarding the provision of crews for the latter. Secondly, they invited the Minister of Aircraft Production to submit proposals for increasing the planned production of Stirling IV and Albemarle aircraft during the period 15 May to 15 June and to indicate the cost to other programmes, or in terms of retention of labour, of such an increase.

TLM/MS.150/1
Encl. 22

At a meeting presided over by General Montgomery on 22 February to discuss the employment of airborne forces, the Air Commander-in-Chief informed those present that the lift available for airborne operations on D Day amounted to 1154 aircraft. This lift could be used for simultaneous operations on D Minus One/ D Day 1 but if so used, there would be no reserves. Of this total one U.S. airborne division needed 800 aircraft, leaving 354 for airborne operations in support of the Second British Army.

Disregard of Established Doctrine

Although all the Air Commander-in-Chief's airborne advisers had assured him that it was impracticable to take off tug and glider combinations at night and to produce the concentration in time and space required by the Army, he determined to satisfy himself on this point by direct consultation with tug and glider pilots who had participated in the Sicilian airborne operations. In this decision he was actuated partly by the Prime Minister, who at the Chiefs of Staff Committee Meeting just mentioned had directed that the possibility be examined further of "landing parachutists early in the night to mark suitable landing places for gliders which would then land later in the night and in the dark."

TLM/MS.150/1

On 10 February a meeting (1) was called at Headquarters A.E.A.F. which was attended by Air Vice-Marshal Hollinghurst, Brigadier General Gavin (IXth Troop Carrier Command)

/Colonel

(1) See Minutes at Appendix V/30

Colonel Chatterton of the 1st Glider Pilot Regiment, Colonel Murphy, Wing Commander Davies, and other British and American tug and glider pilots and parachutists who had taken part in Operation Husky. Both U.S. and British representatives agreed that formation flying of gliders at night was not practicable. The best that could be accomplished was two tug-glider combinations flying abreast, and even then really good moon light was essential. This method would not suit the IXth U.S. Troop Carrier Command who were trained to fly in mass formation and were not practical in individual navigation.

TLM/MS.150/1

Both U.S. and British Officers agreed that paratroop aircraft could take off, fly, and drop their troops by night. For the British, pathfinder aircraft would mark the landing zones for the gliders, but for the Americans, paratroops would do the marking and would require two hours between the time they were dropped and the arrival of the glider force. The technique of British and American differed again in that the American liked to fly at a height between 500 and 1000 feet and fly straight in to the target, while the British preferred to fly at 3000 feet to avoid enemy flak and to glide in gradually losing height. This meant that a distance of at least 15 miles must separate the enemy coast from the dropping zones.

The general opinion was that provided airfields were floodlit it should be possible to take off gliders at one minute intervals - 40 to 48 minutes per airfield. But the Americans were strongly opposed to landing gliders at night and only agreed with reluctance that it might be possible in really good moon conditions on good landing zones with flare paths. The British, on the other hand, considered it preferable to take off in daylight and land in darkness rather than to take off in darkness and land in daylight. In other words they favoured dusk, not a dawn operation. But they insisted, too, that moon conditions must be really good.⁽¹⁾ Otherwise the danger of crashing a great number of gliders was too high.

One point on which the men who had to carry out the operation were unanimous was that any form of glider night operation was impracticable without first a minimum of threequarters moon with cloudless conditions, secondly, floodlit airfields for take-off and lastly, large and well lit landing zones. It was improbable to say the least that the first of these conditions would obtain on the date for the landings, (the final selection of which depended on factors unconnected with airborne operations). Examination of photographs had already shown that the last condition would not be fulfilled if the base of the Cotentin peninsula was adhered to as the chosen area. The Air Commander-in-Chief determined to do his utmost to persuade the Army to change the plan.

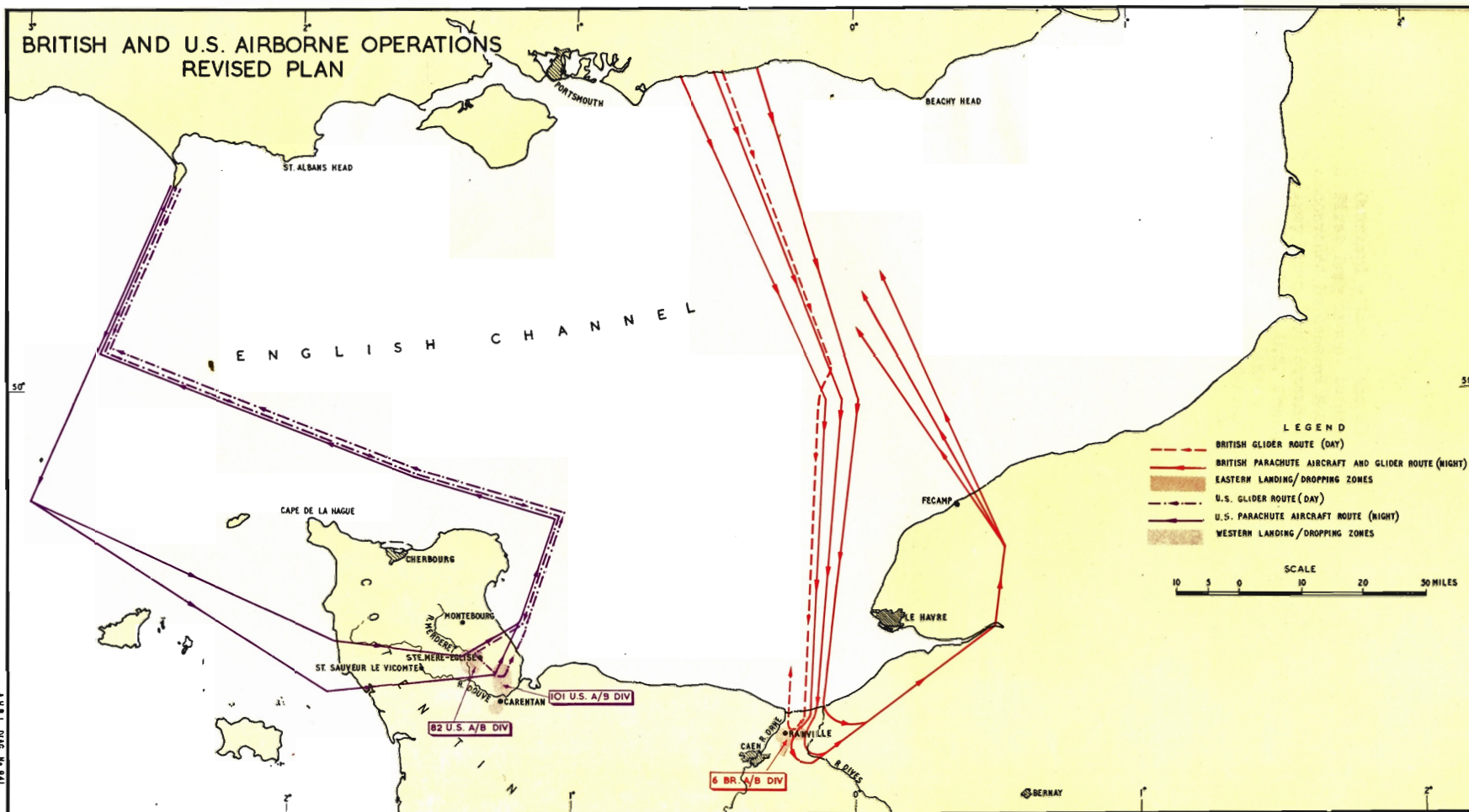
Discussions on airborne operations 22 February, 1944

TLM/MS.150/1

On 22 February an important meeting ⁽²⁾ - perhaps the most important meeting concerning the employment of airborne forces in /Overlord

(1) The combined effect of full moon and twilight on a night of full moon in June produces a ground illumination about half that of a full moon at its highest altitude in December. Thus, if a half moon were considered the minimum practicable for glider operations in December a full moon would be needed in June.

(2) See Minutes at Appendix V/31



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Overlord - took place at St. Pauls School (Headquarters Twenty-First Army Group) to discuss the plan. This meeting was convened by General Montgomery, Commander-in-Chief Twenty-First Army Group, and attended by General Bradley (then Commanding General First U.S. Army), Air Chief Marshal Sir Trafford Leigh-Mallory, General Browning, General Butler, Deputy Commander-in-Chief A.E.A.F., Generals Pratt and Ridgway of the U.S. Airborne Divisions, Air Vice-Marshal Hollinghurst, Brigadier Chilton of the Second British Army and other staff officers.

The Chairman began by stating that the object of the meeting was to obtain inter-service decisions on the employment of airborne forces in Operation Overlord. General Bradley then outlined his plan for the two American airborne divisions. The first of these (101st) was to land in the south-east corner of the Cotentin peninsula to seal off the exits through the inundations behind the assault beaches and to capture St. Mere Eglise and Carentan. The second division (82nd) was to land north of a line St. Lo - D'ourville - St. Sauveur le Vicomte with the object of sealing the entrances to the peninsula from the south west. The eastern landing (101st) was to take place before the seaborne assault, and the western (82nd) as soon as practicable after the seaborne assault.

The Air Commander-in-Chief pointed out the disadvantages of this plan which he enumerated as follows:-

- "(a) The south-east corner of the peninsula was a restricted area and heavily defended, and was therefore unsuitable for airborne operations.
- (b) Airborne troops should be landed well clear of enemy opposition.
- (c) Fire support would require considerable co-ordination to avoid the airborne forces when landed.
- (d) There was a shortage of landing zones for gliders in the St. Mere-Eglise - Carentan area.
- (e) The second division should be more easily maintained and/or reinforced if it was landed further south in the La-Haye-Du-Puits 1784 - Lessay 1876 area. There was an airfield at the latter place.

TLM/MS.150/1

The Air Commander-in-Chief added that while it would be possible to land paratroops at night in moonlight, the possibility of landing gliders was very doubtful, and further tests in night flying would have to be carried out before he could satisfy himself on this point.

General Bradley did not like the Air Commander-in-Chief's suggestion that the Lessay area rather than the ground further north should be the selected zone for the 82nd U.S. Airborne Division. He considered the northern area preferable, because it facilitated the object of sealing off the neck of the peninsula and would enable the airborne division more easily to link up administratively with the seaborne forces. However, he agreed that his staff, together with that of Twenty-First Army Group, would examine the Lessay proposal in greater detail.

/General Bradley

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General Bradley insisted with some heat that the plan for the 101st U.S. Airborne Division must stand. He reiterated that the seizure of the exits from the beach causeways was vital to the success of the whole Contentin landing, and this task could only be performed by airborne troops. In this he was backed up by General Montgomery. Air Chief Marshal Leigh-Mallory looked in vain to the American Airborne and Troop Carrier Commanders to support him in his views.⁽¹⁾

It was decided that the 101st Airborne Division (under the First U.S. Army) would land in the rear of the east Carentan beaches to perform the tasks enumerated by General Bradley. The only concession the Air Commander-in-Chief was able to obtain was that if, after further trials, the night landing was found to be impracticable, a dusk landing would be substituted.

The meeting then considered the Second British Army's plan for the employment of the 6th (British) Airborne Division. This plan provided for the landing of one parachute brigade of four battalions on the high ground east of the River Orne and north-west of Caen to secure the bridges over the Orne at Benouville. These bridges were to be held first, to enable an S.A.S. Brigade to cross the river from west to east and assault the beach defences east of the Orne from the rear, and, secondly, to open up an alternative line of advance on Caen for the 3rd British Division. Another parachute brigade, with as many S.A.S. troops as could be provided, was to land east of Caen to delay the movement of enemy reserves from Lisieux.

The Air Commander-in-Chief's objection to this plan was that the area from Caen to the north-east was heavily defended, and airborne operations would therefore be likely to be very costly. He explained that the 101st Airborne Division would require 800 aircraft, thus leaving 354 of the D Day total for the 6th British Airborne Division. Only if additional airfields in the south of England could be provided could 1154 aircraft be launched simultaneously. If they were so launched, no aircraft would remain in reserve. Therefore emergency supply operations could not be guaranteed. While 354 aircraft were sufficient to lift the two brigades, there would be none left over to lift the S.A.S. troops. These lost would either have to be landed before D Minus One or be brought in by sea.

Air Chief Marshal Leigh-Mallory's objection was overridden, since General Browning was not prepared to admit that the heavily defended character of the selected area precluded the chance of success. Only this much was conceded - that the plans would be reviewed if later intelligence showed any marked difference in the enemy's strength in the concerned areas.

Three weeks later, General Williams, Commanding General U.S. 1Xth Troop Carrier Command, sought an interview ⁽²⁾ with the Air Commander-in-Chief, at which he represented that, while parachute operations could be undertaken at night, glider operations emphatically could not. Gliders must therefore be eliminated from the operation, or the timing must be changed to allow of the gliders being landed in daylight. If the first

/of these .

(1) Ridgway, Pratt and Williams.

(2) See notes forming a basis of discussion at Appendix V/32

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of these alternatives were adopted the IXth Troop Carrier Command and the American airborne forces would gain by reduced casualties, but the First U.S. Army and the parachutists would lose by reduced artillery support. If the second were adopted, an enormously increased commitment for fighter protection would fall on A.E.A.F., who would also have to be responsible for sufficient neutralisation of enemy ground defences to allow of the huge armada of tugs and gliders reaching the appointed landing zones without disproportionate casualties.

The Air Commander-in-Chief was in favour of eliminating the gliders and/or changing the selected areas for landing, but before such drastic steps could be taken it was necessary to obtain the concurrence of the Army. A meeting ⁽¹⁾ was accordingly called on 21 March, to which came Generals Bradley, de Guingand (Chief of Staff to General Montgomery, who was himself touring the country and therefore unable to come in person), Ridgway, Brereton, West (representing S.H.A.E.F.), and Williams, and Staff Officers of A.E.A.F. and Twenty-First Army Group.

The Air Commander-in-Chief explained that the meeting had been called because detailed planning had disclosed that it might be impracticable to land gliders by night in the area assigned to the 101st U.S. Airborne Division without heavy casualties. If the gliders were landed at dawn, the night flight would result in the air formation being spread out over a great distance, throwing an intolerable burden on a fighter escort, and probably resulting in heavy casualties from enemy ground defences in a fully alerted area.

General Williams confirmed the Air Commander-in-Chief's statement and strongly advocated a dusk landing, which would mean a daylight take-off, a much more concentrated flight and the glider landing period reduced to 30 minutes. ⁽²⁾ Further advantages of a dusk landing were an increased element of surprise and greater air support. General Bradley disapproved of the suggested scheme and stated that the gliders (preceded by paratroops) must go in at dawn. He said that the primary task of the 101st Airborne Division was to seize the causeway approaches which he considered necessary to ensure the success of the amphibious assault. He would therefore be prepared to accept a heavy casualty rate in the proposed operation.

TLM/MS/150/1

Apropos of this a member of the Airborne Air Planning Staff stated that the landing of Horsa gliders in an exercise carried out on 20 March by the IXth U.S. Troop Carrier Command had clearly demonstrated that a much higher degree of skill would have to be obtained before landing of any tactical value on small landing zones could be made even in daylight. After further discussion the meeting agreed that the IXth Troop Carrier Command should carry out a realistic test in which about 50 gliders would be landed in country similar to the landing zones proposed for the 101st Airborne Division.

/Plan

- (1) See Minutes at Appendix V/33
- (2) The IXth U.S. Troop Carrier Command had now come round to the British point of view.

S E C R E T

Plan for the U.S. Airborne Divisions

TLM/MS.150/1

A few days later, without waiting for the result of the trials, General de Guingand informed the Air Commander-in-Chief by memorandum⁽¹⁾ that plans for the 82nd and 101st U.S. Airborne Divisions had been approved by the Commander-in-Chief Twenty-First Army Group. These plans were outlined as follows:-

"101st Airborne Division

To land in the general area St. Mere Eglise - Carentan during the night D Minus One/D Day. Three parachute infantry regiments will land beginning at about H minus four hours, followed by approximately 260 gliders which will land beginning at first light on D Day. The division will assist the attack on 4th Infantry Division in the Utah ⁽²⁾ area, capture Carentan, and thereafter advance to the west to gain contact with the 82nd U.S. Airborne Division and protect the left flank of VII U.S. Corps. Other elements of the division will arrive by sea beginning on the second tide of D. Day.

82nd Airborne Division

To land in the general area between S. Lo D'ourville - St. Sauveur Le Vicomte during the night D/D plus One. Three parachute regiments will land during the hours of darkness followed by reinforcing troops in approximately 400 gliders beginning at first light on D plus One. The task of the 82nd U.S. Airborne Division is to prevent any movement of enemy troops north into the western part of the Contentin peninsula. Other elements of the 82nd U.S. Airborne Division will arrive by sea beginning on D plus two and will join 82nd Airborne Division when contact has been made by the 101st Airborne Division."

The Air Commander-in-Chief was asked to confirm that he was prepared to drop these divisions in the areas and at the times stated, and to issue the necessary instructions to IXth Troop Carrier Command. He was also asked to state whether, in the event of heavy losses to the glider operation on the night D Minus One/D Day necessitating bringing in only a portion of the planned total of gliders for the 82nd Airborne Division on D Day, these could be routed from the east over the captured beach to land in the St. Mere Eglise area instead of from the west, as originally planned. This plan was, in effect, the original plan approved by Twenty-First Army Group except for the reduction in glider strength of the 101st Airborne Division from 400 to 269 and the suggested change in routing gliders of the 82nd Airborne Division.

The Air Commander-in-Chief waited to reply until after the test, already referred to, had taken place. The object of this test was to ascertain the percentage of casualties encountered on landing, and the length of time needed to unload and form up the gliderborne force. The whole point of the exercise was that it should simulate the conditions of the actual operation - that is to say that the landing zones should approximate as clearly as possible to those in the chosen area of assault and that the operation should be carried out by night. In fact

/though

(1) See Appendix V/36

(2) East Cotentin beaches.

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though the first of these conditions was fairly faithfully adhered to, that was the only realistic part of the exercise. The test was carried out in broad daylight in nearly optimum weather conditions. The reason for this was that the IXth Troop Carrier Command could not afford the casualties which they knew must result if the operation were staged in darkness.

At the eighth meeting ⁽¹⁾ of the Airborne Air Planning Committee which took place on 14 April, the arrangements for this test and the written orders prepared by 53rd U.S. Troop Carrier Wing were discussed. For the real operation the First U.S. Army had insisted on "first light" for the initial landing. First light on 17 April (the revised date for the test) was at 0606 hours with civil twilight at 0627 hours. The time of landing selected by the Commanding General IXth Troop Carrier Command was 0640 hours. It was pointed out that if the landing took place so late as this it would amount to a daylight operation and no experience would be gained of the feasibility of landing gliders in such an area in poor light. "General Williams said he was satisfied the landing could not take place earlier than 0640 hours with a reasonable prospect of success." He could not afford the losses in gliders or the casualties to crews.

In fact the test was still further postponed, and did not take place till 1140 hours. A triangular piece of ground approximately one square mile in area lying about two and a half miles to the west of West Grinstead was chosen for the scene of operations. No personnel were carried in the gliders, but were replaced by sand ballast because of the fear of the casualties to troops. Gliders which normally carried equipment were, however, used for that purpose, although they were not fully loaded. The net result was that out of 48 gliders which took part in the exercise, 41 landed approximately inside the triangle and only seven outside. Thirty-nine out of 40 C.G.4A loads were immediately available, as were six out of eight Horsa loads. Only three glider pilots were injured in landing. On the face of it, the results did not look too unpromising. Further investigation, however, revealed that out of the total of 48 gliders only ten were still flyable after the test. The majority were smashed beyond repair. The obvious inference to be drawn was that if this degree of damage was sustained in broad daylight and with no glider personnel aboard, the results of a night operation with all gliders fully loaded was likely to be catastrophic.⁽²⁾

/Objections

- (1) See Minutes at Appendix V/37.
- (2) It is interesting to compare the results of this exercise with those of one carried out in more suitable terrain. The overlay ('A') at Appendix V/38 represents the result of the exercise described above, 'B' is a photograph of a British operation carried out by No.38 Group and 6th Airborne Division early in March 1944. Of the 97 gliders which took part in the British exercise 3 landed near their bases owing to inter-communication trouble, 5 landed just short of the Landing Zone the remainder all landed on their correct Landing Zones. The time between the landing of the first and last glider was just under 15 minutes - an average of 10 seconds a glider. Only one glider was damaged. The fields were larger than those chosen for the American exercise and were unbroken by hedges. (See letter from A.O.C. No.38 Group describing this exercise at Appendix V/38 'C').

Objections made by the Air Commander-in-Chief

TLM/MS.150/1

On 23 April the Air Commander-in-Chief was constrained to write to General Montgomery and informed him that in his opinion the gliderborne operations of the 101st and 82nd U.S. Airborne Divisions had little chances of success. He enumerated the reasons which had already been thrashed out at recent airborne planning meetings. He explained that the recent test had proved that the U.S. gliders were unable to land in darkness and that the mission for all practical purposes would be a daylight one. This would entail the gliders being highly vulnerable to attack both from the ground and the air. This danger would be increased by the fact that self sealing tanks were not available for the troop carriers. Moreover the enemy ground forces would be fully alerted by the time the gliders were passing overhead. In addition the glider landings would coincide with the seaborne assault.

On the same date Air Chief Marshal Leigh-Mallory wrote to General Eisenhower attaching a copy of the letter which he had sent to General Montgomery, reiterating his concern about the plans for airborne forces, which he considered a misuse of air power, and urgently requesting that Supreme Headquarters should review these plans. The Air Commander-in-Chief invited the Supreme Commander's attention to an attached memorandum setting out a formidable list of points of establishment doctrine governing the use of airborne forces which the Army plans violated. The most important of these that the airborne troops were being landed too close to enemy opposition and might be subjected to attack before their assembly had been completed further troop carrier aircraft would necessarily have to pass over heavily defended hostile areas. The Army Commander was also proposing to send in certain airborne formations by sea and to use gliders as transports to land troops within the captured beach-head. Air Chief Marshal Leigh-Mallory considered that this was not employing specially trained airborne troops to their best advantage.

The Air Commander-in-Chief showed this letter to Air Chief Marshal Tedder, the Deputy Supreme Commander, who dissuaded him from sending it to the Supreme Commander. Air Chief Marshal Tedder then took it upon himself to show the letter to General Eisenhower and endeavour to dissuade him from going through with the American airborne operations as planned.

Further changes in the Plans for the 101st and 82nd U.S. Airborne Divisions.

TLM/MS.150/2

On 24 April at the ninth Meeting (1) of the Airborne Air Planning Committee, the Air Commander-in-Chief informed the Committee that he had rejected the Army's proposal to bringing in 269 gliders on D Day, and that in consequence substantial alterations to the U.S. airborne plan were necessary. The new proposals were these:-

- "(a) All paratroops of both 101st and 82nd Airborne Divisions to be dropped during the night of D Minus One/D Day; - the 101st Airborne Division to be dropped in the eastern area and the 82nd Airborne Division in the western area of the Cotentin peninsula.
- (b) Approximately 50 gliders to be landed in each area at first light on D Day

/(c) Approximately

(1) Minutes at Appendix V/39

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- (c) Approximately 200 gliders to be landed in the 82nd Division area at last light on D Day.
- (d) The troop carrier aircraft to take the same route as previously intended."

After discussion, General Williams said he could accept commitments (a) and (b). He was more doubtful about commitment (c) unless very strong air protection could be given. General Ridgway said he could not guarantee the neutralisation of enemy coast defences, and the preparation of landing zones on the west coast by his paratroops in time for the glider landing, in which even additional air support would be necessary to neutralise the coast defences. General Williams thought it would take 30 to 40 minutes to land 200 gliders and he considered it desirable to have the full division's complement of 420 gliders ready to leave in case the balance had to be brought in later. This was agreed. The Air Commander-in-Chief thought adequate air support could be given on the evening of D Day to bring in the 200 gliders from the west provided they did not trail over a long distance. Asked whether he considered the night paratroop operation feasible, General Williams said he thought 90 per cent to 100 per cent of the paratroops would be landed in the correct area ⁽¹⁾ unless enemy ground flak proved much more effective than expected, or unless the pathfinder aircraft failed in their tasks. After further discussion it was agreed that detailed planning of the amended operation should start immediately between IXth Troop U.S. Carrier Command and 101st and 82nd U.S. Airborne Divisions.

It was agreed that troop carrier aircraft could use their navigation lights for a distance up to 10 miles from the English coast on both outward and return operational flights if the Navy considered this important.

A fortnight later representatives of A.E.A.F., Twenty-First Army Group, Second British Army, Headquarters Airborne Troops and 101st and 82nd Airborne Divisions met ⁽²⁾ to discuss details of the revised plan, air support and air lift requirements.

The following points were agreed:-

- "(a) Parachutists of 82nd and 101st Airborne Divisions to land at Civil Twilight minus five on D Day ⁽³⁾ (timing agreed subsequent to the meeting).
- (b) 50 gliders each for 82nd and 101st Airborne Divisions to land at dawn on D Day.
- (c) 200 gliders for 82nd Airborne Division to land at dusk on D Day.

/(d) 100 gliders

- (1) General Williams was over - optimistic. See R.A.F. Narrative Liberation of N.W. Europe Vol.III Chap.9 p.109
- (2) Minutes at Appendix V/40.
- (3) Civil Twilight, i.e. when the sun is 6° below the horizon.

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- (d) 100 gliders for 82nd Airborne Division to land at dawn on D plus One.
- (e) 170 gliders to land at dusk on D plus One. A.E.A.F. undertook to check that 200 gliders could land at dusk on D Day, and if this resulted in a curtailment of the numbers of gliders landed subsequently it was agreed that this curtailment should as far as possible be applied to the gliders landing latest on D plus One, i.e. to the 170 gliders landing at dusk on D plus One which included about 70 gliders for air supply lift."

In answer to request by the airborne force for heavy bomber support on D minus One it was explained that the available heavy day bombers for the Neptune area on D minus One amounted to approximately 250. These could be increased only if it was decided that it was not worth while proceeding with the Fortitude ⁽¹⁾ programme, in which case the Fortitude bombers could be switched to the Neptune area in addition; otherwise the targets listed would absorb probably the whole available effort, at the expense of the rest of the Neptune plan. It was also explained that if the Fortitude plan was still considered to be effective on D minus One, no bombing of tactical targets such as bridges and causeways could take place earlier than 00.01 hours on D Day without compromising the cover plan arrangements. The meeting agreed that in the event of Fortitude operations taking place on D minus One it would not be impossible to take on the targets. But certain bridges and causeways would be bombed when possible on D Day. If the Fortitude programme was abandoned all targets would be attacked as far as the air effort was available.

It was further agreed that in the event of postponement of the landings for 14 days General Montgomery and Air Chief Marshal Leigh-Mallory should decide in what condition of moonlight or absence of moonlight gliders could be operated. The substitution of parachutists for gliders would necessitate alterations in timing.

On the night of 10 May a large scale night exercise (Eagle) involving 6,500 paratroops carried by the IXth U.S. Troop Carrier Command took place watched by the Air Commander-in-Chief. The exercise was discussed at the tenth meeting of the Airborne Air Planning Committee on 18 May. Air Chief Marshal Leigh-Mallory's main criticisms of this exercise were, first, that 500 of the paratroops had failed to drop and had returned to their base, and, secondly, the illuminations from formations keeping light and from navigation and recognition signals inadvertently left on had been such that in a real operation, enemy night fighters and flak would have found an easy target. Other technical criticisms were brought forward and the Air Commander-in-Chief instructed that more attention should be given to briefing. ⁽²⁾

TLM/MS.150/2

/At this

- (1) The cover plan.
- (2) Imperfect briefing was one of the reasons advanced by Major General Taylor (Commanding General 101st Airborne Division) for the failure of IXth Troop Carrier Command on D Day. See Liberation on N.W. Europe Vol. III Chap. 9

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At this meeting the size of glider formations was fixed for D Day. There were to be 58 for the 101st Airborne Division area. The Pathfinder for 101st Airborne Division would start landing at Civil Twilight minus five hours i.e. at the same time as the Pathfinders would land in the British area. The main force of 101st Airborne Division would start landing at Civil Twilight minus four and a half hours. The meeting also discussed and decided upon what amount of fighter escort should be given to the airborne streams.

The Revised Plan for 82nd Airborne Division

TLM/MS.150/1

On 27 May the Air Commander-in-Chief who had stayed the night with General Montgomery, was met on arrival at Northolt by a staff officer with an urgent summons for him to attend a meeting at Supreme Headquarters. It appeared that the enemy had so strengthened and altered his dispositions in the Cotentin Peninsula that it was impossible to carry out the operations as planned for the 82nd Airborne Division. Twenty-First Army Group had informed General Bradley of the changed situation two days earlier, and the latter had instructed General Williams to study and report on possible alternatives. It was for the purpose of discussion these alternatives that the meeting at S.H.A.E.F. had been called.

