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R.A.F. NARRATIVE

(First Draft)

THE CAMPAIGNS IN THE FAR EAST

VOLUME IV

SOUTH EAST ASIA

(November 1943 to ~~August 1945~~)

October 1944

Air Historical Branch (1)
Air Ministry

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PREFACE

In the pages that follow an attempt has been made to trace and analyse the activities of the Allied air forces from the formation of South East Asia Command in November 1943 to the end of the monsoon period in October 1944. It was a period of great activity both on the ground and in the air and saw the development of new techniques of warfare in relation to the peculiar strategic and geographical requirements of the Burma theatre. In particular, the development of tactical and air transport support to the land forces are historically important and deserve careful investigation and study. But while every endeavour has been made to present an accurate and balanced account of the air war in Burma, the narrative suffers from certain limitations. These arise principally from a lack of information from American and Japanese sources.

It is therefore worth stressing that this document has been written on the basis of information currently available in London. For instance, the papers of H.Q. Troop Carrier Command, a predominantly American formation and commanded by an American officer, have not been used as source material. No doubt the Troop Carrier Command papers are safely preserved in Washington and will in the course of time be made available to R.A.F. narrators. Similarly, the many important documents originated by the Tenth United States Air Force may provide additional information for the expansion of this narrative.

In source material perhaps the most regrettable factor is the absence of dependable information from the Japanese. We cannot therefore accurately assess the success or otherwise of Allied air operations against the enemy air force, his land forces, his installations and communications. Certainly some effort has been made to obtain the Japanese version of events, mainly through interrogation of Japanese commanders, but many gaps still remain in the story which cannot at the moment be bridged. It may be that much vital information is contained in Japanese documents held by the United States. On the other hand there is some evidence that the Japanese destroyed many of their documents at the time of the surrender in August 1945.

With the above reservations, this narrative aims at affording as complete a record as currently available source material allows. Should American and Japanese documents subsequently be made available to this country, however, it may be necessary to expand and revise this volume in the light of such further information.

April 1952

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EXPLANATION OF ABBREVIATIONS

In this narrative the use of abbreviations has been avoided as far as possible. Inevitably a number have found their way into the following pages, particularly in the appendices and references, and in order to avoid any possible doubt as to their meaning the following explanation is provided.

ACSEA	- Air Command, South East Asia
A.H.B.	- Air Historical Branch (Air Ministry)
AHQ(B)	- Air Headquarters, Bengal
AHQ(I).	- Air Headquarters, India
A.I.	- Air Interception (Radar device)
A.L.S.	- Air Landing School
A.M.	- Air Ministry
A.O.P.	- Air Observation Post
ALFSEA.	- Allied Land Forces, South East Asia
A/SR.	- Air/Sea Rescue
A.S.V.	- Radar equipment for the detection of surface vessels
C.A.S.	- Chief of the Air Staff
C.B.I.	- China-Burma-India (Theatre)
C.C.S.	- Combined Chiefs of Staff
C.G.	- Commanding General
C.O.S.	- Chief(s) of Staff
E.A.C.	- Eastern Air Command
F-B.	- Fighter-bomber
F.R.	- Fighter reconnaissance
G.C.I.	- Ground Controlled Interception
G.H.Q.	- General Headquarters
GRFB.	- General reconnaissance flying boat
GRIP.	- General reconnaissance land plane
H.B.	- Heavy bomber
IBS-CBI.	- India-Burma Sector/China-Burma-India
Ind.Div.	- Indian Division
J.I.C.A.	- Joint Intelligence Collection Agency
L.B.	- Light bomber
LRGR.	- Long range general reconnaissance
L.R.P.	- Long range penetration
M.B.	- Medium bomber
MRGR.	- Medium range general reconnaissance
M.T.	- Mechanical transport
N.A.S.F.	- Northern Air Sector Force (USAAF)
N.C.A.C.	- Northern Combat Area Command
N.F.	- Night Fighter
O.R.B.	- Operations Record Book
P.A.O.	- Principal Administrative Officer
P.R.	- Photographic Reconnaissance
P.R.F.	- Photographic Reconnaissance Force
R.I.A.F.	- Royal Indian Air Force
SACSEA.	- Supreme Allied Commander, S.E.A.
S.A.F.	- Strategic Air Force
SEATIC.	- South East Asia Translation and Interrogation Centre
SEF.	- Single-engined fighter
S.D.	- Special Duty (clandestine)
T.A.F.	- Tactical Air Force
T.B.	- Torpedo bomber
T.C.C.	- Troop Carrier Command
TEF.	- Twin-engined fighter
TEF(C).	- Twin-engined fighter (coastal)
T.F.	- Torpedo fighter
Trans.	- Transport
U.S.A.A.F.	- United States Army Air Force
USSBS.	- United States Strategic Bombing Survey
V.C.P.	- Visual Control Post.

CHAPTER 1

POLICY AND ORGANISATIONThe Formation of South East Asia Command - November 1943

The origin of South East Asia Command may be traced back to the Trident conference at Washington in May 1943 when the United States and British governments decided to co-ordinate all sea, land and air forces in South East Asia into one unified Command. Following the decisions made at Trident, the Prime Minister circulated on 21 June a memorandum which contained his proposals for the structure of the new Command. These proposals, about which much discussion took place during the summer of 1943, were of great importance to the British air forces in India since a radical change in the system of command was anticipated.

Hitherto the Air Officer Commanding-in-Chief, came under the direct control of the Commander-in-Chief, India, an Army General who combined the functions of executive head of the fighting services with those of War Member of the Viceroy's Executive Council. The control of the Commander-in-Chief covered planning, administration and operations and he was the normal channel of communication with the authorities in the United Kingdom on all major matters of defence policy. In theory the Air Officer Commanding-in-Chief was not allowed to communicate with the Air Ministry and thus for all practical purposes the Commander-in-Chief, India was the supreme authority in the sphere of air and military policy in India. There were, however, some exceptions. The Commander-in-Chief while controlling the Air Forces in India, the Indian Army and the Royal Indian Navy, did not possess similar powers over the Royal Navy and the R.A.F. in Ceylon for which strategic control was vested in the Admiralty and Air Ministry respectively.

The system of control in India was, therefore, quite different to that adopted in other theatres where all three services worked as equal partners in plans jointly contrived. Whatever the merits or demerits of the Indian system for dealing with the local defence of India, it was quite unsuitable for waging an offensive war against the Japanese in Burma and elsewhere, particularly since India Command was becoming less preoccupied with the defence of India but with its use as a base for offensive operations. Moreover, with the abandonment of large scale land operations during the winter of 1943-44, Allied offensive strategy in South East Asia became dominantly an air strategy. Large air forces, both British and American, were to be brought into action and the direction of these operations was certain to call for the exploitation of the air experience garnered in other theatres of war. Unless the system of command changed, the direction of all R.A.F. operations would perforce rest with the Government of India through their Commander-in-Chief. This would place upon the Commander-in-Chief responsibilities which one man could not effectively discharge and would, therefore, place the R.A.F. under a grave handicap in their operations against the Japanese. The margin of air superiority over the Japanese at the beginning of the campaigning season of 1943-44 was not likely to be large and it was thus necessary to exercise careful control over the air forces available and to use them in strict conformity with accepted air forces doctrines.

W.P.(43)253
ACSEA File
DACC/010,
Encl. 13A
A.H.B./IIJ50/
103/70.
Cab.Hist.Sect.
SACSEA. 1153

Ibid.

There was yet another reason why the re-organisation of India Command could not be long delayed. The British Chiefs of Staff anticipated an integration of the British and American air forces operating in Burma and China and this demanded control by an air commander with considerable air experience. The best solution was thought to be the establishment of a headquarters to control the operations of all British and American air forces in the theatre, rather on the lines of the Mediterranean Allied Air Command. The Americans, however, were acutely sensitive about anything affecting China and the plan had to be rejected. Nevertheless, it seemed necessary to aim at the greatest possible degree of integration of the two forces and this could not be done if every act of the air force headquarters, whether administrative or operational, was controlled by the Commander-in-Chief, India. In these circumstances it was essential to bring Air Headquarters, India into line with other overseas commands. Looking further afield to the day when Germany had been eliminated and the Anglo-American forces redispensed for the defeat of Japan, it seemed even more important that re-organisation within India Command should take place. A large proportion of the total air power of the R.A.F. might be engaged and it was inconceivable that such a vast force should be controlled by the Government of India. Moreover, the air forces in India were not expected to remain there throughout the Far Eastern war and it was illogical for the Commander-in-Chief to control forces far removed from New Delhi and outside Indian territory.

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(43) 306(0)
CHS. SACSEA
1020 15 Jun '43

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D.G.O. to
A.M.S.O.
23 Jul '43

The Prime Minister's memorandum of June 1943 was therefore welcomed by the R.A.F. as heralding the end of an anachronism which had persisted through two years of war. The plan for the setting up of a South East Asia Command, which provoked a great deal of thought during the summer of 1943, envisaged the separation of the base area of India Command from the operational command called South East Asia, and the air forces were to be similarly divided. It was assumed, however, that there would remain in India an Air Officer Commanding who would be responsible for the maintenance and training of the air forces allotted to the South East Asia Command. This implication was based on the statement in the Prime Minister's memorandum that the Commander-in-Chief, India would be responsible for administration and training in conformity with the operational requirements of the Supreme Allied Commander. Moreover, the C.-in-C., India would control the agencies necessary for the provision of personnel and material, assembly, despatch and maintenance of the forces based on India in accordance with the requirements of the Supreme Commander.

Ibid

The A.O.C.-in-C., India was seriously perturbed about this arrangement which he considered unworkable and likely to lead to a complete breakdown in R.A.F. organisation in the S.E.A. Command. His main theme was that an Air Commander must direct and control his own maintenance and training and could not delegate this to an agency over which he had no control. Theoretically, this was sound but on the other hand it could be argued that all overseas commands had to rely, to some extent, upon some outside agency, such as the Air Ministry, for administrative services. It could also be argued that the Air Commander-in-Chief, South East Asia should have had faith in the ability of an A.O.C. India to provide him with all his requirements. Indeed this would have been the A.O.C. India's primary task. Although the views of Air Chief Marshal Peirse on the undesirability of divorcing operations from administration were sound in theory, from a

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practical point of view, some doubt existed whether or not there were adequate grounds for regarding the Prime Minister's memorandum as unworkable in so far as it concerned the organisation of the air forces in India and South East Asia.

Ibid

It would appear from the discussions that took place between the A.O.A. India(1) and various Air Ministry departments that the above reasons were not the sole or basic theories underlying the A.O.C.-in-C's dislike of the proposed organisation. It seemed that at the back of his mind, weighing like a millstone around his neck, was a constant dread of the obstructive effect on all his plans and projects, of the ponderous, cumbersome and anti pathetic Government of India machine. He considered in fact that the proposals would place the air forces in India more firmly than ever under Government of India control. There were no qualms, however, about implementing the Prime Minister's memorandum at a later stage of the war when some of the lost territories had been re-captured. When, for example, operations had reached a stage that enabled some large port, possibly Singapore, to be used as a main base for operations, S.E.A.C. could break away from India altogether. At this stage S.E.A.C. would depend to a decreasing extent upon India and increasingly on the United Kingdom for maintenance, technical supplies and personnel. Thus at a later stage no conflict was envisaged and the Prime Minister's memorandum in these circumstances was fully acceptable to the Air Forces in India.

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In the autumn of 1943, however, the A.O.C.-in-C., India was of the opinion that the Air Commander-in-Chief, S.E.A. must be entirely responsible for the control of R.A.F. operational and administrative policy in India and independent of the C.-in-C., India in this respect. The retention of an A.O.C. India, subordinate to the Commander-in-Chief, India, was thought to be necessary, but only to control the R.I.A.F. and certain aspects of its training, recruiting, pay and other similar matters. In such matters, however, the A.O.C. India would be required to follow directives laid down by the Air Commander-in-Chief, S.E.A. in regard to the training and technical policy of air forces trusted to his charge.

Ibid

The main task of the Air C.-in-C., S.E.A. may be described as the build up of his administrative, training and maintenance resources to a size and standard of efficiency which would support sustained operations of large air forces. In this respect the facilities being created for the air forces in India and South East Asia had a direct relation to the operational target force, they formed part of one organism and were likely to react to every change in policy and equipment. They needed, therefore, to be carefully attuned to every phase and degree of intensity of operations. For this reason alone it seemed necessary for the Air C.-in-C., S.E.A. to hold in his own hands, effective and direct control over all aspects of operations and administration. He could not otherwise advise the Chiefs of Staff on the ability of his air forces to conduct current or future operations.

(1) In mid-July 1943 the Air Officer Administration, A.H.Q. India, Air Vice-Marshal A. C. Collier, was sent to the United Kingdom to represent the A.O.C.-in-C., India during the discussions taking place in London.

There was another aspect. If the Prime Minister's memorandum had become effective in its original form, the organisation of the R.A.F. in India would have become basically different from that of the U.S.A.A.F. Requirements for the two forces would pass through different channels to the Government of India and R.A.F. requirements might have been subjected to checks and delays not imposed upon the U.S.A.A.F. Apart from the indignity of such an arrangement it was deemed essential that in order to achieve the most economical and efficient joint operation of the R.A.F. and U.S.A.A.F., both forces should have the same status and the same channel of communication with the Government of India.

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23 Jul '43

Although some of the arguments advanced were not wholly convincing it is necessary to bear in mind the views of the A.O.C.-in-C., India on the inertia of the Government of India machine and its stranglelike hold on progress and efficiency, especially in the field of aviation. Hence his profound conviction that action should be taken to remove control of practically all R.A.F. units in India from the Government of India and to place them directly under Whitehall through the Air Commander-in-Chief, South East Asia. There were elements of difficulty in this, but since the Air Ministry agreed it to be necessary, ways of creating such a system were found.

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A.O.C.-in-C.
to C.A.S.
15 Jul '43
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406, 9 Aug '43
A.H.B./IIJ50/
103/71A

A tendency still existed in certain Government of India departments to assume that air force responsibilities would be divided in a manner similar to that of the Army. They considered that the constitutional position necessitated the retention, under the control of the Commander-in-Chief, of all air force units and establishments based on Indian soil and not actively participating in operations against the Japanese. The position of the Air Officer Commanding-in-Chief was made difficult by the fact that various telegrams from the Secretary of State for India to the Viceroy were under discussion and the substance of these telegrams was, in the main, applicable to the Army and much was left to the imagination regarding the air forces. Air Chief Marshal Peirse however, maintained his stand against partition and upheld the principle that the air force commander must have direct command and control over all aspects of training and technical administration. 'Any deviation from this principle' he said 'would inevitably prejudice the proper war organisation and preparation for war of the air forces at the disposal of the air commander in South East Asia'.

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A.O.C.-in-C. India
28 Jul '43
A.H.B./IIJ50/103/67A

Up to that time the A.O.C.-in-C., India had not envisaged the transfer of non-technical administration of the air forces to the new South East Asia Command, and he was prepared for this responsibility to remain with the Commander-in-Chief, India. The Air Ministry, however, had had this matter under consideration and had reached the conclusion that the division of responsibility between technical and non-technical administration was not practicable. Air Ministry took the view that the Air Commander-in-Chief, S.E.A. must be fully responsible for all aspects of R.A.F. administration in both India and South East Asia. The only way of ensuring this was to remove all R.A.F. formations from the Indian establishment and return them to the Imperial system as practiced in all other overseas commands. Although strong opposition to this proposal was expected, the Air Ministry thought it important enough to fight the case. Eventually the

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23 Jul '43
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C.-in-C./252
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V.C.A.S. to
A.O.C.-in-C.
India, 3 Aug. '43
A.H.B./11J50/
103/67A

Ibid
E.39A

proposal to remove the air forces and their administration from Government of India control was agreed by the Principal Administrative Officers Committee in London. The Prime Minister's memorandum was therefore amended and placed before the Chiefs of Staff for consideration. It was still anticipated, however, that the India Office would continue to press their objections at C.O.S. and Cabinet level. The matter was finally settled in a telegram from the Secretary of State for India to the Viceroy on 9 August 1943 which confirmed that the Air Commander-in-Chief, S.E.A. would exercise complete control of the air forces.

As already mentioned, the decision to form a South East Asia Command was agreed in principle at the Trident conference and discussions regarding detailed recommendations were carried out during the following months by the Cabinet, the Secretary of State for India and the various military and civil authorities concerned. The outcome of these discussions took the form of a revised memorandum by the Prime Minister which was considered and adopted by the Quadrant conference at Quebec in August 1943. In their final report on the conference the Combined Chiefs of Staff laid down their policy for the re-organisation of the higher command in India. The reasons for this re-organisation, they said, were in order to increase the vigour and effectiveness of large scale operations against Japan and to ensure the rapid development of the air route through Burma to China.

COS(43)513(0)
Part 'A' dated
11 Sept. '43
Final Report
of Quadrant
CCS. Paper
319/5, 24 Aug.
Cab.Hist.Sect.
SACSEA.1153

Ibid

At midnight 15/16 November 1943, the Supreme Allied Commander, South East Asia, Admiral Lord Louis Mountbatten, became responsible for all operations in the theatre against Japan. The administration of India as a base for the forces of South East Asia remained under the control of H.E. the Commander-in-Chief, India (General Sir Claude Auchinleck) and in turn of the Government of India and the Viceroy. This was deemed necessary since the co-ordination of movement and maintenance of both garrison and operational forces could best be carried out by one staff responsible in the last resort to one authority with the power to decide priorities. This machinery existed in the Government of India and in General Headquarters, India, and it constituted the only machinery which could carry out the dual tasks of meeting the internal requirements of India as well as the requirements of operations in the South East Asia theatre.

W.P.(43) 414
22 Sep. '43
Cab.Hist.Sect.
SACSEA.1020
SACSEA.1153

From a study of command systems in other theatres, particularly where Allied as well as British forces were operating, the decision to appoint a Supreme Allied Commander, responsible for the conduct of operations against Japan in South East Asia and for the development of the air route to China, was considered to be the best arrangement. Subordinate to the Supreme Allied Commander came a Deputy S.A.C. and Naval, Army and Air Commanders-in-Chief, the latter all functioning as equal partners. Lieutenant-General Joseph W. Stilwell was named Deputy Supreme Allied Commander and in that capacity commanded the Chinese troops operating into Burma from India and all the United States air and ground forces committed to the South East Asia theatre. But there were many anomalies in the chain of command. General Stilwell, the Deputy S.A.C., acted as Chief of Staff to Generalissimo Chiang Kai-Shek and also lend-lease administrator for the China theatre, which for political reasons did not form part of South East Asia Command. The Naval Commander-in-Chief was only subordinate to Mountbatten in matters concerning the security and support

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of land campaigns and amphibious operations. In all matters connected with the security of sea communications and with offensive action against the Japanese naval forces, he communicated directly with the Admiralty. Finally, the British and American air forces were controlled by the Supreme Allied Commander through somewhat unusual channels. The Commanding-General, U.S.A.A.F. in India-Burma (Major-General Stratemeyer), took his orders from the S.A.C. through Stilwell and not through the Air Commander-in-Chief, S.E.A. It will be seen therefore that Mountbatten's theatre comprised a heterogeneous collection of forces which could hardly be regarded as a unified command. Mountbatten was an 'Allied' Commander but instead of three Commanders-in-Chief as would be expected, he had five subordinate commanders immediately under him some of them exercising control over matters outside those of the Supreme Allied Commander.

Ibid

Owing to the close contact which would have to be maintained with G.H.Q. India during the growth of South East Asia Command to full independence, it seemed advisable for Mountbatten to have his Headquarters at New Delhi for the time being. This location was also appropriate because the S.E.A. Army Group, Air Command and the American Headquarters were situated in that city. The Naval Commander-in-Chief, however, was fifteen hundred miles away in Ceylon. Mountbatten planned moving out of India and into the boundaries of his own Command as soon as possible and he selected Ceylon as the ultimate location. Ceylon was favoured not only because of its situation opposite the centre of the Japanese perimeter, and therefore the best place from which to control amphibious operations, but also because Ceylon could house the three Commanders-in-Chief.

ACSEA File
DACC/O10
AHQ India
Admin. Inst.
No. 149
5 Nov. '43
A.H.B./ILJ50/
103/70

Headquarters, Air Command, South East Asia came into being on 16 November 1943 with Air Chief Marshal Sir Richard Peirse as the Air Commander-in-Chief. The new Headquarters virtually comprised the old Air Headquarters, India and the subordinate units, which were transferred from India Command to South East Asia, remained substantially unchanged. The battle fought by the R.A.F. earlier in the year to bring the air forces wholly under S.E.A.C. had been won and thus the Commander-in-Chief, India lost control of the greater proportion of the British air forces in India. The exception was a small number of units in the north-west which were placed under a new and much smaller Air Headquarters, India. This new H.Q. became responsible, under the Commander-in-Chief, for specified aspects of India's air defence and internal security. These functions, in brief, comprised watch and ward of the North-West Frontier and the provision of anti-aircraft co-operation training. Although the A.O.C. India became responsible for all British air forces placed at the disposal of the Commander-in-Chief, in practice the number of such units was small. The development of the Indian Air Force in accordance with the policy of the Government of India remained also the responsibility of Air Headquarters, India. A striking anomaly is, however, apparent for although the Commander-in-Chief, India had his own A.O.C., the Air Commander-in-Chief, S.E.A. remained, in effect, chief air adviser to India Command. In practice therefore the new Air Headquarters, India constituted a small formation controlling one or two squadrons on the North-West Frontier and also functioning as an Inspectorate-General of the Indian Air Force.

Ibid

On the formation of Air Command, S.E.A. all R.A.F. units were placed on the Imperial establishment and thus on a similar footing to other overseas commands. On the other hand, units of the Indian Air Force remained on the Indian

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establishment even when under the operational control of Air Command, S.E.A. These units, like those of the Indian Army were loaned to South East Asia Command for operations against the Japanese. In addition to H.Q. Air Command, South East Asia, the Command consisted of A.H.Q. Bengal, which comprised Nos. 221 and 224 Groups, No. 222 (Coastal) Group, No. 223 (Training) Group, No. 225 (Coastal) Group, No. 226 (Maintenance) Group, No. 227 (Training) Group and all formations under their command. The only change in function related to No. 223 Group, Peshawar, which relinquished responsibility for the North-West Frontier and became solely a training group.

Integration of the British
and American Air Forces

ACSEA File
C.-in-C./6
Pt. IX, Encl. 51A
A.O.C.-in-C.
to C.A.S.
18 Sept. '43
A.H.B./ILJ50/
98/1(I)

Although all R.A.F. units in India and the Tenth U.S. Air Force came under the control of the Supreme Allied Commander, S.E.A., they continued to operate as parallel and not as integrated commands. In effect, the Commanding General of the U.S.A.A.F. India-Burma (Major-General Stratemeyer) took his orders from the Supreme Allied Commander through General Stilwell and not through Air Chief Marshal Peirse. Thus a subordinate air commander in the South East Asia theatre was responsible for his own air operations through a senior officer other than the Air Commander-in-Chief. Perhaps there was no logical reason why the air forces of the two Allies should not have been fully co-ordinated from the beginning but a number of extremely complex military and political problems were involved which the Quadrant conference did nothing to resolve.

ACSEA File
C.-in-C./37 1A
A.H.B./ILJ50/
103/64

The U.S.A.A.F.
in India-Burma
1942-44
A.H.B./ILJ50/
47/56

In October 1943 the Air Officer Commanding-in-Chief worked out proposals for the future organisation of the air forces in the South East Asia Command. These proposals envisaged a British Air Commander-in-Chief controlling all Allied air units in India and China. The Deputy Air C.-in-C., was to be an American and a subordinate command was to be established in eastern India, to replace the existing Bengal Command, also commanded by a British officer and again with an American deputy. Major-General Stratemeyer, however, was concerned as to the position of the American air forces in the new South East Asia Command and his staff prepared 'A Plan for System of Operational Command in S.E.A.' This plan assumed two operational theatres, India-Burma and China, which should be co-ordinated and integrated into one unified command. It was also assumed that China would accept the principle of combined command and that the senior American air officer (Major-General Stratemeyer) would be the Air Commander-in-Chief, equal in status to the Naval and Army Commanders-in-Chief. But in India, perhaps more than anywhere else in the global war, it seemed necessary for Britain to retain the positions of highest prestige for officers of the British forces. Air Chief Marshal Sir Richard Peirse was named Air Commander-in-Chief, S.E.A. and planning continued along lines somewhat different to that outlined above. The slight differences of opinion that existed between the U.S.A.A.F. and the R.A.F. as to the organisation to be adopted were not irreconcilable and thus did not present insuperable problems.

ACSEA File
C.-in-C./37
Encl. 2A and 3A
A.H.B./ILJ50/
103/64

During October 1943 Peirse and Stratemeyer came to an agreement for the system of operational command which was modelled, as far as appropriate, on the original set-up of the Mediterranean Allied Air Command. It was planned to

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have American air representation on the staff of the Supreme Allied Commander and that there would be combined British and American staffs under the Air Commander-in-Chief and under an American commander in eastern India. Stratemeyer would be second-in-command to Peirse and also Air Commander of the allied air forces operating against the Japanese on the India-Burma frontier. The Commander of the Fourteenth U.S. Air Force (Major-General Claire Chennault) would come under the operational control of Peirse as would Nos. 222 and 225 R.A.F. (Coastal) Groups. What these proposals did not take into consideration were the political factors which excluded China from the South East Asia Command. Thus the Fourteenth Air Force could not be placed under the Air Commander-in-Chief, S.E.A. but had to remain under the control of General Stilwell, not in his capacity as Deputy S.A.C. but as Chief of Staff to Generalissimo Chiang Kai-Shek.

ACSEA File
C.-in-C./37
Encl. 37A. Air
Mshl Garrod
to A.O.C.-in-C.
A.H.B./ILJ50/
103/64.

On 25 October 1943 Major-General Stratemeyer reversed his original decision to support the proposed system of command. Since he acted as air adviser to Stilwell and had a responsibility to the Fourteenth U.S. Air Force in respect of training and maintenance, Stratemeyer no longer thought it appropriate that he should take up the position of Air Commander of the Eastern Air Command as previously proposed. He therefore recommended the setting up of parallel instead of integrated commands and that there should be no fusion of command at any level. Stratemeyer, however, realised the necessity of close co-ordination of squadrons employed on strategic work, and also between strategic and tactical squadrons operating over Burma. Similarly, co-ordination was thought necessary between the R.A.F. and U.S.A.A.F. headquarters in the fields of planning, operations and intelligence. To achieve this Stratemeyer proposed a limited exchange of staff officers. It therefore seemed as if there would be no integration in South East Asia on the model of the Mediterranean Air Command although the Americans emphasised very clearly that as far as they were concerned they would guarantee to the R.A.F. all the co-operation that it was in their power to provide.

A.H.B./ILJ50/
103/64.
ACSEA File
C.-in-C./37,
Encl. 14A
Minutes of Meeting.
Also SACSEA. File
SC/36/a, Encl.
1. Memo on
Integration.
Cab.Hist.Sect.
SACSEA. 1176

On the morning of 28 October 1943 a meeting was held in the office of the Supreme Allied Commander at New Delhi, over which Lord Louis Mountbatten presided, to discuss integration of the air forces. Other senior officers present included Lieut-General Joseph W. Stilwell, (1) Major-General A. C. Wedemeyer, (2) Air Chief Marshal Sir Richard Peirse, (3) Major-General George E. Stratemeyer, (4) and Air Marshal Sir Guy Garrod. (5) A proposed diagram indicating the ideal organisation to be adopted was considered and the following factors determined the proposals:-

- (a) The allied air squadrons engaged in a tactical role on the eastern front of India should be under one air commander who should live with the General Officer Commanding the Allied Army forces operating on that front.

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- (1) C.O.S. to Chiang Kai-Shek: Commanding General U.S. Forces in China-Burma-India: Deputy Supreme Allied Commander, S.E.A.
 - (2) Principal Administrative Officer, HQ. SACSEA
 - (3) A.O.C.-in-C., Air Headquarters, India
 - (4) Commanding General U.S.A.A.F. India-Burma
 - (5) Deputy A.O.C.-in-C., A.H.Q. India

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- (b) The allied air squadrons engaged in a strategic role over Burma should be under one air commander whose command should be independent of the Tactical Air Force.
- (c) The co-ordination of the Tactical and Strategic air forces could not be effectively carried out from New Delhi which was too remote from the area of operations. The Air Commander-in-Chief could not himself go forward to control the air forces in eastern India since he had to be alongside the Supreme Allied Commander, and since his responsibilities for planning and for air operations elsewhere within South East Asia made it impossible for him to give his undivided attention to the battle on the eastern front.
- (d) Thus an air commander for eastern India became essential for the most effective control of the allied air forces operating over Burma and eastwards thereof.

The proposed organisation, however, had been prepared regardless of the decisions of the Quadrant conference on this subject, and regardless of any directives that may have been issued to the air commanders. The sole consideration in mind was the organisation that would provide the most effective control of the allied air forces for the defeat of the enemy. The proposed disregard of former decisions caused some concern to the American officers present and they objected to the diagram which placed the U.S. Tenth Air Force under the control of Air Chief Marshal Peirse. At Quadrant the Combined Chiefs of Staff had ruled that the Tenth Air Force would be controlled by General Stilwell through his air representative (Stratemeyer) located at the Headquarters of the Air Commander-in-Chief. Although the conference at New Delhi agreed that the diagram represented the ideal organisation, Stratemeyer could not associate himself with the agreement because the proposals conflicted with the directives he had received and from which he was not in a position to differ. The Supreme Allied Commander therefore agreed to write personally to the Combined Chiefs of Staff suggesting amendments to certain paragraphs of the final report of the Quadrant conference.

CCS. Paper
319/5 para. 54
24 Aug. '43
Final Report on
Quadrant.

ACSEA File
C.-in-C./37
Encl. 14a
A.H.B./11J50/
103/64

An Account of
the U.S.A.A.F.
in India-Burma
1942-44
A.H.B./11J50/
47/56

There were several reasons behind the American's reluctance to accept integration. Stratemeyer agreed that the diagram drawn up by Air Headquarters, India would represent the ideal organisation if his primary mission of protecting American commitments to China had not stood in the way. General Stilwell was under the obligation to withdraw all or part of the Tenth Air Force from the South East Asia Command in order to protect those commitments, if such a course became necessary. Moreover, plans were afoot for the operation of B-29 very heavy bombers from China, and it seemed important to the Americans that they should be in a position to concentrate their support on operations from China without being embarrassed by commitments to South East Asia Command. Stratemeyer believed that these results could be more effectively achieved if he did not become responsible to Peirse for all air operations over Burma. Thus the Americans preferred to have separate United States and British air forces fighting on a co-operative basis on the eastern frontier in India.

A.H.B./ILJ50/
103/64
ACSEA File
C.-in-C./37
Encl. 19A

The R.A.F., however, felt that it was no longer appropriate to take the view that American commitments to China differed from the directive given to the Supreme Allied Commander by the Chiefs of Staff. This directive laid down the primary responsibilities of the S.A.C. as:-

COSSEA 1
Chiefs of Staff
to Adml.
Mountbatten
23 Oct. '43
A.H.B./ILJ50/97

- (a) To engage the Japanese as closely and continuously as possible in order by attrition to consume and wear down the enemy's forces, especially in the air.
- (b) Of equal importance, to maintain and broaden contacts with China, both by the air route and by establishing direct contact through northern Burma.

ACSEA File
C.-in-C./37,
Encl. 19A
A.H.B./ILJ50/
103/64

Stilwell's appointment as Deputy Supreme Allied Commander ensured that the policy of the United States regarding China would be fully carried out by Admiral Mountbatten. It was not therefore appropriate to suggest that Stilwell might have to do something which conflicted with the wishes of Mountbatten, or was outside the sphere of responsibility of the Supreme Allied Commander. To sum up, the appointment of a Supreme Allied Commander altered the whole picture and welded American commitments to China into a general scheme of allied operations in South East Asia.

An Account of
the U.S.A.A.F.
India-Burma
1942-44.
A.H.B./ILJ50/
47/56

The relationships of the U.S.A.A.F. to the Supreme Allied Commander were still not clearly defined as late as 10 November although a considerable amount of correspondence had passed between the principal personalities concerned. Certain conclusions were, however, reached. The Supreme Allied Commander had no control over the U.S. Air Transport Command, an organisation responsible for air supply to China. Mountbatten had no control over the American supply and maintenance establishments in India which supported the Fourteenth Air Force. Nor could he control the American units assigned for the defence of the air ferry route to China and the air transport termini in Assam. All these matters were the responsibility of General Stilwell through Major-General Stratemyer. The latter officer, however, was responsible, again through Stilwell, to the Supreme Allied Commander for the operations of the United States Army Air Force units committed to the South East Asia Command. Thus when on 16 November 1943 Mountbatten assumed control in South East Asia, the United States and British air force organisations remained independent of each other.

As already mentioned, the Supreme Allied Commander had informed the Combined Chiefs of Staff of his decision to integrate the allied air forces and had asked them to amend the Quadrant decisions accordingly. Mountbatten had hoped that this matter would be considered by the Combined Chiefs of Staff at the Sextant conference held at Cairo during November and December 1943. Unfortunately, the question had not been included in the agenda and so no high level decision was made. But during informal talks at Cairo between Mountbatten, Portal, Marshall and Arnold, unofficial approval was given for the integration of the two air forces. General Marshall, for instance, said that it was within Mountbatten's competence as Theatre Commander to re-organise the Command as he saw fit.

A.H.B./ILJ50/103/64
ACSEA File
C.-in-C./37
Encl. 27A
Adml. Mountbatten to
Combined Chiefs of
Staff

Shortly after Mountbatten's return from Cairo he signed a directive which authorised the integration of the British and American air forces in the South East Asia theatre. This directive was shown to Stilwell and Stratemyer who agreed to carry it out loyally. They

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asked, however, that their objections to it be passed on to the U.S. Chiefs of Staff since it conflicted with Quadrant decisions which were based on conditions and premises exactly the same as those which prevailed as a result of Sextant. It was unfortunate indeed that no firm decision had been made at either Quadrant or Sextant regarding proposed operations in north Burma to clear the path of the Ledo Road. If no land campaign took place in north Burma, Stilwell and Stratemeyer saw no reason for integration and felt that the United States air effort could best be employed in the protection and expansion of the air lift to China. The Supreme Commander, however, thought that even if no land campaign took place in Burma he would fight with all the resources left to him and that integration was the best way to co-ordinate the air forces. Moreover, after integration, General Stratemeyer (as Air Commander, Eastern Air Command) would have the British air forces to supplement the Tenth Air Force in the air offensive over Burma.