Three possible alternatives presented themselves,

- (a) To retain the 82nd Airborne Division for use at some later date.
- (b) To drop this Division in the same area as the 101st Airborne to support the Utah beach landings.
- (c) To drop either the 82nd or the 101st in the St.Mere Eglise area, and the other behind the Omaha beaches (between Grandcamps les Bains and Port-en-Bessin) to support the main U.S. landing.

TLM/MS.150/1

General Bradley favoured the second alternative, slightly modified. He proposed dropping the 101st Airborne Division as planned with the exception of one regiment. This regiment was to be dropped further south to strengthen the defence opposite Carentan. The 82nd, excluding gliders, was to be dropped with one regiment in the vicinity of St.Mere Eglise and its other two regiments just west of the River Merderet and north of the River Douve. If possible, the 52 gliders of the 82nd Airborne Division originally planned to land at dawn on D Day were to be added to the 150 already scheduled for dusk on D Day. If, however, the Navy refused to hold their fire for the prolonged period necessary to allow for the additional gliders being brought in, the Army were prepared to accept the original figure of 150.

AEAF/S.836

General Bradley outlined this plan in a memorandum ⁽¹⁾ to General Montgomery written on 26 May. General Williams of the IXth Troop Carrier Command wrote ⁽²⁾ to the Air Commander-in-Chief and described General Bradley's plan in detail.

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- (1) Text at Appendix V/43
 - (2) See Appendix V/44

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But Air Chief Marshal Leigh-Mallory did not receive it until after the S.H.A.E.F. meeting on the 27th.

TLM/MS.150/1

At the meeting on 27 May General de Guingand Chief of Staff to Headquarters Twenty-First Army Group explained the plan and asked whether the Air Forces would agree to flying the 82nd Airborne as well as the 101st Airborne Division across the Cotentin peninsula to their dropping zone in the east and withdrawing them across the sea. He emphasised that General Montgomery regarded the airborne operation as essential to the success of the landing on Utah (First U.S. Army) beach. If the airborne troops could keep the enemy engaged the airborne operation might well pay a dividend even if it meant the loss of the divisions. Air Chief Marshal Leigh-Mallory vigorously objected to this revised plan and said he believed that the aircraft losses might be as much as 50 per cent and personnel losses higher. It was a 'potential holocaust'. He summed up by saying that if the Army insisted on the airborne landing the Air Forces would do their best to reduce casualties by reducing the length of the stream and secondly by bombing along the route of the troop carriers. The Navy would have to hold their fire while the troop carrier aircraft were being withdrawn. He considered the plan for landing gliders by daylight on D Day to be quite unacceptable (here he was supported by General Browning). They must accept the lesser risk of night landing and General Williams would have to decide how many gliders he could land.

During that afternoon Air Chief Marshal Leigh-Mallory attempted to see the Supreme Commander but was only able to see General Bedell Smith, Chief of Staff to the Supreme Commander, and General Morgan now Deputy Chief of Staff. He did his utmost to persuade them to consider abandoning the Cotentin project - both sea and airborne landings. On Sunday 28 May Air Chief Marshal Leigh-Mallory flew to General Montgomery's headquarters near Portsmouth to make a final attempt to dissuade him from embarking on the Cotentin operation. He stressed the American pilots lack of training and thought that when the gliders came under fire the formations would break up and the troops would be dropped over a wide area. General Montgomery stated that he would be prepared to accept casualties up to 50 per cent. Finally he asked whether the Air Commander-in-Chief would order the operation. Air Chief Marshal Leigh-Mallory replied, that put to him like that, he had no alternative.

TLM/Folder 17A

On 29 May at the Supreme Commanders Meeting a further discussion on the Cotentin landings took place and another argument developed between General de Guingand and Air Chief Marshal Leigh-Mallory. The Deputy Supreme Commander, who was in the chair, finally ordered the operation to proceed and directed careful attention to all possible action which might minimise losses.

A.E.A.F/
MS.836/Ops 3.

That evening the Air Commander-in-Chief wrote a letter to the Supreme Commander and stated at length his objections to the employment of the U.S. airborne divisions. He gave it as his opinion that not more than 30 per cent of the glider loads would become effective for use against the enemy. He explained that his views had been rejected by both the U.S. Army Commander and the Commander-in-Chief Land Forces. 'My conclusion' he wrote, 'is that the airborne operation is likely to yield results so far short of what the Army Commander-in-Chief expects and required, that, if the success of the seaborne assault in this area depends on the airborne, it will be seriously prejudiced.' But General Eisenhower, while realising the hazards of the operation, made up his mind that the airborne attack was essential to the success of the seaborne landings and informed him that 'there is nothing

/for it

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for it but for you, the Army Commander and the Troop Carrier Commander to work out at the last detail every single thing that may diminish these hazards.'

TLM/Folder 34.

TLM/MS.136/61

On the next day Air Chief Marshal Leigh-Mallory conferred with General Williams and the Colonel Murphy, one of the most experienced glider pilots of the IXth Troop Carrier Command. After some discussion the Air Commander-in-Chief succeeded in persuading the Americans to agree to the glider landings taking place by night. He pointed out that if the gliders arrived at first light, as they were proposing to do, they would fly in towards an area that was being heavily bombarded from the sea. General Williams accepted this view reluctantly and was clearly not happy about the capacity of his pilots to navigate a night landing and Colonel Murphy said he thought about 50 per cent of the gliders might be lost. Afterwards the Air Commander-in-Chief informed the Supreme Commander that the morale of the troop carrier crews was at its highest and that all would be done to make the operation a success. The revised timing and routing of the U.S. airborne operation were completed by 31 May and these together with the revised Fighter Support Plan, were sent by Headquarters A.E.A.F. on the same day.⁽¹⁾ On this day, too, the Supreme Commander addressed the fourth Allied Air Commanders Conference at Bentley Priory, ⁽²⁾ "In the preliminary stages of planning" he said, "a good motto is 'Doubts must come up, only enthusiasms must go down.' Now that the plans are completed and the battle on, doubts in the minds of the Commanders must not be allowed to reach those who are fighting the battle." He instanced the airborne operation as one that had been much criticised and that all concerned must feel that the best plans had been laid and that the operation was worth while. He asked the Air Commander-in-Chief to send a message to all crews at their final briefing. In his message, the Air Commander-in-Chief thanked all units of the A.E.A.F. for the work they had put into the preparations for the assault; he reminded them that the greatest operation of its kind ever undertaken lay before them and affirmed his confidence that every man would do his duty and fulfil his allotted task. He also wrote personally to the three airborne divisional commanders, wishing them God-Speed and assuring them that the Air would do everything possible to assist them in their task on the ground.

Second revision of the British Airborne Plan

TLM/MS.150/2

The American airborne plan was not the only one to undergo revision. At the ninth meeting of the Airborne Air Planning Committee the Air Commander-in-Chief stated that air reconnaissance had shown that the Germans had obstructed the landing zones planned to be used by gliders of the 6th British Airborne Division. This necessitated substantial alterations to the British plan, since it was no longer considered feasible to land the main body of gliders by night. The second of the two Parachute Brigades was, accordingly, substituted for the 6th Air Landing Brigade, and given the additional task of

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(1) See Appendix V/49 and V/50.

(2) See minutes of fourth Allied Air Commanders Meeting on TLM/Folder 34.

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clearing the obstructions for the gliders, which would now come in on the evening of D Day by daylight.

Considerable discussion took place as whether a route directly over the Navy on the evening of D Day was satisfactory. General Browning stressed the importance from the military point of view of the load being delivered. The Air Commander-in-Chief eventually ruled that the matter must be discussed with the Naval Commander-in-Chief and that in the meantime airborne troops should investigate the possibility of taking in the equipment by sea. It was pointed out that the landing of the 64 gliders on D Minus One/D Day would now take place after the time schedules for the bombing of special targets near the area, and that resulting fires and smoke might have the effect of obscuring the landing zones. After further discussion it was agreed that the detailed planning of the amended operation should start immediately between No. 38 Group and 6th British Airborne Division.

TLM/MS.150/1

The Air Commander-in-Chief was strongly opposed to routing the large glider force to be brought in on the evening of D Day over the Navy. He had lively recollections of the 23 Dakotas which had fallen to naval gunnery on one night during the invasion of Sicily, and was inclined to believe that it was less risky to route the air landing brigade over hostile territory than over friendly waters. Air Vice-Marshal Hollinghurst, on the other hand, much as he disliked both alternatives, gave it as his considered opinion that "if the approach must be routed over enemy territory then the operation is not on." In doing so, he added ⁽¹⁾ that it would be difficult to justify to history the acceptance of the casualties inevitable in an approach over an aroused and hostile territory purely because we were unable to obtain safe passage over our own armed forces.

TLM/MS.150/1

On 2 May, the Air Commander-in-Chief discussed the proposed routing with the Allied Naval Commander, Expeditionary Force (Admiral Ramsay), who told him that his ships would not be closer than 30,000 yards to Le Havre. This meant that the air convoy could be routed in between Allied ships, and the enemy coast, though it would give the tugs an awkward turn-in and would mean that as they approached the enemy coast they would come fairly close to some of our ships. The Admiral however, considered that he could give adequate warning to all ships concerned and that the risk was not unduly great. Informing the Airborne Operations Section of A.E.A.F. of the result of his meeting, the Air Officer Commanding-in-Chief wrote, "I am in favour of the operation taking place at last light, and would like planning to proceed accordingly." ⁽²⁾

Admiral Ramsay, while he would not order prohibition of gunfire sufficiently absolute to guarantee safety to the troop carrying aircraft, undertook ⁽³⁾ to issue orders that in the immediate neighbourhood of the 'aircraft corridor' within the limits of time that aircraft were scheduled to pass, gunfire would be withheld.

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- (1) See letter from Air Vice-Marshal Hollinghurst to A.C.M. Sir Trafford Leigh-Mallory at Appendix V/52.
 - (2) See loose minute at E.33 on TLM/MS.150/1
 - (3) See text of Admiral Ramsay's letter at Appendix V/53.

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TLM/MS.150/2

At the tenth Meeting of the Airborne Planning Committee on (1) 18 May, the following decisions were made:-

- (a) The time of landing for the 250 gliders on the evening of D Day would be 2100 hours.
- (b) The routeing of aircraft on subsequent resupply missions would be similar to that used on the evening of D Day.
- (c) The maximum height for British troop carrier aircraft for the night of D Minus One/D Day (except for the initial glider sortie) must not exceed 2,500 feet, owing to a large scale Bomber Command Window Operation in the same area at 3,000 feet.
- (d) A marker boat would not be used on the British route.

TLM/MS.150/1

Amended plans (2) for the employment of Nos. 38 and 46 Groups, along with those for the IXth U.S. Troop Carrier Command, were sent out by Headquarters A.E.A.F. on 19 May. The outline of these plans was that the 6th British Airborne Division (less certain elements) was to be landed and dropped between approximately Civil Twilight minus five hours and Civil Twilight minus one hour forty minutes on the night of D Minus One/D Day in the Caen area. They were to protect the left flank of I British Corps by denying the enemy the use of the area between the Rivers Orne and Dives north of the road Troarn-Sannerville-Colombelles. They were to attack and delay enemy reinforcements attempting to move towards Caen from the east and south-east and to capture or neutralise the enemy strongpoint at Map Reference 107765 and the enemy battery at Map Reference 156776 (Salenelles). Subsidiary air operations involving 250 gliders were to be carried out to support this landing on the evening of D Day and a resupply by air on the night of D plus One. The D Minus One/D Day operation was given the code name Tonga, the main glider operation that of Mallard and the resupply mission Robroy.

AEAF/TS.628

On receipt of detailed routeing and timing of the British airborne plan, Admiral Ramsay wrote again (3) to the Air Commander-in-Chief protesting that further amendments had been made by A.E.A.F. since the plan had been agreed upon by the respective staffs of A.E.A.F. and A.N.C.X.F. In particular, Admiral Ramsay objected to the route being drawn to pass directly over the beaches on which the 3rd British Division would be landing, in addition to passing over the lowering position of Force "S". He pointed out that the air convoy would have to pass over a considerable concentration of shipping and craft, moreover, they would be flying at 800 feet. Admiral Ramsay again warned the Air Commander-in-Chief that if the passage of airborne troops happened to coincide with a low flying enemy attack on shipping it

- /would

- (1) See Appendix V/41
- (2) See Appendix V/54
- (3) Text of Admiral Ramsay's letter and Air Chief Marshal Leigh-Mallory's reply at Appendix V/55.

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G.323100/DWP/1/52/30

would be exposed to danger of being fired on by allied ships and craft. (1)

Air Chief Marshal Leigh-Mallory would not agree that there had been a further amendment to Operation Mallard, and his staff assured him they had made it clear to the naval staff that the troop carrier force must cross the French coast over our own forces west of the Orne estuary. "I am prepared", he wrote, "to accept the risk involved in the passages of the troop carrier aircraft coinciding with a possible enemy air attack on the shipping (see para. 7 of your letter X/0930/19/2 of 17 May 1944) provided you issue the orders referred to in para. 6 of your letter of 17 May, 1944 viz: gunfire is to be withheld in the immediate neighbourhood of the troop carrier corridor within the time limits that the aircraft are scheduled to pass. I understand that you have now received all information necessary regarding the troop carrier route to enable you to issue amendments to your Operation Orders. There will be no further changes unless these arise from Army requirements".

Same difficulty also arose over the plan of attack on the battery at Salenelles which was one of the main objects of the 6th British Airborne Division. The battery was to be attacked at approximately Civil Twilight minus one hour fifty minutes by troops of a parachute brigade, at which time it was intended that three gliders should land on top of the battery. Prior to this the battery was to be oboe-bombed between Civil Twilight minus four hours fifty minutes and Civil Twilight minus four hours forty minutes. It was then discovered that the paratroops could not be turned up and ready to attack the battery until an hour later than originally anticipated, i.e. at Civil Twilight minus fifty minutes. This meant that the three gliders would form another troop carrier sortie and would pass much nearer the naval convoys than the earlier column. By that time the enemy would have been fully alerted and air and ground opposition would be expected. The dust and smoke of the bombing of nearby targets might have obscured the battery. Furthermore if the Oboe bombing of the Salenelles battery had been of any use, it would be unlikely that the gliders would be able to land intact or give any great assistance to the parachute brigade.

Air Chief Marshal Leigh-Mallory considered that the operation of the three gliders was pointless. He thought that the R.A.F. Bomber Command attack on the battery should immediately precede the attack by the parachute brigade and thus take the form of a kind of barrage. On 26 May General Browning saw the Air Commander-in-Chief and insisted that the landing of the three gliders on the battery was essential to the success of the plan. Consequently on 31 May the plan for Operation Tonga was amended and the three gliders were scheduled to land at Civil Twilight minus fifty minutes. (2)

(1) Despite Admiral Ramsay's warning to the Navy to hold their fire in agreed corridors, a certain number of aircraft did fall to ship's gunners. On 22 June, after spotters and fighters in addition to troop carriers had been shot down, the Air C.-in-C. was compelled to write to A.N.C.X.F. to protest that if this practice continued, fighter cover for the fleet would be forced to fly so high that no protection against low-flying enemy attack on our shipping would be afforded. The text of the letter is at Appendix V/65.

(2) Accounts of the British and U.S. airborne operations will be found in Liberation of North West Europe Vol.III chaps. 8 and 9 and R.A.F. Monograph The History of Airborne Forces Chap.7.

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CHAPTER 6

AIR PLAN FOR THE LANDINGS IN NORMANDY

TLM/MS.136/1
(COS (43) 416
(0)).

Introduction

General Morgan, in writing his plan for Overlord, had postulated three conditions upon the attainment of which, he believed, depended the success of the landings. These were; an overall reduction of the German fighter force; a limitation in the number or effectiveness of German offensive formations in France and adequate arrangements to provide improvised sheltered waters. The first of these conditions could only be brought about by air action, the second, though its attainment could be assisted by organised sabotage of lines of communication, was in the main dependent upon the air.

These, then, were the broad objectives of the air plan:-

- (a) To attain and maintain air superiority.
- (b) To assist the Allied Armies ashore.
- (c) To impose delay on enemy reinforcement of the bridgehead and, in particular, to prevent German panzer formations from massing for a counter-attack during the first critical period immediately after the assault.⁽¹⁾

Each of these tasks required phasing, and without long term preparatory bombing neither the first nor the last could be accomplished.

TLM/MS.136/27.

Air operations in support of Overlord were divided in the Overall Air Plan into four phases:-

- (a) Preliminary, which in 1943 was already in progress in the form of Pointblank, and which included strategical and tactical air reconnaissance.
- (b) Preparatory, which comprised the continuation of Pointblank and attacks on strategical rail centres, selected enemy coast defence batteries, Crossbow targets, naval installations and selected airfields and their installations, particularly those within 130 miles of Caen and in the Brest-Nantes area, also intensified strategical and tactical reconnaissance;
- (c) The Assault and Follow-Up, which can be summarised as follows:-
 - (i) protection of the cross-channel movement from enemy air attack and assistance to the Navy in protection from surface attack

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- (1) The plan for airborne forces was of course closely connected with this objective, but as this has already been dealt with in Chapter 5, no further reference to it will be made.

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- (ii) neutralisation of coast and beach defences
- (iii) protection of the landing beaches from enemy air attack
- (iv) interference with the enemy's ability to mount effective counter-attacks
- (v) support of the land forces in their advance from the beachhead.

and (d) Air Operations Subsequent to the Assault

which included generally a continuation of the following tasks as events might demand:-

- (i) Continued attrition of the G.A.F. in the air and on the ground and maintenance of bombing pressure on Germany
- (ii) Delay of the arrival of enemy reserves into and movement of reinforcement towards the lodgment area
- (iii) Direct support of the ground forces in the development of the lodgment area
- (iv) Providing air lift for further airborne operations
- (v) Providing air transport when necessary and practicable.

The purely defensive tasks at (i) and (iii) in the assault and follow up phase were comparatively straight forward, being mainly a question of allocation of certain squadrons to specific tasks and deciding on the percentage to be in reserve. Apart from the single commitment of providing area cover of the Cherbourg peninsula at dawn on D Day (which was the concern of the U.S. VIIIth Fighter Command) all cover in the battle area was made the responsibility of the Tactical Air Forces. This included covering the outward air passage and delivery of airborne forces and withdrawal of troop carriers and tugs at 21.00 hours on D Day, and all subsequent reinforcement of airborne divisions, as well as cover for diversionary bombing. A total of 33 Squadrons⁽¹⁾ (18 R.A.F., 15 U.S.) were to be kept in reserve. Minutes of an important policy meeting presided over by the Air Commander-in-Chief are at Appendix VI/58, but the details of the plan for the employment of fighters⁽²⁾ were the concern of the Air Officer Commanding No. 11 Group in collaboration with Brigadier General Quesada of the U.S. IXth Fighter Command. S.H.A.E.F. was responsible for strategical reconnaissance and the Tactical Air Forces for tactical reconnaissance.

Other air tasks in preparation for Overlord were the bombing of certain naval targets such as E-Boat shelters, training establishments and a 'Y' Headquarters, mining commitments, anti-radar and radio counter measure operations, dissemination of propaganda leaflets and spotting for naval gunfire. A description of these tasks will be found

/in the

(1) including six fighter/bomber squadrons.

(2) The Joint Air Plan and Executive Order for No. 11 Group and IXth Fighter Command, written by A.V.M. Saunders is on File TLM/S.136/45/3. Other files on the employment of fighters in Overlord are TLM/MS.136/18 and sub-files, ARAF/MS.13448 and TLM/MS.136/51.

in the third volume of this narrative and it is intended only to give an account of the policy and planning of the major air tasks which were as follows:- air superiority, fire support (including preparatory attacks on coastal batteries) and delay and disorganization of enemy reinforcements. But first it is necessary briefly to outline the organization for planning. (1)

TLM/MS.189

Organization for Planning

The Joint Planning Staff of Headquarters COSSAC was formed in December 1943, and on the 15th of that month began work at St. Paul's School (Headquarters Twenty-First Army Group) on the Initial Joint Plan for Overlord. The first task of this Staff, which was divided into syndicates, was the preparation of a series of studies and a tentative operational framework to provide material on which the three Commanders-in-Chief could give decisions necessary for the production of the basic joint plan. The tentative operational framework was to indicate the probable development of land operations from the capture of the covering position to the capture of a major port. It was to be based on the phased build-up of formations given in the outline plan, and to include:

- (a) The scale of enemy resistance assumed.
- (b) The various stages of expansion of the bridgehead, with approximate timetable.
- (c) The chain of command and phased build-up of Corps, Army and Army Group Headquarters.

Similarly, the tentative assault plan was to cover the period up to the capture of the covering position,

TLM/MS.189

The operational framework, having been drafted and approved as a basis for planning by the joint commanders-in-chief, daily build-up tables, based on the various needs of the three services, were to be worked out. It was appreciated that the most critical feature of the landings was not the assault on the beaches, but the subsequent battle with enemy mobile reserve formations. The outcome of this battle would depend primarily on whether the Allied rate of build-up could match the enemy speed of reinforcement, and the degree to which this reinforcement could be delayed or broken up by air action or other means. The Allied rate of build-up was governed partly by craft, shipping and beach capacities, and partly by maintenance considerations. Until a tentative

/build-up

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- (1) Attention is drawn to file TLM/MS.136/15/18, which contains copies of the directives on bomber operations issued from time to time by H.Q. A.E.A.F. to Strategic and Tactical Air Forces concerned in Overlord. These directives listed targets in order of priority in accordance with the progress made in the preparatory phase, and were sent out by order of the Air C-in-C after discussion at his weekly Air Commanders Conference. Minutes of these conferences (to which reference should also be made) are on TLM/Folder 17 and TLM/Folder 34. From 20 December 1943 till 23 May 1944 these conferences were held weekly and were attended by subordinate commanders and staff officers only. Thereafter they became more frequent and were attended also by the strategic air commanders and the Deputy Supreme Commander.

build-up table had been worked out in terms of units, showing the numbers of men, vehicles and stores to be landed each day it was impossible to say with certainty that any particular rate of build-up, and therefore any particular operational plan, was, in fact, practicable. The preparation of such build-up tables was therefore the first step in the production of the Initial Joint Plan.⁽¹⁾ The controversy which developed between Twenty-First Army Group and A.E.A.F. on account of the change in plan initiated by General Montgomery, and the effect of this change on the construction of airfields on the continent and consequent build-up of air forces, has already been outlined in Chapter 4. In fact this change of plan necessitated joint planning starting afresh and imposed an immense burden on all the planning staff who had to work day and night to complete this plan in the time available.

TLM/MS.136/17

The Initial Joint Plan ⁽²⁾ was completed and forwarded by the Joint Commanders-in-Chief to the Supreme Commander on 1 February 1944. The plan, subject to certain amendments, received the approval of General Eisenhower. The relevant paragraphs together with the Supreme Commander's comments, are set out on File TLM/MS.136/17/1. General Eisenhower considered that the joint commanders-in-chief had underestimated the enemy rate of build-up and drawn an over-optimistic picture. As it happened, he was right, for shortly before D Day the Germans did re-dispose their panzer divisions in the west in a manner which adversely affected the Allied plans for the assault..⁽³⁾

The other major point to which the Supreme Commander took exception was the paragraph on strategic air operations, the original wording of which was: "The Air Commander-in-Chief will control the strategic operations in the preliminary phase". This was changed by General Eisenhower to read: "The strategic air arm is almost the only weapon at the disposal of the Supreme Commander for influencing the general course of action, particularly during the assault phases; consequently, general policies for its employment will habitually be approved by him in all phases of the Operation. Under direction of the Supreme Commander, the Air Commander-in-Chief A.E.A.F. will co-ordinate

/the planning

- (1) For details of the progress of planning for the build-up of armies and air forces on the continent, see files TLM/MS.189, 136/23, 136/27, AEA/MS.768/Air Plans and AEA/MS.686/Admin: Plans.
- (2) Fully amended copy of the plan is on TLM/MS.136/17.
- (3) On 3 June, Major Bennett, Twenty-First Army Group liaison officer A.E.A.F., gave the following estimate of German forces available to reinforce the "Neptune" area and their likely rate of build-up:-

"On D Day we might be confronted by 9 Divisions (some incomplete): on D plus 2 by 13 Divisions, of which 5 were Panzer type; on D plus 7 by 24, 9 of Panzer type; on D plus 17, 30 Divisions, 10 of Panzer type. The following might be expected to move on D Day towards the lodgement area - No.12 S.S. Panzer Division, now in Dreux/Evreux area, No.179 Panzer Training Division, now north west of Paris, and one unidentified Panzer Division now in the Chartres/Chateaudun area."

(Extract from Minutes of 5th Allied Air Commanders Conference, E.6A on TLM/Folder 34).
See also Minutes of the 2nd and 4th Allied Air C-in-C's Conferences on same file.

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the planning and direct all air operations."

TLM/MS.136/37.

The Initial Joint Plan having been approved, the next task for A.E.A.F. was the preparation of the "Overall Air Plan". This was designed to cover all air operations in support of the Allied landing, and was divided into three parts dealing respectively with command and control, and principal air tasks in the preliminary, preparatory, assault and follow-up, and post-assault phases, and air defence and communications.

AEAF/TS.22004

In the course of writing the Initial Joint Plan, it had become clear that much more thought would have to be given to determine the most profitable employment of bomber forces. Furthermore, constant revision and adjustment of the plan to accord with enemy moves and dispositions, would need to be made before the final air plan for the assault could be decided on. To this end the Air Commander-in-Chief appointed in January 1944 a committee known as the Allied Expeditionary Air Force Bombing Committee, which became in effect the Operations Planning Section of A.E.A.F. Headquarters. This Committee, under the chairmanship of Air Commodore Kingston-McCloughry, Deputy Chief of Operations and Head of Plans, consisted of Group Captain Lucas, Wing Commander Prichard, Professor Zuckerman (Scientific Advisor) and R.E. Brant (Railway Research Service). This staff was located at Norfolk House, where its members could be in close contact with the military and naval staffs of the joint commanders. The terms of reference of this committee were "to make recommendations to the Air Commander-in-Chief from time to time concerning the following details affecting the employment of bombers in any particular operation:-

AEAF/MS.13390/
Air Plans

- (a) The suitability of targets for bombing, having regard to their vulnerability and their value to the enemy.
- (b) The relationship of bombing commitments as they arise to the scale of effort estimated to be available.
- (c) The allocation of priorities to the various bombing commitments.
- (d) In the light of (a), (b) and (c) above, the apportionment of the available bomber effort to meet the various bombing commitments."

The Committee was empowered to co-opt members of the staff of S.H.A.E.F., A.E.A.F., U.S.St.A.F., Air Ministry, (Assistant Chief of Air Staff (Operations)) and Bomber Operations VIIIth U.S. Bomber Command and R.A.F. Bomber Command as necessary.

At first this system worked well, but later, as the division of opinion on bombing policy for Overlord widened between on the one hand the R.A.F. portion of A.E.A.F. and Air Chief Marshal Tedder (Deputy Supreme Commander) and on the other, Air Ministry, the War Office, the Ministry of Economic Warfare and U.S.St.A.F. the task of the Committee grew increasingly difficult. The main cause of the rift was the plan for the disorganization of the railway system of north-east France and Belgium, which will be explained later in Chapter 7. Another handicap to the smooth working of the Bombing Committee was that, having begun work at Norfolk House as members of the Air Commander-in-Chief's staff, a few

/months

G.323100/MJG/1/52/30.

S E C R E T

months later, the Committee was emasculated by the removal of some of its most useful members to SHAEF. The reason for this dispersal was the Supreme Commander's decision to charge his Deputy, Air Chief Marshal Tedder, rather than his Air Commander-in-Chief, with the direction of strategic bombers used in support of Overlord. Thus the Bombing Committee had to serve two masters, and such disintegration necessarily limited its usefulness.

TLM/MS.136/9/1.