SACSEA File
SC/36/a, Encls.
25 and 26.
Adml. Mountbatten
to Gens. Marshall
and Arnold
Cab.Hist.Sect.
SACSEA. 1176

SACSEA File
SC/36/a Encl. 40
Gen. Marshall to
Adml. Mountbatten
4 Jan. '44
Cab.Hist.Sect.
SACSEA. 1176

ACSEA File
C.-in-C./37/
Encl./28A
S.E.A.C.
Directive No.
5 - 12 Dec. '43
A.H.B./ILJ50/
103/46

Notwithstanding the objections raised by Generals Stilwell and Stratemeyer, the Supreme Allied Commander issued his directive on 12 December 1943. At the same time he wrote personal letters to the U.S. Chiefs of Staff explaining the local American objection to integration and asking for approval of the action he had taken. On 4 January 1944 General Marshall replied to the effect that he heartily approved of Mountbatten's action. He made, however, a reservation. Decisions made at Sextant brought from the Generalissimo a request to the President for more air units and the President had stated that the United States air units in India would be committed to the China theatre when they could be maintained there. In view of U.S. commitments to China it seemed appropriate that the United States should reserve the right to transfer units of the Tenth Air Force in India to the Fourteenth Air Force in China.

Thus on 16 December 1943 the Tenth U.S. Air Force and the R.A.F. in India were placed under the unified command of Air Chief Marshal Peirse. The combined forces so integrated formed a subordinate formation known as Eastern Air Command which consisted initially of the original R.A.F. Bengal Command and the Tenth U.S. Air Force. Major-General George E. Stratemeyer, the Commanding General of the U.S.A.A.F. in India, was designated to command the integrated forces in eastern India. Under Eastern Air Command there arose two Headquarters, the Third Tactical Air Force, under Air Marshal Sir John Baldwin, (1) and the Strategic Air Force under Brigadier-General Howard C. Davidson. (2) In exercising control of these integrated forces, the respective commanders maintained the integrity of U.S.A.A.F. groups and R.A.F. wings, while administrative control and responsibilities for supply remained under the respective American and R.A.F. commanders.

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- (1) On 16 November 1943 Air Marshal Baldwin assumed command of A.H.Q., Bengal vice Air Vice-Marshal T. M. Williams.
 - (2) Formerly Commanding-General, Tenth United States Army Air Force.

ACSEA File
C.-in-C./37
Memo. by
Maj.-Gen.
Stratemeyer
Encl. 30A
Memo. by Air
Mshl. Garrod
Encl. 31A
ILJ50/103/64.

The evolution of Eastern Air Command was not immediately completed and during the weeks following 16 December 1943 further discussions on the final organisation to be adopted took place. Major-General Stratemeyer produced a lengthy memorandum outlining his recommendations for the organisation of Eastern Air Command. His mission was stated as:-

- (a) Protection of the flow of supplies and personnel by air transport to China.
- (b) Planning and execution of air operations against the enemy in Burma.
- (c) Planning and execution of very long range (B-29) American strategic attacks on Japan from China.
- (d) Meeting the commitments of the American Government in respect of Hump tonnage to China.
- (e) Supplying and maintaining American built aircraft and U.S.A.A.F. aircraft in China and India.
- (f) Training Chinese and American air force units and personnel for combat.

The first three activities were Stratemeyer's responsibility as Air Commander, Eastern Air Command and the remainder as Commanding-General U.S.A.A.F. India-Burma.

Ibid

General Stratemeyer became second-in-command to Peirse in addition to his other appointments. The purpose of this was to make available to the Supreme Allied Commander, Deputy S.A.C. and the Air Commander-in-Chief, the experience and judgment of the senior American air officer in the theatre and to ensure, as a matter of good policy, that the U.S.A.A.F. would not be subordinated to the R.A.F. Stratemeyer insisted further that he should have direct access to the Supreme Allied Commander and other authorities on matters for which he was responsible and yet were not conducted within the framework of the South East Asia Command. In this way Stratemeyer proposed to arrange his time so as to be available to Mountbatten and Peirse for consultation on all matters affecting the employment of U.S. Army Air Forces by the South East Asia Command. Moreover, Stratemeyer, as second-in-command to Peirse wished to be designated Assistant Air Commander-in-Chief to distinguish his position from that of Air Marshal Garrod, the Deputy Air C.-in-C. Stratemeyer, however had no desire to infringe upon Garrod's responsibilities as Deputy Air C.-in-C., nor did he wish to make himself a working member of the Air Commander-in-Chief's staff.

Ibid

During the formative phase of Eastern Air Command, and for so long as the Supreme Allied Commander and the Air Commander-in-Chief were located at New Delhi, General Stratemeyer considered that his Headquarters should also be there. But when the Headquarters of the Supreme Allied Commander moved to Ceylon, he planned that Eastern Air Command should move nearer the battle area in eastern India. The location of H.Q. Eastern Air Command at New Delhi did not satisfy the Air Commander-in-Chief who wanted a subordinate Headquarters in the Bengal area to control operations against the Japanese on the India-Burma frontier. To overcome this problem, Stratemeyer decided to have only two headquarters under his Command, the Strategic Air Force of heavy and medium bombers, and the Tactical Air Force of fighters, light bombers, transports and reconnaissance aircraft. With only two

commanders immediately under E.A.C., Stratemeyer did not need to concern himself with day-to-day control since his two subordinate commanders could be given full authority to conduct operations under broad general directives. Air Marshal Garrod, however, was somewhat sceptical of this policy and considered that Headquarters, Eastern Air Command should be located nearer the battle area as soon as possible. Nevertheless, Eastern Air Command remained at New Delhi until April 1944 and the two subordinate headquarters of Eastern Air Command grew to four.

The Chain of Command
in South East Asia

When South East Asia Command formed in November 1943 nearly all political and military power in India was concentrated at New Delhi. The capital accommodated the Supreme Allied Commander, the Army and Air Commanders-in-Chief, the principal American Headquarters and H.Q. Eastern Air Command. Owing to the close contact that had to be maintained with the Government of India and G.H.Q. India during S.E.A.C.'s growth to full independence as a Command, it was advisable that Delhi should at first be the focal point of control. The Supreme Allied Commander, however, wished to move his Headquarters out of India and into the boundaries of his own Command as soon as possible and he selected Kandy, Ceylon as the ultimate location. Ceylon was in fact practically the only territory in South East Asia Command not occupied by the enemy. It was favoured because of its central position in relation to the Japanese perimeter. Ceylon accommodated the Headquarters of the Eastern Fleet and Mountbatten planned that the headquarters of his Army and Air Commanders-in-Chief should also be established in the Island. Moreover, the Supreme Commander felt that the principal headquarters of South East Asia Command should be removed geographically from the parent organisation (G.H.Q. India) lest they should become too deeply rooted in New Delhi. The Naval C.-in-C. was understandably greatly in favour of the move while Air Chief Marshal Peirse did not in the first instance oppose it. General Giffard, the Army C.-in-C., S.E.A., opposed the move categorically since his H.Q. could not at that time function properly without the assistance of G.H.Q. India and because Ceylon was even farther from the battle front in Burma than New Delhi. The latter argument did not hold good, however, since the emphasis of operations as planned envisaged large scale amphibious operations. This being so, Ceylon was undoubtedly the logical centre of operational control.

The withdrawal of nearly all amphibious resources from South East Asia in January 1944 diverted interest from such operations to a land campaign in Burma and both Giffard and Peirse therefore wished to abandon or delay the move to Ceylon in order to remain in close touch with G.H.Q. India. But this dependence upon India Command was the very thing the Supreme Commander wished to avoid and he decided to move his own Headquarters to Kandy on 15 April 1944. It was not possible, however, for the Army and Air Commanders-in-Chief to move at the same time and as a temporary measure they were allowed to send a deputy with adequate staff to represent them at Kandy. The Naval C.-in-C. already had a representative at New Delhi and the Supreme Allied Commander left behind a small rear Headquarters.

Yet further complications developed. Major-General Stratemyer, as senior U.S.A.A.F. officer in the theatre, had decided to remain at New Delhi only as long as the Supreme Allied Commander remained there. When Mountbatten moved to Kandy Stratemyer was free to go forward, a step greatly desired by the Air Commander-in-Chief. When the Headquarters of Eastern Air Command opened at Calcutta on 17 April 1944, the problem of effectively co-ordinating the integrated air forces in eastern India was satisfactorily settled. But the move while solving one problem created another. The administrative control of American units also gravitated to Calcutta since this remained the responsibility of Major-General Stratemyer in his other capacity of Commanding-General U.S.A.A.F. India-Burma. Thus by April 1944, the various headquarters of South East Asia were hopelessly scattered. Delhi remained the nodal centre since the Government of India and G.H.Q. India were the agents for many administrative services. The Supreme Allied Commander and the Naval C.-in-C. were in Ceylon, the Army and Air Commanders-in-Chief in New Delhi and the American Air Headquarters at Calcutta. In addition, General Stilwell as Commanding-General of all U.S. forces in China-Burma-India had one H.Q. at Chungking and another at New Delhi while his position as Deputy Supreme Allied Commander should have demanded his presence at Kandy. All these headquarters were dependent, in large measure, upon the services supplied by the Government of India and they all needed to co-operate with each other.

This incredible dispersal set up a chain of command which was hardly conducive to operational or administrative efficiency. For instance, the Supreme Allied Commander at Kandy was responsible for air policy through his Air Commander-in-Chief at New Delhi. Stratemyer at Calcutta was responsible for fighting an air war over Burma. Thus if Stratemyer wanted a high level decision from the Supreme Allied Commander a request had to go from Calcutta via Delhi to Kandy and return by the same circuitous route. It would have been more logical for Stratemyer to communicate direct with the Deputy Air C.-in-C., who was alongside the Supreme Commander at Kandy, although this would have by-passed the Air C.-in-C. Nevertheless, it sometimes happened. This anomalous situation was not resolved until the autumn of 1944 when the Air Commander-in-Chief moved his Headquarters from New Delhi to Kandy.

Operational Control in H.Q., Air Command, South East Asia

The change in role of the allied air forces in South East Asia from the defence of India to that aggressive role symbolised by the reconstitution of A.H.Q. India as H.Q. Air Command, S.E.A., was reflected in extensive developments in organisation. The setting up of a Supreme Allied Command in India called into being a whole hierarchy of headquarters which presented the higher command the multifarious problems associated with the fusion of British and American staffs. Headquarters, Air Command was primarily R.A.F. in composition although it had on its staff a small number of American officers. The reason for this lack of integration at Command level lay in the fact that the senior U.S.A.A.F. officer was, in fact, Air Commander of Eastern Air Command and also Commanding-General U.S.A.A.F. India-Burma. Moreover, H.Q. Air Command had operational responsibilities which

H.Q. ACSEA.,
O.R.B.
Feb. '45
Appendix
A/AOA/1

were of no concern to the Americans and it was appropriate that integration should only take place in the area where the R.A.F. and U.S.A.A.F. had mutual interests, that is to say, in Burma.

A.H.B./IIJ50/
103/64
ACSEA File
C.-in-C./37
Encl. 35A
EAC. General
Orders No. 1

Before the advent of Eastern Air Command on 15 December 1943, air operations against the Japanese in Burma were controlled by Air Headquarters, Bengal on the one hand and by the Tenth U.S. Air Force on the other. These two formations lost their identities and Eastern Air Command, with H.Q. at New Delhi, became the major operational headquarters controlling all Allied air forces in Bengal and Assam, with the exception of the American Air Transport Command and later the U.S. 20th Air Force. Under Eastern Air Command were four subordinate formations, a Strategic Air Force, Third Tactical Air Force, Troop Carrier Command and Photographic Reconnaissance Force.

The Strategic Air Force, under Brigadier-General Howard C. Davidson, came into being at Calcutta on 15 December 1943. The R.A.F. element of the Force comprised No. 231 (Bomber) Group, a new headquarters which took over control of R.A.F. heavy and medium bomber squadrons from No. 221 Group on the move of the latter to Imphal on 16 December. Initially, No. 231 Group was commanded by Group Captain N. Singer but on 10 January 1944, Air Commodore F. J. W. Mellersh became Air Officer Commanding. Two days later he also assumed the title of Assistant Air Commander of the Strategic Air Force. No major problems of organization arose within the Strategic Air Force and it retained its identity for the remainder of the war in Burma.

On 18 December 1943, Third Tactical Air Force, under Air Marshal Sir John Baldwin, formed at Comilla, its personnel coming mainly from the old A.H.Q. Bengal. Under Third T.A.F. were No. 224 Group, R.A.F. at Chittagong, No. 221 Group, R.A.F. at Imphal and the Northern Air Sector Force, U.S.A.A.F. at Din Jan. A few weeks later on 1 January 1944, the American Air Commando Force, which had been sent to India to work alongside General Wingate's Special Force, was placed under the operational control of Third T.A.F. Thus the greater proportion of the allied air forces opposing the Japanese on the Burma front were under Baldwin's command. Certain complications set in and changes had to be made in the chain of operational control. When located at Calcutta, No. 221 Group had controlled all R.A.F. fighter and bomber squadrons in the area. On 15 December the Group transferred responsibility for the bomber squadrons to No. 231 Group but retained control of No. 293 Wing and its fighter squadrons defending the Calcutta area. This somewhat remote control of No. 293 Wing proved inefficient and the Wing was transferred to No. 224 Group on 27 December 1943. But this too was an unsatisfactory arrangement since No. 224 Group, primarily engaged in fighting an air war over the India-Burma frontier, had an undesirable responsibility several hundreds of miles to its rear. No. 293 Wing was therefore placed directly under Third Tactical Air Force on 18 March 1944. Yet another anomaly existed in Third T.A.F. The Headquarters, responsible for all fighter, fighter-bomber and light bomber operations within its operational area, was also responsible for No. 171 (P.R.) Wing, R.A.F., although the latter assisted both Tactical and Strategic air forces. This problem was eventually solved on 1 February 1944 when an integrated Photographic Reconnaissance Force, under Group Captain S. G. Wise, was

set up at Calcutta. Henceforth, the P.R. Force, comprising No. 171 Wing, R.A.F. and 5306th (P.R.) Group, U.S.A.A.F., came under the direct control of Eastern Air Command. Units of the P.R. Force were from time to time placed under the operational control of other subordinate commands in E.A.C. but a substantial measure of overall control was, however, retained by the P.R. Force Commander.

A.H.B.
Narrative,
Air Supply
Operations in
Burma, 1942
to 1945

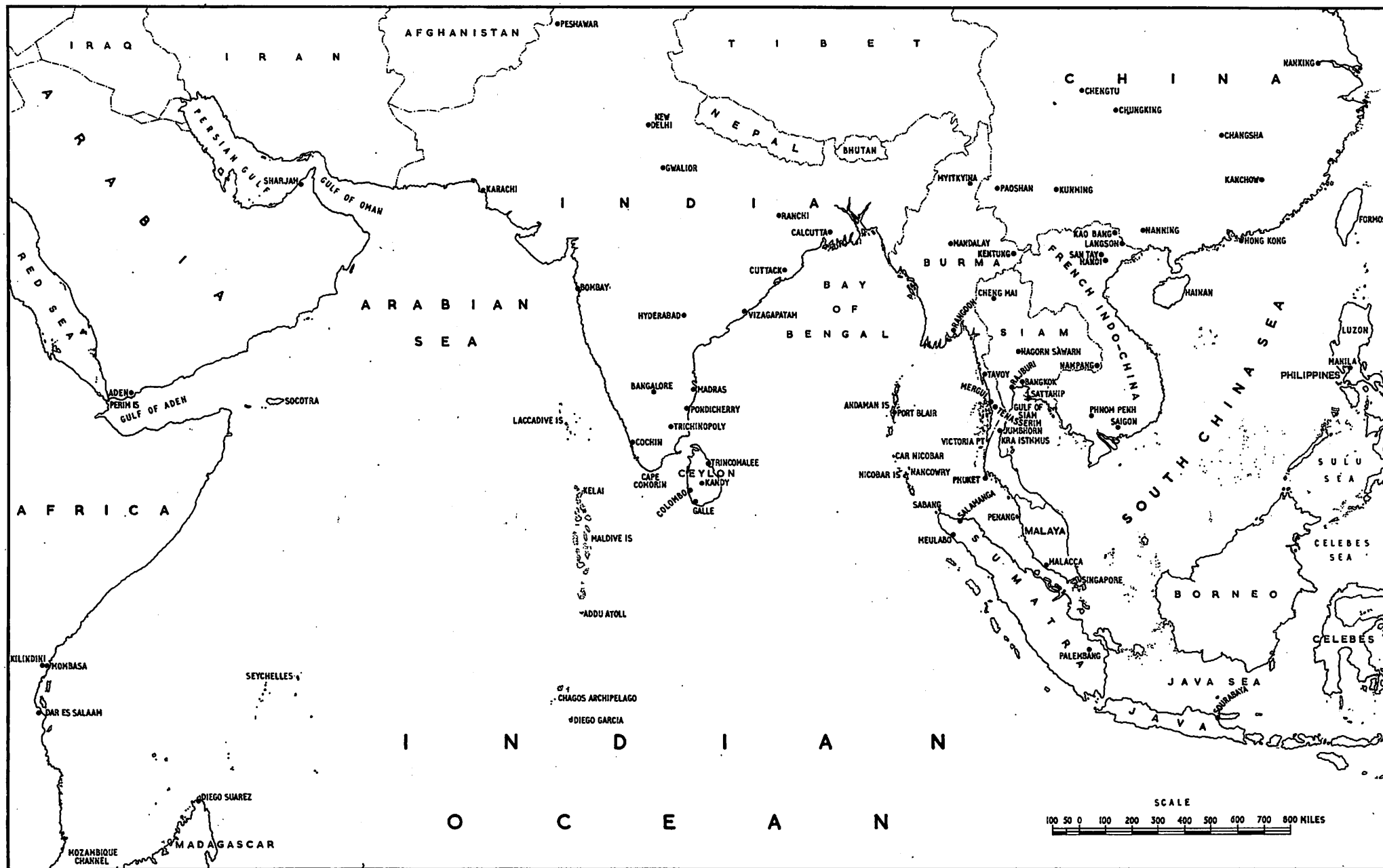
During 1943 the activities of transport squadrons were not operationally controlled by a separate transport headquarters. The R.A.F. squadrons came under Air Headquarters, Bengal and the United States squadrons under the Tenth Air Force. Liaison was to some extent effected in practice though in theory there was no provision for it. Not until January 1944 did a proper transport headquarters, known as Troop Carrier Command(1), become established to exercise operational control over all transport squadrons in Bengal and Assam, with the exception of the U.S. Air Transport Command. But this organisation had its teething troubles. The enormous demands made upon it during the critical period between February and May 1944 were a strain on its resources far in excess of anything that had been anticipated. Eventually the organisation became too inflexible to deal with the increasing commitments and some re-organisation had to be effected. This co-incided with other changes in Eastern Air Command which were made in the light of experience gained during the first half of 1944.

ACSEA File
AGRG/310
Encl. 40A
Deputy Air
C.-in-C. to
A.O.C. No. 222 Gp.
15 Dec. '43
A.H.B./IJ50/
103/69B

Elsewhere in Air Command, South East Asia, changes in the system of operational control were made shortly after the formation of the new Command. In December 1943 a new directive from the Chiefs of Staff enabled a more clear cut policy to be adopted and better defined the system of control and responsibility for coastal operations. The boundaries of the Naval Commander-in-Chief's command were extended to include East Africa and Aden and thus all G.R. aircraft in these areas were, in the interests of consistency, placed under Air Command, S.E.A. Day-to-day operational control in the Mozambique channel, the Gulf of Aden and the Gulf of Oman remained with the local commander but broad control was exercised through the Air Officer Commanding, No. 222 Group, Colombo, who worked in close liaison with the appropriate Naval and South African air authorities. No. 222 Group therefore had a dual responsibility - the air defence of Ceylon and the direction of all coastal operations in the Indian Ocean from East Africa and Aden to the Japanese perimeter.

Two other R.A.F. group headquarters formed in December 1943. The extension of R.A.F. Transport Command activities into India was brought to a logical conclusion with the formation of No. 229 (Transport) Group at New Delhi. This Group safeguarded R.A.F. Transport Command interests in India and co-ordinated internal air services and ferrying within the sub-continent. Finally, No. 230 (Maintenance) Group was established at Calcutta and made responsible for all R.A.F. maintenance within the Eastern Air Command area.

(1) Commanded by Brigadier-General William D. Old, one of the pioneers of the Hump route.



Re-organization in Eastern
Air Command, May-June 1944

A.H.B. Narrative
Air Supply
Operations
in Burma.
1942 to 1945

For the reasons already mentioned, Troop Carrier Command ceased to function on 1 May 1944 as a separate headquarters under Eastern Air Command and was placed under the operational control of Third Tactical Air Force. Operationally this change worked reasonably well since the Air Commander, Third T.A.F., who was responsible for direct air support to the land forces, was placed in a position whereby he could exercise centralised control over transport operations in co-ordination with fighter support. On 4 June 1944, Troop Carrier Command was dissolved and transport operations were controlled direct from H.Q. Third Tactical Air Force. The elimination of T.C.C., however, had many drawbacks. It had already been recognized that air transport needed the backing of specialist knowledge of the complex problems peculiar to a new technique of war. The Third Tactical Air Force was not constituted to deal with these problems and it became necessary for a small 'Cell' of specialist officers to be detached from No. 229 Group. These officers acted as advisers on air transport to the Air Commander, Third T.A.F. and assisted in formulating plans for a new integrated transport headquarters. But, paradoxically, the very means adopted to resolve current problems in turn succeeded in creating new ones, which it would be profitless here to define since the subject properly belongs to a later portion of this narrative.

SEAC Op.
Directive No.
12 - 9 Jun. '43
A.H.B./ILJ50/85c
App. 16

At the beginning of June 1944 a new directive was received from the Chiefs of Staff by the Supreme Allied Commander. This directive ordered Mountbatten to develop, maintain, broaden and protect the air link to China and as far as was consistent with the above, to press advantages against the enemy by offensive air and land operations during the monsoon. In the light of this directive and in accordance with the desire to use the land and air forces to the greatest possible extent during the monsoon period, the Supreme Allied Commander issued new directives to his commanders-in-chief. As a result it became necessary to adjust the existing air force organisation so as to ensure that the units of Eastern Air Command were best disposed to co-operate effectively with two separate Army commands. During the first half of 1944 all land and air forces fighting on the India-Burma frontier were controlled by Fourteenth Army and Third Tactical Air Force. In the northern sector of the front Stilwell commanded the Chinese forces advancing into Burma, and in theory Stilwell came under General Slim's Fourteenth Army.(1) It had been agreed some months earlier that this system of command should only remain in force until Kamaing had been reached and when this event occurred on 16 June 1944 Stilwell's Chinese forces operated directly under the Supreme Allied Commander. Instead of one Army command there now existed two - Stilwell's Northern Combat area command and Slim's Fourteenth Army, each of which, according to accepted

(1) Control by General Slim was purely formal and in effect Stilwell operated alone. This was logical since Stilwell as D/SAC was Slim's superior officer and yet in the field Slim was allegedly senior to Stilwell. This situation arose because Stilwell refused to operate under the command of General Giffard, Commander of 11th Army Group.

practice, needed a tactical air force in support. Thus the Tenth U.S. Air Force (1) was reconstituted and given the task of supporting Stilwell's campaign. This enabled Third T.A.F. to concentrate its attention on the central and southern sectors of the front. At the same time it was determined to divide the transport squadrons between the Tenth Air Force and Third T.A.F., thus permitting the commanders of these two forces to have under their control the transport units engaged in supplying the ground forces with which the air commanders were co-operating. The Commander of the Tenth Air Force, however, had the advantage of a formation known as Air Cargo Headquarters, to assist in the employment of the air transport resources in the north. On the other hand the Third T.A.F. Commander had no such formation under his control and had to rely for advice upon the small 'cell' of three or four specialist officers attached to his H.Q. from No. 229 Group. Subsequent events were to show that Air Cargo H.Q. would endow the Tenth Air Force with an efficiency which could not be matched by the transport squadrons under Third T.A.F. These reorganizations took effect from 20 June 1944 on which date, and for some months thereafter, Eastern Air Command comprised the Strategic Air Force, Third T.A.F., Tenth U.S.A.A.F., P.R. Force and No. 293 (Defensive Fighter) Wing, R.A.F.

With the reconstitution of the Tenth Air Force as an operational command entirely American, Major-General Howard C. Davidson relinquished command of the Strategic Air Force to assume command of the Tenth, whose H.Q. were moved from Calcutta to Kanjikoah in the Upper Assam valley. Two U.S. fighter and one transport group were allotted to the Tenth Air Force for operational control as well as for administration. With this force and its attendant fighter control, radar network, anti-aircraft and ancilliary units, the Tenth U.S. Air Force defended the air route to China and furnished air protection and ground support to Stilwell's Chinese, American and British forces in north Burma. A further result of the reorganisation was the assumption of command by Air Commodore F. J. W. Mellersh of the Strategic Air Force, which contained for operational purposes the 7th U.S. Bombardment Group and No. 231 Group, R.A.F. As before, the Third T.A.F. continued to operate with British and American units, namely Nos. 221 and 224 Groups, R.A.F., a United States medium bomber group and a U.S. transport group. These forces operated within the limits of central and southern Burma, co-operating with the Fourteenth Army's XXXIII Corps in Manipur and XV Corps in Arakan.

(1) From 15 December 1943 to 20 June 1944 the Tenth A.F. existed only as an American administrative H.Q.

CHAPTER 2PLANNING AND STRATEGY
1943 - 1944Background

After the fall of Burma in May 1942 the war in South East Asia remained somewhat static apart from a few skirmishes, notably the first abortive Arakan campaign and the brave if strategically profitless Wingate Expedition of 1943. In the autumn of that year the Japanese were still in possession of a western perimeter ranging from North Burma through Malaya to the Netherland East Indies. Allied forces held positions on the India-Burma frontier backed by lines of communication that were, according to British apologists, barely adequate for defence let alone attack. Elsewhere in South East Asia Allied forces were not even in contact with the enemy since they were based far from his perimeter and separated by vast expanses of water. The establishment of initial contact in these areas could only be achieved by amphibious forces and subsequent offensives had, perforce, to depend for maintenance upon long sea communications. While no progress was being made in South East Asia during 1942 and 1943, Allied forces in the Pacific area mounted successful attacks in the Aleutian, Gilbert and Solomon islands, and advances were also made in New Guinea. But as yet the technique of island hopping across the Pacific towards Japan had not proved economical or swift and it seemed likely that China would play a major geographical role in the ultimate defeat of Japan. It was therefore logical that the United States primary aim in South East Asia should be to keep China in the war, use China as an air base and batter Japan to defeat by strategic bomber attack.

The Allies in South East Asia faced from the very beginning the necessity of reconciling their conflicting objectives. The primary American interests were to use India as a base for the establishment of air and land routes across northern Burma to China's Yunnan province for the purpose of forwarding supplies to the forces fighting the Japanese within China. Britain had no such commitments to China and her primary interests were the re-conquest of Burma, Malaya, the Andamans, Sumatra and Siam. With these somewhat diverse national objectives and geographical discrepancies in mind, differences of opinion regarding strategy in the South East Asia theatre were inevitable. The United States wanted to push the fabulous Ledo Road through North Burma to China while Britain wanted amphibious operations to the south. Although these two conceptions of strategy were divergent in motive, in one respect they were complimentary. Both nations had an interest in Burma. The land line to China could not be reopened without a conquest of northern Burma and the British plan (Anakim) for the liberation of Burma called for operations in the north in addition to an amphibious attack against Rangoon. Operation Anakim had been approved by the Combined Chiefs of Staff at the Casablanca conference to take place during the 1943-44 campaigning season but the failure of operations in the previous winter made Britain chary of mounting major operations in Burma unless substantial resources could be made available. Field Marshal Wavell, Lieut-General Stilwell and their principal commanders were therefore summoned to appear before the Trident conference at Washington in May 1943 for

a review of strategy in South East Asia. During this and subsequent conferences between the President, the Prime Minister and their Chiefs of Staff, the divergence of interests was compromised, eventually allowing an agreed statement on strategic aims in South East Asia. At each of these meetings, however, British and American opinion was sharply divided over the question of aid to China and operations in Burma but on each occasion the American plan of establishing land communications with China through North Burma emerged triumphant.

The Trident Conference at Washington in May 1943

COS(43)281(0)
Pt II d/d
3 June 1943.
Record of
Plenary
Meetings

At the Trident conference British representatives presented a solid stand against Anakim on the grounds that the Army in India lacked the necessary resources and training. Britain therefore questioned the value in trying to retake Burma in 1943-44 since even with adequate resources, chances of a successful Anakim appeared gloomy. Rather than mount a hazardous operation to open land communications with China it seemed more reasonable to concentrate on increasing the air lift over the Hump. Burma was an unattractive place in which to fight since the terrain was difficult, the country infested with Malaria and the south-west monsoon rendered six months of each year hopeless for campaigning. All these factors, together with the tenuous line of communication in Assam, which had to support any land offensive in North Burma, and the difficulties of mounting an amphibious operation against Rangoon, made the prospects of Anakim bleak. Moreover, operations in the jungle swamps of Burma were not likely to help the Chinese since the road to China could not be made effective until early in 1945 even if operations in Burma were completely successful. Thus the British Chiefs of Staff advocated a passionate development of the air route and a build up of the air forces in China. To achieve this there appeared to be no need for any re-conquest of Burmese territory provided the Allied air forces were adequate for the neutralisation of the Japanese air force. As an alternative to operations in Burma the Prime Minister suggested amphibious operations in the southern regions, preferably an attack on the tip of Sumatra as a prelude to the invasion of Malaya.

Ibid

The Americans felt that China was in a dangerous political position and that the Allies should not let her go to pieces. It seemed imperative to the U.S. that the Allies should not be put into a position of being in any way responsible for a collapse of China and therefore active co-operation was thought to be essential. The United States regarded China as a base which the Allies wanted both for its geographical position and for the use of Chinese manpower. This being so it was necessary to re-open land communications with China, even though initial supplies by road would be small. Indeed the opening of the Burma Road seemed likely to have a tremendous moral effect upon China since they regarded it as symbolic of the Allies desire to assist in her struggle against Japan. The Americans too were in favour of increased Hump tonnage but as to the use of that tonnage some conflict arose. It was the view of Chennault and many of his American supporters that Stilwell's insistence on priority for his training establishments in Yunnan was not correct. They argued that the bulk of the supplies carried across the Hump into China should be used not for the training of Stilwell's land forces but for operations by the

Fourteenth Air Force. To Stilwell this view appeared wholly wrong. He feared that much activity from unprotected air bases would merely stimulate a heavy Japanese land campaign against airfields in China. But this possibility did not disturb Chennault and he argued that his aircraft and Chinese ground troops would be able to repel any such attack. China, however, was greatly perturbed about the possibilities of internal trouble and of what might happen if some immediate and spectacular action did not take place to revive the spirits of the Chinese people and troops. But it was obvious that nothing spectacular could be accomplished immediately or for many months to come on the ground in Burma and since the building up of Chennault's Fourteenth Air Force was what the Generalissimo desired most of all, Roosevelt's decision went against Stilwell.

COS(43)281(O)
(T) Part II
3 Jun. '43
Resolutions
of Trident

Telegram
58353/COS
C-in-C. India
to Chiefs
of Staff

Telegram
65566/COS

The outcome of the Trident conference was a decision to cancel Anakin and to concentrate all available resources in South East Asia on increasing the air route to China to a monthly capacity of 10,000 tons by the autumn of 1943. Ninety percent of the tonnage flown into China was allotted to the U.S. Fourteenth Air Force. At the same time plans were laid for the conduct of vigorous and aggressive land and air operations in north Burma as an essential step towards opening the road to China. Without prejudice to operations in north Burma, amphibious operations were to take place for the capture of Akyab and Ramree islands. The resolutions of the Trident conference came under examination at G.H.Q. India and the conclusion reached that since priority had been given to the air lift over the Hump, the limitation of the Assam line of communication would not permit intensive land operations to be mounted in north Burma. For instance, ill fortune beset the lines of communication to eastern India in the form of widespread flooding resulting from the river Damodar bursting its banks and changing its course. This came at a time when transportation on the lines of communication were already in arrears owing to various causes and also when demands on its capacity were already increasing. The floods that occurred in July 1943 could not fail to affect the preparations for operations in 1943-44 and on 13 August 1943 the Commander-in-Chief, India telegraphed his views of the situation to the Chiefs of Staff.

The Quebec Conference of August 1943 - Quadrant

Apart from the creation of the complicated and largely abortive (through no fault of its own) South East Asia Command, the Quebec conference appears to have accomplished little, except the listing of a number of individual operations most of which never took place. British representatives at Trident had tried to convince Americans that large scale operations in Burma during 1943-44 were both undesirable and impracticable. Moreover, political considerations led the Americans to regard the need for early help to China as being important, far more so than did the British. At Quadrant, however, while Britain agreed to operations in north Burma they also desired an amphibious operation against Sumatra in place of the Akyab and Ramree operations which had been approved at Trident. The Americans too disliked Akyab and Ramree but they doubted whether sufficient resources could be made available for both Sumatra and the opening of the road to China. The President therefore considered that all resources should be devoted to achieving the latter.

COS(43)513,
(O) Part 'B'
11 Sept. '43
COS(C)7th
Meeting
11 Aug. '43

COS(43)513
(O) Part 'A'
COS Paper
319/5
24 August
1943

The resolutions of the Quadrant conference regarding strategy in South East Asia modified the decisions made at Trident in so far as it was now resolved to give first priority to land and air operations which would be necessary to establish land communications with China. In addition the conference decided to continue the development of the air route in order to intensify operations against the Japanese with increased air forces in China, to keep China in the war and to equip Chinese ground forces in Yunnan. Britain, however, achieved one of her aims in keeping possible amphibious operations alive, preparations for which were to continue. Pending a decision on the particular operation, the scale of preparations were to be in the order of those contemplated at Trident for the capture of Akyab and Ramree. But apart from specific operations a need existed for applying the maximum attrition to Japan's air and naval forces and her shipping since she depended greatly upon sea and air power for maintaining her position in the South East Asia theatre.