The Committee was resuscitated in a rather different form a few months later. A meeting under the Chairmanship of Brigadier General Smith, U.S.A.A.F., (Deputy Senior Air Staff Officer and Chief of Operations, A.E.A.F.) took place on 4 May, attended by representatives from U.S.St.A.F., R.A.F. Bomber Command and Twenty-First Army Group. Both Bomber Commands (American and British) were concerned to demonstrate to the Army representatives that once Overlord was launched they would again be primarily concerned in the implementation of Pointblank, and would not necessarily be available to assist the Army in tactical tasks. Air Vice-Marshal Oxlund, Brigadier General Cabell and General Smith all supported this view. General Cabell suggested that for the post-assault period the Army should put their problems to the various Air Commands, who would then separately decide how they could meet the ground requirements. Professor Zuckerman maintained that such an arrangement would not work, since the tasks of any one Air Command would have to be integrated with those of other Commands. He argued that what was wanted was the formation of an Inter-Air Command Planning and Intelligence Staff. Brigadier General Cabell gave his support to this suggestion, whereupon General Smith withdrew his initial acceptance of the other plan initiated by U.S.St.A.F. (1)

The idea was carried a step further the following day and the suggested planning body was set up; its first official meeting took place a week later. At this meeting, held on 20 May, General Smith re-iterated his acceptance of the project, after he had indicated his fears that such a body might try to usurp his authority and direct operations.

The constitution and duties of the Planning Staff were clearly laid down at a meeting held on 24 May, attended by all interested parties including Air Vice-Marshal Robb, representing the Deputy Supreme Commander. The broad task of the Planning Staff was still to appreciate and advise on targets and methods of attack, but with particular reference to the problems of delaying enemy reinforcements of the bridgehead.

Air Superiority. Policy in the Employment of Strategic Bombers.

AEAF/22007

When the original Overlord plan was drawn up it was believed that the favourable air situation (i.e. a reduced German Air Force) deemed essential to the success of

/the landings

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- (1) General Smith, however, never abandoned his belief that the strategical air forces should revert to their strategical role immediately the assault phase was over and that they should only be used for tactical tasks in case of dire emergency. The Air Commander-in-Chief's opinion was that with the British Army stuck behind Caen and the Germans building up their forces for a counter-attack the moment to release the heavies had not arrived. General Smith's Memorandum and the Senior Air Staff Officer's comment are at Appendix VI/25 and VI/26.

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the landings could be brought about first by continuing to bomb the sources of supply and production of first-line units of the German Air Force, thereby not only inflicting damage on the G.A.F. potential, but also pinning down in Germany units which might otherwise be released to interfere in the assault area, and secondly by the infliction of heavy casualties on the German fighter force by air battles incurred under conditions favourable to the Allied Air Forces.

It has already been shown (1) how Operation Starkey, designed to assist in the second part of this programme, failed for want of realism, and, as Overlord approached, it became increasingly obvious to the Air Commander-in-Chief that, so reluctant was the German Air Force to accept battle under any but the most favourable conditions to itself, that the opportunity for large-scale destruction of German fighters in the air was unlikely to occur before the actual launching of the assault.

On 16 November, in reply to a letter from Air Marshal d'Albiac (then Air Officer Commanding 2nd Tactical Air Force) the Air Commander-in-Chief wrote: (2) "There is no doubt in my mind that we shall not have fought our main battle for air superiority before the Overlord battle begins. In fact it will be the Overlord battle which will give us the opportunity for bringing the German Air Force into action and destroying it. I would not, however, be prepared to recommend commencement of Overlord unless I was certain of the favourable outcome of the air battle". After outlining the success already achieved by Pointblank, and citing the experience of Africa and Italy, where it had been evident that the Germans had little reserve behind their front line, the Air Commander-in-Chief concluded: "Taking these factors into consideration, I can say quite definitely that if the allotted build-up is completed satisfactorily, and provided no fresh factors arise favourable to the operation of the German fighters, and provided our operations between now and the launching of Overlord are as successful as our operations during the past six months have been, there is no reason why the air situation should not be sufficiently favourable to undertake Operation Overlord".

AEAF/22003

Much, therefore, depended on the success of Pointblank. On 19 January 1944, the Chief of the Air Staff held a Meeting, attended by Air Chief Marshal Harris (Air Officer Commanding-in-Chief, Bomber Command), Air Chief Marshal Leigh-Mallory, and General Spaatz (Commanding General, U.S.St.A.F.) to consider the terms of a reply to be sent to the Combined Chiefs of Staff outlining proposals for the conduct of Pointblank up till the beginning of the preparatory period of Overlord. A signal (3) dated 5 January had been received by the Chief of Air Staff in which the Combined Chiefs of Staff had drawn attention to the imminence of Overlord and Anvil and the critical importance which the successful accomplishment of the combined strategic bomber offensive bore to those operations, and had called for a review of air target priorities as set forth at Casablanca. The Combined Chiefs of Staff stated:

/"The destruction

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- (1) Vide Chapter 3.
 - (2) Full text of this letter at Appendix VI/6.
 - (3) JSM.1394 dated 5 January 1944 (See text at Appendix VI/7).

"The destruction of German air combat strength in its factories, on the ground and in the air constitutes the primary objective, the progressive dislocation of German military, industrial and economic systems, and disruption of vital elements of enemy lines of communications remain the overall missions of our combined bombing forces." In particular, the Combined Chiefs of Staff advocated "the greater present importance of totally destroying a few truly critical industries than partially destroying many", and recommended that the most effective method be studied of co-ordinating the day and night attack respectively of U.S.St.A.F. and R.A.F. Bomber Command and of the strategic effort as a whole from British and Mediterranean bases. They suggested that in consideration of recent intelligence reports immediate attack upon Axis oil refineries might be well worth while, and that area bombing, as distinct from precision bombing, using the blind-bombing device should be adopted by U.S.St.A.F. when weather precluded the attack of selected precision targets.

AEAF/22003

After the Chief of Air Staff's Meeting to discuss the reply to be sent to the Combined Chiefs of Staff, a signal⁽¹⁾ was despatched in the form of a joint report from the Chief of Air Staff, Commanding General U.S.St.A.F., Air Officer Commanding-in-Chief, Bomber Command and Air Commander-in-Chief, A.E.A.F. The report stated that the signatories were convinced that the ultimate objective of the Pointblank plan should remain as stated in the Casablanca directive and that first priority should continue to be given to the attack upon the G.A.F. fighter forces and the industry on which they depended. They were agreed that in the time remaining before Overlord, attack should be concentrated upon the most important of the key installations in the German fighter aircraft industry, and that first priority should be given to single and twin-engined fighter airframe and component production and the ball-bearing industry. The signatories were opposed to giving priority to the attack of Axis oil refineries, stating that the enemy oil situation had recently been examined by economic experts, and that, as a result, they were convinced that there would be "no justification for diverting our effort from the German Air Force fighter industry in order to attack oil installations."

Two special objectives outside the Pointblank plan, namely Berlin and Crossbow ⁽²⁾ targets, were referred to in the report. The former was to continue to be attacked whenever weather and tactical conditions were suitable for it but unsuitable for attacks on vital elements of the German fighter industry. Attack of Crossbow targets was essential if our base for Overlord was to be secure. Such attacks were to be arranged mutually between the Commanders concerned, and were to be mainly the responsibility of A.E.A.F. assisted, when conditions were unsuitable for Pointblank, by the U.S. VIIIth Air Force.⁽³⁾

The report went on to state that all commanders were satisfied with the existing machinery for co-ordination between Commands and that suitable plans had been made for mutually supporting attacks by U.S. and British bombers. At the meeting held by the Chief of Air Staff General Spaatz had stated his opinion that all Allied Air Forces in the European theatre should be controlled by one air commander, as in the Mediterranean, but the Chief of Air Staff had indicated that he himself was the agent of the Combined Chiefs of Staff for

/the Combined

(1) OZ.332 - see text at Appendix VI/8.

(2) Flying-bomb launching and supply sites.

(3) See Appendix VI/8/1.

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the combined bomber offensive from the United Kingdom, and that such a commander would merely usurp his functions. The importance of pressing on with the blind bombing technique was agreed.

AEAF/22003

A new directive, giving revised target priorities in accordance with the terms of the above outlined report, was sent to U.S.St.A.F., Bomber Command and M.A.A.F. on 29 January. A signal quoting the terms of this directive⁽¹⁾ was sent by the Combined Chiefs of Staff to General Eisenhower, S.H.A.E.F., on 13 February. The directive stated that the overall mission of the Strategic Bomber Commanders remained "the progressive destruction and dislocation of the German military, industrial and economic system, the disruption of vital elements of lines of communication and the material reduction of German air combat strength by the successful prosecution of the combined bomber offensive from all convenient bases, as directed in the final report at Sextant." After giving the new priorities and reaffirming the responsibility of the Chief of Air Staff for the co-ordination of Bomber Command (R.A.F.) and U.S.St.A.F. operations, the Combined Chiefs of Staff's signal concluded:-

"Preparation and readiness for the direct support of Overlord and Rankin should be maintained without detriment to the combined bomber offensive.

You will instruct the Commander-in-Chief, A.E.A.F. to provide such assistance in the execution of this directive as is possible without detriment to his preparations for Overlord."

It was clear that for the time being "Overlord" was to continue to be treated as of secondary importance to Pointblank and that the time was not yet considered ripe for the opening of the preparatory phase. Up to a point Air Chief Marshal Leigh-Mallory agreed that Pointblank in itself constituted the best assistance which could be made by the Strategic Air Forces to Overlord, but he knew that the time must soon come when all bombing resources must be devoted to the main objective of getting the armies ashore and keeping them there, and although less than four months remained before the seaborne assault was to be launched, as yet there was no indication of when the strategic air forces were to come under control of the Supreme Commander or, when that time came, how they were to be employed. Furthermore, without some degree of training (which could not well be carried out until these forces were controlled by the Supreme Commander), it was unlikely that the strategic air forces could be used in army support tasks to the best advantage.

Time was a major factor in the Overall Air Plan. The campaign might be prolonged over a period of months, and the Air Forces might be called upon to accomplish a multiplicity of tasks beyond their capacity if all were left till near D Day. For this reason it was essential to view the two major problems of securing air supremacy and of affording army support as a series of preparatory, strategic, and later of tactical, commitments. There was a distinct danger in deferring the preparatory stage too long.

/The problem

(1) See Appendix VI/9

AEAF/446.

The problem of how best to utilise the heavy bomber forces had been examined both by COSSAC, the Commander of the Tactical Air Force and the Commander-in-Chief, Twenty-First Army Group, then General Paget, during the summer of 1943. There were two specific questions which required an answer: first would the resources of Bomber Command be available for direct support of the Allied armies in the assault stage of the landings, and, secondly, would night bombers be able to operate in daylight? This was a matter for decision by the Chiefs of Staff and, pending their decision, Air Marshal Leigh-Mallory could only reply in general terms. He stated that both British and U.S. heavy bombers would be made available to support the seaborne assault. Targets in direct support of the land forces would be chosen by the Twenty-First Army Group Commander in collaboration with the Tactical Air Force Commander. Requirements which could not be met by the Tactical Air Force would be co-ordinated by the Air Commander-in-Chief who would be responsible for communicating requirements to the British and U.S. heavy bomber forces.

But it was the opinion of the Commander-in-Chief, Bomber Command that the best way in which his Command could support Overlord was to intensify attacks on industrial targets in Germany. He did not believe that heavy bombers could be used effectively against such targets as gun emplacements, beach defences or communications and dumps in enemy territory.⁽¹⁾

AEAF/22007

By the middle of January no comprehensive plan for the employment of bomber forces in Overlord had been approved by the Air Commander-in-Chief although the Joint Planning Staff had been working on the various bombing commitments which it was assumed would be the responsibility of A.E.A.F. during the preparatory and assault stages. It had been roughly estimated that during the preparatory phase of Overlord, some 50 per cent of the sustained effort of both British and U.S. Bomber Commands would be needed, and for the assault stage, 100 per cent.⁽²⁾ Meanwhile the Chief of Air Staff had informed Air Chief Marshal Harris ⁽³⁾ that the Allies were inescapably committed to Overlord and that plans must therefore be considered for the employment of the heavy bomber forces in that operation. The Chief of Air Staff expressed his intention of placing all or part of the heavy bomber effort 'at the disposal' but not 'under the control' of the Supreme Commander at a date yet to be decided, and asked Air Chief Marshal Harris to collaborate with Air Chief Marshal Leigh-Mallory and General Spaatz in drawing up plans for their employment.⁽⁴⁾

The Chief of the Air Staff later stated that when Bomber Command began to take part in the preparatory phase of Overlord it would not mean that the bombing of Germany would cease. The criterion by which these latter operations would be judged when the appointed date arrived would be the extent to which they assisted Overlord and not (as formerly) the extent to which they weakened Germany's general power to make war.

TLM/MS.136/16

The Air Commander-in-Chief criticised Air Chief Marshal Harris' point of view in a memorandum which he despatched to the Air Ministry. Air Chief Marshal Harris had emphasised the specialist character of Bomber Command operations but he did not explain why targets in France should be less suitable than industrial centres in Germany. Nor was there any reason why pathfinder technique should not be improved for ground support targets in France.

/The U.S.

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- (1) See Appendix VI/10
 - (2) See Appendix VI/11
 - (3) See Appendix VI/12
 - (4) See Appendix VI/13.

The U.S. Strategic Air Forces were even more prejudiced against taking part in preparatory operations to Overlord than was R.A.F. Bomber Command. Whereas Air Chief Marshal Harris, his initial antipathy to lending his force to support the Army having been overcome by an appeal to reason, co-operated loyally and with very great success in Overlord, General Spaatz and the VIIIth Air Force continued to put forward numerous objections to the scheme. In this they were assisted by the Combined Chiefs of Staff directive to the Supreme Commander of 13 February 1944 which renewed the absolute priority of Pointblank and charged the Commander-in-Chief A.E.A.F. with providing such assistance in the execution of the Pointblank directive as was possible without detriment to his preparations for Overlord.⁽¹⁾ In brief, the Americans were more concerned about the future of Pointblank and how the A.E.A.F. could support it than they were over the support of the Strategic Air Forces to Overlord.

Plan for the Attack of Enemy Airfields

AEAF/22007

In addition to the long-term policy of attrition⁽²⁾ against enemy aircraft production centres, carried out under the Pointblank directive, an essential part of the plan to attain and maintain air superiority was to deny to the enemy the advantage of disposition which he had hitherto possessed. This meant depriving the German Air Force of airfields within 110 miles of the assault area - that being the distance over which our own fighters would have to operate in the opening phases of Overlord. Within that radius of the assault area the German Air Force possessed in January 1944 some 12 fully operational air bases and 13 satellite landing grounds. The 110 mile radius was the minimum acceptable. The aim, which was dependent on the availability of bomber effort, was to increase that radius to 130 miles, thereby depriving the Germans of 25 major operational bases and 24 satellite landing grounds. A list of these airfields and a map showing their location are at Appendix VI/21.⁽³⁾

Denial to the German Air Force of operating facilities within this area was rendered of particular importance by the change of plan initiated by General Montgomery. This change, as has already been explained, had the effect of hindering the planned build-up of air forces on the continent, which was dependent on the early capture of Caen. Consequently, the additional burden thrown on the A.E.A.F. to maintain a satisfactory air situation over the assault area from bases in the United Kingdom was considerable. Moreover, the Germans were known to be conserving their fighter force for the main battle of the landings. A.E.A.F. had, therefore, to do all in their power to ensure that the conditions under which this battle would be fought were, to the fullest practicable extent, favourable to the Allies, and they were concerned lest recent experience in other theatres, where the issues involved were less vital, and where we had enjoyed a large measure of air superiority, might prejudice them from obtaining essential

/needs

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- (1) See Appendix VI/16.
 - (2) For further information on the part played by AEAF in furthering this long term policy of attrition see Appendices VI/16/1, 16/2, 16/3 and 16/4.
 - (3) See also map of enemy airfields attacked during preparatory operations for Overlord in Volume III of this narrative.

needs both in regard to effort against enemy air installations and in the lift needed to prepare our own airfield facilities on the continent.

It was clear that effective attacks on enemy airfields within a 130 miles radius would take considerably longer than the time required by the enemy to re-commission them and that consequently the attacks would have to be carried out in two phases, the first phase being directed against installations not easily repairable, with the aim of dislocating the repair, maintenance and administrative machinery, and the second consisting of attacks on airfield surfaces to impose a temporary bar on the operation of aircraft, particularly fighters. Where suitable as targets, control centres and headquarters were also to be attacked though not until late on D minus one.⁽¹⁾

Phase 1 was to begin approximately on D minus 21, using medium or heavy day and night bombers and, where necessary, navigational and bombing aids. The attacks were to be so timed as to catch as many aircraft as possible on the ground, and were to be concentrated in as short a time as necessary to complete the programme, so as to deny to the enemy adequate time for repairs. The second phase was to begin about D minus five and to comprise attacks on the surfaces not only of the 25 major airfields but also of the 24 satellite landing grounds. Repeat attacks were likely to be needed immediately after D Day. The order of attacks was to be governed by the need for giving the maximum possible support to the Cover Plan.

AEAF/S.22004

On 26 January at the seventh Meeting of the A.E.A.F. Bombing Committee,⁽²⁾ the plan for attack on airfields was discussed to determine the relative importance to the enemy of objectives listed in the plan. The importance of airfields had been assessed by the Intelligence Branch according to:-

- (a) The size of landing area and length of runway.
- (b) The operational capacity of all airfields (i.e. capacity for repair, servicing and accommodation.)

This study had revealed that those airfields which afforded the best facilities were situated at the greatest distance from our forward fighter bases in the United Kingdom. Reconnaissance had shown that these were also the airfields which were most used by the Germans.

Professor Zuckerman considered this an admirable basis for the investigation in that it indicated conclusively which were the most important airfields to the Germans. But he emphasised that it was not correct to rate the importance of an airfield by combining its operational capacity with length of runway and the size of the landing area. These were two separate factors amounting to two separate operations, one against repair

/facilities

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- (1) Annexe 111 of Appendix 'K' of the Overall Air Plan (AEAF/TS.399) divides the German fighter control system on the western Front into strategical and tactical control centres. The first was known to be maintained by a fighter command at Chantilly, near Paris, but at the time this plan was written (15/4/44) the exact location of the tactical control centres (Jafues) was not known. Four fighter control stations (at Chantilly, Jouy-en-Josas, Bernay and Rennes) were finally scheduled for attack by medium bombers of the IX Air Force on D minus one.
 - (2) See Minutes at Appendix VI/17.

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facilities and one against runways and landing areas. It was agreed that Intelligence should produce two separate lists of airfield priorities under each of these headings. Professor Zuckerman was afraid that under the existing plan airfields were liable to be attacked with no enemy aircraft on them. To avoid such a happening, he advocated a plan for the destruction of enemy radar warning equipment.

AEAF/22007

When the first draft paper on operations against the German Air Forces in connection with Overlord was written, (1) it was considered that the G.A.F. radar warning system was insufficiently vulnerable to air attack to justify including it in the preparatory bombing programme. Moreover, it was then thought that the value of attempting to interfere with the system, during the Overlord assault was doubtful because of the degree of general air activity expected on D Day, which was bound to minimise the effectiveness of radar indications - particularly if full use was made of radio counter measures. Nevertheless, it was decided to examine the possibility of breaching the enemy's radar cover in the assault area.

AEAF/22004

After renewed and lengthy discussion as to the practicability of attacking Chimneys, Freyas, Giant Wurzburgs and Wurzburgs (some mobile) it was finally decided that although some of these might be possible targets, the enemy would be bound to receive adequate warning from the remainder, Wurzburgs being so numerous and mobile that their total destruction would present an impossible task. It was therefore agreed that, as far as attacks on airfields were concerned there was no need for the destruction of enemy radar equipment. (2)

AEAF/22014

During the period January to April 1944 a number of discussions took place on the method of attack and the best type of bomb to use against airfields. It was decided that the operations against enemy airfields would fall into two phases. The first was to consist of attacks against airfields with permanent installations, with the intention of destroying the aircraft repair and maintenance facilities etc. The second was to consist of attacks on runways and landing areas in order to interfere with the operation of aircraft. The intention here was to impose on the enemy's air forces the same disadvantages as would be suffered by Allied aircraft operating from bases in the south of England during the opening phase of the operation. The attacks against installations were to be directed against 22 airfields in the Neptune area, seven in the Brest peninsula and 12 in the Pas de Calais. They were to begin not later than D minus 18 and it was estimated that each airfield would require 400 tons of bombs. This commitment would be apportioned between the Tactical Air Forces, the VIIIth Air Force and R.A.F. Bomber Command.

On 7 May at a meeting of the airfields committee a number of alterations were made in the plan because of the limited bomber effort available and the favourable air situation forecast for D Day. The meeting agreed that an equal threat was presented firstly by enemy fighters and fighter bombers operating in daylight and secondly by long

/range

(1) Appendix VI/19.

(2) The recommendation to attack a number of radar stations which were likely to plot seaborne and airborne landings was made by A/Cdr. Hart, Air Signals Officer, A.E.A.F. on 31 January 1944.

AEAF/22024

range bombers operating at night. It was agreed that the first threat could be overcome by attacks on the maintenance facilities already specified in the plan. The long range bombers had recently been operating from advanced bases for their raids on the U.K. The meeting decided that further attacks should be made against some 20 of their long range bomber home bases with the object of keeping units on the move and thus interfering with their organization and general efficiency. The area comprising the 41 advanced bases was designated Area I, that constituting the home bases of long range bombers, Area II.

The Air Commander-in-Chief decided that airfields should be reduced in priority and should rank lower in priority than railway targets. Although he hoped that the airfield programme would be completed by D Day he did not attach so much importance to it as formerly, because he expected Allied air superiority over the G.A.F. to be overwhelming.

It was then agreed that a list of airfields should be prepared at Headquarters A.E.A.F. and kept constantly under review. The 2nd T.A.F., IXth Air Force and VIIIth Air Force would then arrange mutually which airfields their respective forces would attack. In this way weather interference with operations would be reduced to a minimum. Special arrangements were made for Bomber Command for three reasons. Only airfields within obse range would suit the night bombers; not more than 13 out of the 41 airfields were considered suitable for night attack; Bomber Command would only have the effort available for attacks on eight airfields. Air Vice-Marshal Oxland (Bomber Command's representative at A.E.A.F. throughout the preparation of the Overall Air Plan) was persuaded to take on 12 airfields.

The revised plan, then, involved the attack of all active airfields in two zones. Forty main operational airfields in Area I were selected for attack by aircraft of the three Commands; twelve being assigned to R.A.F. Bomber Command, the remaining twenty-eight to A.E.A.F. and the VIIIth Air Force. Fifty-nine operational bomber bases with important facilities in Area II, located in France, Belgium, Holland and western Germany were also selected for attack as opportunity permitted, by aircraft of the VIIIth and XVth Air Forces, the latter being based in the Mediterranean area.

TLM/MS.136/15

The airfields programme was again discussed at a meeting held by the Air Commander-in-Chief on 6 May.⁽¹⁾ Both the Bomber Command representative and General Spatz objected to the plan. The former doubted the ability of his Command to take on all the airfields in their programme in addition to railway targets and coastal batteries; the latter was averse to the VIIIth Air Force attacking forward fighter airfields. Air Chief Marshal Leigh-Mallory suggested that Bomber Command should attack eight airfields, the IXth Air Force 12, leaving 20 for the VIIIth Air Force. He insisted that airfields likely to be used for countering Overlord should be neutralised. It was finally agreed that A.E.A.F. Intelligence in collaboration with other headquarters concerned should study airfield intelligence and recommend airfields to be attacked and in what order of priority. The VIIIth Air Force undertook to attack airfields as fourth priority, the order being (1) Pointblank, (2) Crossbow, (3) Transportation (4) Airfields.

By 31 May there had been no noticeable increase in the activities of the G.A.F. At the fourth meeting of the Allied

/Air Commanders

(1) See Appendix VI/23A

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Air Commanders Air Chief Marshal Leigh-Mallory stated that although the Germans must know that landings were imminent there had been no general move of German fighters to the west. At the next meeting of the Allied Air Commanders on 3 June (1) the Deputy Supreme Commander, General Spaatz, Doolittle and Air Marshal Bottonley, Deputy Chief of Air Staff urged Air Chief Marshal Leigh-Mallory to pay greater attention to his bombing programme against the G.A.F. and less to the movement of German Army reserves. Air Chief Marshal Leigh-Mallory was convinced that though the Allies had not air supremacy they had a very considerable air superiority and though the Air Forces could not guarantee 100 per cent protection, he was confident that Allied fighter cover would be adequate to prevent any devastating attack by the G.A.F. The most important task for the Allied Air Forces was the delay of enemy reinforcements. The Air Commander-in-Chief emphasised that this was his responsibility and he was prepared to accept it. He threatened to resign his appointment as Air Commander-in-Chief if the air plan were changed.

That Air Chief Marshal Leigh-Mallory was fully justified in his belief that the G.A.F. would not be able to interfere seriously with the landings is borne out by events on D Day. A detailed account of air operations together with a summary of the attacks on airfields before the landing will be found in the third volume of this narrative.

Air support for the Assault, Reduction of coastal batteries and beach defences.

TLM/MS.133

During May 1943 Air Vice-Marshal Graham, original head of the Air Branch of Headquarters COSSAC, was investigating the problem of air attacks on coastal batteries. He suggested a combination of fighter and heavy bomber attacks which would culminate in a descent by paratroops on to the battery. In his view destruction or neutralisation was an essential preliminary to the landings and that since neither of the other services could accomplish it, the R.A.F. would have to attempt it. The Air Ministry was convinced that the Air could not guarantee to destroy or neutralise a coastal battery.

TLM/Folder 5
and
TLM/MS.139

As a result of suggestions made by Lord Mountbatten (Chief of Combined Operations) a course was held at the Combined Operations Training Centre at Largs for commanders and senior staff officers to study various assault problems during June 1943. At that time the air attack on Pantellaria had considerably impressed the Prime Minister and a number of experts were sent out to visit the island to carry out an investigation. Senior R.A.F. officers were more sceptical about the results of the bombing than were the Army. They considered it to be a valuable experiment but appreciated that the objective was limited and the attack pressed home without opposition. Consequently Air Marshal Leigh-Mallory took pains to emphasise that it would be a mistake to draw any hard and fast conclusions from the attacks on Pantellaria.

TLM/MS.139/1

/After

(1) See Appendix VI/22.

After this conference the Chief of Combined Operations drew up a draft report for submission to the Chiefs of Staff. The gist of it was that because of the strength of the enemy defences it would be necessary to carry out an intensive bombing of the assault area before the launching of the assault. This would have to take place over a considerable period of time and would largely be the responsibility of the R.A.F. The most critical period of the assault would be the interval between the lifting of the naval and air bombardment before the first troops got ashore and the time when the Army could get its own guns into action on land. Much could depend on the experience gained in the landing on Sicily. Finally the Army believed that the only feasible time for assault would be in darkness or at first light. The Navy, on the other hand, was sceptical about assembling a large naval force at night. It was therefore all the more necessary that the coastal defences be crushed before the assault and for airborne troops to attack the defences from the rear. (1)

TIM/MS.136/
28/2

In August the British Chiefs of Staff appointed an inter-service committee, under the chairmanship of Air Vice-Marshal Graham, to consider all existing means of providing fire support when landing forces on a heavily defended coast and to make recommendations as a matter of urgency for improving the degree of support. This committee reached the following conclusions. A preliminary air bombardment followed by naval bombardment ought to be applied against coastal batteries. The air and naval bombardment against beach defences was to be provided in the proportion of three to one. Opportunity targets would be dealt with by naval bombardment assisted where possible by fighter type aircraft. The Committee further stated that coastal batteries in turrets or casemates could only be rendered unserviceable by direct hit from heavy naval guns. Coastal defence guns in fields or open emplacements could be destroyed by air and/or Naval bombardment. Whenever possible air bombardment should precede naval bombardment. Finally the Committee recommended that the Chiefs of Staff should confirm the principle that the Army was responsible for stating the fire support requirement, both as regards type and quantity, and the Navy and Air Force for deciding upon the method of meeting the Army's needs.

AEAF/22331

It should be noted that in this report no consideration was given to the adaptability of heavy bombers to the task of attacking batteries or what proportion of bombers should be diverted from their normal tasks nor were the effects of weather taken into consideration. The Chiefs of Staff Committee approved the recommendations of the report and agreed that the proposals should receive attention on the highest priority. It was this report which was used as a basis of the fire plan for Overlord. In Study No. 7, written by a syndicate of the Joint Planning Staff at St. Paul's School an attempt was made to apply the findings of the Inter-Service Committee to Overlord. (2)

The original plan for air support during the assault was divided into three parts. One: counter battery attack on all known gun positions covering the assault beaches and their seaward approaches. Two: neutralisation of the beach defences, both on the fronts of the assault and on their flanks. Three: provision of support at call after the pre-planned programme was over.

/The object

(1) See Appendix VI/39.

(2) See Appendix VI/41

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The object to be achieved by attacking beach defences was stated as the maximum destruction of communications and the stupefaction of the defenders by H Hour. This, it was believed, could best be achieved by area night bombing followed by naval and air bombardment in daylight. The objectives were to be the front of the assault beaches to a depth of 1,000 yards, and also the wings of the assault beaches insofar as they contained defences capable of bearing on the beaches to a depth of 200 yards.

These attacks were timed to begin at H minus two and a third hours, presumably for security reasons, and continued until the beach defences were over-run. At the critical period shortly before and after H Hour, bombing was to continue further inland or to the flank, while the assistance of fighter/bombers, rocket projectiles etc, was required against beach defences and inland batteries.

The bulk of the fighter/bomber force was to be available to engage targets of opportunity. It was thought reasonable to expect that support over the target area would be given within the hour, and that on occasions it might be possible for the Headquarters ship to direct fighter/bombers, airborne on call, to a selected target, when support would be forthcoming more quickly.

AEAF/22007

This original plan was upset by the Supreme Commander's decision to widen the area of assault to include the east Cotentin beaches. This change necessitated both heavier attacks on the three Cotentin coastal batteries (which, in the original plan, were to be attacked only to assist tactical surprise) and further attacks upon additional coastal guns and field artillery positions. The number to be attacked from the air was not stated, but the positions of known batteries are shown at Appendix VI/61 - Map 'MA'. (1)

Further study now revealed that, as bombing targets, the beach areas (including the wings) merged into a single line some 20 to 30 miles long which would be extended to almost 50 miles if landings were to be made on the east Cotentin beaches. In addition, it was reported that the beach defences were not disposed in open slit trenches, but instead were in some two dozen widely dispersed clusters of pill boxes. Clearly in these conditions, the object of stupefying defence personnel would not be achieved by bombing.

AEAF/22004

These developments necessitated a review of the whole question of air support during the assault. (2) On 31 January the Air Commander-in-Chief called a meeting to discuss the new basis for the plan. The Air Commander-in-Chief was concerned lest the Army in their enthusiasm for air support would produce a programme of air bombing out of all proportion to the effort available. He informed those present (which included representatives from SHAEF, Twenty-First Army Group, ANCXF and R.A.F. Bomber Command) that although our bomber effort would be considerable, it would not, emphatically, allow for beach drenching. There remained two conflicting demands - attacks on coastal defences and attacks on enemy reserves. To preserve the correct balance between the two would call for careful

/judgment.

(1) Refer to Volume III of this narrative.

(2) Minutes at Appendix VI/42A.

judgment. It was generally agreed that coastal defence batteries presented a difficult target which could only effectively be bombed with the aid of Oboe. The number of Oboe channels which could be provided would, therefore, in itself impose a limit on this form of attack. Air Vice-Marshal Oxland steadfastly reaffirmed the opinion from which he was never to waver that the best contribution Bomber Command could make to the landings was to continue bombing Germany.

Professor Zuckerman calculated that to obtain a reasonable chance of success 1,500 bomb strikes would have to be delivered at each battery. Since the maximum number of bombs which could be dropped would be approximately 14,000, the number of batteries which could be attacked from the air could easily be calculated. He suggested that No. 617 Squadron might be employed before D Day to attack the more important and less vulnerable batteries, such as those at the tip of the Cotentin peninsula. He was emphatic that visual bombing should be discounted and that Oboe used by a specially trained force was the only effective means of attacking batteries. The Air Commander-in-Chief said that such a procedure would compromise security. Commodore Hawkins, the Naval representative, said that the Admiralty were less concerned with these batteries than with those which actually covered the assault area.

Brigadier Kimmins and Colonel Cox, when asked for the Army's opinion, said that they appreciated the difficulties of air bombing of batteries, but since it was essential that the batteries should be attacked if the assault was to succeed and there appeared no means other than bombing, they must press for the closest consideration to be given to the problem. Six coastal batteries were of particular importance because they could engage naval forces before these were in a position to retaliate, but the Army would like as many batteries as possible attacked in addition to the six. The Air Commander-in-Chief said that his staff would study the number of batteries which could be attacked, and he asked Air Vice-Marshal Oxland to be ready to advise on the use of Oboe and Pathfinder technique.

SHAEF/(R)/S
70514

At an early stage in the planning it had become clear that many of the most important targets in the assault area were small and difficult to locate, let alone hit. This was particularly true of coastal defence batteries, beach targets and certain communication targets. The Army were calling for between 12 and 16 pin point targets to be bombed in the two or three hours preceding the landings. H Hour was fixed for dawn which meant that these pin point targets could only be undertaken by R.A.F. Bomber Command, and then only with the aid of Oboe or GH - the former being the most accurate. In February 1944 only two Oboe Mark I channels existed to cover the assault area. It was then expected that two Mark II channels might be available by the end of March. A total of four channels was too few if the Army's minimum programme was to be carried out. Moreover, Mark I was subject to jamming.

SHAEF/(R)/S
70514

Training in the use of Oboe was another bottleneck. Up to the end of January 1944 training had been restricted to flying along the beam - a procedure which ignored altogether the most important question of timing. For some months the VIIIth Air Force had been experimenting with Oboe, H2S and H2X, but the last two techniques were of little value for pin point targets. The VIIIth Air Force had experienced little success with Oboe either. In the opinion of T.R.E.⁽¹⁾ and the Operational Research Section of Bomber Command the reasons for this failure were faulty individual training of bombardiers and navigators and lack of co-ordination between the wings operating Oboe fitted aircraft and the ground controllers.

/Another

(1) Telecommunications Research Establishment.

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Another reason was lack of enthusiasm on the part of the Commanding General, U.S.St.A.F. General Spaatz was reluctant to take groups off operations to train in the use of Oboe because it would detract from the long-term bomber offensive, which he believed to be of supreme value. Moreover, at that time (the end of January 1944) there was only one Pointblank target within Oboe range on the schedule of targets for the VIIIth Air Force.

General Spaatz was prepared for the IXth (Medium) Bomber Command to train in the use of Oboe and for the equipment to be transferred from B.17's to B.26's. But since it took three to five months to train a fresh crew in the efficient operation of Oboe, valuable time had already been lost, and Air Vice Marshal Bennett of No. 8 Bomber Group (the Pathfinder Group responsible for Oboe training) anticipated that by mid-April no more than three Marauder crews could be trained.

SHAEF/(R)/S
70514

On 25 January, the Air Commander-in-Chief, A.E.A.F. wrote (1) to the Chief of Air Staff asking that every effort should be made to have as many U.S. medium bombers as possible fitted and trained in Oboe technique, and that the number of Oboe ground stations capable of covering the assault area should be increased to the greatest possible extent.

A meeting (2) was called by Air Ministry under the Chairmanship of the Assistant Chief of Air Staff (Operations) to enable A.E.A.F. to outline their proposals and to decide how these could best be met. The Deputy Director of Radar (I) stated that eight Oboe channels (including four Mark III's) could be made available in time for Overlord. (3) Mark III stations would be given the highest priority. The A.E.A.F. agreed to supply a general coverage of the area, so that the necessary grid charts could be prepared. It was further agreed that A.E.A.F. should ask the U.S. IXth Air Force to nominate an officer to deal with Air Vice-Marshal Bennett on all matters relating to training of Marauder crews in the use of Oboe. (4) A.E.A.F. was also to take up with the VIIIth Air Force the question of using GH in daylight assault operations and to advise them that additional sets might be provided by the Air Ministry if wanted.

Early in March it was discovered that constructional work on important coastal defence batteries was proceeding apace, and it was clear that if attacks were deferred until all batteries had been placed in concrete emplacements and casemated, destruction from the air would prove almost impossible. To adhere to the original plan (which had been to wait until surprise was lost before attacking batteries) was impossible. On the other hand, to bomb batteries systematically before D Day would give away to the enemy the

/intended

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- (1) Letter and enclosures at Appendix VI/55.
 - (2) Minutes at Appendix VI/56.
 - (3) By mid-April 1944, 4 Oboe Mk. II Stations (two at Beachy Head and two at Worth Matravers), providing a total of eight simultaneous channels over the assault area, were operating.
 - (4) For reports on the periodical progress of training in Oboe of the Ninth U.S. Bomber Command, see Minutes of A.E.A.F. Commander's Conferences (TLM/Folder 17).

G.323100/MJG/1/52/30.

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intended area of assault. The alternative was to extend the pre-D Day bombardment to include batteries in the Pas de Calais - the cover area.

The original cover plan (1) for Overlord was by nature passive rather than active. A plausible threat to the Pas de Calais and Belgium was to be built up by representing substantial assault and follow-up forces in eastern England and by concealing, as far as possible, the real preparations in the south west. By accustoming the enemy to large-scale invasion preparations over a long period it was hoped to mislead him as to the date of the assault. A planned programme of wireless silence periods was to be imposed from December 1943. It was not until increased speed of construction forced the Allies to begin their attacks on coastal defence batteries well in advance of Overlord that the cover plan (Fortitude) included active steps to 'induce the enemy to expend his available effort on fortifications in areas other than the target area'.(2) Those active steps consisted of bombing two batteries in the cover area to every one in the actual area of assault.

AEAF/22331

After a meeting held at Headquarters, Twenty-First Army Group on 12 March (at which A.E.A.F. was not represented) it was recommended that a programme of bombing should be carried out prior to D Day on batteries in the Neptune and other areas which were 170mm. or larger and which were being put into concrete emplacements. This bombing was to start as soon as the concreting of emplacements was discovered.(3)

Two weeks later the Air Commander-in-Chief, A.E.A.F. wrote (4) to the Director of Bomber Operations, Air Ministry, asking for instructions to be given to either R.A.F. Bomber Command or U.S. VIIIth Air Force to attack the super-heavy long-range battery position at Le Havre. This battery was then under construction, and Air Chief Marshal Leigh-Mallory pointed out that if attacks were delayed until the six foot concrete covers were in position the battery would be virtually impervious to air bombing.

TLM/MS.136/28/3

The Le Havre batteries were, in fact, not attacked by heavy bombers but by Marauders of the IXth Air Force on 10 April.(5) During the next three weeks 25 batteries were attacked - 15 receiving hits on at least one gun. Of these 15, five were inside and 10 outside the Neptune area.(6) Reports on all of these attacks were examined by the Pre D Day Bombing Sub-Committee(7) and considered very satisfactory(8). Twenty-First Army Group recommended that the attacks should continue in accordance with priorities established by them.

/In the

- (1) Appendix 'Y' to COSSAC (43) 28, dated 20 November 1943.
- (2) See object of Plan Fortitude - SHAEF (44) 13, para.5. Details of both strategic and tactical cover plans, and the various changes undergone will be found on TLM/MS.136/13 and A.E.A.F./M.S.695.
- (3) See Memo: by MGRA. Twenty-First Army Group, dated 13 March 1944 at Appendix VI/43.
- (4) See letter at Appendix VI/44.
- (5) The reason why this task was given to medium bombers has not been discovered but it is well known that a number of the Air Commanders considered this type of target to be unprofitable for heavy bombers.
- (6) See Weekly Statistical Summaries of attacks on Coastal Batteries on TLM/MS.136/28/3.
- (7) This Committee was set up by Twenty-First Army Group.
- (8) See Twenty-First Army Group memorandum at Appendix VI/45. See also Minutes of Pre-D Day Bombing Sub-Committee held on 6 April 1944 at Appendix VI/46.

AEAF/22331

In the meantime, the Joint Fire Plan for the assault was still under discussion. On 21 March the Air Commander-in-Chief called a meeting (1) at Headquarters, A.E.A.F., Norfolk House to review the various commitments which the air would have to meet before, during and immediately after the Overlord assault, and to balance the available effort against these commitments.

The preliminary bombardment of coast defence batteries was discussed at some length, and General de Guingand, Chief of Staff to General Montgomery, suggested that a total of 24 batteries should be neutralised before D Day and that the U.S. VIIIth Air Force should assist in this task. The consensus of opinion, however, was that these targets were difficult to recognise and that highly-skilled precision bombing was needed if effort was not to be wasted. Accordingly, it was agreed that the special squadron (No.617) of R.A.F. Bomber Command equipped with radio aids should alone be used, that a priority list of coastal defence batteries should be provided by Twenty-First Army Group and that Bomber Command would give an estimate of the number that could be attacked by the special squadron before D Day. Air Vice-Marshal Oxland estimated this number as from eight to 12.

AEAF/22331

The total air forces available on D minus one D Day was given by the Air Commander-in-Chief as follows:-

- (a) The whole of R.A.F. Bomber Command.
- (b) The whole of VIIIth U.S.A.F. (60 boxes of heavy day bombers),
- (c) The whole of IXth U.S.A.F. (30 boxes of medium day bombers).
- (d) No. 2 Group (four Mitchell and two Boston Squadrons)
- (e) R/P Typhoons - 20 squadrons.
- (f) Mustang and Thunderbolt fighters - 18 squadrons.

The Air Commander-in-Chief confirmed that Bomber Command would be able to undertake 10 (and possibly 12) pin-point targets just before H Hour, but he stressed the importance of the Army making a firm decision soon. General de Guingand said it would be impossible to make a firm decision on targets until the last moment because final choice must be governed not only by progress in the enemy's construction during the next 10 weeks, but also by the success achieved in the preliminary attacks. (2)

/Admiral

- (1) Minutes at Appendix VI/47.
- (2) The need for early information on targets is explained in a letter from the Director of Radar, Air Ministry, (copy at Appendix VI/42). No quick method of calculating Oboe and GH co-ordinates existed, and A.E.A.F. was responsible for passing probable targets with precise aiming points to Air Ministry computers at the earliest possible moment. The frequent and extensive change in targets made right up to the last moment, by Twenty-First Army Group was very nearly disastrous. After the choice of targets had been made, meetings between the Army and Air Commands concerned had to be held to determine the precise aiming points; delay was inevitable, and the computers became heavily overburdened. Had D Day not been postponed 24 hours some of the co-ordinates might not have been worked out.

G.323100/MJG/1/52/30.

Admiral Ramsay interposed to emphasise that full weight must be given to naval needs in making the selection of targets. He was in favour of choosing the targets at once, since it was clear which batteries would constitute the greatest menace to the approach of our shipping. It was decided to refer consideration of targets to Twenty-First Army Group planners, for submission to the Principal Staff Officers and final approval by the three Commanders-in-Chief.

The allocation of effort between British and U.S. Army fronts was then considered and the Air Commander-in-Chief enumerated what he considered to be the best proportion of effort for the British and U.S. beaches. Admiral Ramsay suggested that the weight of attack allocated to the British front was insufficient, and that as it included a built-up area, more effort would be required to keep the defenders' heads down after the end of the night bombing. The Air Commander-in-Chief felt that the Cotentin beaches presented the more difficult problem because of their narrow exits. In any event, the ten groups of medium bombers on Ouistreham and Franceville Plage would take some time to deliver their attack, which should effectively prolong the effect of the night bombing.

Professor Zuckerman suggested that the weight of attack allocated to the Cotentin beaches might be reduced by 25 per cent without seriously reducing its effectiveness. The principal effect would be against the morale of the defenders, and for this, 15 groups should suffice, if the effort were properly timed.

AEAF/22331

It was agreed that the bombing must be maintained right up to the last minute before the landing, even if this entailed casualties among our landing forces (as it was accepted that a considerable proportion of bombs aimed at beaches would fall in the sea). Admiral Ramsay suggested that the bombing should be maintained even later than H Hour to allow for delay in the arrival of the assault forces at the beaches. He pointed out that our own forces would not advance until the bombing ceased, but while it lasted they would be free from fire from the coast defences. It was finally agreed that A.E.A.F. would work out the timing of the attacks on the lines indicated, allowing for the light conditions, to discover if any alteration in H Hour would be desirable to permit the full weight of attack to be delivered. It was further agreed that the bombing of battery targets behind the beaches might be maintained until after H Hour, if necessary.

The question of post H Hour air support was then discussed, and General de Guingand suggested that, sooner than fix the programme in advance, it would be preferable to hold a big effort in reserve for the attack of enemy formations moving up to the front. The Air Commander-in-Chief said that light and fighter bombers could be kept in reserve because of their speed of turn-round, and the comparative ease with which they could be laid on, but this did not apply to heavy bombers, which would be better employed on a fixed programme. For the heavies he suggested main communication centres such as Lisieux and St.Lo.

Headquarters, A.E.A.F. had never been in favour of using fighter/bombers against beach targets; believing that they would be more profitably and less expensively employed on delaying the movement by road of enemy reserves - a task to which they were particularly well suited. The Army on the other hand were insistent that at least a proportion of fighter/bomber effort should be employed against open gun positions at H Hour when all other forms of fire support had been lifted from the beaches. A compromise was now suggested by the Air Commander-in-Chief whereby he proposed to use 24 of the 38

/fighter/

fighter/bomber squadrons against open gun positions, putting in two squadron attacks at 10 minute intervals on 11 of these, and keeping the remaining squadrons in reserve. Two squadrons (one for each beach) would be kept airborne on call. After some discussion, it was agreed that a supplementary plan should be prepared covering the operations of fighter/bombers only. It was also agreed that two Boston Squadrons should be held in reserve, in case smoke were needed, but on the clear understanding that their alternative tasks should be specified in advance. Use of smoke was to be regarded as an emergency measure only.

TLM/MS. 136/28

The fifth and final draft (1) of the Joint Fire Plan, signed by the Chief Staff Officers of A.N.C.X.F., A.E.A.F. and Twenty-First Army Group was circulated on 8 April.

The general principles of the plan were as follows. The plan included both the attacks on batteries before D Day and the diversionary operations which were to divert the enemy's attention to the real assault area. First priority was to be given to batteries which might interfere with the approach of the naval forces. The heavy night bombers and medium Oboe bombers were allotted entirely to this type of target. The daylight effort was allotted for attack against specific points in the beach defences in the general ratio of two to three as between the First U.S. Army and the Second British Army. (2)

In order to ensure that the maximum force was available on D Day, the effort employed during the days immediately preceding was to be curtailed as necessary so as not to prejudice the assault. It was decided, that in view of the shortage of armour piercing bombs and the necessity for security reasons to include two batteries outside the Neptune area for each one within it, to attack those batteries which were in open emplacements or under construction apart from a number specifically selected for destruction in the assault phase.

At a Supreme Commander's Meeting (3) held on 10 April, it was noted that "a final agreed list of targets, by priorities would be determined this week". In fact there was no finality until D minus two.

AEAF/TS. 22014

On 30 April, the Air Commander-in-Chief, perturbed lest the preliminary bombing programme should not be completed before the target date of Overlord, wrote to the Deputy Supreme Commander, reminding him that only 32 days remained in which to discharge the numerous and heavy air commitments involved in the preparation for the assault. (4) An estimate of the total tonnage which could be delivered during the period by A.E.A.F., Bomber Command and U.S. VIIIth Air Force was given as 106,368 tons on the assumption that on only half the days left would the weather be possible for air operations.

/Proposals

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- (1) Text at Appendix VI/48.
 - (2) A map showing the location of batteries actually attacked will be found in Volume III of this narrative.
 - (3) See Appendix VI/54.
 - (4) Text at Appendix VI/50.

G.323100/MJG/1/52/30.

Proposals for carrying out Operation Fortitude were stated as follows:-

"In carrying out Operation Fortitude which is the cover plan, it is desirable to create the maximum deception with the minimum expenditure of force, in order to conserve the greatest possible air effort for operating on D Day. With this in view, it is suggested that not more than 50 per cent of the day and night bombing effort should be employed over the period D minus two/D minus one. During these two days the effort of the Tactical Air Forces will not be allocated to Fortitude as it is desired to restrict their operations in order to maintain a reserve of effort which can be used to deal with any target on which a renewed attack is required, or for meeting unforeseen commitments put forward by the Army".

TLM/MS.136/15

The preparatory bombing plan was discussed (1) by the Air Commander-in-Chief, Sir Arthur Tedder, General Spatz and the Tactical Air Commanders on 6 May, when the Air Commander-in-Chief informed those present that, of eight battery sites in the Neptune area, five had been badly damaged, nine remained on the programme, of which three were in the Neptune area and six outside. Six of the nine would be attacked by R.A.F. Bomber Command, the remainder by the IXth Air Force.

AEAF/22331

At a Meeting (2) held at Stanmore on 8 May agreement was reached on the tonnage distribution between First United States and Second British Army fronts. The agreement was:-

First U.S. Army	-	1,640 tons
Second British Army	-	2,460 tons

The two Armies were to deal with their associated Air Forces in working out the sub-allotment of this effort and the detailed assault bombing programme, keeping A.E.A.F. and Twenty-First Army Group informed. It had been agreed to apply 100 per cent. of the allotted bomber effort in the assault phase prior to H Hour. This would only be modified in the event of the period of daylight between Civil Twilight and H Hour being insufficient for the deployment of the whole force. If this happened, Armies with their associated Naval authorities, were to submit to the Air Forces for detailed examination targets and timings for the balance of effort available after H Hour.

The Commander-in-Chief Bomber Command objected to the increasing demands of Twenty-First Army Group for the bombing of batteries and at a meeting held by the Air Commander-in-Chief on 13 May (3) stated that unless credible evidence could be produced that batteries which his Command had already attacked were still capable of functioning he did not propose to order subsequent attacks. It was then revealed that an Anglo-American organization, known as the Theatre Intelligence Section was responsible for choosing targets (4) and that this agency had no gunner on its staff. The Deputy Senior Air Staff Officer and Chief of Operations A.E.A.F., Brigadier General Smith was also sceptical of the effectiveness of attacks on

TLM/MS.136/9/1

/coastal

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- (1) See minutes at Appendix VI/23A.
 - (2) See Memorandum by Major General De Guingand at Appendix VI/52.
 - (3) See Appendix VI/54.
 - (4) This was to all intents and purposes, part of the G.2. Division S.H.A.E.F.

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coastal batteries. In reply to these criticisms the Air Commander-in-Chief replied that if only five per cent damage were inflicted the Air Forces could not refrain from bombing batteries, since both Army and Navy believed that even that amount of reduction would increase their chances of success.

After the soundness of the cover plan had been questioned, it was decided to adhere to the existing plan, which involved bombing on D minus three, D minus two and D minus one on both Fortitude and Neptune areas. The proportionate effort laid down by the Air Commander-in-Chief (1) was confirmed. A paper (2) notifying U.S.St.A.F., Bomber Command and both Tactical Air Forces of the proportionate allotment of effort to Neptune and Fortitude targets was sent out by A.E.A.F. on 20 May. These instructions were amplified by letter (3) to the Commanders concerned a few days later.

TLM/Folder 34.

On 26 May, at the Allied Air Commander's Conference, Professor Zuckerman gave an appreciation of preliminary attacks on coastal defence batteries. A total of 8,700 tons had been dropped altogether on this type of target in the Neptune and Fortitude areas, out of which Bomber Command could claim 3,700 and A.E.A.F. 5,000 tons. Out of 51 guns attacked in the assault area only 18 had been partially damaged and out of 101 in the "cover" area, 26. In addition, eight batteries under construction had been considerably damaged. It was estimated that approximately 97 sorties and 420 tons of bombs were required to hit one gun and some 2,500 bombs had to be aimed for one to fall within 5 yards of the target. From these figures it would be seen that to improve on the 25 per cent damage so far inflicted on coastal batteries would require a phenomenal number of bombs. The Air Commander-in-Chief accordingly directed that no further attacks should be made against batteries under construction which could not be completed in time for Overlord. Such batteries were to be excluded from the target list.

TLM/Folder 34.

At the fourth Allied Air Commander's Conference held on 31 May, Brigadier Richardson (Twenty-First Army Group Liaison Officer with A.E.A.F.) said there were about 50 batteries which could be brought to bear on the beaches and approaches. Very heavy effort had been expended - 4,482 tons on the Neptune area batteries and 8,889 tons on the cover area, and on the whole results had been up to expectation. The Army were not hoping for destruction of guns but reduction of efficiency, e.g. in the fire control mechanism and delay of construction work, and building of casemates. The Army stated that they would like another five batteries attacked. Final amendments to the schedule of air bombing targets were agreed by Twenty-First Army Group and A.E.A.F. at a meeting at Fort Southwick (S.H.A.E.F. Forward) on 2 June. Amended schedules are on TLM/MS.136/50(4).

TLM/MS.136/50.

/ Up to

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- (1) See above.
 - (2) Appendix VI/55/1.
 - (3) Appendices VI/56, 57 and 59 (files TLM/136/15/18 and 136/50/1).
 - (4) This file should be read in conjunction with TLM/MS.150/1.

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Up to and including D minus two, out of the 40 coastal batteries in the assault area capable of firing on the beaches or shipping 21 had been heavily attacked with a total of 7,000 tons. No less than 38 batteries in the cover area had been attacked by the same date with 13,000 tons. On the night of D minus one/D Day ten batteries in the assault area were each attacked by more than 100 aircraft of R.A.F. Bomber Command. This single operation involved the whole of Bomber Command's effort for the night, and 5,800 tons of bombs were dropped. As a result, only four batteries were reported as active during the assault, and losses to shipping were negligible.⁽¹⁾

(1) See Report by Ops Plans A.E.A.F., dated 23 June 1944 on AEF/22014. A detailed survey of bomb damage to Coastal Batteries in the Cover area between Le Havre and Abbeville had now been made by the R.A.F. Bombing Analysis Unit. A copy of this Report is on TLM/MS. 136/15G.

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CHAPTER 7

DELAY OF ENEMY REINFORCEMENTS: THE STRATEGIC PLAN

First Plan Based on Staff Study No. 6.

TLM/Folder 5
and
TLM/MS.136/15.

AEAF/22005

During the early planning of Overlord COSSAC had recognised the fact that, during the initial stage of the assault, the enemy would possess the great advantage of being able to concentrate his forces more quickly than the Allies by making use of the excellent network of roads and railways on the continent. The first two weeks after the landings would therefore be very critical. But it was not until December 1943, when the Joint Planning Staff was set up at St. Paul's School that any practical attempt was made to promulgate a plan to delay enemy movement. The result of the Joint Staff's work was 'Study No. 6 - Delay of Enemy Reserves', the first draft of which was produced on 30 December.

The study appreciated that the Germans would have nine reserve divisions (seven panzer and two infantry) capable, if unimpeded, of reaching the assault area by the morning of D plus four. Of these nine, the panzer division at St. Lo could arrive by H plus four and a half hours and that at Lisieux by H plus six and a half hours on D Day. The method of movement was expected to be by road for those divisions located within 100 miles of the battle area and by rail for those farther distant, the last named detraining as close as possible to the battle area and completing their journey by road. The object of this plan was, briefly, to disrupt rail traffic across the Seine and Loire, to attack selected rail centres in France and it was expected that the combined effect of these attacks would force the enemy to detrain at least 100 miles from the battle area.

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Pt. I

It was realised that it would be useless as well as compromising to security to attack the majority of the targets before D Day, but it was recommended that all rail targets which would take a long time to repair and which were located north of the Seine or in the Paris area should be attacked as early as was compatible with their estimated time for repair. The final draft of this paper was discussed at St. Paul's School on 6 January 1944. The railway targets selected for attack were situated in an area approximately 50 to 60 miles from the assault area with a further selection to the north for 'cover'. This radius was chosen as being the most convenient distance for the enemy to detrain and that which was likely to throw the greatest burden on his motor transport. On examination by the Air Staff, most of the targets, which had been chosen by the Transportation Section of Twenty-First Army Group, were found to be quite unsuitable for air attack, being for the most part, bridges, tunnels or junctions. It was also clear that discussions would have to take place on a higher level than that of the COSSAC Joint Planning Staff, since questions of policy - in particular that of the bombing of French civilians - were at stake.

Strategic Plan for the Delay of Enemy Reinforcements by Rail.

On 10 January COSSAC drew the attention of the Air Commander-in-Chief to the growing unrest in France caused by Allied air attacks in occupied territory and urged that this /problem should

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problem should be borne in mind when planning air operations in support of Overlord. The Air Commander-in-Chief's reply on 31 January was addressed to the Supreme Commander, who had in the meantime superseded COSSAC. He stressed that it would be extremely dangerous to blunt one of the Allies' most potent weapons - air power, and that inevitably there would be a number of civilian casualties. These casualties would have to be regarded as the contribution of the occupied countries towards the sacrifices that the Allies were making on their behalf.

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In the meantime Professor Zuckerman had returned from the Mediterranean theatre where he had been engaged on a scientific examination of the effects of large scale air attacks upon communications targets, and had joined the Staff of the Air Commander-in-Chief, A.E.A.F., as Scientific Adviser. His report (1) was examined and approved by the Air Staff and Air Chief Marshal Leigh-Mallory was instructed by the latter that his plans for forthcoming operations should be based on the report's conclusions.