Telegram
COSSEA 1
Chiefs of
Staff to
Adml
Mountbatten
23 October 1943
A. H. B./IIJ50/97

On 24 October 1943 the Supreme Allied Commander received his first directive from the Prime Minister. This confirmed the strategic decisions taken at Quadrant by which two main tasks were given to South East Asia Command. Firstly, the Japanese were to be engaged as closely and continuously as possible and his forces, particularly his air forces, worn down so that he would be compelled to divert reinforcements from the Pacific theatre. Secondly, and of equal importance, contacts with China were to be maintained and broadened, both by air and by establishing direct contact through North Burma by suitably organised air supplied ground troops. Full use was to be made of the advantage which air and sea power could give by mounting an amphibious operation, which would induce a powerful reaction from the enemy so that further exploitation could be made in the light of that reaction.

Planning of Operations for 1943 and 1944

A. H. B./IIJ50/
103/66
ACSEA File
ACG/79
Minutes of
Meeting
19 October
1943

The extent to which Generalissimo Chiang Kai-Shek was prepared to participate in the coming campaign in Burma constituted a first essential in planning and a meeting at Chungking between Admiral Mountbatten, the Generalissimo and the senior American commanders took place in October 1943. The meeting agreed that no major operations could be undertaken until after January 1944 and that two Chinese forces, one based on Ledo and the other on Yunnan, would undertake operations to clear the Japanese from north-east Burma. But since these and other operations would be dependent upon air supply, Chiang Kai-Shek was told that Hump tonnage could not be given overriding priority and that no date could be guaranteed for achieving the first target of 10,000 tons per month over the Hump. It is interesting to note that Mountbatten had little control⁽¹⁾ over the American Air Transport Command, the

(1) The Americans probably realised that British commanders on the Burma front would cast covetous glances at the large number of transport aircraft employed on the China run. Control in the hands of Mountbatten might conceivably have meant the diversion of air lift from Chinese to British interests.

control of which the Americans jealously reserved for themselves. The Supreme Allied Commander, however, was authorised to divert not more than 1,100 tons per month from Hump tonnage to the requirements of the Burma campaign. Diversions in excess of this figure could only be made to meet sudden and critical emergencies or by permission of the highest authority. While the two Chinese forces were to advance in North Burma, British operations were to be mounted in central Burma and in Arakan. An operation by Wingate's Special Force was planned and also an amphibious operation the exact nature of which would be decided at a later date. The Generalissimo laid great stress on the need for a successful amphibious operation and made his support contingent upon such an operation being carried out supported by an adequate battle fleet. Just why Chiang made this provision is still obscure since an amphibious operation anywhere except against the Burma coast could not possibly help the Chinese fighting in North Burma.

COS(43) 513
(O) Part A
1st Plenary
Meeting (Q)
19 August
1943

The Prime Minister particularly wanted an operation against Sumatra and S.E.A.C. planners examined the possibilities of such an operation the code name of which was Culverin. The only resources available for this operation were those which had been allotted to India Command for the capture of Akyab and Ramree. Since no further resources could be made available from the west the projected assault could not be mounted and Culverin was postponed. The next objective, and one that lay within the scope of the resources in hand or definitely allocated, appeared to be the Andaman Islands. These lay in the middle of the Japanese perimeter of air and naval bases which stretched from southern Burma to Sumatra. The islands could provide shore based fighter cover for amphibious convoys passing through the area, a base for reconnaissance aircraft and more important still, a base for bombing the newly constructed Burma-Siam railway and shipping in the Gulf of Siam. But the operation could hardly induce powerful reaction from the enemy and could therefore only partly fulfil the terms of the Prime Minister's directive.

During November 1943 intensive planning continued and by the end of the month a number of operations had been decided upon. The capture of the Andaman Islands (Buccaneer) has already been mentioned. In the Arakan sector of the Burma front, operations were to be mounted by XV Corps, supported by No. 224 Group, R.A.F., to secure positions farther south on the Mayu Peninsula in anticipation of an attempt to secure Akyab with amphibious forces. In the central sector of the front it was planned that IV Corps, supported by No. 221 Group, R.A.F., should launch an offensive across the Chindwin. In North Burma, Stilwell's Chinese forces, supported by the Northern Air Sector Force, U.S.A.A.F., were to advance down the Hukawng valley to secure the trace of the Ledo Road. These operations were to be supplemented by an advance of the Chinese Expeditionary Force, supported by the Fourteenth U.S. Air Force, from Yunnan to Bhamo and Lashio to secure the China end of the Burma Road. Finally, Wingate's Special Force, supported by No. 1 Air Commando, U.S.A.A.F. and the Third Tactical Air Force, were to penetrate into north-central Burma to assist the advances from Ledo and Yunnan. If successful these operations would expel the Japanese from North Burma, clear the trace of the Ledo Road to China and also place Allied forces in favourable positions for further operations after the 1944 monsoon.

The American Plan for a Bomber Offensive on Japan from China

EPS. Folder
A.2. A.H.B./
ID/4/3.
J.S.M.
Washington to
G.H.Q. India
1 September
1943

Early in September 1943 the Commander-in-Chief, India received information from Washington of an air plan for a bomber offensive to accelerate the defeat of Japan. This plan had been prepared at Quebec by the American Air Planning Staff. The scheme contemplated the bombing of Japan itself with a bomber force built up at Changsha where it would be maintained by a fleet of transport aircraft based on Calcutta. The plan postulated an increase in capacity of the port of Calcutta that was more extensive than anything previously envisaged, and the development of 45 airfields in the Calcutta area. On 8 September 1943 the Commander-in-Chief, India cabled to Washington his comments on the plan and making clear his objections to it. There were in fact no administrative or constructional plans in existence for a major port development, suitable airfield sites in the Calcutta area could not be found in time and the petrol lift required for the force was beyond the capacity of existing transportation facilities.

SACSEA File
SC/193
Telegram
75083/COS.
C.-in-C. India
to C.O.S.

Later in September the Commander-in-Chief, India received from the American Headquarters at New Delhi their reaction to the Quebec air plan. They agreed that the scheme was administratively unsound and put forward an alternative plan for bombing Japan with aircraft based partly on Calcutta and partly in China. Under this scheme seven airfields had to be provided in India by August 1944. Once again India Command questioned the soundness of the plan and they could not guarantee that the airfields would be built by the date given.

SACSEA File
SC/193
Telegram
64381 COS to
C.-in-C. India
12 November
1943

This project whereby very heavy B-29 bombers could strike at Japan although again modified was considerably hastened. Four airfields in the Calcutta area were now required by March 1944. The reasons behind the plan to operate B-29 bombers from China may be found in the desire of the United States to attack the Japanese steel industry. Japanese military, naval and shipping strength was dependent in large measure upon this steel industry which could be reached by very long range bombers operating from China. The plan assumed that the bombers could supply themselves by air from bases constructed near Calcutta without disturbing existing air combatant commitments as agreed at Quadrant. The scheme, however, was given priority after the air route to China and operations in North Burma. In order to hasten the project the Prime Minister on 12 November 1943 asked the Government of India to render every possible assistance in the construction of four air bases in Bengal. But since the airfields could not be built without drawing on key personnel in India, the Americans promised to send to India a contingent of airfield engineers. Chiang Kai-Shek was also asked to hasten the construction of five advanced bases - financed by lend-lease funds - in the Chengtu area of China. The plan was a bold but entirely feasible project and by these operations it was hoped that Japanese naval and military power could be crippled and that victory for the Allies in Asia could thereby be hastened.

Impact of the Cairo and Teheran Conferences on S.E.A.
Command

COS(43) 791
(0) Pt II
25 February 1944
Sextant Plenary
Meetings

The principal commanders of South East Asia Command and Generalissimo Chiang Kai-Shek were invited to attend the Sextant conference at Cairo in November 1943. At one of the earlier meetings those Asian plans which concerned

the Generalissimo were formulated and approved but Chiang made the participation of the Expeditionary Force in Yunnan conditional upon Mountbatten carrying out an amphibious operation concurrently. He was given the assurance that an operation would be mounted and that a large Allied fleet would be in the Bay of Bengal. At subsequent meetings of the Combined Chiefs of Staff all the plans for operations in South East Asia during 1943-44 were approved and the necessary resources allotted. The delegates from South East Asia then returned to India and the Combined Chiefs of Staff moved to Teheran for discussions with the Russians.

SACSEA File
SC/236 E.36
PAO, SACSEA
to Adml
Mountbatten
6 December 1943
Cab. Hist.
Sect. SACSEA
1024 Tel.
5 December 1943

Telegrams
SEACOS 38
6 December
1943
SEACOS 41.
11 December
1943
Adml
Mountbatten to
Chiefs of Staff
A.H.B./IIJ50/97

When the Sextant conference continued at Cairo at the beginning of December 1943 a change of heart became noticeable. The Prime Minister now saw no point in mounting operations in South East Asia as Russia had agreed to enter the Far Eastern war on the defeat of Germany. Moreover, Russia had insisted that a second front in Europe should be opened. And so on 5 December 1943 the Combined Chiefs of Staff telegraphed Mountbatten that as a result of the Teheran conference, operations against the continent of Europe might be given overriding priority and that the bulk of the landing craft in South East Asia might be withdrawn. Since this would make Buccaneer impossible, Mountbatten was asked to suggest alternative operations on a smaller scale which could be carried out in conjunction with the agreed British-American-Chinese land and air operations. The Supreme Allied Commander therefore decided that the remaining amphibious resources should be used to launch operation Pigstick, a landing behind enemy positions on the Mayu Peninsula. Since neither the target for Buccaneer nor the number of troops involved had been disclosed it was felt that Pigstick might be accepted by the Generalissimo as the operation he had postulated. Unfortunately the President appears to have telegraphed Chiang Kai-Shek expressing his regret at the withdrawal of part of the amphibious resources and stating that S.E.A.C. could still carry out an operation, though on a reduced scale. This telegram was apparently taken by the Generalissimo as a breach of faith and he considered himself released from his part of the Cairo agreement. He therefore cancelled the proposed offensive from Yunnan of the Chinese Expeditionary Force.

Although Chiang Kai-Shek had not accepted it, planning for Pigstick continued. Towards the end of December 1943, however, the Chiefs of Staff directed that since the Generalissimo did not regard Pigstick as an adequate substitute for Buccaneer, amphibious operations in S.E.A. should be abandoned. In January 1944 the remaining landing craft in India were sent to the Mediterranean. Projected operations in South East Asia were therefore reduced to four; an advance in Arakan without landing craft, an advance from Ledo, operations by Wingate's Special Force and a limited advance across the Chindwin. None of these could achieve the major objectives laid down in the original directive from the Prime Minister, since, without an advance from Yunnan there could be no possibility of opening the road to China in 1944. Some anxiety was naturally felt about the possible effects of continual procrastination on the morale of the armed forces in India. For instance, all through the summer and autumn of 1943, intensive training in combined operations had been carried out by the fittest and ablest men in the theatre. By the end of the year the Force, which included a large R.A.F. contingent, had reached a high degree of efficiency and no one felt more

disappointed than the men themselves when their landing craft were snatched from them. It seemed likely, however, that operational effort could not be further reduced and it was on this assumption that Mountbatten issued his final directive to his Commanders-in-Chief on 14 January 1944, outlining their tasks in the operations to be undertaken.

Tasks to be Accomplished by the Air Forces

Telegram
SEACOS 85,
Adml
Mountbatten
to Chiefs
of Staff
31 Jan. '44
A.H.B./IIJ50/97

The tasks that lay before the combined air forces were many and varied. A strategic air offensive had to be conducted in conformity with the general plan to destroy enemy air forces and air installations, selected rail, road and river communications, depots and other maintenance facilities. Tactical commitments included the air defence of Calcutta and adjacent industrial areas, the Assam valley and the U.S. Air Transport Command India-China air route. Support for the ground forces had to be provided for the Fourteenth Army (IV and XV Corps) and for the Chinese forces under the command of General Stilwell which were operating from bases in the Ledo area. The Special Force of Major-General Wingate needed both air support and air supply while photographic reconnaissance was essential for both strategic and Tactical air forces and also for the Army. The R.A.F. had an additional commitment in carrying out coastal operations over the vastness of the Indian Ocean.

E.A.C. File
Air/596
General Order
No. 1
15 Dec. '43.
A.H.B./IIJ50/
105/4/9

The main focus of attention, however, was on the war in Burma and on 15 December 1943 General Stratemyer took the occasion to address his new and integrated Command. The following extract from his General Order is worth quoting:-

'A resourceful, able and wily enemy must be blasted from the jungles of Burma and driven from its skies in days to come. His lines of communication must be obliterated, his shipping destroyed, his will to resist crushed. Against the inevitable day of retribution when Japan's cities will meet the fate of Berlin, our life line to China must be strengthened and protected. Every ounce of energy of every man of this Command will be required to accomplish this purpose. We must merge into one unified force, in thought and deed - a force neither British nor American, with the faults of neither and the virtues of both. There is no time for distrust or suspicion.

'I greet the forces of Bengal Command and their commander, Air Marshal Baldwin, as comrades in battle, as brothers in the air. A standard of co-operation which we must strive to surpass has been set by the striking example of joint achievement of our colleagues in the Northwest African Air Force. We must establish in Asia a record of Allied air victory of which we can all be proud in the years to come. Let us write it now in the skies over Burma'.

Telegram
SEACOS 85
Adml
Mountbatten
to Chiefs
of Staff
31 Jan. '44
A.H.B./IIJ50/97

In an attempt to establish a favourable air situation over Burma it was planned that the strategic bomber force should play an important part. Not only would strategic bombing keep the Japanese air force on the defensive but would also provide the best protection for the air route to China, for the Calcutta area and for sea communications in the Bay of Bengal. Offensive fighter operations were also to be undertaken to the greatest possible extent and in

this the American long range fighter force constituted a valuable weapon, particularly in the offensive against enemy airfields and air installations. The defensive fighter strength had to cover a wide area and in order to overcome the wide dispersal of the available fighter strength, the early warning system had to be maintained at the highest pitch of efficiency.

Ibid

The strategic bomber force was therefore to be employed against enemy airfields and installations, shipping, railways, oil installations in Burma and suitable objectives at Bangkok, in that order of priority. The course which the battle took, however, made a readjustment of these priorities necessary and a considerable proportion of the total bomber effort was directed to tactical targets in support of the army and later, to carry supplies to the garrison at Imphal. Another task which assumed increasing importance during 1944 was the evacuation of casualties. Much had to be done to build up a successful organisation which could deal with the transshipment of sick and wounded personnel from battle areas and casualty clearing stations to better equipped hospitals in the rear.

To accomplish the tasks demanded of the R.A.F., seventy-six squadrons were deemed necessary. Against this target there were available on 15 November 1943, forty-eight R.A.F., one R.C.A.F., one Netherlands and six I.A.F. squadrons in the command. Thirty-eight of these squadrons, with an effective strength of 519 aircraft, were deployed for operations in India and Ceylon and the remainder were either re-equipping or resting. The Americans had a total of seventeen squadrons operational with 204 effective aircraft. Thus when South East Asia Command formed there were fifty-five Allied squadrons (723 aircraft) available for operational duties. During November and December 1943 a further nine squadrons augmented the air strength in S.E.A.C., some of them coming from the Middle East or Europe and others forming within the Command. By June 1944 the British air force in India and Ceylon had grown to seventy-one squadrons of which fifty-six were operationally deployed. Also between November 1943 and June 1944 the U.S.A.A.F. strength increased from seventeen to twenty-six squadrons.

The disposition of tactical units in Bengal and Assam was designed to provide defence and support over the three main areas of land operations - in Arakan, in Manipur and in the Ledo sector. Strategic units continued to be stationed farther west since the marshy areas of eastern Bengal and the poor lines of communication in that area made the construction of airfields east of the Brahmaputra up to heavy bomber standard a matter of extreme difficulty which neither the labour, transport nor supply position would allow except as a long term plan.

The Air Situation in November 1943

During 1942 and 1943 practically no progress had been made on land in South East Asia. An American survey board concluded that a considerable measure of Asiatic delay arose from Allied failure to appreciate and understand the importance of air power and its proper application. Even a small increase in air power, the board found, could have turned the swift Burma retreat of 1942 into an easy victory. Greater reliance upon air power for offensive and transport operations could likewise have hastened other phases of the

Japanese
sources

Asiatic campaigns. Even so, the meagre air forces in the field accomplished enough to make important commanders change their views as the war progressed and to depend more and more upon the air facilities available to them. With no great resources at their command, the air forces had, by October 1943, destroyed two-thirds of Burma's railway facilities, reduced Japanese coastal shipping to a trickle of barges and in supporting Wingate's Special Force behind enemy lines, had demonstrated a new technique in the application of air power in jungle warfare.

Facing the enemy from India was a more modern, more powerful and numerically stronger air force than had hitherto been available in the theatre. Moreover, during the 1943 monsoon progress had been made in giving units comprising this force greater striking power. Communications although overstrained were better geared to carry war supplies than at any time since the outbreak of hostilities. Advanced landing grounds, which had been constructed, gave short range aircraft a greater radius of action, both offensive and defensive, during the dry weather that was to come and the warning system was now able to give reasonable notice of the approach of hostile aircraft.