The Zuckerman Report

The main points of Professor Zuckerman's report were as follows. The problem of destroying the enemy's communications was a strategic rather than a tactical one. The best target was repair facilities which could only be destroyed by repeated bombing. Experience had shown that a few large railway centres were better targets from the strategical point of view than a large number of small ones. It was also important to attack rolling stock, in particular, locomotives, the object being to prevent their repair. Little value was placed on attacks on roads except when they passed through towns or defiles which it was impossible to by-pass. Bridges were considered to be uneconomical targets and were only to be attacked in an emergency. These conclusions did not vary significantly from those of the Ministry of War Transport set out at the request of the Air Ministry, in the form of a statement on 28 July 1943. (2)

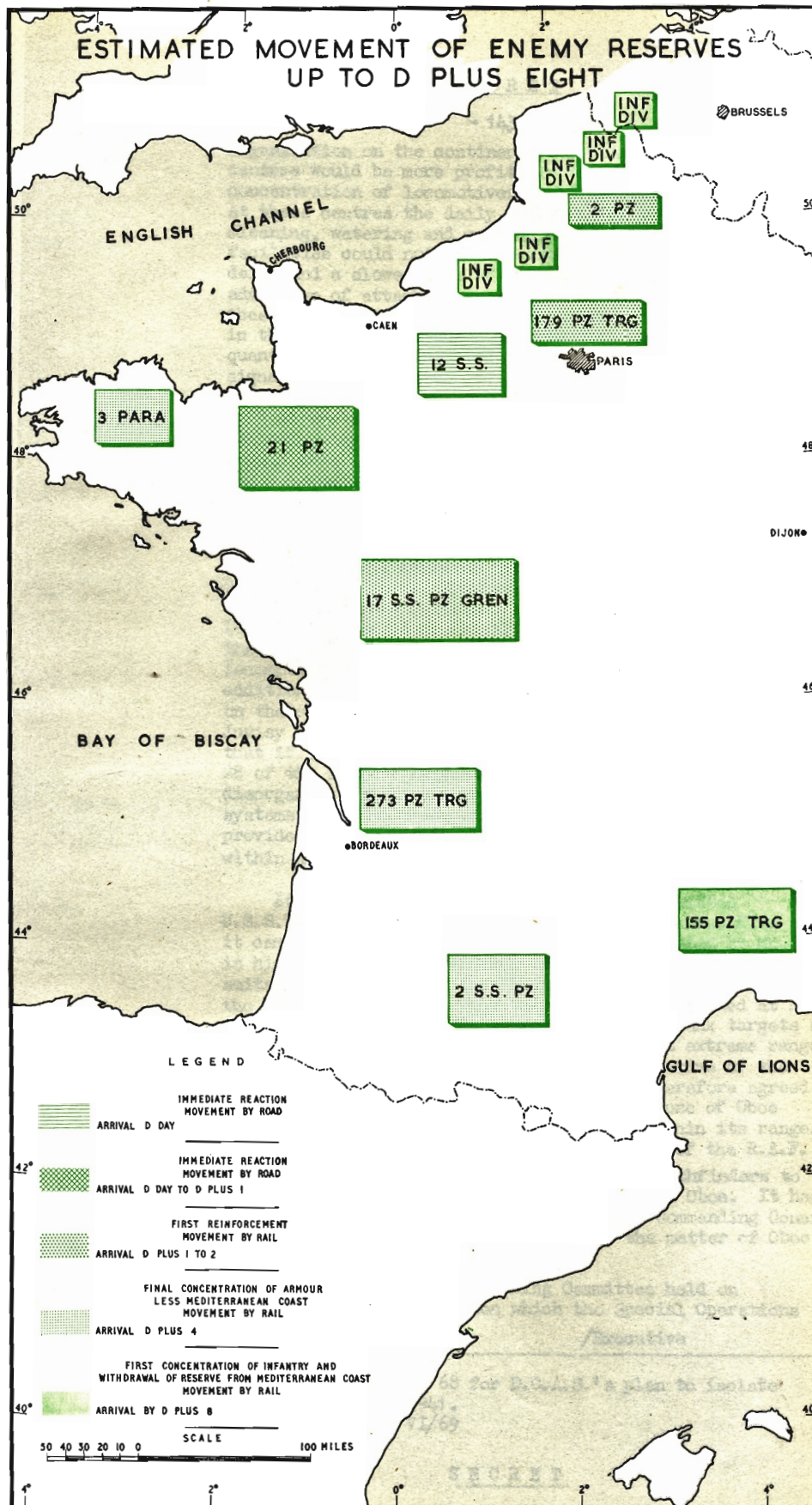
Deliberations of the A.E.A.F. Bombing Committee

The first meeting of the Allied Air Forces Bombing Committee took place at Norfolk House on 10 January under the chairmanship of Air Commodore Kingston McClellan, Deputy Chief of Operations A.E.A.F. Previously it had been agreed, after discussions with Professor Zuckerman, that the railway plan produced in Study No. 6 was inadequate for three reasons. The targets were too small and the possibility of bad weather made it unsafe to leave the attacks as late as the interests of security demanded. A new plan was therefore prepared by Captain Sherrington of the Railway Research Service. All the targets which he suggested were related to locomotive power, for power being the basis of movement, should, in the opinion of the railway experts, be the main objective in order to bring movement to a standstill.

During the conference on 10 January it was suggested that, because of the greater dispersion of the repair

/organisation

- (1) Air attacks on rail and road communications dated 12 Dec. 1943. A copy will be found in File TLM/MS.136/15F.
- (2) See Appendix VI/64 and VI/64A.



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organisation on the continent, servicing and minor repair centres would be more profitable targets since a greater concentration of locomotives would generally be found there. At these centres the daily functions of boiler washing, fire cleaning, watering and coaling were performed. These facilities could not be dispersed without causing much delay and a slower rate of turn-round. An additional advantage of attacking servicing and minor centres was that these were normally found at the main rail centres, which in themselves constituted good targets and usually contained quantities of rolling stock and a complicated system of signalling and points.

At the second meeting of the Bombing Committee on the following day, Mr. Brant of the Railway Research Service argued that attacks on railway centres throughout France and Belgium would require too great an effort and that alternative routes would be bound to remain open. He urged that attacks should be concentrated in the area lying between the French and Belgian coast and a line running from Antwerp via Malines, Brussels, Namur, Givet, Charleville, Rheims, Epernay, Paris, Orleans and Tours to Nantes. This area contained approximately 5,600 steam locomotives and 38 principal sheds. Mr. Brant contended that if 28 of these sheds were attacked 20 per cent of the locomotives would be immobilised. He recommended that in addition to the steam locomotive targets, two junctions on the electrified lines of the south-west region, namely Juvisy and Tours, should be attacked. The Committee agreed that if successful attacks were carried out on the first 28 of the targets suggested by Mr. Brant, the necessary disorganisation in the northern French and Belgian railway systems would be produced. Mr. Brant also undertook to provide a list of suitable rail targets in Germany (1) within a 400 mile radius of the U.K. (2)

At the third meeting of the Bombing Committee U.S.S.T.A.F. was introduced to the Transportation Plan as it came to be called. All the targets suggested by Mr. Brant in his first list (Appendix B of his plan) were considered suitable for attack by the VIIIth U.S. Bomber Command and the Committee believed that they should be attacked at an early date because of the scarcity of Pointblank targets at that time and as those which remained lay at extreme range. Much was made by the U.S. St. A.F. representative of the limitations of weather and the Committee therefore agreed that the VIIIth Air Force should make more use of Oboe as the French transportation targets lay within its range. A meeting was fixed between representatives of the R.A.F. Pathfinders and the U.S. VIIIth Air Force Pathfinders to discuss the training of U.S. bomber crews in Oboe. It has already been related that General Spaatz, Commanding General U.S. St. A.F. proved unwilling to pursue the matter of Oboe training any further.

At a meeting of the Bombing Committee held on 14 January the contribution which the Special Operations /Executive

- (1) See Appendix VI/68 for D.C.A.S.'s plan to isolate the Ruhr in 1941.
- (2) See Appendix VI/69

See Chap. 6
P.133

Executive might contribute towards the transportation plan was discussed. The possibility of French railwaymen's strikes was raised but it was stated that the co-operative attitude of the railwaymen had been impaired by the Allied attacks on locomotives. As a result these attacks had been stopped and agents had undertaken to see that at least an equal number of locomotives would be destroyed without sacrificing their crews. An estimate of 1,000 locomotives destroyed during the next four to five months was given.

The Part Played by the Air Commander-in-Chief

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Pt.I.

Hitherto all discussions on the transportation plan had taken place in the absence of the Air Commander-in-Chief but on 18 January the first draft paper entitled 'Operation Overlord - Delay and Disorganisation of Enemy Movement by Rail' (1) was produced by the Bomber Operations Staff of A.E.A.F. and submitted to him. At the same time a copy of the paper was sent to the Railway Research Service and to Air Intelligence 3, Air Ministry and to Military Operations I (SR) War Office. (2)

The A.E.A.F. paper followed the recommendations of Mr. Brant, but extended the plan to include, in addition to 33 railway centres in northern France and Belgium, an additional 39 similar targets in Germany. It was suggested that these last should be attacked as alternatives to Pointblank targets. The paper pointed out that it would be unsound both from the bombing and from the railway operative point of view to rely upon delaying the enemy's rail movement towards the assault area by cutting or blocking the main and subsidiary rail approaches to it and it advocated a longer term programme of attacks against key railway centres.

The second draft of the plan was discussed at the sixth meeting of the A.E.A.F. Bombing Committee held on 22 January and presided over by the Air Commander-in-Chief and attended in addition to A.E.A.F. Staff Officers, by S.H.A.E.F., U.S.S.T.A.F., Railway Research Service and Army representatives. At this meeting the Army representatives put forward the view that the plan would have no appreciable influence on the initial critical stage of the battle and that its effect would not be felt until some three or four weeks after D Day. Their reason for this deduction was that they had heard that the first seven or eight enemy reserve divisions would move to the assault area by road. Others might come from the south of France by rail but probably not before D plus four. Moreover, the Army did not believe that the plan would have an immediate effect on the enemy's supplies since dumps holding adequate reserves for ten days fighting had already been provided along the coastal zone.

It was clear that the Army had no clear conception of what the plan set out to achieve. The Air Commander-in-Chief pointed out that the dislocation of rail transport would not necessarily interfere with the distribution of supplies even if reserves were available and other members of the

/Air Staff

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- (1) See Appendix VI/73
 - (2) For comments on the A.E.A.F. paper see Appendix VI/75 and 76.

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Air Staff emphasised that the plan would reduce the movement potential as a whole rather than cut specific lines of approach. Professor Zuckerman compared the railways to a nervous system, damage to any part of which, would affect the whole. He stated that attacks on the railways would influence the tactical battle in two ways: in the first place damage to the railway system in the months prior to D Day would force the enemy on to the roads and impose an increasing strain, notably on the road transport, but also on the remaining road facilities. Secondly, the effect of a general reduction of railway potential would be to increase the relative importance of such rail movements as might occur around D Day. Isolated trains would, therefore, offer valuable opportunity targets for fighter-bomber attacks.

After arguments on these lines had been put forward by the protagonists of the plan, the meeting agreed that the proposed plan represented the only practicable method of dealing with the enemy's rail communications and that it satisfied the Army's requirements. It was also agreed to extend the list of targets particularly in the south and south-east with a view to increasing the effect on the system as a whole. The VIIIth Air Force representative stated that the remaining Pointblank targets would probably not absorb more than about twenty per cent of the VIIIth Air Force's available effort up to D Day and said he would like alternative targets. The Air Commander-in-Chief agreed that until operations in connection with Overlord were given precedence over Pointblank such attacks would be regarded as a bonus. The Air Commander-in-Chief also stated that he would request permission from the Chief of the Air Staff for R.A.F. Bomber Command to attack rail targets in Germany.

As a result of this meeting lists were made of suitable targets in Germany and in the south of France, the object of the latter to cause the maximum interference with the movement of enemy reserves from Italy. General Spaatz was asked to authorise the XVth Air Force to attack these targets from their bases in the Mediterranean theatre.

The Transportation Plan and S.H.A.E.F.

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Pt.I

In the meantime the initial joint plan had been completed and forwarded on 1 February to the Supreme Commander. This stated that the attacks on rail targets would take place on a wide area extending from Brittany to Flanders and probably into Germany. The Supreme Commander agreed with the general policy but decided to fix the western boundary on the line of the River Seine up to Paris and the southern boundary was to be the line Troyes-Chaumont Mulhouse. This was done in order to safeguard the cover plan. The Air Commander-in-Chief at once protested against the geographical exclusion of the electric railway systems between Paris-Le Mans and Paris-Tours-Bordeaux. These systems handled the bulk of the traffic from Paris to the whole of the western seaboard area from Brittany as far south as the Spanish frontier. As the Railway Research Service had emphasised, the exclusion of Le Mans and Tours left a whole area wide open to uninterrupted movement of heavy traffic. Attacks against these two centres in conjunction with attacks against the corresponding Paris terminal centres at Juvisy and Trappes would bring about such dislocation of

/the electric

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the electric traction system that some 600 to 1,000 steam locomotives would have to be brought in from elsewhere to maintain the service.

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These arguments proved to be effective and the Supreme Commander agreed to waive the geographical restrictions which he had imposed. He insisted that for security reasons attacks on the electric railway system should be carried out at an early date and before the initiation of the programme of attacks against railway centres east of the Seine. The initial joint plan was therefore amended to include the electric traction centres at Tours and Le Mans.

Conflict with the Strategic Air Force Commanders.

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Encl 49A

In the meantime the Air Ministry had approved a number of railway targets outside Germany but the Assistant Chief of Air Staff (Operations) stated that it would be necessary to refer the plan to the Supreme Commander and that if approved by him he would obtain authority for the full range of targets involved. At this juncture Air Chief Marshal Leigh-Mallory decided to enlist the support of the Deputy Supreme Commander and to arrange a meeting with the Strategic Air Commanders so that the plan could be discussed on their level and their co-operation sought. This meeting was held on 15 February. Before the meeting took place the third draft (1) of the Railway plan which had been expanded to include the plan for attacks on air fields had been circulated to the Air Commanding attending.

This conference was notable because it showed how difficult was the task of the Air Commander-in-Chief. Air Chief Marshal Leigh-Mallory, it will be remembered, had been given control over the Tactical Air Forces - but they were to support whenever possible the strategic air offensive. The Air Commander-in-Chief was thus unable to try out his air plan to support Overlord. Moreover, he had no control over the Strategic Air Forces and could only request the Air Ministry to give instructions to the Strategic Force Commanders and the latter for their part could refuse on the grounds that such targets did not come within the terms of their directive.

Briefly, General Spaatz and his deputy, General Anderson, believed that they should continue to attack targets deep in Germany and that that was the only way in which the G.A.F. could be induced to come out and fight. General Spaatz stated that when his directive was changed there would be no question of his co-operation but he considered that his chief interest was to bring the G.A.F. to battle in conditions most favourable to his Air Forces. The Air Commander-in-Chief pointed out that although the G.A.F. was reluctant to fight at the moment they could be compelled to do so when Overlord was launched. Air Chief Marshal Harris was sceptical about the amount of dislocation that would be caused by the transportation plan and contrasted the railway systems of northern France and Western Germany with those of Italy and southern Italy.

/These

(1) See Appendix VI/87

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These arguments were countered by the Air Commander-in-Chief and Professor Zuckerman, the latter pointing out that the much larger number of railway targets chosen for attack in northwest Europe was some measure of the difference between the two systems. Another argument hinged on the degree of accuracy to be obtained with Oboe and it was agreed that representatives from the VIIIth Air Force and R.A.F. Bomber Command should co-operate with the Air Commander-in-Chief's staff to work out final details and assess the effort needed to obtain the required accuracy. In general no criticism was advanced against the basis of the plan or the selection of targets. Such disagreement as was expressed concerned first the whole general policy of Overlord vis a vis Pointblank and secondly the amount of air effort which would be available and the degree of bombing accuracy which could be expected.

From this time onwards there was a clearly defined line between the supporters and the opponents of the Transportation Plan. On the former side were Air Chief Marshals Tedder and Leigh-Mallory, Professor Zuckerman, Air Vice-Marshal Wigglesworth, Air Commodore Kingston McCloughry and his Staff and the Railway Research Service. The Chief of the Air Staff and the Supreme Commander were later to lend their support, but against these was ranged a formidable body of opinion which included the Prime Minister, the bulk of the War War Cabinet, the War Office, Air Ministry, Twenty-First Army Group, R.A.F. Bomber Command and U.S. St. A.F.

The Air Commander-in-Chief's Investigations into
the Plan.

The Air Commander-in-Chief determined to satisfy himself on the soundness of the plan and accordingly invited four members of the Railway Executive Committee (1) to attend a meeting at Norfolk House and express before himself and representatives of S.H.A.E.F. and Twenty-First Army Group their frank views of what the plan could or could not achieve. He wanted to discover firstly whether it could effectively delay the arrival of some 20 enemy divisions to oppose the assault and secondly which were the best targets, the major overhaul centres, the running repair and servicing facilities or traffic centres in general? This meeting was held on 25 February. Representatives from the Air Ministry, the Ministry of Economic Warfare and two representatives of that body's American counterpart, the Enemy Objective Unit also attended the meeting.

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A very lengthy discussion ensued and very little of positive value emerged from it. The railway experts, however, believed that attacks on motive power west of the Rhine were essential to any rail cutting operation. The railway experts, however, believed that attacks on motive power west of the Rhine were essential to any rail cutting operation. The question of time was also considered to be all-important. The more restricted the period in which the attacks were carried out, the smaller opportunity the enemy would have to make repairs. On the other hand bad weather might upset the bombing programme if the period for attack was too restricted. These were the conclusions
/of Professor

(1) Messrs. Barrington Ward, Bulleid, Wallace and Train.

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of Professor Zuckerman. They were borne out by those of Major General C.S. Napier, head of the Movements and Transportation Branch of the G.4 Division S.H.A.E.F.⁽¹⁾ He grasped the fact that the strategic plan of attrition was an essential preliminary to the tactical plan of cutting lines and blocking specific points, since without the first the last could never be effectively accomplished.

The next draft of the plan issued on 5 March provided for two alternative programmes. The first of these (Plan A) comprised 76 targets, of which 32 were in western Germany and 44 in northwest France and Belgium. There were several advantages in including German targets; they would contribute both towards attacks on German industries and Operation Pointblank. For Plan 'B' there were only six German targets, plus a total of seventy-two in northern France and Belgium. The effective bomb lift required was given as 40,000 short tons - this, provided that only 500 pound medium calibre bombs were used. Experience already gained from attacks on Trappes, Le Mans and Amiens had indicated that this basis of estimate was sound.

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In the conclusion to the paper it was urged that operations should begin as soon as possible in March. In the first place better balance would be struck between Overlord and Pointblank targets and secondly there would have to be a safety margin to allow the effect on operations from weather and abortive sorties.

AEAF/22005
Pt.I.

On 2 March the Air Commander-in-Chief submitted a list of 75 targets in northern France and Belgium to the Air Ministry and requested their clearance for attack. The Air Ministry's reply was received on the following week; it set out a list of targets for Bomber Command to attack during the moonlight periods of March, April and May. These targets included only five of the 12 for which clearance had specifically been asked by A.E.A.F. The remainder were still being examined by Air Ministry.

TLM/MS.136/15/2

Delays in Obtaining Approval for the Transportation Plan.

The Air Commander-in-Chief was growing increasingly restive at the lack of progress being made in the preparatory bombing for Overlord. He appreciated that unless the Pointblank directive was changed the Overlord programme could not be completed before the target date for the assault. On 3 March in company with Air Chief Marshal Tedder he had an interview with the Supreme Commander and requested that the IXth Air Force should operate henceforward exclusively under the A.E.A.F. General Eisenhower agreed, with the single reservation that the Mustangs of the IXth Air Force would always operate in support of Pointblank when required by the VIIIth Air Force to do so. It has already been related how General Spaatz succeeded in modifying the subsequent directive to ensure that Thunderbolts as well as Mustangs continued to support Pointblank as first priority.

See Chap. 1
P.19

On 10 March Air Chief Marshal Leigh-Mallory wrote to the Supreme Commander explaining that the clearance of targets had become a matter of increasing urgency if the preparatory offensive was to be completed in sufficient time to enable the

/bomber

(1) See Appendix VI/91

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bomber forces to fulfil their many commitments for the assault stage of Overlord. Out of a total of 78 targets only 28 had so far been cleared for all types of attack and 70 remained which had been cleared only partially or not at all.

The Supreme Commander forwarded a copy of this letter to the British Chiefs of Staff and it was considered together with a note by the Chief of Air Staff (1) at a meeting of the Chiefs of Staff on 21 March. The Air Ministry in view of the heavy civilian casualties which were foreseen felt bound to withhold clearance until the plan had been approved by the War Cabinet.

TLM/MS.136/15/1

In any case, as Sir Charles Portal explained, the plan was still being examined by the Air Ministry in conjunction with the Ministry of Economic Warfare, the War Office and S.H.A.E.F. The Chief of Air Staff said he would hold a meeting in the near future to decide whether the plan should or should not be carried out. Until then he was not prepared to recommend that Cabinet approval should be sought and suggested sending an interim reply to the Supreme Commander. Other speakers at the meeting were the Vice-Chief of the Air Staff who said that heavy civilian casualties could only be justified if the enemy transportation system was really the best objective and Sir Alan Brooke who, like the rest of the War Office, was doubtful if the attacks on rail targets would have the effect desired.

Criticisms of the Transportation Plan

TLM/MS.136/15A

Meanwhile several commentaries on the A.E.A.F. plan had been written. All of them either condemned the Transportation Plan as being impractical or suggested an alternative target system. The first of these was a joint report compiled by Air Intelligence 3 (e), the Directorate of Transportation, the War Office, the Ministry of Economic Warfare and the U.S. equivalent, the Enemy Objective Unit. They believed that the effort involved in the plan might simplify traffic interruption on or about D Day but that the results would not justify such a great effort. They did not consider that the plan would either delay the arrival of enemy reinforcements and check the flow of supplies in the later stages, or hamper the development of an enemy counter attack. They argued that the enemy would only require 64 trains per day for military purposes, and also some divisions were expected to move by road; there were sufficient supplies in northern France and Belgium to keep 20 divisions fighting hard for two months. Movement for a counter attack would be of short duration and take place over a limited area; it would have to be countered by a short term tactical plan.

These criticisms were based on a number of misconceptions which were set out at length by Professor Zuckerman in a criticism of the report. In the first

/place

(1) See Appendix VI/96

place the A.E.A.F. plan did not claim that it would stop movement towards the front but simply that it would impede movement by crippling the rail system and thereby making easier the tactical task on or about D Day. The critics had a completely unrealistic idea of the amount of trains which would be required to supply the enemy during actual operations. It should have been obvious that for speedy movement the railways would be used to their maximum capacity. Furthermore the writers of the paper had considered the plan in relation to the strategic bombing offensive against Germany whereas the purpose of the A.E.A.F. plan was to assist in the achievement of a favourable ground situation in France and prevent the enemy's rate of build-up from exceeding our own and at the same time to reduce Overlord air commitments on and after D Day.

In suggesting that a tactical plan for cutting communications on or about D Day could produce better results than a combination of long term attrition and tactical blocking, the critics disregarded the multifarious tasks which the Air was being called upon to perform in the assault stage of the battle. In fact, these tasks, though whittled down to include only those considered indispensable, so strained the available air effort as to leave only a small proportion for railway targets.

Captain Sherrington of the Railway Research Service also commented on the paper of this Committee and remarked on their all too obvious lack of knowledge on railway working. Their criticism was based, as he saw it, on the following principles. Firstly, the effect that air attacks would have on French railway personnel and secondly, the initial lack of need for enemy railway movement during very active warfare. His answer to the first was that loss of life was regrettable but wars could not be won without it and railways were a sine qua non of war. As for the second it was quite erroneous to suppose that "an Army fighting a desperate action required less daily tonnage than one garrisoning an inactive point." In any case no notice had been taken of the promising results achieved in the recent attacks on railway centres in France. A particularly successful raid was made on Tergnier in which the S.S. Hohenstauffen (Panzer) Division intended for the Italian front was delayed for over a week and had to cover an entirely different route from that originally planned.

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Major General MacMullen, Director of Transportation and the War Office also opposed the plan, his views being very similar to those advanced by the Committee already mentioned. He further maintained that the Germans were such good improvisers that they would be able to work locomotives in an 'administrative desert' and consequently the destruction of all locomotive servicing facilities would hamper but not prevent the running of trains.

TLM/MS.136/15A

Report by the Joint Intelligence Sub-Committee

On 12 March the Deputy Supreme Commander, who had been taking an increasing interest in the transportation plan, and who, by his experience of attacks on communications

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in the Mediterranean theatre was convinced of its soundness,⁽¹⁾ asked the Assistant Chief of Air Staff (Intelligence) for information which would help him to make a decision on the best method of the pre- D Day employment of strategic bombers to give the maximum assistance to Overlord from D Day onwards. In their paper the Joint Intelligence Sub-Committee attempted to estimate 'essential' rail traffic, i.e. the scale below which the Germans could not allow traffic to fall without seriously prejudicing their ability to resist an Allied landing in northern France. They concluded that as far as essential military requirements were concerned the Germans might manage on some 50 to 55 trains a day.

The argument on which the Joint Intelligence Committee based their conclusions was an elaboration of the same argument used by both Major General MacMullen and the Committee of four. This was natural, since, with the exception of Captain Sherrington, the Joint Intelligence Committee consultants were the same people. Air Chief Marshal Tedder commenting on this paper in a minute to the Chief of Air Staff ⁽²⁾, on 22 March wrote that his general reaction to this paper was that it was 'special pleading on unsound assumptions', the two main assumptions being first, that the enemy's 'military' movement could be cut down to a fantastically low figure and, secondly, that all other rail movement could be dispensed with for an indefinite period. The Deputy Supreme Commander then proceeded to demolish the conclusions of the Committee. Amongst other things he ridiculed the Committee's estimate that each division would require 300 tons of supplies per day during active warfare. This figure allowed for only 50 tons of ammunition a day - sufficient for 100 machine guns but no heavy corps artillery (which was supposed to be provided for in the figure). In short it was evident that the Committee had no conception whatever of the widespread effects of damage caused by well directed attacks on railway centres.

The U.S.St.A.F. Proposal for an Oil Plan

D.S.C. Folder

This paper was entitled 'Plan for the Completion of the Combined Bomber Offensive' and was produced on 5 March by Headquarters U.S.S.T.A.F. In general it condemned systematic attacks on rail transportation and considered it doubtful whether the proposed target system could be destroyed in six months or even a year. Even were this achieved, the report went on, military effect would be felt for more than a nine months period following the completion of the programme. The target systems selected by Headquarters U.S.St.A.F. in order of priority were as follows:-

- (a) The petroleum industry with special emphasis on petrol as opposed to oil in general. This target system was considered to offer the

/maximum

- (1) On 13 March he informed the Chief of Air Staff that the opinions expressed by A.C.A.S.(I) did not tally with his own experience in the Mediterranean theatre where he was able to check results after the even on the spot. (See File DSC/T.S.106 Pt.I Encl.20A.)
- (2) See Appendix VI/102

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maximum opportunity for reducing the defensive capabilities of the German Army by heavy bomber attacks outside the tactical area.

- (b) German fighter industry and the ball bearing industry.
- (c) Rubber production, tyres and stocks.
- (d) Bomber production.
- (e) Last resort targets. These were transportation targets in Germany which would be attacked when weather conditions prevented precision attacks on primary targets.

It was estimated that the four systems would require 15 days effort of visual bombing for their accomplishment by the VIIIth Air Force and 10 days by the XV U.S. Air Force.

When the major part of the Strategic Air Forces were required to support Overlord, intensive operations were to be directed against transportation and other tactical targets in the battle area.

It was not difficult for A.E.A.F. to criticise this plan. In the first place it treated the railway system in Europe as a whole, whereas in Overlord A.E.A.F. was primarily concerned with the network stretching from the assault beaches eastward to the German frontier. The U.S.S.T.A.F. also presupposed that locomotives were the principle objectives in attacks on a railway system. They did not realise that motive power can be seriously affected by collateral damage which does not touch the locomotives themselves.

TLM/MS.136/15A

The U.S.St.A.F. plan was critically examined by the Air Ministry and the Ministry of Economic Warfare. Both were satisfied that the plan was the best which could be produced for further employment of the combined heavy bomber forces. They emphasised the necessity for the co-ordination of the night bombing effort of R.A.F. Bomber Command with the U.S.St.A.F. plan and recommended that the tank engine and gear box industry be reconsidered for inclusion in the plan. Finally they recommended that the electric power industry should be considered as possible target system in the event of Operation Rankin becoming a likelihood. It was obvious that the two Ministries were more occupied with the possibility of Operation Rankin occurring rather than Operation Overlord.