The enemy for his part disposed a force of about 380 aircraft concentrated in the forward groups at Heho, Anisakan and Rangoon (Burma) and Chieng Mai (Siam) while other aircraft were located farther back at bases in Siam, Malaya and the Netherlands East Indies. His ground forces faced the Allies along a front of 700 miles. In Arakan he held a line from Maungdaw to Buthidaung and was opposed by XV Corps, thence north-west across the inhospitable Chin Hills to Kalembo and northwards up the Kabaw valley where IV Corps were deployed. Farther north still he was confronted by two Chinese divisions based on Ledo and beyond this we held positions as far as the Salween with a small force based on Fort Hertz. The enemy's bases and lines of communication stretched 900 miles from Bangkok to Myitkyina over the whole length of which it was possible for aircraft to attack him. Elsewhere in South East Asia Command the security of sea communications meant that aircraft had to cover an area ranging from South Africa to Sumatra. The patrol of this vast expanse of ocean constituted a problem that could only be met by careful husbanding and disposition of the small force available.

An account of the campaigns covering the wide geographical area of South East Asia, and the diversity of activity in Burma, does not admit of chronological treatment for though many of the battles were loosely interwoven they each constituted separate campaigns. Thus each strand in the pattern of events is unfolded separately in the pages that follow and it is hoped that the reader will be able to grasp the significance of the overall trend of operations in this remote and obscure theatre of war.

SECRET

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CHAPTER 3

THE FIRST PHASE IN THE
BATTLE FOR AIR SUPREMACY

November 1943 to February 1944

Among the first battles of the dry season 1943 - 1944, those fought in the air were perhaps the most important. These took place during a period when both sides were preparing for land campaigns scheduled to begin early in 1944. For the Allies, the maintenance of a favourable air situation was necessary to ensure the success of these planned operations. In the event, however, the Japanese mounted major offensives of their own, aimed at Chittagong and Imphal, and so the establishment of air superiority became so vital that had we not achieved it there is no doubt that the Allies would have suffered heavy defeats on the India-Burma frontier during the winter of 1943-44.

With the coming of the dry season a significant event occurred for Spitfire Mark V aircraft arrived in the Command to the pleasure of the squadrons equipped with them and the envy of those who were not. Hitherto, Hurricanes had gallantly but not altogether successfully attempted to defend north-eastern India, and although the radar system had given fair warning of the approach of enemy aircraft, it had not always been possible for Hurricanes to achieve sufficient altitude for tactical advantage. The fast high flying Japanese Dinahs, which in performance approached that of our own Mosquito, had flown with impunity over the India-Burma frontier and as far west as Calcutta to photograph anything they desired. When at last a Hurricane did manage to catch and shoot down an unwary Dinah on 4 October 1943 it was regarded as a rare phenomenon unlikely to reoccur. Thereafter the Dinahs continued to fly above the Hurricane ceiling. Thus, while the advent of the Spitfire in South East Asia laid the foundations of Allied air supremacy, their numbers at first were few, and Hurricanes had still to bear a substantial part of the burden of air defence.

Although Allied fighters took a satisfactory toll of enemy aircraft during the period November 1943 to February 1944, they faced a serious and difficult problem. The Japanese controlled the air over Burma and while maintaining a constant threat against the vital air route to China, they could harass Allied air and ground installations in Bengal and Assam. The Allied air forces in north-east India were committed to several tasks. These were to guard the air route to China, to interfere with enemy communications in Burma, to furnish air-ground support and to deliver supplies by air where needed. To accomplish these objectives with the maximum speed and minimum loss, it became necessary to neutralize the Japanese air forces as effectively as possible. By interception and patrol, enemy fighters could be kept away from the India-China air route. Allied bombers needed a minimum of air opposition in order to carry on their war of attrition. Unarmed transport aircraft, frequently operating in the most forward areas, had to be free from enemy interception. Effective close support presupposed at least local control of the air. Thus air operations which would gain for the Allies air superiority over both friendly and enemy territory became an immediate consideration of the Allied air forces.

Telegram 85,
Adml
Mountbatten
to Chiefs of
Staff.
31 Jan. '44.
A.H.B./
IIJ50/97

The liquidation of the enemy air forces in Burma was accomplished in two stages. The first phase comprised defensive air battles over our own territory and to this phase this chapter is dedicated. Later, long range Allied fighters, predominantly American, sought out the enemy at his bases and completed in no uncertain manner⁽¹⁾ the reduction of enemy air power in Burma. By the end of the dry season 1943-44 our air supremacy was complete and that supremacy was never again seriously to be challenged by the Japanese.

The Opposing Air Forces

USSBS 62,
Jul. '46
p.19

Translation
and Interroga-
tion Rp.
1947.
A.H.B./
ILJ50/75
and A.H.B./
ILJ50/49

After the initial conquest of Burma, which by May 1942 had been completed, Japanese air operations in South East Asia were given a low priority by their high command. The bulk of their replacement pilots were sent to the Solomons and New Guinea in preference to South East Asia and some of the best Japanese air units were moved, during the winter of 1943-44, as reinforcements to the South-west Pacific. As a result, Japanese offensive air operations from Burma were sporadic in character and, save for the Arakan and Manipur campaigns, their troops were left virtually without air support. Nevertheless, at the end of 1943 the Japanese Third Air Army possessed about 740 aircraft⁽²⁾ of all types in South East Asia, divided between Burma, Siam, French Indo-China, Malaya and Sumatra. Aircraft in the two latter countries were hundreds of miles from the battle area of Burma and thus served largely as a reserve although a number of their best aircraft and pilots were retained in Sumatra for the defence of the oil refineries there and for patrol work over the Indian Ocean. In Burma and Siam the Japanese had their 5th Air Division which comprised some 370 aircraft and it was against this force that the Allies focused their attention. It was a force of 200 fighters, 50 light bombers, 60 medium bombers and 60 reconnaissance aircraft. In addition about 40 or 50 Japanese naval aircraft were made available during the early part of the dry season, though these naval aircraft, together with a considerable portion of the Army air units, were transferred to other theatres.

USSBS No. 1
Jul. '46
p.9

Lest it should be thought that the decline of Japanese air power in Burma was brought about by their inability to replace operational losses, it should be mentioned that Japanese aircraft production⁽³⁾ increased from a monthly average of 642 aircraft during the first nine months of war to a peak of 2,572 per month in September 1944. The rise was particularly great during 1943, after the Japanese had learnt the lessons of the 1942 campaigns. Since production

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- (1) See Chapter 5.
 - (2) It is believed that the Japanese Army Air Force destroyed all their records relating to aircraft strengths. The loss is not so serious, however, as might at first appear since the Army Air H.Q. had only a rudimentary system of statistical control. But the absence of records makes it necessary to rely for figures of aircraft strengths upon Allied Intelligence and from the memory of available Japanese officers.
 - (3) These figures are believed to be accurate since Japanese aircraft factories, unlike the army did not burn their records and preserved statistical data relating to aircraft production.

exceeded wastage, the Japanese were able to increase the numerical strength of their air forces and this applies to the Third Air Army no less than to their forces in other theatres. Yet despite the increased strength of aircraft in the Third Air Army, the 5th Air Division was whittled down by attrition and it can only be assumed that the former's strength was derived from aircraft of miscellaneous provenance unsuitable for orthodox air operations. The Japanese also managed to improve the quality of their aircraft during the war. But since they lacked the widespread skill for quantity production the Japanese could never, after the initial campaigns, match the performance of Allied aircraft.

Passim

To oppose the enemy there were, in November 1943, some thirteen British and six American fighter squadrons available for air defence. The R.A.F. force⁽¹⁾ embraced one night-fighter squadron of Hurricanes and Beaufighters, one Mohawk squadron, eight Hurricane and three Spitfire squadrons, so disposed as to provide air defence over the Manipur and Arakan fronts and the Calcutta area. On the northern sector of the front in Assam, the Americans had three squadrons of P-40's and three of P-51's, all single engined fighters, for the defence of bases in the area and also for the protection of the stream of transport aircraft plying between India and China. This, however, does not give a true picture of Allied numerical superiority since we had a large number of bomber, transport and reconnaissance aircraft at our disposal. The difference in opposing strengths was as follows; the Allies had 719 aircraft of all types in north-east India while the Japanese at first, and if Naval aircraft are included, had about 420 aircraft in Burma and Siam. But whereas Allied air strength gradually increased during the winter months the Japanese air force declined in numbers through attrition, particularly of aircrews, and by withdrawals to other theatres.

But while the Allies remained on the defensive the great preponderance in numerical strength did not weigh heavily in our favour. The air route to China from India, when properly defended, required many more patrols than were possible. The great defensive arc, 700 miles long, from the Upper Assam valley through the Imphal plain into Arakan also required the use of extra aircraft for defence, for in the autumn of 1943 the enemy held the initiative by which he could select both the time and place for attack. Other aircraft were needed to protect and co-operate with the land forces wherever they might be assaulted. Furthermore, the enemy enjoyed the advantage of interior lines of communication which allowed a more mobile use of his aircraft. If, however, the Allies had had sufficient radar equipment the defence position would have been somewhat easier, but while our radar was technically superior to the Japanese early warning stations, our cover was severed in many places by intervening mountains.

The First Enemy Air Operations of the dry-season, 1943-44

Although this chapter is concerned with enemy air operations from 15 November 1943, it is necessary for the sake of clarity to record events from 20 October, the date

(1) See Order of Battle at Appendix No.4.

on which the Japanese opened their winter air offensive. Until the middle of November the enemy carried out raids against widely dispersed targets including Chittagong, Agartala, Fenny, Palel, Imphal, Kumbhigram and Tiddim. Since there were no Spitfires to challenge the enemy, the results of air interceptions were generally disappointing and the Hurricanes failed to break up or to inflict appreciable casualties on the enemy.

AHQ(I) File
47/Int.E4.

Air C.-in-C.
File No.6
Pt X E65.
A.O.C.-in-C.
to A.M.P.
28 Oct.
A.H.B./IIJ50/
98/1(J)

The first bombing attack on 20 October 1943 was made by 19 bombers and 14 fighters at 1600 hours and directed against the docks at Chittagong, ostensibly to hinder Allied preparations for operations in Arakan. It was not a very successful raid from the enemy's point of view since military damage was slight and casualties few. Hurricanes of No. 224 Group intercepted the enemy formation before it reached the target area and in claiming four enemy aircraft destroyed the R.A.F. lost three Hurricanes. Had fighter control been more effective, however, the Hurricanes might have achieved more. The Japanese air forces then made three attacks upon our lines of communication in Arakan, two of them against Tumbru Ghat at 1530 hours on 23 October and at 0900 hours on the 28th; the third raid was at Cox's Bazar at 0800 hours on 25 October. Damage and casualties again were not heavy, but civilian morale at Tumbru Ghat was a little shaken after the second raid and some labour had to be replaced by military personnel. The three attacks took place just inside our territory and thus Hurricanes were unable to intercept before the raiders withdrew. A brief lull in enemy air activity followed these raids but there was a considerable increase in reconnaissance sorties including flights by flying boats over Ceylon and Madras.

App. to O.R.B.
AHQ. Bengal
Nov. '43.

Up to this time no answer had been found to the flights of Japanese Dinah reconnaissance aircraft over north-east India. During October 1943, however, three Hurricane squadrons received Spitfire Mark V aircraft and the first squadron (No.615) to be so equipped moved forward to Chittagong early in November. This squadron had a brief and immediate triumph for within a week they had shot down all three Dinahs which had ventured over our lines. But since the Spitfires were not equipped with long range tanks their radius of action was confined to the neighbourhood of their base at Chittagong and thus they had no opportunity of meeting large enemy formations.

O.R.B. AHQ.
Bengal Nov. '43.
WIS 10

The next series of bombing raids by the enemy took place in areas where no Spitfires were located. On 9 November, two airfields on the Manipur front were raided during which some damage was done and casualties sustained. The enemy formation making the attack split in two on approaching the plain of Imphal, 16 light bombers attacking Imphal airfield at 1155 hours and 12 others the airfield at Palel at 1200 hours. Mohawks and Hurricanes were scrambled but while the former managed to shoot down one enemy aircraft without loss to themselves, the Hurricanes failed to effect an interception. At 0910 hours on 11 November, the last raid of this particular series was made by 18 light bombers, escorted by fighters, and was directed against Kumbhigram airfield. Four R.A.F. aircraft were damaged on the ground and casualties amounted to 27 killed and 19 injured. No interception took place although 18 Hurricanes and Mohawks

Tel. 37
S.A.C. to C.O.S.
2 Dec. '43
A.H.B./
IIJ50/97

SECRET

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AHQ. India
File 47/Air.

were airborne. The fighter defence of the area in which these raids took place comprised No.34 (Hurricane) Squadron at Palel and No.155 (Mohawk) Squadron at Imphal, both of which were scrambled for each raid. The fact that only one interception was made can be attributed to a combination of factors. Firstly, the Mohawks operated on H.F. and the Hurricanes on V.H.F., and this naturally complicated the task of the operations controller. No G.C.I. station was in operation at the time and no fixer system available, consequently the identification of hostile or friendly plots and the correct estimate of height was most difficult. Finally, the pilots concerned had had very little experience in air fighting and fighter control, the Mohawks being hitherto used principally for low-level offensive sorties and the Hurricane squadron consisting almost entirely of former Blenheim pilots and pilots direct from an operational training unit. Had all pilots effected an interception it seems probable that, owing to lack of training and experience, they would have been badly mauled by the Japanese fighter escort.

Telegram 37
SAC to COS
2 Dec. '43
A.H.B./IIJ50/97

On 23 November a fighter sweep was plotted east-south-east of Chittagong. Fifty-six Hurricanes and a squadron of Spitfires took off and of these the Spitfires made two interceptions but could make no claims. One Spitfire was shot down but the pilot was saved. Owing to the height of the enemy the Hurricanes were unable to reach them. The enemy force did not press the offensive and it would appear that they were sent out to test the strength of our fighter defence.

Although Spitfires had been successful in preventing enemy reconnaissance in Arakan, the Hurricanes and Mohawks on the Imphal plain failed to stop the Japanese reconnaissance aircraft which appeared over this front on three occasions. Following these flights, three enemy bombers and two fighters, at 0910 hours on 28 November, successfully attacked without hindrance from the R.A.F., our positions in the Tiddim area of the Chin Hills and a transport aircraft on supply dropping duties was shot down by the fighter escort. At about the same time twelve light bombers, with an escort of six Oscars, attacked Fenny airfield with but small success. Hurricanes and Spitfires were scrambled and made two interceptions, shooting down three enemy aircraft for the loss of one R.A.F. fighter. The Japanese then sent twelve bombers and six fighters to attack Agartala airfield at 1505 hours on the 29th and succeeded in avoiding our Spitfires by approaching the target from the north-east. The enemy force was caught, however, after the bombing and Spitfires accounted for a couple of enemy aircraft.

Japanese
source
material
A.H.B./
IIJ50/49

It now seems fairly clear that a degree of vacillation pervaded the Japanese high command in Burma as to the employment of their available air strength. While their army commanders were generally averse to air operations other than those directly concerned with the situation on the ground, a few strategic raids were mounted during the opening phases of the campaigning season, though no systematic plan appeared to lie behind the attacks. During November 1943 they made plans for the bombing of Calcutta and, as a prelude, the attacks against Fenny and Agartala as already described, were made on 28 and 29 November. These raids had the desired effect since No.136 Squadron, the only Spitfire unit operationally

available for the defence of Calcutta, was drawn forward to join Nos. 607 and 615 Squadrons in Arakan. This occurred on 1 December 1943 and, ironically, the Japanese mounted a successful raid on Calcutta five days later much to the chagrin of the Spitfire squadron which had just vacated the area.

The Japanese air attack on Calcutta, 5 December 1943

Potentially, the most dangerous Japanese air operations in South East Asia were the attacks upon Calcutta. The docks, harbour installations and shipping there were virtually the only strategic bombing targets within range of Japanese air power after the spring of 1942 and the Indian population, including many dock workers and other important labour groups, were particularly susceptible to mass hysteria. Calcutta was not only an important base because most of the paraphernalia of war and men for the Burma front passed through it, but also because it handled a considerable portion of the supplies for China. Had the Japanese been able and willing to reduce the activities of the port, the consequences for the Allies might have been far reaching.

USSBS 62
Jul. '46
p.19

In the spring and summer of 1942, the Japanese army and navy made joint plans for raids upon Calcutta. These raids were to take place in the autumn of 1942 as soon as the monsoon had ended, but by that time the navy had diverted most of its air strength to the Solomons campaign and the army was not strong enough to proceed with the project alone. Later the army also gave priority to operations in the Solomons and New Guinea and it never built up a large enough bomber force to conduct any sustained operations against Calcutta. Nevertheless, the few light raids which had taken place in December 1942 had achieved results out of all proportion to the weight of bombs dropped for a great exodus had taken place. Had the raids been prolonged the life of the city might well have been paralysed. But matters such as strategic bombing were governed largely by high policy as decided at Imperial Headquarters, Tokyo and H.Q. Southern Area Army. The latter informed the Third Air Army of policy decisions who then worked out details of air operations. Some Japanese air force officers did, in fact, realize the value of strategic bomber attack but were hampered, as already mentioned, by the absence of sufficient aircraft and by the refusal of army commanders, who held the whip hand, to consider long term air operations.⁽¹⁾ And so during the winter of 1943-44 only one raid was made against Calcutta after which the Japanese air forces were diverted to other and perhaps less worthwhile tasks. In parenthesis it might be mentioned that the strategic raids mounted by the Japanese were probably sanctioned only because ground operations had not begun.