Intervention of the Prime Minister

On 22 March the Prime Minister intimated his desire to hold a staff conference to discuss the air policy for Overlord that same evening. On hearing that the Chief of the Air Staff had not yet decided as between the two plans put forward for the future employment of the Strategic Air Forces, Mr. Churchill decided to await the outcome of a conference arranged by Sir Charles Portal to take place on 25 March. Two important papers were submitted to the Chief of Air Staff before this meeting; the first by Air Chief Marshal Tedder and the second by General Spaatz.

/The Deputy

The Deputy Supreme Commander Supports the Plan.

TLM/MS.136/15A.

Air Chief Marshal Tedder, while recognising the value of Pointblank in bringing the G.A.F. to battle and in weakening it by attacks on aircraft production, showed that what was now needed was an adjustment of Pointblank which would directly prepare the way for the assault and subsequent land campaign. He made it clear that the Allies must not allow their great air effort to be diverted by each air force attacking a separate target system. He pointed out the technical difficulties of attacking the heavily defended oil targets in the Ruhr and eastern Germany and stated that he did not believe "the oil plan in the short time available could seriously affect the enemy's ability to meet the Overlord assault, or fight the immediately following campaign".

Turning to the transportation plan, the Deputy Supreme Commander said that it was known that enemy transportation, both rail and road was already severely strained. Attacks on railway centres had already had very wide repercussions throughout the railway system. He claimed that the transportation plan, if put into effect at once, would disorganise and delay enemy preparations for Overlord (and for Crossbow) and should gradually canalise traffic, so that at the time of Overlord enemy rail traffic would be liable to complete stoppage at critical points. Although no plan could bring about complete stoppage, the transportation plan should disorganise and delay movement of reserves and reinforcements and prevent the running of regular schedules for maintenance without which the enemy could not campaign.

It was necessary to choose between the oil plan and the transportation plan. Apart from its lack of effect in time for Overlord, the former was a plan in which Bomber Command could take no important part and A.E.A.F. no part at all. It was in fact an alternative to Pointblank rather than to the transportation plan. Air Chief Marshal Tedder therefore recommended that:-

- (a) The present Pointblank directive be replaced by a new Pointblank/Overlord directive.
- (b) When the new directive had been agreed between the Supreme Commander and the Chief of Air Staff, it be issued by the Supreme Commander under whose direction all Allied Air Forces concerned will operate.
- (c) This directive would indicate G.A.F. and selected rail targets in the Reich and western Europe as the principal objective for U.S.St.A.F. and R.A.F. Bomber Command.
- (d) Supervision and co-ordination of the transportation plan would be effected at S.H.A.E.F. by the Deputy Supreme Commander assisted by representatives from Air Ministry, U.S.St.A.F., R.A.F. Bomber Command and the Air Commander-in-Chief.

/General

General Spaatz's Disapproval of the Plan

General Spaatz in his paper maintained that the primary task of the Air Forces was to destroy the G.A.F. and the industry on which it depended. In condemning the transportation plan he repeated the arguments advanced by the Joint Intelligence Committee. He concluded that strategic attacks on rail transportation would not affect the course of the battle and would not prevent the movement of German reserves from other fronts. He was convinced that attacks on oil targets would weaken the resistance of the enemy on all fronts and thus enable the campaign to progress swiftly after D Day. He recommended that the Strategic Air Forces should continue to destroy the G.A.F. and its supporting industry, in particular the ball bearing industry. Secondly, they should attack Axis oil production. Thirdly, they should joint with S.H.A.E.F., A.E.A.F. and the Air Staff in producing a plan for the direct tactical support of Overlord during the initial phase.

The Chief Of Air Staff's Conference, 25 March 1944

Both these papers were studied by the Chief of Air Staff prior to his conference on 25 March to which the following were invited: General Eisenhower, Air Chief Marshals Tedder, Leigh-Mallory and Harris, Lieutenant General Spaatz and his Deputy, Major General Anderson, Major Generals Kennedy, McMullen and Crawford of the War Office and representatives from the Air Ministry, the Joint Intelligence Committee and the Ministry of Economic Warfare.

At this meeting General Eisenhower spoke warmly in favour of the transportation plan believing that there was no other possible alternative. He said that the greatest contribution that the Allied Air Forces could make to Overlord during the initial phase was to hinder enemy movement. General McMullen expressing the views of the General Staff felt that a less ambitious plan over a smaller area carried out shortly before D Day might be more effective in preventing the movement of enemy formations. He admitted, however, later in the meeting, that there would be some reduction in the enemy's military movements if the plan were put into effect.

The oil plan was next discussed and it was shown that it would not help Overlord during the first few critical weeks. It was rather, as the Chief of Air Staff stated, a long term plan which might have greater overall effects on the course of the war as a whole than the transportation plan but it would be six months before these were felt appreciably. It was agreed that the oil plan should be considered as soon as the first critical situation in Overlord was passed. The remainder of the meeting ranged on how much support the American Strategic Air Forces could give to the transportation plan. General Spaatz throughout did not vary his opinions about continuing with the Pointblank programme.

At the conclusion of the meeting it was decided that Air Chief Marshal Tedder should supply General Spaatz with the latest information on transportation targets for U.S.S.T.A.F. General Spaatz would then consider whether this could be achieved with half the effort of visual bombing which could be expected from the VIIIth and XVth Air Forces in the period available and, in conjunction with Air Chief Marshal Tedder and the Air Staff, would assess the effect that this plan was likely to have on G.A.F. tactics and on the attrition that would be caused. Secondly,

/Air Chief

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Air Chief Marshal Tedder would produce a draft directive to the commanders concerned with the execution of the transportation plan. Finally he would keep in touch with the General Staff and in particular with the military transportation experts during the execution of the plan and would consider any advice that they wished to offer.

The Deputy Supreme Commander becomes responsible for
the Plan

TLM/MS.136/15/2

From this moment the transportation plan was taken out of the hands of the Air Commander-in-Chief and became the responsibility of the Deputy Supreme Commander. The last executive action taken by the Air Commander-in-Chief in connection with the railway plan in so far as it affected the Strategic Air Forces was to forward to General Spaatz immediately after the Chief of Air Staff's meeting a list of 29 transportation targets in France and Belgium together with another list of selected German railway targets related to Pointblank for attack by the VIIIth Air Force. Subsequent lists of targets and priorities were sent to the Strategic Air Commanders by the Deputy Supreme Commander.

Two days later (27 March) the Combined Chiefs of Staff issued their long delayed statement on the control of strategic bombing for Overlord in which it stated that the Deputy Supreme Commander was to supervise all air operations under the control of Overlord. But control of the Strategic Air Forces was not to pass out of the hands of the Combined Chiefs of Staff into those of the Supreme Commander until the latter, with the Chief of Air Staff 'jointly approved the air programme in preparation for and in support of Overlord.' Such approval could not be given until the War Cabinet had sanctioned the transportation plan.

In the meantime evidence of the success of the IXth Air Force and R.A.F. Bomber Command attacks on railway centres during March began to accumulate. Particularly valuable attacks were made at Amiens, Criel and Vaires all in northern France. Periodical reports by the Joint Intelligence Committee on the effect of the Allied bombing offensive in weakening the German armed forces also referred to the progress of the transportation plan, though these were inclined to belittle the influence of the attacks on railway centres and to attribute the dislocation mainly to attacks on bridges and tunnels.

Discussion of the Plan by the Defence Committee

TLM/MS.136/15A

On 29 March, the Chief of Air Staff in a note ⁽¹⁾ to the Chiefs of Staff Committee informed that body that the transportation plan had now been agreed to by the Supreme Commander and himself, and it was essential that operations to implement this plan should be pressed on without delay.

/For this,

(1) COS (44) 299 (0)

D.S.C/T.S.100
Pt.2 Encl.19A

For this, clearance of certain railway targets asked for by the Air Commander-in-Chief was required. The Chief of Air Staff suggested that the matter should now be referred to the Prime Minister, and attached a draft note to be sent to him. The note was considered by the Chiefs of Staff Committee at a meeting on the following day (1) and its terms approved, as amended in discussion. Meanwhile General Eisenhower in a letter to the Prime Minister written on 5 April showed that he had been entirely converted to the practicability of the transportation plan and he wrote that it would be "folly to abstain from doing anything that can increase in any measure our chances for success in Overlord."

A meeting of the War Cabinet Defence Committee under the chairmanship of the Prime Minister was convened for 5 April. On the 2nd, in order to provide targets for Bomber Command the Chief of Air Staff requested clearance of three railway targets in France to be attacked without waiting for the Cabinet decision regarding clearance of the full list. The Prime Minister agreed. (2)

TLM/TS/136/15/3

At the meeting on 5 April, in addition to the members of the Defence Committee, the meeting was attended by Air Chief Marshal Tedder, Air Marshal Bottomley, Air Commodore Bufton and Dr. Zuckerman. The Committee had before them a report by the Chiefs of Staff, covering a report by the Joint Intelligence Sub-Committee on the probable reactions of French and Belgian opinion to the bombing of railway centres in enemy occupied territory, and a note by the Supreme Commander Allied Expeditionary Force, forwarding a memorandum from the Air Commander-in-Chief, A.E.A.F., requesting authority to attack a number of railway centres in enemy occupied territory.

The Prime Minister began by saying that the proposal to attack railway centres had given rise to considerable difference of opinion between experts and that serious misgivings as to the soundness of the plan had been expressed.

He felt that the estimate of the number of civilians likely to be slaughtered in these attacks were exaggerated; but even if the casualties were not so great as was estimated, they might well be sufficient to cause an unhealable breach between France and Great Britain and U.S.A. If the plan were approved, it would be necessary for the Foreign Office to approach the State Department, and perhaps in addition for him to approach the President, drawing their attention to the possibility of heavy civilian casualties, and to the effects this might have on Franco-American relations.

The Prime Minister then drew attention to the fact that in Italy, where the railway network was comparatively simple, bombing had failed to prevent the movement of enemy divisions to the South or the maintenance of a force of 18 enemy divisions now opposing the Allied armies there. He believed that rail communications in France were less essential to the enemy, who would be likely to rely more on road movement, and even if rail communications were essential he was not convinced that "the slaughter of masses of friendly French allies" could be justified. "It was one thing to launch attacks which would result in heavy loss of civilian life "during the hot blood of battle", it was quite another to begin,

/when no

- (1) COS (44) 104th Meeting (0) Item 9
- (2) See COS (108th Meeting (0) Item 3)

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when no fighting was going on, a policy which was bound to result in the butchering of large numbers of helpless French people. Before such a plan could be authorised it would be necessary to consult General de Gaulle; this might well lead to a demand from the French authorities for details of the Overlord plan, which we were not prepared to divulge. Before launching such a plan we must be convinced that the advantages to be gained more than offset the political disadvantages of killing friendly civilians and we must be satisfied that this plan was superior to any alternative plan.

LM/MS/136/15/3

Sir Charles Portal said that, though formerly opposed to the plan, after discussing the results achieved by bombing in connection with the campaign in north Africa with Air Chief Marshal Tedder and Professor Zuckerman, he had been so impressed that he had instructed Air Chief Marshal Leigh-Mallory to study the possibilities of such attacks in connection with Overlord. He did not claim that it would be possible entirely to cut the enemy's rail communication. It should, however, be possible to canalise them into a few channels which could be blocked at short notice when the time came. It was impossible to give any quantitative estimate of the effect of attacks on rail communications on Overlord, but he suggested that if the railways were sufficiently dislocated to delay by even one week the arrival of say nine divisions to oppose our forces, this might well turn the scale, and ensure the success of Overlord.

Sir Arthur Tedder then spoke in favour of the plan, and pointed out that attacks on communications in Italy could not be taken as a yardstick for judging the present plan, since these were not carried out in a systematic manner, or on a comparable scale. He said that the Germans were already employing 48,000 of their own nationals on French railways and there were indications that the French railways were in an unsound condition.

As regards the effect on French public opinion, he pointed out that we had already received details of the results of attacks from French railway personnel and that, in many cases, these reports suggested other railway centres which could profitably be attacked. One of the most important factors in favour of attacking railways was that there was no satisfactory alternative. Oil had been suggested. This had been examined in detail and it had been decided that the effects of attacks could not be felt in time to assist Overlord. Camps and dumps had also been suggested, but these were already included in the tactical plan, which would be put into operation nearer the day of assault.

TIM/MS/136/15/3

After Lord Cherwell had criticised the plan, using the arguments of the Joint Intelligence Committee, and Dr. Zuckerman had given evidence of the effects achieved in Italy, comparing the bombing of bridges with that of railway centres, Air Commodore Bufton, having been invited by Chief of the Air Staff to express his views freely, said that it was estimated that some 40,000 tons of bombs would be required to destroy the 76 railway centres included in the present plan. Good results could only be achieved in clear weather, and suitable opportunities were not therefore very numerous. He himself would prefer to direct the effort against such targets as air parks, factories, aerodromes, repair facilities, and even operational night

/fighter

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Pt.2 Encl.19A

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TLM/TS/136/15/3

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TLN/MS/136/15/3

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fighter aerodromes, since the destruction of targets of this kind would have a definite effect on the efficiency of the German Air Force. There were also a number of large training centres containing thousands of troops, heavy attacks on which would kill a number of the enemy and shake the morale of many more. Attacks might also be made on large ammunition dumps. He felt that there were sufficient targets of the types he had mentioned to occupy the bomber force until such time as they were required for the tactical plan of cutting certain key communications.

Sir Charles Portal said that when he had first examined the plan, he had agreed with the views expressed by Air Commodore Bufton, and he had in fact put forward those views when testing the soundness of the present plan. But, as a result of further examination he now felt strongly that there was no suitable alternative, and no other comparable plan. True, there were other targets such as dumps and camps, but arrangements had already been made to attack these nearer the target date of Overlord. As regards the present estimate of the probable number of civilian casualties, he pointed out that this had been made by the Ministry of Home Security and, as a result of a misunderstanding, had been based on a number of false premises; for example:-

- (i) "No allowance had been made for any move of the population from the target areas.
- (ii) It had been assumed that all bombs carried on successful missions would cause civilian casualties.
- (iii) When calculating the effort required, Bomber Command had multiplied the original estimate by a factor of three. Recent results had shown that the plan can be achieved by one and a half times the effort first suggested. The estimate of casualties was based on the Bomber Command effort.
- (iv) The total number of casualties included even those slightly injured. It was our experience that the sub-division of casualties was approximately 25 per cent seriously injured and 50 per cent so slightly injured as not to require hospital treatment."

Casualties might be greatly reduced if the population were warned of our intention to attack railway centres. Two hours notice of attacks could be given by day. This would not be possible at night, and it would be necessary to warn the population that they must not sleep within two miles of targets. He did not consider that this would necessitate their spending the night in the open, since the majority of the targets were in the danger area and they should be able to find room in the 'safe' parts of the town. There would of course be a risk that they would lose their property.

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Messrs. Attlee, Eden and Lyttleton all criticised the plan on the grounds of the political repercussions it would arouse, the latter affirming that "he did not consider that the arguments in favour of the policy could be sustained for one minute in the face of the very serious political objections."

/Sir

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Sir Andrew Cunningham said that there appeared to be no doubt that attacks on railways on the scale contemplated would contribute materially to the success of Overlord. He had heard no worthwhile alternative suggested, and was in favour of the railways being attacked, provided the civilian population was warned, and the attacks did not entail too great a slaughter of the civilian population. Similar views were expressed by Sir Archibald Sinclair.

Sir Alan Brooke and Sir James Grigg both criticised the plan on the score that the effect would not be commensurate with the effort, the latter intimating that he might not oppose it if the attacks were concentrated on 'a few vital points'. Sir Charles Portal replied that there were no vital points in a highly organised railway system; it was necessary to attack the system all over until it died. However, he said that the plan was designed to help the soldiers, if they said the plan would not materially contribute to the success of Overlord, then he agreed that it should be dropped.

The Prime Minister said that it had been suggested that oil was a suitable alternative objective. We had a great deal of information pointing to the fact that the enemy was suffering from an increasing stringency in his oil supplies. His condition in this respect would be even worse if, as a result of the Russian advances, he lost control of the oil fields at Ploesti. A simultaneous attack on his synthetic oil factories might well be a crippling blow.

Sir Charles Portal said that he agreed that if there were to be no Overlord, then oil was the right target. However, the enemy had built up in France sufficient stocks of oil to sustain operations for some months and the loss of the oil fields at Ploesti would not therefore affect Overlord. He agreed that once Overlord was assured, and bombers could be released from the direct support of land operations, then oil would be the correct objective. The targets were difficult and would have to be attacked in daylight by American bombers. They were keen to undertake such attacks which they believed they could carry out successfully.

The Prime Minister said that he did not propose that the Committee should arrive at a firm decision that night. Attacks on targets where the risk to the civilian population was not great should be continued. Air Chief Marshal Tedder should discuss the matter with General Eisenhower in the light of the discussion, and should consider whether the plan could not be revised to exclude those targets where risk to the civilian population was greatest. The Committee:-

TLM/TS.136/15/3

- (a) Agreed that bombing attacks should be continued experimentally against those railway centres where there was no great risk of inflicting heavy civilian casualties.
- (b) Invited the Deputy Supreme Commander in consultation with the Chief of the Air Staff, to review his plan,

/with a

with a view to eliminating those of the less important targets which were likely to entail heavy civilian casualties, and to prepare a revised list of targets, showing against each the corrected estimate of the civilian casualties likely to be caused.

- (c) Invited the Deputy Supreme Commander to inform General Eisenhower of the course of the discussion, and of the provisional conclusions recorded above.
- (d) Agreed to reconsider the matter in the light of the revised plan called for above.

FLM/MS.136/15/3

A week later the Defence Committee met again and had before them a Note (1) by the Chief of Air Staff. In it the Chief of Air Staff informed the Committee that a revised list of targets had been prepared, which included 15 additional targets in the South of France, and excluded two targets (Paris Batignolles and Le Bourget) where casualties were expected to be very heavy. (The Chief of Air Staff warned the Committee that these last might have to be attacked at the time of the assault). The Ministry of Home Security's first estimate of from 80,000 to 160,000 casualties for the original list of targets had been critically examined and found to be greatly exaggerated. Their revised estimate of casualties likely to be inflicted in the bombing of all of 65 targets remaining to be cleared amounted to only approximately 10,500 killed and 5,500 seriously injured. This assessment, the Chief of Air Staff stated, had been guided by experience of casualties suffered from air bombardment in the United Kingdom and in the Mediterranean theatre. A list of targets together with their mean estimates of population exposed to risk and the estimated number of killed, and notes on how the latter figures had been arrived at, was attached to the Chief of Air Staff's Note. (2) The Chief of Air Staff drew attention to two points; first, that no allowance had been made for reduction in casualties which would result from evacuation from the vicinity of the targets and, secondly, that whereas estimated casualties for attacks on Paris and Lille railway centres had been respectively 420 and 500 killed, actual casualties for these two targets, as announced by Vichy, amounted to only 148 and 156. In recommending that the plan be approved, the Chief of Air Staff warned the Committee that its systematic execution and the progressive dislocation of the enemy controlled railway system which constituted its object were essential preliminaries to the actual assault. "Only", he concluded, "if the railway system feeding the Neptune area has already been carefully disorganised can it be hoped at the time of the assault effectively to interfere with the enemy's movement and concentration, and so gain the time which will be a vital factor in the opening phase of the campaign."

On 13 April further discussion on the Transportation Plan took place at the sixth meeting of the Defence Committee. The Prime Minister agreed that the 'slaughter'

/which he

(1) D.O. (44) 7 dated 13 April 1944.

(2) A copy of these documents is at Appendix VI/110.

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which he had expected during the previous week had been much less than he had expected but he was not yet by any means satisfied that the plan justified heavy casualties among the French population. It was pointed out by Sir Archibald Sinclair that the Free French had not so far complained of casualties inflicted in air attacks on railway centres. The Committee agreed that attacks on transportation targets should be continued for a further week. The Ministry of Information was to find out what was the opinion of the French and the rest of the world on the bombing of railways in enemy occupied countries.

The Supreme Commanders Directive to the Strategic
Air Forces

TLM/TS.136/15

On 15 April a Meeting was held at S.H.A.E.F. under the chairmanship of the Deputy Supreme Commander to discuss the direction of air operations in support of Overlord. The meeting was attended by the Air Commander-in-Chief, the Air Officer Commanding-in-Chief Bomber Command, General Spaatz, Air Marshal Bottomley and staff officers of S.H.A.E.F., U.S.S.T.A.F. and Bomber Command. The chairman informed those present that the directive he had drafted for the Supreme Commander to send to Bomber Command and U.S.St.A.F. on his assumption of control of the strategic bomber forces had been agreed by the Supreme Allied Commander but had not yet received the formal approval of the Chief of the Air Staff and Prime Minister, though the former had signified his concurrence. He raised no objections to the delay, and after discussion it was decided that the Supreme Commander would issue the directive without waiting for formal approval, but that a paragraph in the following terms would be added:-

"It is understood that political aspects of this plan, as affecting the French will be kept under continuous supervision."

It was agreed that Pointblank targets would continue to be passed to U.S.St.A.F. and Bomber Command (with a copy to S.H.A.E.F.) by the Air Ministry, but that the list of targets chosen to achieve the transportation objective and the required priorities would be issued to the Commands concerned by the Deputy Supreme Commander.

The system of target priorities was then discussed, and the Air Commander-in-Chief informed the meeting that his policy was to spread his available effort and not to concentrate it all simultaneously on one particular type of target.⁽¹⁾ General Vandenberg disagreed and wanted
/concentration

- (1) See file TLM/MS.136/15/18 "Bomber Operations - Directives to Parallel and Subordinate Formations", also TLM/MS.136/15/2 "Transportation Plan - Correspondence and Directives".

G. 323100/BP/2/52/30.

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concentration on one type of target, although it might be necessary to change the type of target from time to time. It was pointed out that if the weather were good enough for the attack on Crossbow targets it was usually right for transportation targets, and it was agreed that if a clash of priorities arose between Crossbow and transportation targets for U.S.St.A.F. then the Commanding General would consult the Deputy Supreme Commander. For the present the U.S.St.A.F. priorities would remain in the order - German Air Force - Crossbow - Transportation Targets.

On 15 April the Deputy Supreme Commander announced that the Supreme Commander would henceforward control the operations of the British and U.S. Strategic Air Forces and that he himself had been designated as being responsible for supervising all operations concerned with Pointblank and Overlord. The paper in which the change of command was explained went on to state that the transportation plan in support of Overlord had been approved with the exception of certain targets in enemy occupied territory.

Henceforward an advisory committee at S.H.A.E.F. was to advise the Supreme Commander on transportation targets and it was also to decide what additional air reconnaissance or other investigations were required to complete the plan. The Deputy Supreme Commander himself was to be chairman. The G.2 Division at S.H.A.E.F. were to supply the committee with all the necessary intelligence and interpretation reports. The Supreme Commander's directive to U.S.St.A.F. and R.A.F. Bomber Command was issued on 17 April. It described the overall and particular missions of the heavy bomber forces. Their particular task in Overlord was firstly to destroy the G.A.F. and secondly to impede the enemy's movement towards the Overlord assault area by attacks on railway centres. These two priorities were to be fulfilled by the U.S. Strategic Air Force. As it was difficult for R.A.F. Bomber Command to make precision attacks by night this force was to continue attacks against German industry. When tactical conditions permitted it was to bomb G.A.F. and transportation targets in that order.

TIM/MS.136/15

The Air Commander-in-Chief was to be responsible for all Crossbow operations and when necessary he could call on the assistance of the Strategic Air Forces, instructions being issued by the Deputy Supreme Commander.

TIM/MS.136/15/3

In the meantime there had been much denunciation of the Allied bombing attacks by the French and Belgian Press during the period 15 to 19 April, and it was stated that over 400 people had been killed by Allied bombs in Paris. In contrast Germany had kept curiously silent and had not hinted at any connection between the air attacks and invasion. At the second meeting of the transportation targets committee on 18 April it was stated that the Defence Committee had cleared all the targets listed in enemy territory with two exceptions - Paris Batignolles and Le Bourget.

The Defence Committee is still doubtful.

The position was reviewed at the Seventh Defence Committee Meeting held on 19 April. Civilian casualties were found to be less than the revised estimate and a number of Germans were reported to have been killed at Vaires, Trappes and Criel. So far 23 of the 78 targets had been attacked at little or no expense to the effort directed against Germany. The Prime

/Minister

Minister was still doubtful about the efficacy of the transportation plan and referred to attacks on the oil industry. Both the Deputy Supreme Commander and the Chief of Air Staff explained how little such attacks could contribute towards Overlord. The bulk of the War Cabinet continued to condemn the plan but the Chiefs of Staff agreed that it would be wrong to abandon the scheme having gone so far. Discussion then turned on the part the American bombers were playing in transportation attacks and the Prime Minister stated that he had already told General Eisenhower that the American Air Forces should participate equally with the British in the execution of the plan if it were adopted.

The Prime Minister was reluctant to take a firm decision on the policy, and felt that the plan should be continued for a further week at the end of which the position be reviewed again. He urged that the French people be again warned of the bombing and hoped that some attacks would be made on German synthetic oil plants with a view to determining whether or not the G.A.F. were prepared to fight to protect these targets. The Supreme Commander agreed with the opinions expressed by the Prime Minister.

TIM/TS.136/15/3

At the eighth meeting of the Defence Committee held on 26 April, Sir Charles Portal outlined progress made in the attacks on railway centres and said that in the last week Bomber Command had attacked nine targets dropping a total of 7,880 tons of bombs, and the Allied Expeditionary Air Force had delivered 19 attacks against 12 different targets dropping 740 tons of bombs. Since attacks on railway targets started in February 32 such targets had been attacked and 26,000 tons of bombs dropped on them. The programme envisaged the division of responsibility for the attacks in approximately the following proportions:-

R.A.F. Bomber Command	26%
United States heavy bombers (including attacks by forces based in the Mediterranean against targets in southern France)	45%
Allied Expeditionary Air Force (the approximate composition of which was two-thirds American and one-third British)	27%

The bulk of the bombing to date had been carried out by British aircraft. The United States forces had hardly started their programme whereas the Royal Air Force had completed between 30 per cent and 40 per cent of their share. The greatest care had been taken to ensure the accuracy of the bombing and examination of photographs indicated that the proportion of bombs falling in populated areas was only a quarter to one third of that which had been expected.

The Prime Minister reiterated his concern at the loss of life inflicted, saying that he feared the building up of a dull hatred in France which would affect British relations with that country for many years to come. He remarked that it was unfortunate that the Americans had not played an equal part with the British in putting the plan into effect.

Sir Archibald Sinclair said that the propaganda disseminated by radio stations under enemy control showed indirectly that there was a large body of French opinion which supported the British action. He had recently met MM. Viennet and Marin, neither of whom had offered any protest against the present attacks. They had, in fact, appeared grateful when he told them of the steps, such as the prohibition of bombing if the targets were obscured by smoke, which

/were

were being taken to ensure that casualties were reduced to a minimum. He thought that the French regarded these attacks in the same way as did the Allies, namely as a horrible necessity of war. He suggested that the Germans were provoking the Vichy authorities to increase their complaints and their harassing accounts of the results of these raids in the hope that, whilst the Allies should pay no attention to such propaganda if it were put out by German stations, they might be more susceptible if it came from the French. The remainder of the Cabinet continued to oppose the plan with the exception of Sir James Grigg and Sir Archibald Sinclair who said that it would be wrong to pay overmuch attention to enemy controlled propaganda.

TIM/TS.136/15/3

Sir Charles Portal said that if it were decided to abandon the present policy, the Supreme Allied Commander should be asked to suggest what alternative plan should be adopted. He pointed out that General Montgomery attached great importance to the enemy's tactical railway communications being attacked near the Overlord date and that such attacks were scheduled to start some three weeks before D Day. These, too, would incur casualties to civilians.

In concluding the meeting, the Prime Minister said that he would refer the whole question of bombing policy in connection with Overlord to the War Cabinet at a meeting on the following morning. Thereafter, if the War Cabinet decided against the policy of bombing railway centres, he would telegraph to the President on the matter. If General Eisenhower were available he would see him before despatching the telegram. In the meantime the Chief of the Air Staff should arrange for a list to be made of those railway centres where it was estimated that attacks would cause less than 100 fatal casualties, since even if the policy were changed it would be militarily and politically expedient not to cease attacks on railway targets altogether. Air Chief Marshal Tedder should be instructed to consider what alternative plan should be adopted in the event of it being decided to abandon the present policy.

The Prime Minister urges the Supreme Commander to drop the Plan.

After a meeting between the Prime Minister and the Supreme Commander which took place on 28 April, General Eisenhower gave orders (1) suspending attacks on 27 targets located in the most thickly populated districts. General Eisenhower was now under strong pressure from the Prime Minister to abandon the railway plan, pressure which was renewed in the form of a personal letter written on 29 April. The text of this letter is quoted below:-

"I enclose herewith the Cabinet conclusions reached at our Meeting last Thursday. The Members of the War Cabinet were unanimous and various other Ministers concurred, only the Secretary of State for Air and the Secretary of State for War taking an opposite view. I also forward a summary of the arguments which weighed with the War Cabinet and which I think should be met before we approve action that may cost so many lives of friendly nationals. It does seem to me that the proposal in paragraph 8 might form an acceptable compromise, and I hope you will see your way to examine it."

/The memorandum

(1) See letter signed by Lieutenant General Bedell Smith, COS to Supreme Commander at Appendix VI/114.

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The memorandum reiterated all the arguments against the transportation plan which had been raised by the Air Ministry, the War Office, the Ministry of Economic Warfare and the Joint Intelligence Committee. It suggested that the Strategic Air Forces would be more profitably employed in attacking purely military targets such as dumps, depots, camps etc. The compromise proposed by the Prime Minister was that U.S.St.A.F. in conjunction with the Air Ministry should produce a plan for the employment of the Strategic Air Forces in which no more than 100 French lives should be sacrificed on any target.

TELM/MS.136/15A

At this stage it must be pointed out that at the Chief of Air Staff's meeting on 25 March the Air Commanders agreed that the transportation plan was the most likely one to assist Overlord in the initial stage. General Spaatz concurred in this decision and immediately after the meeting intimated to General Arnold both his agreement with the decision and his belief that in view of the conditions put forward, a transportation plan was better than an oil plan so far as Overlord was concerned. Moreover the targets suggested in this memorandum were already tabled for attack in the tactical plan arranged with Twenty-First Army Group. The Army had placed dumps and motor vehicle parks on a lower priority than communications. (1) From an air point of view they were uneconomic targets in comparison with the latter, being small and well dispersed and easily concealed.

The Supreme Commander's reply to the Prime Minister

The Supreme Commander sent for the Air Commander-in-Chief at 1130 hours on 1 May to discuss the implications of abandoning the transportation plan. Air Chief Marshal Leigh-Mallory very strongly deprecated such a course. He said that if the strategic plan was abandoned at this stage the tactical problem of dealing with enemy movement would be greatly increased. Moreover air attacks on naval targets, Army headquarters and telephone exchanges and the operations connected with the cover plan would also produce civilian casualties.

Air Chief Marshal Leigh-Mallory also stressed the time factor immediately before the assault and that if they had to attack a large number of communication centres at that time they might be unable to fulfil their commitments for D Day.

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General Eisenhower's reply to the Prime Minister dispatched on 2 May was prepared by the Deputy Supreme Commander and followed the line of the Air Commander-in-Chief's argument. He said that casualties to civilian personnel were inherent in any plan for the full use of air power and that so far casualties had been much less than anticipated, in addition to which a number of Germans had been killed in the course of the attacks. He still maintained that there was no better plan than the transportation plan and stressed that its object was to weaken and disorganise the railway system as a whole so that the tactical plan could be put into operation more effectively at the time of the assault. He considered that if operations were limited to targets where no more than 100 to 150 casualties would be caused the

/whole plan

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(1) See Appendix VI/128

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whole plan would be emasculated. He ended "The Overlord concept was based on the assumption that our overwhelming air power would be able to prepare the way for the assault. If its hands are to be tied as is now suggested, the perils of an already hazardous undertaking will be greatly enhanced."

Alternative Plan of the Directorate of Bomber Operations

D.S.C. Folder

The alternative plan referred to by the Prime Minister in his memorandum was produced by the Directorate of Bomber Operations Air Ministry. It implied that the transportation plan had been adopted merely because there was no other plan available which would have a greater effect on the initial phase of the assault (D to D plus five weeks). The only alternative was the oil plan which it was considered would take even longer to be effective than the Transportation Plan.

The Directorate of Bomber Operations Plan contained three target systems which if taken together represented an objective that would absorb the whole of the tonnage which could be dropped by (1) the heavy bombers in the period prior to D Day. The plan claimed that it would give greater and more direct support to Overlord than attacks on marshalling yards (2) and would cause far fewer French casualties. The three target systems were -

- (a) The entire operational maintenance system of the G.A.F. in France, Belgium and northern Holland.
- (b) Military camps and dumps.
- (c) Twenty-six bridges across the Seine.

The paper went on to emphasise the potentialities of the Oboe Box technique which it considered was insufficiently appreciated (3). Proper use of this technique could render France and Belgium virtually untenable to the G.A.F. It was proposed that the VIIIth Air Force should attack the Seine bridges and it was believed that the resulting damage could not be made good for two to three weeks as against one to two days for repairing lines in bombed marshalling yards.

TLM/MS.136/15

This plan was discussed at a special meeting presided over by the Deputy Supreme Commander on 3 May. It transpired that a number of targets were already included in the tactical plan although the Air Commander-in-Chief stated that the assistance of the Strategic Air Forces would be required to complete the programme. The only new feature was the proposal to attack the Seine bridges, and the meeting agreed that attacks on bridges should begin on about D minus 14 to

/assist

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- (1) The total tonnage, excluding that required to complete the airfields programme, was given as 45,000 tons.
 - (2) Critics of the transportation plan persisted in referring to railway centres as marshalling yards.
 - (3) Regardless of the fact that A.E.A.F. had done its utmost to persuade U.S.S.T.A.F. to adopt it.

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assist the tactical plan of railway cutting which would start on D Day. Twenty-First Army Group were interested in five of the Seine bridges but did not want the Loire bridges attacked before D Day for reasons of security. It was decided that the VIIIth Air Force should attack three of the Seine Bridges and three Meuse bridges (for cover purposes) any time after D minus 15. It was felt that the time spent on this attack would not substantially affect the transportation plan if the former did not succeed.

The transportation plan was then discussed and the chairman pointed out that the U.S.St.A.F. targets on the railways leading through Luxembourg and from the south east of France had not yet been attacked and were still quite free to traffic. He was anxious that these should be attacked without further delay. The U.S.St.A.F. representative suggested that the transportation plan had been suspended, but Air Chief Marshal Tedder emphasised that under the express orders of the Supreme Commander it had not.

The VIIIth Air Force holds back

TLM/MS.136/
15D

Here it must be noted that until 22 April the VIIIth U.S. Air Force had not attacked one of the 22 rail targets assigned to it, nor had the XVth U.S. Air Force bombed any of their targets in the south of France. It had originally been intended that the heavy day bombers should take the major share of targets which had been allotted in the following proportions.

VIIIth and XVth U.S. Air Forces	45%
R.A.F. Bomber Command	26%
A.E.A.F.	27%

On April 22 the VIIIth Air Force delivered a heavy attack on Hamm and a small attack on Koblenz/Mosel (1) but by the end of April only two of its French and Belgian targets had been attacked. These were Chalons Sur Marne and Blainville, both of which were bombed on 27 April (2)

TLM/MS.136/15/2

The Air Commander-in-Chief had become increasingly anxious lest even if the plan were not suspended for political reasons, owing to the non co-operation of the U.S.

/Strategic

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- (1) These targets were not strictly part of the transportation plan but had been given as alternatives to Pointblank.
 - (2) For progressive statistical summaries of attacks on railway centres, see file TLM/MS.136/15D. See also S.H.A.E.F. summaries of attacks on rail transportation targets on same file. Summaries showing the respective effort of A.E.A.F., R.A.F. Bomber Command and VIIIth Air Force against all targets for the three weeks 19 May - 25 May, 26 May to 1 June and 2 June to 7 June 1944 are respectively at Appendices IV/172, VI/173 and VI/174.

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Strategic Air Forces, it might not be completed before Overlord. Accordingly he directed on 1 May that subordinate commanders of the A.E.A.F. should attack whenever possible as 'last resort' targets or 'targets of opportunity' any of those railway centres (excluding those suspended by the Supreme Commander) which had been allotted to the VIIIth Air Force or R.A.F. Bomber Command.

The Defence Committee's approval of the Plan

TLM/MS.136
15/3

TLM/MS.136/15/3

A new feature of the foreign broadcasts over the period 27 April to 3 May was repeated condemnation of the use of delayed action bombs which, it was claimed, was designed to hinder rescue and salvage work. The volume of raid propaganda from Vichy showed a decrease and news items were mainly confined to lists of casualties. The German overseas air correspondent on 29 April stated that authoritative German circles concluded that the air offensive implied preparations for invasion. The following day in a German broadcast to Europe, it was stated that flying repair columns were being employed in western Germany to construct loop-lines round damaged points. Special dredging trains for levelling out damaged marshalling yards were being used, and it was claimed that a large shunting yard had been levelled out in 19 hours after it had been pounded by 230 bombs - an unusual tribute to the accuracy of Allied bombing. These broadcast summaries were circulated before the next meeting of the Defence Committee which took place on 3 May, and was attended in addition to the Cabinet Ministers and Chiefs of Staff, by Air Chief Marshals Tedder and Leigh-Mallory.

Mr. Churchill opened by saying that the railway plan had been considered by the War Cabinet, since when it had been found that attacks on railway centres were only a feature of the general policy for the employment of air forces in support of Overlord. They therefore wished to be informed of the extent to which unlimited bombing was to be practised and of the proportion of casualties to the civilian populations of occupied territories likely to be caused by attack on railway centres and other air operations respectively. They then proposed to communicate their views to the President and to the State Department in order to ensure that the Americans accepted their share of responsibility for the heavy casualties which would be inflicted on the friendly civilian population of the occupied countries. The object of the present meetings was to determine the extent of bombing operations against railway targets as compared with the total bombing effort between the present time and, say, three months after D Day.

Sir Charles Portal said that bombing operations could be divided into four phases - attacks on railway targets, the implications of which were already known; attacks on tactical targets which would start about D minus 21; supporting operations during the assault and finally operations in support of the campaign after the assault. He suggested that Air Chief Marshal Leigh-Mallory should give details of the various objectives scheduled for attack.

Air Chief Marshal Leigh-Mallory said that he estimated that between now and D Day some 35 per cent to 40 per cent of the bomber effort would be directed against Railway targets. Attacks on airfields in or near the assault area would absorb some 30 per cent of the effort and attacks on batteries dominating the assault area some 15 per cent. For security reasons it was necessary to attack batteries outside the assault area and in practice for every battery which was attacked in the right area, two in other areas were also bombed. These attacks had already started and of the eight

/batteries

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batteries bombed to date five had been damaged.

In addition, naval targets of opportunity, ammunition dumps, motor transport parks and radar stations would be attacked. Immediately before the assault attacks would be launched against fighter control stations, division and corps headquarters, and telephone exchanges. The heaviest casualties were likely to result both from the last named and from motor transport parks, since they were mainly situated in built-up areas. After D Day small towns would probably have to be bombed to hinder the movement of enemy troops by road. Trials were in progress to test the efficacy of attacks on bridges. If these proved successful, there might be considerable demands for such attacks. In addition to all of these, a considerable effort had to be devoted to Crossbow sites.

The Prime Minister said that with the exception of railway centres, the targets were of a purely military nature and no one could reasonably object to their being attacked. It appeared that the majority of the casualties to the civilian population would be caused by attacks on railway centres. What he feared was propaganda to the effect that while the Russian and German armies advanced bravely despite the lack of air superiority, the British and Americans relied on the ruthless employment of air power regardless of the cost in civilian casualties. It might also be said that the British were the greatest offenders in that they scattered their bombs over wide areas by night, whereas the Americans carried out precision bombing in daylight.

After the resume of broadcasts had been considered Mr. Eden remarked that the French reaction so far had been good, but he was disturbed by the reiterated protests against delayed-action bombs.

Sir Charles Portal said that the use of delayed action bombs had been introduced with the idea of preventing the smoke from explosions obscuring the marker flares with a resulting loss in the accuracy of the bombing; their possible effect on rescue action had been overlooked. He had discussed with the Commander-in-Chief, R.A.F. Bomber Command the possibility of using all delayed action bombs, but was informed that there were insufficient delay fuses available to permit the adoption of this proposal. The alternative was to use no delayed action bombs and to hope that the smoke of explosions would not result in a loss of accuracy.

/The Prime Minister

TLM/M.S.136/
15/3

The Prime Minister said that a special study (1) should be made of the case for and against the use of delayed action bombs. Special attention should also be paid to ensuring that all possible means were used to warn the French civilian population which areas were dangerous and that all such areas should be avoided. A special organisation should be set up under a Minister to be responsible for intensifying to a maximum the propaganda measures designed to induce the French population to evacuate dangerous areas. A report on the measures taken, the results achieved and proposals for the future should be submitted to the War Cabinet twice a week.

Mr. Eden said that an organisation, the Political Warfare Executive, which was responsible for all propaganda to the peoples of occupied countries already existed. It worked in very close touch with the Air Ministry and with the staff of the Supreme Commander. He did not think it necessary to set up a further organisation for this purpose.

The Prime Minister then turned to the question of attacks on railway centres and asked if Air Chief Marshal Tedder would be content with a plan governed by the restriction that the number of civilian casualties in such attacks up to D Day was not to exceed 10,000. He suggested that the targets selected for attack should be re-examined on the basis that their value depended 60 per cent on the damage inflicted on the enemy and 40 per cent on the extent of the casualties to civilians, which should be as small as possible.

Sir Arthur Tedder said it was extremely difficult to make an accurate estimate of the casualties inflicted from the reports available. These were often conflicting and varied

/from day

(1) On 8 May the Air Staff circulated the report called for, conclusions of which were as follows:-

- (i) In attacks on railway centres considerable political and operational advantages would be obtained if all bombs could be fused long delay. Available supplies of long delay fuses are, however, insufficient to allow us to adopt such a policy as the exclusive employment of long delay fused bombs in attacks on railway centres.
- (ii) On the other hand, if only a small percentage of long delay fused bombs are used in the attack of railway centres, the political odium which would probably result would outweigh the relatively small advantage which would be gained before the tactical phase begins. In these circumstances, in order to conserve our stocks for use in the tactical phases of Overlord, we should discard the use of delayed action bombs in these attacks, except in the special circumstances mentioned below.
- (iii) The supply position should enable us to employ 100% long delay fused bombs in a very limited number of attacks on railway centres. They might thus be used to destroy such targets as Le Bourget and Batignolles where very heavy casualties might otherwise result.

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from day to day. He thought that the number killed so far was probably between 3,000 and 4,000. He was hopeful that the full plan could be implemented without exceeding the limit suggested by the Prime Minister. Reports continued to be received of the destruction of ammunition and troop trains. The extent to which the Germans were importing personnel to assist in running the railways was indicated by a report that in an attack on Creil a direct hit on a shelter had resulted in 25 people being killed, of whom 18 were Germans.

TLM/MS.136/15/3

Discussion then turned on the Directorate of Bomber Operations proposed alternatives to the transportation plan. The Deputy Supreme Commander proceeded to criticise the plan on the lines already mentioned in this chapter with regard to the emphasis placed on attacks on the G.A.F. He said that his experience in north Africa had shown that an Air Force could continue to fight without the assistance of forward repair facilities in spite of the consequent inconvenience and delay. He also criticised the policy of substituting bridges for railway centres and stated that whereas in a bridge attack a large number of bombs were wasted in an attack on a railway centre every bomb which fell within the area of the centre did some damage of military value. Furthermore bridges could be repaired relatively quickly. The average of the most optimistic estimates was that the destruction of a bridge would prevent traffic for 14 days. It would therefore be necessary to confine attacks on such objectives to the period of 14 days before the assault. Many of the important bridges could not, for security reasons, be attacked until D Day. Weather played an important part in attacks on such precise objectives and might well prevent their being executed at the vital moment.

Summing up, the Prime Minister said that the War Cabinet should draw up a paper which they would send to the State Department, and he himself would communicate to the President, drawing attention to the fact that the railway plan which the responsible military authorities considered to be necessary for the success of Overlord would entail the destruction of some 10,000 French lives before D Day. Such measures were likely to have a serious effect on European relations. On the other hand, if Overlord were successful it might, by shortening the war, save the lives of millions. In view of the political consequences, they would like a definite assurance that the United States Government were convinced that the policy should be pursued within the limits mentioned.

The Committee inter/alia:-

- (a) Agreed to recommend to the War Cabinet that the American Government should be approached on the lines suggested by the Prime Minister;
- (b) Invited the Deputy Supreme Commander:-
 - (i) To review the plan for attacks on railway centres in the light of the various discussions on the matter and with a view to ensuring that the number of civilians killed up to D Day did not exceed 10,000.

/On

G.323100/HP/3/52/30.

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TLM/MS.136/15/2

On 5 May the suspension imposed by the Supreme Commander on a number of the railway targets was removed, but the Supreme Commander directed that those targets which had the lowest estimated civilian casualty figures should be attacked first and those with the higher figures left till as near D Day as possible.

AEAF/22005

The following day the Air Commander-in-Chief held a Meeting of Allied Air Commanders and staff officers to review the progress of the preparatory air bombardment and to endeavour to enlist the more active support of the U.S. Strategic Air Forces in the prosecution of the railway plan. The most important business transacted at this meeting was the arranging of priorities for the bombing targets of the Allied Air Forces.

AEAF/22005

The Air Commander-in-Chief summarised the position of railway targets as follows:- R.A.F. Bomber Command had attacked 32 out of a total of 38. Twenty-two of these were now Category 'A', and five category 'B'.

The VIIIth Air Force had attacked eight targets out of a total of 23. Of these, four were Category 'A'. The IXth Air Force and 2nd T.A.F. had attacked 11 of the 17 allotted, of these six were Category 'A', three Category 'B'. The Germans were clearly finding it more and more difficult to repair damage, and taking longer time to resume through traffic, the bombing plan was already having a cumulative effect. If and when the Germans banned civil rail traffic, trains as well as engines could be strafed. The Air Commander-in-Chief said that the Cabinet had now withdrawn their objections to the plan for the bombing of railway targets, only stipulating that the high casualty targets should be bombed as near as possible to D Day. The Air Commander-in-Chief agreed that it was worth experimenting between now and D Day on the most effective method, using mediums and fighter/bombers. Bridges on the Seine and Meuse (for cover purposes) should be attacked; all were within range of bombers and fighter/bombers of the Tactical Air Forces. The VIIIth Air Force would not participate as it was considered that attacks on bridges by heavy bombers were too costly.

Discussing VIIIth Air Force targets, the Commander-in-Chief said there was reasonable expectation of seven visual bombing days in the occupied countries between then and D Day. The effort available to the VIIIth Air Force in this area would therefore be 49 strikes of two combat wing-strength, which is about the force required for the average target. The issue of the priority of targets was essential, as it was impracticable to fulfil completely all the tasks allotted. General Spaatz enumerated the VIIIth Air Force present priorities as follows:-

- (i) Pointblank
- (ii) Crossbow, as required
- (iii) Transportation targets, as allocated
- (iv) Airfields, as ordered.

The above were provisionally agreed.

TLM/TS.136/15/3

On receipt of a telegram from the President of the U.S.A. on 16 May the Prime Minister addressed a minute to the Chiefs of Staff Committee and the Supreme Commander as follows:-

"See the President's No.537

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1. It seems to me that we shall be able to keep well inside the 10,000 limit of French killed before D Day. Therefore I believe the Cabinet will be content not to press this matter further than the lines now agreed.

2. It is therefore in my opinion not necessary that a psychological effect should be obtained by a French transport expert being consulted by the Target Committee. His presence would only constitute a complication, and a suggestion to de Gaulle of this kind would only give him another opportunity of obtruding himself. The President's message leaves the matter in the hands of the 'responsible military commanders', and I suggest that the matter should be dropped."

(Initialled W.S.C.)

D.S.C./TS.100
Pt.4
Encls.38A-39A

But the Prime Minister's concern over the casualties which might be inflicted on the French population had not yet abated. On 23 May the Deputy Supreme Commander, in reply to a query from the Prime Minister, assured him that the casualties, according to enemy estimates, were about 40 per cent less than had been expected. On the profit side a large number of German personnel were reported killed and many ammunition trains had been destroyed. The Prime Minister replied to the effect that the plan should go ahead but at the same time the civilian population should be warned whenever possible.

Ibid Pt.5.
Encls.3A-8A

During the last week of May the Prime Minister wrote twice to the Deputy Supreme Commander expressing his doubts over the efficacy of the plan and urging him to take note of the daily reports compiled by a committee under Sir Robert Bruce Lockhart entitled 'Reactions to Allied Air Raids on the Western Seaboard of Europe'. On 30 May Air Chief Marshal Tedder informed the Prime Minister that, apart from Le Bourget, the heavy attacks on railway centres were almost completed. Le Bourget would only be attacked if the Army considered it to be essential. On 1 June the Deputy Supreme Commander sent the Prime Minister a review of bombing operations up to that date. In a covering letter he said that he felt that the daily summary compiled by Sir Robert Bruce Lockhart was somewhat distorted as it was almost entirely compiled from Axis or Axis-controlled sources. To counter balance these reports Air Chief Marshal Tedder enclosed a number of reports received direct from France and which showed that at least some of the French were prepared to endure the bombing for the sake of the damage inflicted on the enemy's resources.

Ibid
Encls.11A-13A

Fulfilment of the Transportation Plan

TIM/Folder 34

The series of Allied Air Commanders Conferences inaugurated shortly before D Day for the purpose of reviewing the air and military situation and deciding on target priorities has already been referred to in Chapters 2 and 4. The first of these conferences took place on 23 May and was attended by both Strategic and Tactical Air Commanders, American and British. After an appreciation of the number of probable enemy divisions on D Day had been given by Major Bennett, A.E.A.F., Mr. Brant reviewed

/the existing

G.323100/BP/3/52/50

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existing state of the French railway system. He explained that nearly all the large railway centres listed on the plan had already been attacked, with the exception of Le Bourget. The result of this widespread attack was that very few attempts were being made to push traffic through the northern area of France. Nearly all traffic was being diverted south of Paris, the only gap in the Paris area being on the Grande Ceinture line, which was now reserved exclusively for important German military traffic.

TLM/Folder
34 Pt.I

At a meeting of the Operations Planning Committee A.E.A.F. on 24 May a number of decisions were taken. The Air Commander-in-Chief was to seek General Montgomery's clearance of bridges on the Loire prior to D Day. The VIIIth Air Force was to attack railway centres in the Paris-Metz-Strasbourg area as soon as possible. At the same time the XVth Air Force was to attack the main railway routes (the Modane and coastal) running from Italy. All the Air Forces were given railway targets as first priority targets.

Ibid

By 31 May the transportation plan had begun to show results and the French railways in the north and east were seriously dislocated. Only a few centres remained to be attacked and the VIIIth Air Force was asked to take on three targets on the Grande Ceinture (1) while R.A.F. Bomber Command was to attack Le Bourget and make repeat attacks on Saumur, Trappes and Tergnier. Both the Supreme Commander and his Deputy agreed, at the Air Commanders' meeting held that day, that Le Bourget should be excluded from the target list because of the heavy civilian casualties that would very likely occur. Three jamming stations were to be attacked instead.

At the Air Commanders' meeting on 3 June it was reported that three targets on the Grande Ceinture and the railway centre at Saumur had been attacked by the Strategic Air Forces. The Air Commander-in-Chief announced that the strategic phase of the transportation plan could now be considered complete (2) and that the tactical phase had begun - i.e. direct attacks and rolling stock by fighter bombers. However, if important centres were repaired and were used extensively repeat attacks would be necessary - particularly in the case of the Grande Ceinture.

On 5 June, the eve of the landings in Normandy all the 85 railway centres in the transportation plan had been attacked, some many times. These targets were divided between the three Commands as follows:

R.A.F. Bomber Command	39
The VIIIth Air Force	26
A.E.A.F.	20

/That the

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- (1) These were subsequently attacked, though ineffectively, for all four main junctions on the Grande Ceinture were reported open on 6 June.
- (2) A map showing railway targets is to be found in Volume III of this narrative.

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That the lion's share of the transportation plan was borne by R.A.F. Bomber Command is shown by the following figures of sorties flown and tonnage dropped in the prosecution of this plan between 9 February and 6 June 1944.

	<u>Sorties</u>	<u>Tons (short)</u>
R.A.F. Bomber Command	8,751	44,744
VIIIth Air Force	4,462	11,648
A.E.A.F.	8,736	10,125

The XVth U.S. Air Force began its attacks against railway targets in southern France on 25 May and on that day and the two subsequent days flew a total of 1405 sorties against 14 targets dropping 2,660 short tons of bombs.

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CHAPTER 8

THE DELAY OF ENEMY REINFORCEMENTS:

THE TACTICAL PLAN

Method of Delay

The transportation plan was never designed to do more than facilitate, by canalising rail traffic and driving the enemy on to the roads, the implementation of the tactical plan of cutting decisive points through which the enemy's reserve divisions would have to travel to reach the battle area. It constituted merely the strategic phase of the whole plan for delaying the movement of enemy reserves. Preparation of the tactical phase of the plan was mainly the concern of Twenty-First Army Group, though Headquarters, A.E.A.F. was naturally consulted throughout.

AEAF/22005

The first paper (subsequent to Staff Study No. 6) on the 'Delay of Enemy Strategic Reserves' was circulated by Headquarters, Twenty-First Army Group on 18 February 1944. In this paper it was recognised that the enemy was unlikely to make his final dispositions of reserves in the west until late in the spring. An attempt, however, was made to predict the areas likely to be occupied by reserves, and the method of movement and routes such reserves were expected to follow to reach the battle area. Of the nine reserve panzer (or panzer grenadier) and one reserve infantry division, four were expected to travel entirely by road, four entirely by rail and two partly by road and partly (tracked vehicles) by rail. All of these divisions were expected (without interference) to reach the battle area by the afternoon of D plus four, unless the threat to the Pas de Calais could be convincingly maintained, in which event one or more of four divisions then in that area might be held back until a later stage.

There were five methods by which these divisions might be delayed; by interference with road facilities, rail facilities, road and rail movement, reserves in billeting areas and air transport.⁽¹⁾

Interference with road facilities before D Day was not recommended on security grounds, but on and after D Day attacks on bridges over the Orne and the creation of choke points through the towns of Lisieux, Caen, Bayeux, St.Lo, Coutances and Valognes were advocated.

Attacks on rail junctions and rail bridges both shortly before and on and after D Day were recommended as complementary to the transportation plan. Special Air Service and Special Operations Executive were to assist in these tasks

/by

(1) It was thought that one of the panzer or panzer grenadier divisions might move by air.

by sabotage. Direct attacks on road and rail movement before D Day were not thought to be of value, but on and after D Day opportunity targets were to be attacked.(1)

Attacks on reserves in billeting areas and on transport aircraft and landing grounds were recommended to begin before and to continue after D Day.

AEAF/22005

The second draft of this plan in the form of a joint instruction over the signature of the three Commanders-in-Chief, for eventual inclusion in the Initial Joint Plan, was issued by Twenty-First Army Group on 4 April. In this instruction, Air Force tasks were divided into strategic and tactical, the latter to begin from about D minus 20 onwards and to comprise attacks on railway bridges and junctions designed to restrict traffic into both Neptune and Fortitude areas. Tactical tasks were sub-divided into those to be carried out before, on, and after D Day.

Pre-D Day targets were limited to rail bridges and junctions, the most important being five railway bridges over the Seine and six junctions on the Grande Ceinture round Paris. For cover purposes further attacks were to be made on eight railway junctions between Ghent and Amiens.

Attacks on D Day were to be directed mainly against road movement, targets being given as the three towns of Caen, St. Lo, and Bayeux and nodal points in specified areas. In addition, moving columns on important roads were to be attacked by light and fighter/bombers. Three divisional and corps headquarters and eight telephone exchanges were also scheduled for attack on D Day.(2)

After D Day attacks were to continue on nodal points on important roads within 30 miles of the battle area, as well as on moving columns. Important rail junctions on the Loire and another at Rennes were to constitute the main targets for the heavy bombers, in addition to repeat attacks on previously damaged centres to delay repairs.

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- (1) The question of attacking trains in enemy occupied territory before D Day was raised later, but was vetoed because of the difficulty in differentiating between civilian and military traffic. On 20 May the Deputy Supreme Commander telephoned the Air C-in-C to say that railway trains in France were now cleared for attack. On the following day 1,505 sorties were flown by A.E.A.F. Initial claims were 159 locomotives destroyed and 224 damaged apart from damage to rolling stock. Allied losses were 60 fighters and fighter/bombers.
 - (2) On further examination the telephone exchanges were found to be situated in built-up areas where very heavy casualties to the French were likely to result. Consequently, those targets with one exception were later ruled out, St. Lo being the only one to be attacked.