Translation
and Inter-
rogation
Report
No.248, 1946
p.38 A.H.B./
IIJ50/50/75
SEATIC 1935/28,
3 Jan. '46
Interrogation
of
Lt. Col. Naito,
Staff Officer
3rd Air Army.

(1) It is worth noting that the Generals in the Third Air Army were always officers with no flying experience. Most were infantry or artillery officers transferred to the air arm and this applied to many staff officers (SEATIC 1935/46, 14 Feb. 1946 and confirmed by previous interrogations).

SECRET

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A.H.B./
IIJ50/88/56
AHQ. Bengal
File,
Encl. 77A
S.2734/2/Int.

At 0945 hours on 5 December 1943 plots were recorded which later proved to be a raid on Calcutta. Sixty-five R.A.F. Hurricanes and Spitfires were therefore scrambled from the Chittagong area to intercept the enemy formation over the sea south of Chittagong. But the enemy had wisely planned a course giving Chittagong a wide berth and the R.A.F. fighters were obliged to attempt an interception with little margin for error and at extreme range. Consequently, with one exception, the R.A.F. fighters in Arakan failed to intercept. A solitary Spitfire pilot, however, lost his companions owing to R/T failure and fortuitously encountered the Japanese raiding force. The pilot shot down one enemy aircraft and might have got another had his guns not jammed. Later, through shortage of fuel, he was forced to land on a sandbank on the Arakan coast. At Calcutta, Hurricanes of Nos. 67 and 146 Squadrons were scrambled and intercepted the Japanese raiders at 11.30 hours. The enemy bombers, however, were flying at 24,000 feet and since fighters were arrayed above and below, the Hurricanes, unable to reach the bombers, were forced to engage superior enemy fighters at a tactical disadvantage. Only one, or possibly two, enemy aircraft were destroyed for the loss of five Hurricanes and one pilot. The Japanese force of 27 Sally medium bombers, unmolested by the R.A.F., effectively bombed the Kidderpore docks at Calcutta at 1147 hours.

AHQ.Bengal
File,
Encl. 78A
2734/2/Int
A.H.B./IIJ50/
88/56

While dog-fights were taking place over the city a second wave of escorted enemy bombers approached the target. When they reached the area both Nos. 67 and 146 Squadrons were refuelling and rearming and only six night-fighter Hurricanes and four Beaufighters of No. 176 Squadron could be scrambled. The Beaufighters could not maintain sufficient speed to remain in company with the Hurricanes and so formed up separately. They were subsequently given a wrong vector and intercepted a flight of Hurricanes in error. At 1215 hours the five Hurricanes of No. 176 Squadron intercepted the second raid but were jumped from above by fighters and three Hurricanes were shot down, two pilots being killed. The Kidderpore docks were bombed for a second time at 1232 hours. In the light of what actually happened it was evidently good policy for the Japanese to plan their second raid so as to catch our fighters on the ground. No. 146 Squadron, which had landed later than No. 67 Squadron, could not be scrambled again in time and the attempt of the latter to catch the raiders as they withdrew proved abortive owing to the short range of the Hurricane. In a final attempt to destroy the enemy forces, two Spitfire squadrons were despatched from Chittagong in the hope that some of the raiders might be caught as they returned over the Bay of Bengal, but once again both waves of enemy aircraft passed out of range.

EPS.Folder
D3. CAS
to Sec. of
State for Air
10 Dec. '43
A.H.B./
ID/4/94

That the Japanese put their maximum effort into the Calcutta raid is evidenced by the fact that the second wave consisted of Naval aircraft. But the long route taken by the Japanese to avoid interception by Spitfires based on Chittagong precluded a respectable weight of bombs being carried. Nevertheless the fact that the enemy could mount a comparatively heavy raid on Calcutta with but little hindrance from the R.A.F. represented a tactical coup. There were, however, some mitigating circumstances. The Hurricane was undoubtedly outclassed as a defensive fighter, even in the Far East, and thus the air defence of Bengal

(13437)

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depended in large measure upon the few Spitfire squadrons available. Of these not one was located in the Calcutta area and in retrospect it would appear that our air commanders were unwise to send all three Spitfire squadrons to Arakan. On the other hand, the defence of Chittagong and of our installations in Arakan was of great importance since much Allied activity in anticipation of offensive land operations was taking place there. The first major operation of the campaigning season demanded at least local control of the air in Arakan and events were to prove the vital need for Spitfires. Moreover, two Spitfire VIII squadrons were, in fact, located near Calcutta at the time of the raid but these had only just arrived from the Mediterranean theatre and were not operational. As a temporary measure a few Spitfires were moved back to Calcutta on 6 December from Chittagong but the raid was not repeated. No. 81 (Spitfire VIII) Squadron became operational for the defence of Calcutta on 9 December and No. 152 Squadron became available for the same purpose some ten days later.

A.H.B./IIJ50/98/1(K)
File No. 6
Air C.-in-C.
Pt XI Encl. 33A
Air C.-in-C. to
A.O.C. Bengal
10 Dec. '43
ACSEA File Air/388 E2
Air C.-in-C. to
3rd T.A.F. 6 Dec. '43

EPS. Folder
D3. V.C.A.S.
to S. of S.
for Air.
10 Dec. '43.
A.H.B./
ID/4/94

The two Hurricane day fighter squadrons (Nos. 67 and 146) which defended Calcutta had recently arrived in the area and had less than a week in which to become familiar with the defence system and to carry out training. Moreover, in both actions not only were the Hurricanes heavily outnumbered (about 60 Japanese fighters escorted the bombers), but the enemy by piling up fighters from below to a very considerable height above their bombers, prevented the Hurricanes from getting at the enemy striking force. Every Hurricane attempting to attack a Japanese bomber was immediately assailed by fighters, consequently there was no alternative but to mix combat with enemy aircraft of superior performance. The story might have been different had Spitfires been available to neutralize the Japanese fighters while the Hurricanes dealt with the bombers. The Hurricanes, however, did their best against considerable odds and the night-fighter Hurricanes of No. 176 Squadron, whose pilots were untrained in day fighter tactics, showed great courage and determination in engaging the enemy.

Telegram 39
SAC to COS
7 Dec. '43
A.H.B./IIJ50/97

Although the weight of bombs dropped on Calcutta was small, the Japanese managed to damage three merchant vessels and a naval ship. Fifteen barges were set alight and hits obtained on nine dock sheds, two of which were gutted. As had been the case in previous raids on Calcutta, there was some evacuation of the city, though not on any great scale, presumably because only a small area was attacked. Instead of normal 4-5000 labourers being available at the docks on the following day there were only about 400. A false alert on 6 December did not improve morale. In all there were about 500 civilian casualties while members of the armed forces, who were more adept at taking cover, escaped lightly.

Japanese air attacks on the India-China Air Route

Translation
and Interrogation
Report
248. 1946.
A.H.B./IIJ50/75

As yet it is difficult to estimate just what the enemy hoped to gain from his air operations and upon what bases he laid his plans. After one raid against Calcutta, the success of which should have encouraged him to try again, he diverted his air forces to the interdiction of the India-China air route. It is alleged that Imperial Headquarters, Tokyo considered the cutting of the Hump route to be important and gave orders that the 5th Air Division must do everything in its power towards that end.

The Japanese evidently realized the significance of the air route in the general strategy of the war. The growth of Allied air striking power in China meant an increased threat to Japanese shipping in the French Indo-China, Formosan and China seas. The passage of shipping through these areas was vital to the enemy and they decided to make an effort to cripple the bases whence the threat emanated and to restrict the volume of supplies flown over the Hump which sustained the Fourteenth United States Army Air Force in China. At the end of 1943 when sufficient aircraft were available,⁽¹⁾ it was possible for the Japanese to make successful interceptions on this route; but as Allied air power increased and as the Japanese air forces were depleted by losses and withdrawals, interceptions became impossible. Some Japanese staff officers felt that an additional 100 aircraft would have tipped the scales in these operations but Tokyo, while giving orders, were unable or unwilling to maintain the strength of the 5th Air Division.

ACSEA File
DACC/014.
A.H.B./IIJ50/
105/4/3

A.H.B./
IIJ50/88/56
Encl.79A.

In December 1943 the Japanese began their attacks upon the India-China air route and in doing so they achieved some success, somewhat fortuitously, against supply dropping aircraft in north Burma. At 1100 hours on the 10th, three Japanese light bombers, escorted by fighters, attacked the emergency landing ground at Fort Hertz. All three bombers and two of the fighters were, however, destroyed by the U.S.A.A.F. While returning to their bases the remaining enemy fighters encountered eight American supply dropping aircraft and shot down four of them although the escorting P-51's accounted for another two, and perhaps three, enemy aircraft. There were no American fighter casualties from these engagements but a B-25 on reconnaissance unfortunately met the enemy force and was shot down. Three days later, on 13 December at 1145 hours, a force of 20 light bombers and 25 fighters was badly mauled while attempting a raid on Din Jan airfield. Din Jan, one of the main American bases serving the India-China air route, was defended by P-40 and P-51 fighter squadrons. During the air battles the U.S.A.A.F. lost two fighters although both pilots escaped. Damage to Din Jan airfield was slight and the airfield remained serviceable, while casualties amounted to five civilians killed and eleven injured. A few bombs were also dropped on the neighbouring airfield of Tinsukia resulting in one military and four civilian casualties, all injured.

O.R.B.
ACSEA Int.
Jan. '44.
App. 'B'

Following the Din Jan raid the 5th Air Division directed its energies to attacks against American air bases in China in conjunction with other Japanese air forces in French Indo-China and China. Some 19 attacks of this nature were carried out during December, three of which were mounted by the 5th Air Division and directed against the terminal airfields of Kunming and Yunnanyi. Although not within the territory of South East Asia Command these raids might well be mentioned for they were executed by Burma based aircraft. For the first raid a medium bomber regiment, of 18 Sallys, brought up from Sumatra especially for the operation, was despatched with a fighter escort of 40 Oscars to bomb Kunming airfield on 18 December 1943.

(1) The 5th Air Division had been reinforced with two fighter units.

The second raid, by 24 Lily light bombers and 40 Oscars, was aimed at Yunnanyi airfield and took place on the 19th. Bad weather hampered the Japanese force and stiff opposition from American fighters resulted in heavy losses to the enemy. The third attack, also against Kunming, took place on 22 December 1943 and comprised 24 Sallys and 40 Oscars. Once again U.S. fighters intercepted and took heavy toll of the raiding force. These raids were not very successful since the Japanese lost a considerable percentage (number not known) of their attacking strength and most Allied aircraft were airborne when the raids developed thereby avoiding possible destruction or damage.

ACSEA File
DACC/014.
A.H.B./IIJ50/
105/4/3

As will later be seen, the Japanese, from the middle of December 1943 until the end of February 1944, concentrated his attacks almost exclusively in the Arakan battle area. In mid-January, however, he renewed his offensive against the India-China air route. On the 14th a single Japanese fighter attempted to intercept an American transport aircraft in the Fort Hertz valley but by making use of cloud cover the transport escaped. A similar incident occurred two days later when two enemy fighters attempted and failed to destroy another transport aircraft. The largest attack of the series took place on 18 January 1944 when six Sally medium bombers and 34 fighters operated in the Fort Hertz valley between 1145 and 1330 hours. Three C-47's which were supply dropping and a C-46 on the China run were lost but American fighters destroyed four or five enemy aircraft without loss to themselves. Finally, a large enemy formation was observed approaching Din Jan at 0825 hours on the 19th, but they turned away and the 50 U.S. fighters which had been scrambled did not intercept.

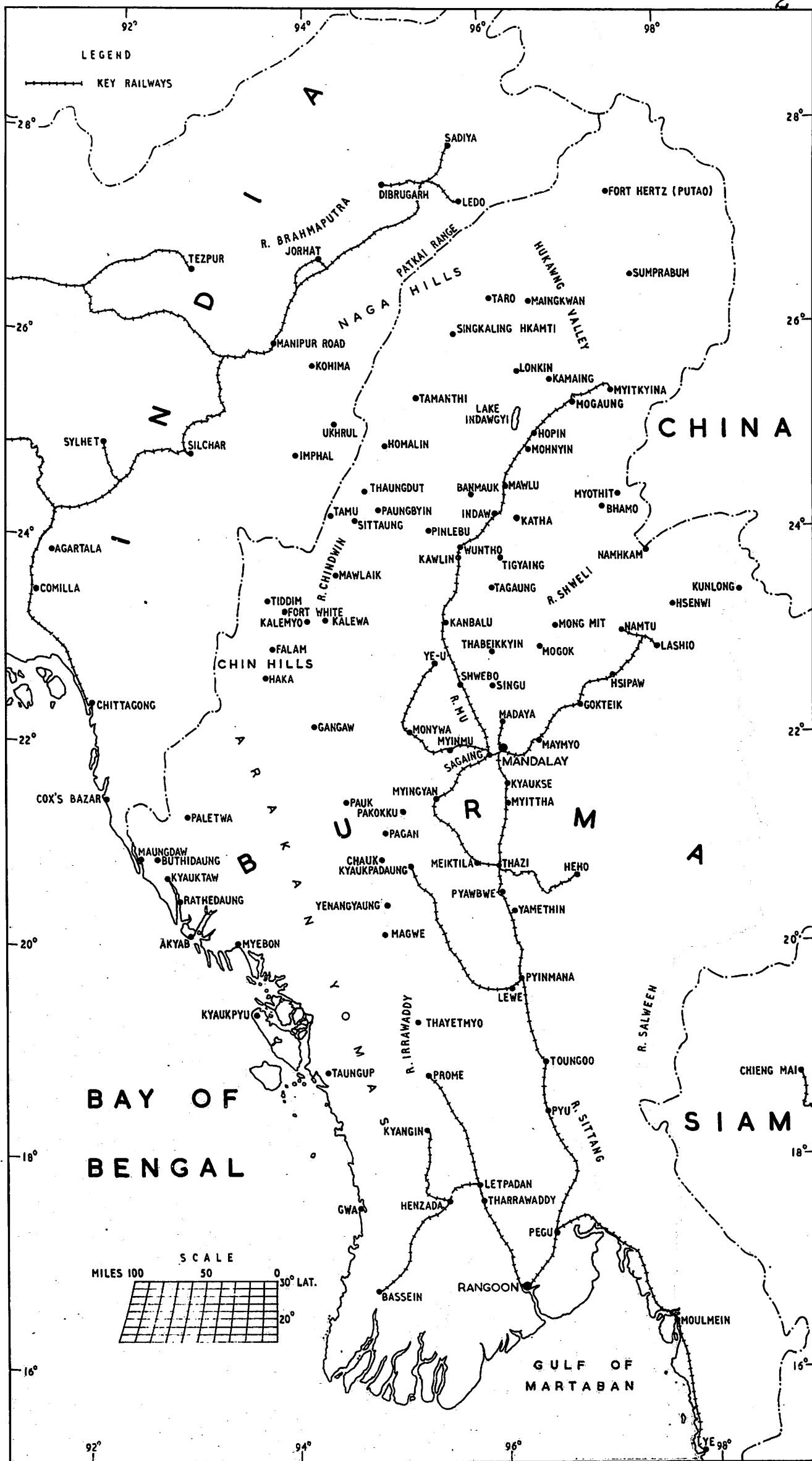
USSBS 62
Jul. '46
p.19

In eight attempts to hinder United States transport operations the enemy achieved little with his bombers but managed to shoot down eight transport aircraft by operating his fighters in the valleys south of Fort Hertz, an area where Japanese observer posts were most plentiful. The attacks upon the termini of the Hump route, though potentially dangerous, were never carried out in great force or sustained over any length of time, again because the Japanese high command gave first priority to the Solomons and to New Guinea. The interception of transport aircraft flying the Hump, however, brought the Japanese some measure of success. This they attempted, using two fighter units brought down from Manchuria for the purpose. The casualties they inflicted, though few in number, forced the Americans to maintain a fighter patrol over the Hump and transport aircraft began flying a circuitous route from the Assam valley over the higher mountains to the north-east. But just when Japanese interceptions were causing the most difficulty, the two fighter units were moved to New Guinea and the interception of Hump aircraft was never again attempted on a regular basis.

Enemy air raids in Arakan - December 1943 to February 1944

O.R.B. H.Q.,
ACSEA. Int.
Jan. '44

During October and November 1943, the Japanese air forces successfully reconnoitred wide areas of north-east India including Imphal, Assam, the Chin Hills, the Silchar valley, the Arakan forward areas and Calcutta. As already described, three attempts were made in November to photograph Chittagong but all had ended in disaster for the Japanese Dinahs at the hands of Spitfires. Not only did enemy reconnaissance activity decrease markedly in December



but it assumed a very different character. The most noticeable change was the virtual cessation of long range high level photographic reconnaissance which hitherto had been carried out with great regularity. Instead the Japanese concentrated upon reconnaissance of our most forward areas and this enabled him to withdraw without loss upon sighting Allied fighters. All other reconnaissance from December onwards was confined to the Bay of Bengal, indicating a fear of Allied seaborne operations along the Burma coast. The enemy did, however, make one further attempt during December 1943 to mount a long range reconnaissance but once again Spitfires demonstrated their ability to overtake and destroy a Japanese Dinah.