AEAF/22005

On 19 April a more detailed plan for the 'Delay of Enemy Reserves' was produced by Headquarters Twenty-First Army Group. This paper stated that no account had been (1) taken of 'pre-D Day bombing', although it was conceded that such bombing would contribute towards the desired object, and the tactical plan would be modified in accordance with the results achieved by the strategical:

In this paper existing dispositions of German reserve divisions were shown on an accompanying map, and priorities for attack of the various divisions were given. It was suggested that the Allies should aim at causing temporary blocks and congestion by attacks by heavy and medium bombers on road centres while employing fighter/bombers for rocket projectile attacks on road movement. The Army wanted 100 per cent of heavy, and a large proportion of medium, bomber effort to operate on a pre-arranged plan before D Day, revised in accordance with information received up to D minus one, leaving a small reserve of mediums available to answer calls from forward formations and for attacking emergency targets found by reconnaissance.

The writers of the paper believed that since the complexity of the road system did not offer many opportunities, except at certain road centres, for road blocks, the best line of interdiction would be along the Rivers Seine and Loire. They suggested that bridges and the built up areas immediately adjacent to them should be attacked. But the Army and the R.A.F. differed in their opinions as to the value of attacks on bridges and the time needed for their repair and secondly the advisability of creating choke points by the bombing of road centres in towns and villages. For the sake of clarity these points will be taken in turn. The particular role of fighter bombers and light bombers will be considered thereafter.

Attacks on Bridges

See Chap.
p.166

On 3 May, when Air Commodore Bufton's alternative plan for the pre-D Day employment of strategic bombers was under discussion, it was agreed that attacks on railway bridges should begin about D minus 14 to assist the tactical plan of rail cutting on and after D Day. (2) It was then decided that the U.S. VIIIth Air Force should undertake a full-scale attack on three Seine bridges and three Meuse bridges (for cover) as soon as practicable after D minus 15. The results of these attacks would then help to determine future policy.

TIM/MS.
136/15/2

Three days later at a meeting of Allied Air Commanders, General Spaatz said that he was opposed to using heavy bombers of the VIIIth Air Force to attack bridges, since experience in Italy had proved such attacks to be costly and uneconomical. He maintained that fighter/bombers were the most suitable weapon to use against bridges. Air Marshal Coningham was in favour of making experimental attacks with medium and fighter/bombers, and it was finally agreed that the Tactical Air Forces would undertake such experiments and that the VIIIth Air Force would not

/participate

- (1) Presumably by this was meant strategic bombing of railway centres under the transportation plan.
- (2) A map of bridges across the Seine and Loire will be found in Volume III of this narrative.

G.323100/HMH/1/52/30

participate. (1) In the course of these experiments eight Thunderbolts of the IXth Air Force achieved outstanding, if fortuitous, success in the destruction of the 725 foot steel girder railway bridge over the Seine at Vernon on 7 May (2).

On 10 May, Headquarters A.E.A.F., in a bombing directive to the Tactical Air Forces, ordered that no further attacks of any kind were to be made against bridges over the Seine until further notice, for fear of compromising security. (3) Six bridges in the cover area (Herrenthals, Hasselt, Namur, and three at Liege) were accordingly allocated. Attacks on the Seine bridges were not re-started until 24 May, by which time four important bridges in the cover area had been knocked out. At a conference on the evening of 22 May the Air Commander-in-Chief decided that attacks should be renewed at once; if left any longer a spell of bad weather might prevent completion of the programme by D Day.

In framing the tactical plan for delay of enemy re-inforcements, Twenty-First Army Group were concerned to "seal off" the area roughly enclosed by the Rivers Seine and Loire. This implied bombing the bridges over both rivers, but in order to conceal Allied intentions, Twenty-First Army Group insisted that the Loire bridges should not be attacked until on or after D Day. When it was pointed out that the simultaneous air effort required to knock out the numerous crossings would inevitably detract from the effort which could be directed against tasks which the Army considered of equal or greater importance, Twenty-First Army Group agreed with A.E.A.F.'s proposal to substitute attacks against the most important rail centres, and to initiate these at least a week before D Day so that they might appear as part of the strategic plan for the general disruption of rail communications. (4)

TLM/MS/136/15/6

Nevertheless, on 26 May, Brigadier Richardson telephoned Headquarters A.E.A.F. to say that the Commander-in-Chief Twenty-First Army Group wanted the Loire railway bridges (in addition to the railway centres) bombed before D Day. Instructions (5) were accordingly sent to the VIIIth Air Force to bomb the following railway bridges, but only if they had sufficient available effort over and above that needed to complete their transportation programme - Saumur, Tours (La Riche and La Frilliere) Orleans, Cinq Mars Nantes. Road bridges were not to be attacked until further notice.

TLM/P/S.34

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- (1) An analysis of effort expended during May 1944 in attacks on bridges was made by the Scientific Adviser, A.E.A.F. and is at Appendix VI/131
 - (2) It has been suggested that sabotage may have contributed to the success of this particular attack.
 - (3) See letter from Assistant Chief of Staff, G-2 SHAEF to Deputy Supreme Commander at Appendix VI/130. See also Minutes of 18th and 19th A.E.A.F. Commanders Conferences held respectively on 10 and 17 May (E.22 and 23 on TLM/Folder 17.
 - (4) See loose minute from S.A.S.O. A.E.A.F. to Air C-in-C, dated 26 May 1944 at Appendix VI/132. See also Appendix VI/119.
 - (5) Copy at Appendix VI/133.

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TLM/MS.
136/15/6

On 5 June (D minus one) the Chief Intelligence Officer, A.E.A.F., reported (1) that of the ten railway bridges and fourteen road bridges between Rouen and Paris, eight rail and ten road bridges were completely broken; in addition one rail and two road bridges were impassable, twelve other rail and road bridges over the Oise, Moselle, Dumer, Escout, Albert Canal and Loire (2) were either broken or impassable. To achieve these results A.E.A.F. had dropped a total of 5,370 tons of bombs in 5,209 sorties and VIIIth Air Force 367 tons in 445 sorties. (3)

The success of these attacks on bridges encouraged those who had opposed the transportation plan to bring forward an alternative plan after D Day. The theme of this paper was interdiction versus attrition, the former being recommended, the latter decried. The plan provided for the destruction of all major bridges between the Seine and the Rhine. Bridge cuts in the Seine and the Loire already made were to be maintained. These attacks were to be backed up by harassing and policing attacks on military traffic and on important supply dumps and depots. Strategic attacks on oil were to form an integral part of the plan. A copy of this plan (4) known as the Three Line - Interdiction Plan, together with relevant correspondence is at Appendices VI/135 - 'A' 'B' 'C' 'D' and 'E'.

Bombing of Towns and Villages to Create Choke Points

A.E.A.F./22005
Part 2

On 10 May a list of 26 towns which the Army required to be heavily bombed on D Day and D Day plus one to create road blocks was forwarded to A.E.A.F. by Twenty-First Army Group. A meeting to discuss these targets, their precise aiming points and estimated effort required to attack them was held at Headquarters A.E.A.F. on 16 May. Air Force representatives (5)

/considered

- (1) See Appendix VI/134.
- (2) Only one bridge (road) over the Loire was attacked before D Day.
- (3) Charts at Appendices VI/155 and 156 indicate schematically those rail bridges which were attacked in and to the East of the so-called 'first line of interdiction' (i.e. the Seine and Loire bridges and those in the Nantes/Orleans gap). The classification followed is that of the SHAEF G-2 Handbooks on Bridges, and the charts summarise intelligence appreciations, principally those of G-2.
- (4) This particular draft was produced by Brigadier General Smith, Deputy Senior Air Staff Officer and Chiefs of Operations A.E.A.F. Other variants and elaborations including lists of specific targets were produced by S.H.A.E.F. in a series of documents entitled: 'Use of Air Power Against Enemy Military Transport and Supplies' or 'Interruption of Enemy Supply and Transport'. Copies of these papers will be found on TLM/MS.136/15/7A.
- (5) A.E.A.F. and U.S.St.A.F.

G.323100/HMH/2/52/30

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considered six of the towns unsuitable targets either because of their lay-out or because they could be easily by-passed. The remaining 20 towns were provisionally allotted effort varying between one Combat Group and three Combat Wings.

Another meeting was held two days later, when representatives of Air Ministry, U.S.St.A.F., R.A.F. Bomber Command, VIIIth Air Force and Twenty-First Army Group were present.⁽¹⁾ Before this meeting it had been supposed that the VIIIth Air Force would undertake all bombing of towns required to create choke points. The VIIIth Air Force were, however, opposed to this suggestion and consequently it was decided to reassess these targets for night attack by R.A.F. Bomber Command. But it was stipulated that the VIIIth Air Force must attack some, if not all, of the towns. The following targets were considered suitable for Bomber Command:- Rennes, Laval, Le Mans, Dol, Avranches, Vire, Flers, Argentan, Lisieux, Coutances, St.Lo, Falaise, Thury Harcourt.

AEAF/22005

The importance placed by the Army on the creation of choke points was demonstrated by a letter ⁽²⁾ signed by General Montgomery addressed to A.E.A.F. and dated 20 May, in which he stated that the highest priority for air attack after the assault on D Day should be given to enemy moves through the inner zone close to the bridgehead. These attacks would affect the moves of four or five panzer divisions, representing the enemy's immediate counter-attack force. Fifteen nodal points were marked on an accompanying map, the attack of which, General Montgomery stated, should cause delays sufficient to produce disorganization and congestion on the roads, thus giving great scope to the fighter bombers. General Montgomery went on to state that the cutting of rail and road routes across the Loire ⁽³⁾ was also important, but less so than the bombing of the 15 towns because the three panzer divisions south of the Loire would be unlikely to move on D Day.

TLM/MS.136/51

Intimation of the unwillingness of the VIIIth Air Force to assisting in direct tactical support of the armies ⁽⁴⁾ was given to Air Chief Marshal Leigh-Mallory at a meeting with General Doolittle on 22 May. This meeting had been convened with the object of ensuring full participation of the VIIIth Air Force in the plan to delay enemy reinforcements on and after D Day. Discussing the role of the day heavies, the Commander-in-Chief said that he would like to employ these, as well as the VIIIth Air Force fighters, outside the tactical area in the task of destroying communications and hindering troop movements. Their specific tasks would depend chiefly on the needs of the Army, and the Operational Planning Staff were already engaged on determining which of the numerous tasks required by the Army would be most suitable for the VIIIth Air Force. The Air Commander-in-Chief suggested that towns such as Rennes and Le Mans might be allocated. General Doolittle insisted that heavy bombers were not a tactical weapon, and that they would require at least 24 hours warning. He clearly indicated his view that strategic bombers should be confined to strategic tasks and that the prosecution of Pointblank was, in his opinion, their correct employment.

/On

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- (1) See Notes of this meeting at Appendix VI/142
 - (2) Text at Appendix VI/143
 - (3) Before the receipt of this letter the relative priority of choke points and Loire bridges was undetermined. On the same day (20 May) a letter was sent to the Commanding General, U.S.S.T.A.F., signed by the Air C-in-C, suggesting that the second sortie of day heavies on D Day might be directed against either key bridges over the Loire or rail and road centres nearer the assault area. (See File AEAF/TS 22003)
 - (4) Minutes at Appendix VI/53.

S E C R E T

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AEAF/22372

On 1 June a letter (1) signed by Major General Vandenberg, Deputy Air Commander-in-Chief, was sent to the Commanding General, U.S.St.A.F. detailing the programme of the VIIIth Air Force from D minus four to inclusive D Day. The first four paragraphs of this letter dealt with pre-D Day targets (Fortitude and Transportation), the fifth indicated early assault targets (mainly batteries and beach defences), and gave the town of Caen as a target for attack just before or at H Hour.

The Deputy Air Commander-in-Chief also requested General Spaatz that he should bomb twelve towns in the vicinity of the battle area, the object being to assist the effort of the Tactical Air Forces in delaying the arrival of enemy reinforcements. This operation was to take place after the attack on beach defences and he suggested that delay fuses should be used with the exception of the town of Villers Bocage.

Priorities for bombing on the night of D Day/D plus one were sent to R.A.F. Bomber Command on 3 June.(2) At the same time an alternative bad weather bombing programme was sent to both British and U.S. Commands.

Confirmation of the points outlined in the letter sent by A.E.A.F. to U.S.St.A.F. on 1 June, was sent two days later signed by Major General F. L. Anderson, Deputy Commander U.S.St.A.F. On 5 June he wrote again stating that, in view of the attitude adopted by General Spaatz at the Air Commanders Meeting on 3 June, he could not approve of the heavy bomber plan during the phase subsequent to the assault on D Day. According to him it was too rigid and did not provide for action in a changing battle situation nor did it provide for any counter air operations.

TLM/Folder 34

A.E.A.F.
Historical
Officer's
Diary.

At the conference of 3 June, to which General Anderson referred, there was a sharp difference of opinion between the Air Commander-in-Chief and Air Chief Marshal Tedder, whose part was taken by General Spaatz. On the previous day Air Chief Marshal Leigh-Mallory had been tackled by Air Chief Marshal Tedder on the subject of bombing French towns and villages on and after D Day. Air Chief Marshal Tedder then told the Air Commander-in-Chief that he could not approve this part of the bombing programme because of the high civilian casualties likely to be caused, as well as destruction to historic monuments - casualties and destruction which he did not consider would be offset by the results likely to be achieved by such bombing. He said that he had undertaken to the Prime Minister not to bomb anything after D Day but batteries and radar targets. Air Chief Marshal Leigh-Mallory said that he knew nothing of such an undertaking and that once the battle was joined strategic considerations must be paramount. At all costs the Allied armies must be prevented from being pushed back into the sea. No doubt there would be civilian casualties but they would perhaps not be higher than our own military casualties.

/When-

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- (1) Text at Appendix VI/144. The schedule of air targets referred to in this letter is on TLM/MS.136/50.
(2) See letter at Appendix VI/145.

G.323100/MJG/2/52/30.

S E C R E T

When the Air Commander-in-Chief brought this matter up at the subsequent S.H.A.E.F. conference,⁽¹⁾ the Supreme Commander very emphatically approved the planned bombing of French communications centres and strongly deprecated any suggestion that we should hold off from so vital a task from reluctance to cause civilian casualties.

Nevertheless, despite the Supreme Commander's formal approval of the plan, Air Chief Marshal Tedder reiterated his criticisms on the following day (3 June) at the Allied Air Commanders Conference, presided over by the Air Commander-in-Chief. Air Chief Marshal Tedder now spoke in support of Generals Spaatz and Doolittle, who advocated attacks on German airfields as the proper task for the Strategic Air Forces on and after D Day.⁽²⁾ On this occasion Air Chief Marshal Tedder said nothing of civilian casualties but based his objection on two grounds:

- (a) such bombing had been found ineffective in Sicily, though Sicily was more suitable country for road blocking than Normandy;
- (b) in concentrating all the bomber effort on assisting the Army the Allies were ignoring the danger from the German Air Force to both Army and Air Forces.

At 1500 hours on the same day, General Montgomery, who had heard from his liaison officer that argument on the choke had been re-opened, telephoned Air Chief Marshal Leigh-Mallory to find out if any modification had been made. The Air Commander-in-Chief assured him that he stood by the plan absolutely and would resign rather than abandon it.

The next day (4 June) was mainly taken up with weather conferences to decide whether the assault should or should not be launched. At 10.30 hours on the 5th (the landings now having been postponed 24 hours) the Air Commander-in-Chief called a meeting of the Operations Planning Committee to determine targets for the second sortie of the day heavies on D Day and for R.A.F. Bomber Command on D night/D plus one. A list was drawn up of 12 towns in the vicinity of the battle area which were to be bombed by the heavy day bombers and another twelve targets, many of them the same areas, to be attacked by the heavy night bombers on the night of D Day. It was arranged that warning leaflets should be dropped on all these towns, at least one hour before attack.

A.E.A.F.
Historical
Officer's
Diary.

At 0930 hours on 6 June there was 6/10th cloud over northern France at 2,000 feet, and there was no appreciable improvement throughout the day. Such conditions while suitable for fighter-bombers, made effective bombing by the American heavies quite impossible. The result was that all the carefully laid plans for delaying German reinforcements of the bridgehead by creating choke points were set at naught. Later in the day U.S. VIIIth Air Force attacked five towns, and on the following day (7th) flew over 700 sorties, dropping bombs on some 12 towns and villages, while R.A.F. Bomber Command flew 1,000 sorties on the night 6/7 June against eight similar targets. But visibility was very bad, and results were mainly poor or unobserved.

/Role

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- (1) SCAEF 21st Meeting, held at 10.00 hours on 2 June 1944. Minutes at Appendix VI/147.
 - (2) This discussion has already been referred to above.

Role of Fighter/Bombers and Light Bombers in Delaying Enemy Reinforcement of the Bridgehead.

TIM/MS.136/50

AEAF/22372

Apart from their bridge-cutting programme, the main task of the fighter bombers in hindering the movement of enemy reserves was that of bombing enemy columns on the move either by road or rail whenever seen. On 23 May the Senior Air Staff Officer A.E.A.F., wrote (1) to the Commander, Advanced A.E.A.F., referring to the schedule of targets covering the period D minus three to inclusive D Day, which had already been sent to him. He requested that the targets should be examined with a view to cutting out unessential ones. This would enable the Tactical Air Commander to make an adequate striking force at his disposal. Air Marshal Coningham was also informed that his light bomber force might be required to supplement the heavy bomber attack against road centres on D Day.

This letter was amplified on 1 June by a second letter (2) giving alternative programmes according to whether surprise was considered lost or not lost. In this letter it was stated that the total commitment of both Tactical Air Forces in fighter bombers in the initial assault programme was not to exceed twenty squadrons inclusive of the five squadrons on air alert. These twenty squadrons were to be employed on attacking some 15 pre-arranged targets, leaving in hand a striking force of sixteen squadrons to be applied as the situation dictated.

AEAF/22005

AEAF/22372

The role of light bombers of No. 2 Group had already been agreed. These were to patrol by night five major routes leading to Caen which might contain enemy movement on D minus four. If no movement were discovered on these routes, the following towns were to be bombed: Coutances, St. Lo, Caen and Lisieux.

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The Air Commander-in-Chief was in favour of using his fighter force to the greatest possible extent offensively against ground targets rather than defensively for air cover. He was anxious, too, to secure the co-operation of the U.S. VIIIth Fighter Command, and accordingly invited Lieutenant General Doolittle (Commanding General, VIIIth Air Force) and Major General Kepner (VIIIth Fighter Command) to attend a meeting at Stanmore on 22 May.

At this conference it was agreed that apart from such fighters as were necessary for escort duties, Thunderbolts and Mustangs of the VIIIth Fighter Command should operate continuously as fighter-bombers flying in small formations on strafing and bombing operations south and east of the battle zone. On 1 June the Deputy Air Commander-in-Chief informed General Spaatz of the various tasks required of the VIIIth Air Force in support of Overlord from D minus three to inclusive D Day. Tasks allotted to the VIIIth Fighter Command were as follows. It was to cover elements of R.A.F. Bomber Command employed in attacks in the Neptune area after first light. Four Mustang Groups under control of the Combined Control Centre Uxbridge were to provide shipping cover. Finally the Command was responsible on D Day for offensive patrols which would operate against enemy movement debouching from the Brest peninsula moving north from the Loire and moving west from the line Paris - Orleans.

/The Effect

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- (1) See letter at Appendix VI/149
(2) Text at Appendix VI/150.

The Effect of the Allied Bombing Offensive against Enemy Transportation

Delays Imposed on German Reserves

TIM/S.136/158

The enemy took every precaution before D Day to be ready to move his operational divisions at the shortest notice by all available means. Operational divisions were trained to begin a road move from one to three hours after the issue of a warning order. Emergency movements by rail were equally carefully planned so that the first train of a divisional movement could start within twelve hours. Troop trains were kept standing at entraining stations and reserves of locomotives were held at engine sheds in the vicinity. Trains, specially made up to carry medium and heavy tanks, were kept in the areas occupied by armoured divisions.

Though the enemy had seen the effect of strategical bombing of communications prior to D Day, he evidently failed to appreciate fully the difficulties with which he would be faced as the result of the subsequent and complementary tactical bombing offensive. For instance, Panzer Lehr Division, which started for the battle area on D Day, started to move on main roads, but was soon forced by air attack to use only side roads and to avoid villages. Moreover, it began its journey with the normal interval of 25 yards between vehicles, but was soon forced by air attack to extend this interval to 100 yards. This division not only lost 12 tanks, a number of vehicles and the equipment of a whole bridge-building column during its journey, but was delayed in its arrival in the battle area and, owing to the long detours over poor roads, 20 per cent of its surviving tanks arrived unfit for action.

A battalion of 265 Infantry Division was so heavily bombed that many of its troops were forced to abandon their vehicles and continue their journey on bicycles or on foot. This division took 10 days to complete its arrival. A regiment of 276 Infantry Division stationed in the Vannes area, was moved up by rail on D Day. The train carrying the first company was bombed at Fougères. A number of personnel were killed and the wagons carrying ammunition and equipment were seriously damaged. In addition, the horse wagons were cut loose and rolled back four miles. When they were found, the French had removed all the horses. It took this company a week to reach the front, having travelled a distance of approximately 150 miles. The second company of this regiment was bombed in its train at Rennes, and was forced to proceed the rest of the way on foot. The headquarters company, having by now appreciated the danger of rail travel, de-trained in the neighbourhood of Rennes, and advanced on foot, resting in woods during the day and marching only during the hours of darkness. The battle group took seven days to complete its journey.

The 3rd Parachute Division, the first element of which left its concentration area in West Brittany on D Day to travel 150 miles by road, did not reach the battle area in its entirety until D plus five. This division was bombed and strafed continuously en route and was delayed by serious damage to roads in Fougères and St. Lo, which had been created by choke-point bombing. The road south of St. Lo was damaged for a distance of 20 miles. (1)

AEAF/22005
Part III

By the time the enemy started moving his strategic reserves, all the rail bridges and most of the road bridges across the Loire had been (2) destroyed. The only approach by rail to the battle

/area

(1) Reference SHAEF/101GX/INT dated 7 July 1944.

(2) Seven bridges over the Loire were destroyed by the VIIIth Air Force on 15 June.

area was through the bottleneck of the Paris-Orleans gap, and this approach route was temporarily cut by heavy bombing of the Paris junctions. Subsequent delay is known to have been caused by the bombing of such rail centres as Ghent, Lille, Laon, Rheims, Poitiers, Saintes and Angoulême.

As a result, the enemy was unable to use the railways for emergency operational moves of formations toward the battle area. Deficiencies of divisional motor transport, coupled with bombing and strafing attacks, further delayed the rate of reinforcement.

Certain captured charts provide a detailed picture of the history, as kept by the Germans, of traffic in the H.V.D. Brussels area. This area comprised Belgium and parts of the S.N.C.F. Regions Nord, Est and Sud Est - excluding Alsace - Lorraine - and was divided into three sections, E.B.D. Lille, E.B.D. Brussels and E.B.D. Nancy (Appendix VI/163). A large part of the traffic it handled was economic traffic relating to the heavy industry in the areas concerned. The charts begin on 1 January 1941 and end on 28 May 1944. Appendices VI/169 and VI/170 are tracings of sections which deal with traffic in 1944, the captions being translations of the German legends.

Up to the date on which the records end, the only air factor which can have played a part in the traffic changes that occurred were attacks on railway centres. Fighter bomber attacks on moving trains began only a week before the records end, and the time of the latter coincides with the destruction of the Seine bridges.

A cursory inspection shows that up to the beginning of the campaign against railway centres traffic was seldom, and then very slightly, affected by such air action as took place within the area covered by the H.V.D. Acts of sabotage were fairly constant in their daily frequency, and they appear to have caused no significant changes in the daily volume of traffic. Strikes occasionally left their mark. The most significant factors which influenced the volume of traffic were holidays and troop movements.

From 6 March, when the railway centre attacks began, to 28 May when the records end, a profound decline occurred in the volume of the traffic of the H.V.D. During this period some 28,000 tons of bombs were dropped on its railway centres. At the start of the campaign the number of trains launched daily fluctuated between 250 and 300, (Appendix VI/169). By 28 May the number had fallen to between 100 and 150. The German caption relates this fall to the destruction of stations and depots, and to the disruption of lines. The extent of sabotage did not increase during the period.

The decline in traffic began on Easter-Day, 9 April, a day, judging by previous experience, which would in any event have been associated with a fall in the volume of traffic launched that day. By this date 2,699 tons of bombs had been directed at railway centres in the K.V.D. area, the first big attack being a raid on Hirson on 6 March, four weeks before any significant change occurred in the daily level of traffic. The number of trains launched daily then remained at the 200 level for a further three weeks, when it again fell sharply.

/To what

To what extent traffic in the Brussels H.V.D. ultimately fell will not be known until a further search is made through Belgian and French records. In the interval between 28 May and the end of the attacks on the railways within the zone, a further 10,000 tons of bombs were dropped on its railway centres, and numerous attacks made by fighter bombers on running trains and open lines. A few bridges within the area were also attacked during this later period.

Appendix VI/169 shows that the only component of the daily traffic which was not affected by the fall were military supplies. Ore, coal and coke traffic, general goods trains, and trains referred to as 'Specials', all decreased in a striking manner. This is shown by Appendices VI/169 and VI/170 and by the following percentages, which indicate the level to which each class of traffic had fallen during May, at the end of which the records end, expressed as a percentage of the January and February means. (1)

	Percent Mean Level of Traffic	
	1st Half of May	2nd Half of May
Ore Traffic	47	29
Coke "	3	10
Coal "	45	37
General Goods	14	37
Special Traffic	75	24
Military Supplies	101	120
Military Movements	129	0
All Traffic	53	43

Appendix VI/170 deals with an undefined class of economic traffic which has not thus far been properly interpreted. The lowermost curve refers to the ore traffic shown in Appendix VI/169, and merely indicates in greater detail the changes that occurred. The middle curve demonstrates the fall in traffic in terms of tons from the Brussels and Lille areas, and shows very simply the catastrophic implication of the decline in rail movement. The uppermost curve relates to trains launched from the Brussels and Lille areas, and reveals exactly the same changes pictured in Appendix VI/169.

It will be noted that the maintenance of military supply traffic at the expense of general economic traffic was such that the military level in H.V.D. Brussels had not fallen by 28 May. At the equivalent period corresponding traffic had fallen in most of the S.N.C.F. Regions. Whether this difference is a real one due to a relatively greater capacity of the railway system in Belgium, or to some difference in the material effects of attacks, or whether it is spurious, due to some deficiency in the French records, has yet to be determined. The difference is probably real, since officials of the Region Nord are firmly confident that their records give the history of all traffic.

As already shown, the decline in the traffic of H.V.D. Brussels is shown, by virtue of its time relations, to have been due to the attacks on rail centres. The fact that these were the significant factor is also affirmed by the German captions on the charts. Exactly how these attacks produced the effect is not, however, indicated except by the fact, noted in Appendix VI/169, that during the period in question the percentage of locomotives out of service increased from 24 per cent to 46 per cent.

/Conclusions

- (1) This statement would appear to conflict with the figures given in the table in respect of coke and general goods traffic, but as both statement and table have been taken from B.A.U. Report No.9 no attempt has been made to reconcile the two.

Conclusion

There can be but little doubt that the transportation plan fulfilled the expectations of its promoters. By D Day the railway system of northern France was no longer able to cope with the requirements of the German divisions. The reinforcements which the enemy found necessary to bring into Normandy after the landings had to be maintained at a traffic level lower in capacity than that which had been used for the garrison troops before D Day. The enemy was reluctantly compelled to use the roads and this merely aggravated his motor transport and fuel situation and presented excellent targets to Allied fighter bombers as soon as the battle was joined. In addition, the small amount of rail traffic which continued to flow through the wrecked railway system after D Day was persistently harried by Allied fighter bombers from a few weeks before the assault onwards. By the end of June it would appear that organised rail movement in Northern France had practically ceased.

The major factors in the success of the plan, as explained in the Bombing Analysis Unit Report were firstly the destruction and exhaustion of locomotive power and repair facilities, second, the destruction of marshalling yards and regulating facilities, third, the blocking of the rough routes and, fourth, attacks on running trains. The first mentioned factor seems to have been mainly responsible for bringing trains to a standstill. Almost as effective was the destruction of marshalling and regulating facilities. There is also evidence that on the whole air attacks on railways had a more devastating effect than ground sabotage by Resistance groups. Finally the difficulties which the Allies had to overcome in restoring communications after the advance to the Rhine shows the effectiveness of operations against the railway. ⁽¹⁾

(1) For a further estimate of the effects of the transportation plan See B.A.U. Report No. 9 and a report by SHAEF G-2 Division (Copy in TIM/MS.136/15B).