A.H.B./IIJ50/
84/77
Encl. 24A

File 3TAF
17/2/Air
Encl. 24A
A.H.B./
IIJ50/84/228A

Towards the end of December 1943 the Japanese began to take an interest in shipping movements in and out of Chittagong and for some obscure reason sent a solitary aircraft to bomb the docks there on the night of 19/20 December. It had in the past been customary for the enemy to reconnoitre selected targets before a raid but the effective prohibition of the skies above Chittagong to the enemy by Spitfires did not deter them from making a sharp attack against the port on 26 December. At 0900 hours Spitfires destroyed a Dinah reconnaissance aircraft west of Jessore and at 1330 hours Spitfires and Hurricanes were scrambled to intercept a Japanese raid of about 20 bombers and 30 fighters. Interception was effected before the raid developed and two enemy bombers were shot down. A number of bombs were dropped in and to the south of the Karnaphuli river, causing a few small fires and slight damage to some ships. After the raid the enemy formation turned westwards and was again encountered 15 miles west of Chittagong, a further two enemy fighters and one bomber being destroyed.

3 TAF File
10375/2/Air
Encl. 17A.
A.H.B./
IIJ50/84/84

But the interceptions were not so successful as might at first sight appear since all pilots expressed their dissatisfaction with the fighter control. No. 607 (Spitfire) Squadron did not engage the enemy at all, neither did No. 136 Squadron save for two of their Spitfires which accidentally encountered the enemy while detached from their formation. The other interception was affected by two Spitfires of No. 615 Squadron which had earlier been scrambled to investigate an alleged enemy reconnaissance aircraft. Since at least five of the enemy force were destroyed by the four Spitfires it is reasonable to assume that a handsome victory could have been scored had all Spitfires encountered the enemy. On 26 December there were 80 Hurricanes and Spitfires in the air but they were an uncoordinated collection of aircraft in groups varying from three to twelve aircraft and as such presented no real problem to a compact enemy force. Had the enemy been forced to deal with a wing of co-ordinated aircraft, the results might have been very different. It is evident that either the wing system was not working at all or working very inefficiently. The wing formation had already proved its worth in England, in the Western Desert and in Europe and it is reasonable to suppose that provided the system worked efficiently the number of aircraft available in Bengal, backed by an adequate warning screen, could have made every attack by the Japanese upon Indian territory prohibitive.

Ibid

The benefit of the sharp lesson of 26 December was soon felt for on New Year's Eve the most successful interception yet made in South East Asia took place. Following the

bombardment of Ramree Island by Allied light naval vessels, the Japanese made a determined bid to destroy them. The naval force was returning to base when they were spotted by enemy reconnaissance and within a few hours two bombing attacks had been mounted. At 0930 hours, six Sally medium bombers took part in the first raid which was unsuccessful both for the Japanese who missed their target and for the R.A.F. Spitfires which failed to reach the bombers before the shortage of fuel forced them to return. Later in the morning, at 1100 hours, 14 Sallies and 15 Oscars attacked the naval vessels off St. Martin's Island, again without success, but this time 12 Spitfires of No. 136 Squadron intercepted. Breaking through the fighter screen the Spitfires picked off the enemy bombers neatly one by one. The Japanese fighters were dealt with less formally but with equal success and hardly an aircraft of the enemy force returned to base without some measure of damage. Although impossible to confirm at the moment, it is estimated that thirteen enemy aircraft were actually destroyed. One Spitfire was lost and the pilot, after baling out, was subjected to machine-gun attack by an enemy fighter. Justice was done, however, for the Japanese pilot, intent upon killing his victim, crashed into the ground. Yet another unusual incident occurred during the air fighting for two enemy fighters collided in mid-air and crashed in flames. In the afternoon of the same day, between 1500 and 1545 hours, the enemy reacted by sending out a fighter sweep in the Dohazari - Chittagong area. Spitfires, however, were hampered by R/T failures and failed to destroy any of the enemy force.

O.R.B.
ACSEA Int.
Jan. '44

After his defeat on 31 December 1943 the enemy air forces remained quiescent, apart from reconnaissance activity, until 15 January when he mounted three fighter sweeps over the Arakan battle zone. Twenty-four Spitfires were scrambled to intercept the first sweep at 0800 hours and they encountered 12 Hampes over Bawli Bazar. Since the Spitfires were 5,000 feet above the enemy fighters they were in a good position to attack and they claimed the destruction or damage of the entire enemy force. Two Spitfires and one pilot were lost. About ninety minutes later, Spitfires again scrambled for a sweep of 15 Oscars. One Spitfire Squadron (No. 136) caught them just south of Buthidaung and without loss to themselves shot down six Oscars and damaged several others. The third sweep took place at 1120 hours and once again Spitfires severely handled a force of 12 Hampes over the Maungdaw area. The enemy, however, achieved one small success in forcing down an I.A.F. Hurricane which inadvertently became involved in the air battle while on reconnaissance. Each of the three enemy groups adopted a different formation, the first flying in loose pairs in shallow vees, the second in pairs in deep echelon and the third in line astern. Why the enemy dispensed with top cover remains a mystery for his very high losses were certainly due, in large measure, to this elementary mistake. Those pilots taking part in the third sweep, if not the second, should have been aware of the fate of the first. Out of a total of 39 enemy fighters, 20 of them were probably destroyed and 12 damaged.

ACSEA File
DACC/O34
A.H.B./11J50/
105/4/3

On 16 January 1944 at 0635 hours, yet another Dinah reconnaissance aircraft was destroyed by Spitfires 35 miles south-east of Chittagong. An hour later 25 enemy fighters were seen approaching the port. But this

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formation, on sighting our Spitfires, split into small groups and retired. On the 20th, however, two Spitfire squadrons established contact with a Japanese fighter sweep of 35 Hamps and Oscars over Maungdaw between 0910 and 1050 hours; seven were destroyed for the loss of two Spitfires. While this air battle was taking place a single bomber attempted a hit and run attack on Maungdaw but was shot down by anti-aircraft fire.

After the short period in mid-January, during which a considerable fighter effort was expended, the Japanese air forces relapsed into their former condition of non-offensive activity. They retained, however, a watchful eye upon the Arakan coast and this was clearly illustrated on 25 January 1944. At 0800 hours an enemy reconnaissance aircraft sighted a number of Allied light naval vessels on their way south to carry out a further bombardment of Ramree Island. During the day (between 1030 and 1350 hours) other enemy reconnaissance aircraft maintained patrols. Though the Japanese were well aware of the naval force and its direction, no attempt was made to attack it. The only other enemy air activity that might have been a reaction to the shelling of Ramree Island was a brief fighter incursion on the following morning up the Arakan coast to a point north of Maungdaw. This force may have been searching for the Allied naval vessels but in any case no attack developed. The regular enemy reconnaissances of the Arakan coast were not prevented by our Spitfires since the patrols were flown principally by Dinah aircraft whose speed enabled them to complete a flight as far as the tip of the Mayu Peninsula and to retire before R.A.F. fighters could make contact.

O.R.B.
ACSEA Int.
Feb. '44
App. 'A'

From 4 to 15 February 1944, enemy air activity in Arakan was on a greatly increased scale and coincided with the opening of the Japanese land counter offensive. The great bulk of this effort was designed to dislocate our close support operations in the XV Corps area and although the enemy attacks had a nuisance value, Allied air operations were hardly affected by them. But the attempts of the R.A.F. to intercept enemy aircraft flying singly or in formation were not so successful as hitherto, partly because of the weather, which on occasion hampered air interception, and partly because the enemy became more wary in his tactics. Yet there is little evidence to prove that enemy fighters were out to give battle wholeheartedly during his many sweeps over Arakan in February. From Japanese diaries and documents it would appear that their close support operations were designed primarily to heighten Japanese morale since there were numerous instances where the lack of air support or even the absence from sight of their own aircraft had the effect of lowering appreciably the spirits of the Japanese soldier. The enemy had, however, other objectives. He tried as far as possible within the limits of restricted fighter sweeps to prevent the Allies observing his infiltration movement on the ground which commenced on 4 February 1944, and he contrived to lend some measure of direct support by attacking our positions at some points with both ground attack fighters and, a new innovation, fighter-bombers.

O.R.B.
ACSEA Int.
Mar. '44
App. 'M'

The first successful reconnaissance of Chittagong for over three months was accomplished by a Dinah between 1625 and 1745 hours on 3 February. On the following day, from 0835 to 1007 hours, 30 enemy fighters mounted a sweep

(13437)

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ACSEA File
Int/39.

O.R.B.
ACSEA
Int. Mar. '44
App. 'M'

over Maungdaw during which areas immediately behind the front line were bombed and machine-gunned. Spitfires intercepted but could claim only two enemy aircraft as probably destroyed. The Japanese tried again to photograph our forward areas on 5 February, without success this time however, since at 0830 hours Spitfires shot down the Dinah into the sea off Maungdaw. From 0930-1020 hours on the same day, 50 or more Japanese fighters attacked our forward troops, including those in the vital Ngakyedauk pass; one Spitfire and two Hurricanes were lost in destroying one enemy aircraft and damaging several others. Further sweeps were mounted by the Japanese on 6, 8 and 9 February though on one occasion no offensive action took place. Enemy bombers made one of their infrequent appearances over the battle zone between 0855 and 1020 hours on 10 February but the formation passed over the Naf Peninsula and out to sea without making an attack. Spitfires intercepted and since they were unable to reach the bombers they had to be satisfied with the destruction of three of the escorting fighters. After further fighter operations over Arakan at 1525 hours on 13 February and at 1100 hours on the 15th, enemy air activity lapsed until 0825 hours on 21 February when he wound up his air offensive in the southern sector of the front with a sweep of 50 fighters. Little damage was done to either side in a running fight which lasted almost as far as Akyab.

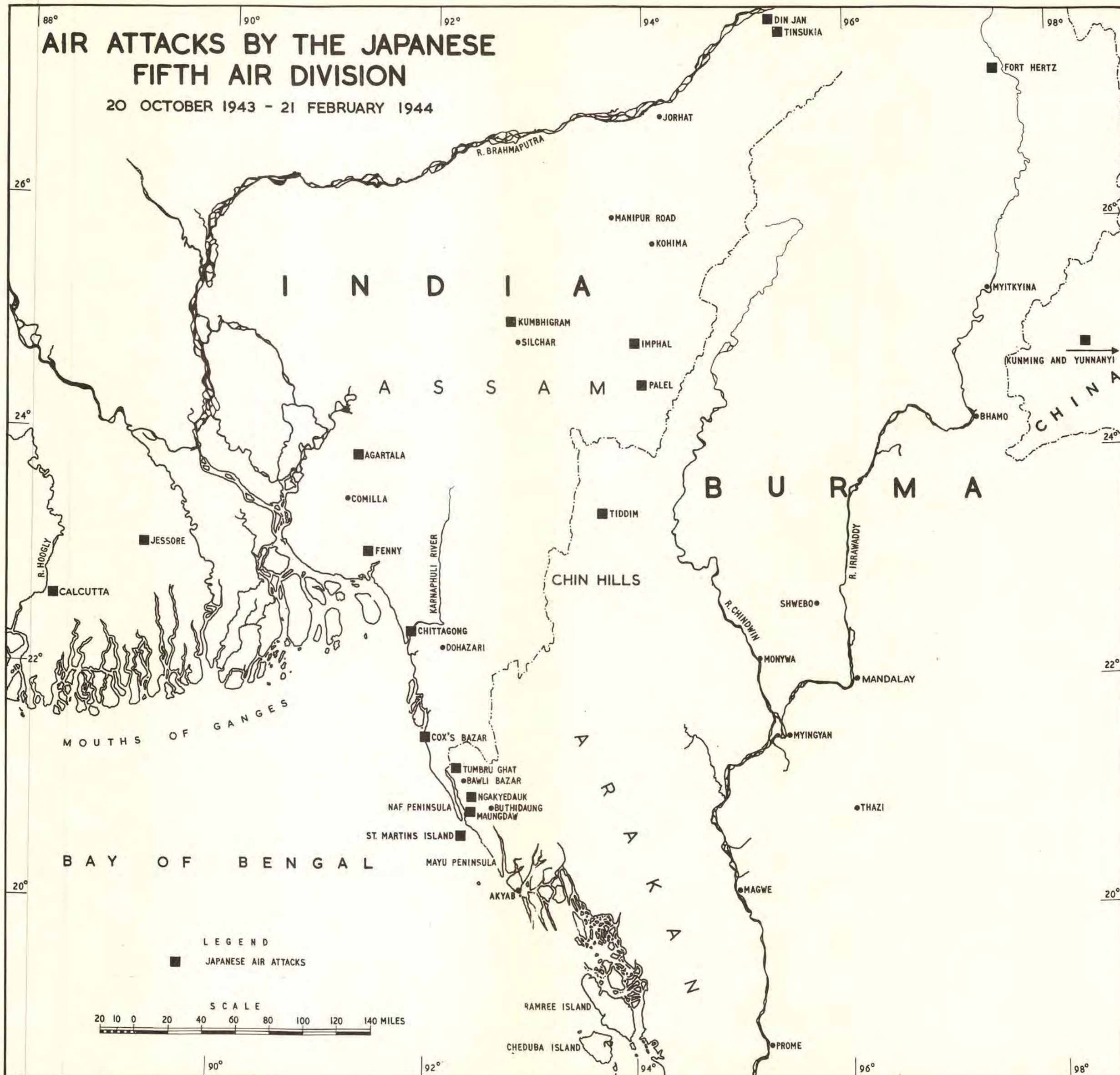
Summary

A study of the offensive air operations carried out by the Japanese from the beginning of the dry season until 21 February 1944, reveals certain trends that are worth noting. He began on 20 October with a raid upon Chittagong docks and then mounted three sharp attacks in Arakan, the last taking place on 28 October. During the next phase he directed his air striking force principally against Allied airfields and ten such raids occurred between 9 November and 22 December, five of them against airfields in the No. 224 Group operational area and five against airfields used by U.S. transport aircraft in Assam, North Burma and Yunnan. Sandwiched between these attacks came the Calcutta raid. On 26 and 31 December 1943, he struck at shipping targets at Chittagong and off the Arakan coast but on the latter date was so severely mauled by Spitfires that thereafter he confined his offensive air operations to fighter sweeps, all of which took place in the Arakan battle zone.

The quick repetition of successful air raids against the same target, characteristic of the Japanese air force's spasmodic activity in the 1942-43 season, was not confirmed during the closing months of 1943. The simple lesson that if air raids are repeated the enemy will be prepared and waiting, seems to have been learnt and the Japanese were inclined to choose targets for single raids in as unpredictable a manner as possible. In operational areas, particularly in China, the Japanese attacked new airfields under construction, presumably to take advantage of ill-organized defence and to stampede local labour. This policy paid dividends in China but was not so successful in Arakan, Bengal and Assam where new works were mostly additional to existing airfields protected by an established defence system. Of his attacks against Allied shipping, it

AIR ATTACKS BY THE JAPANESE FIFTH AIR DIVISION

20 OCTOBER 1943 - 21 FEBRUARY 1944



might be said that these could be expected in a period when the Japanese were apprehensive of Allied amphibious intentions.

The advent of the Spitfire Mark V fighter in Bengal early in November 1943 began an era of successful interceptions in which the enemy discovered for the first time in the South East Asia theatre of war, the efficacy of modern aircraft backed by a reasonably well developed system of warning and control. The first squadrons to be equipped with Spitfires were based at Chittagong in order to protect that vital base and to cover the Arakan front, the scene of the first major battle of the campaigning season. Within the month, Spitfires had destroyed four Dinah reconnaissance aircraft whose excellent performance had hitherto allowed them to range at will over our forward bases at a height and speed that the Hurricanes could not equal. The enemy then endeavoured to whittle down the Spitfire strength so that he could once again operate over Arakan suffering only the minor casualties that Hurricanes could inflict. But this objective he failed to achieve. During December 1943 and January 1944 the Spitfire V squadrons gained valuable experience in air fighting and, once the fighter control organization had been tightened up, they were fairly successful in combats with the Japanese Oscars and Hamps. The Mark V Spitfire was not, however, the complete answer to the problems of air interception. By the end of January 1944 Eastern Air Command had at their disposal three squadrons of Spitfire V's and three of Spitfire VIII's. The latter, with its greater speed and faster rate of climb than the Mark V, was a necessary advancement since the Japanese Tojo fighter, superior in performance to the Oscar, had been seen in action in China and might well have appeared in Burma. The arrival of Spitfire VIII's depended upon months of foresight and planning. Demands for Spitfire VIII's for Overlord had first to be met, however, and the provision of Mark V's at the beginning of the campaigning season to hold the fort until Mark VIII's could be made available in quantity, proved a highly prudent step.

From October 1943 until the end of February 1944, the Japanese admitted the loss of 142 aircraft with damage to a further 44. Whether or not these figures represent a true picture of their operational wastage is not yet known and, in view of the inadequacy of Japanese recording, the true facts may never emerge. In the same period the R.A.F. claimed the destruction of 68 enemy aircraft, 34 as probably destroyed and 99 as damaged; the U.S.A.A.F. claimed 78 destroyed, 38 probably so and 75 damaged, giving a total of 146-72-174. Statistics, however, do not necessarily measure the success or failure of air operations. What does matter is whether the Allied air forces provided adequate air defence over the India-Burma frontier and denied the enemy any appreciable benefit from his air operations. Viewed as a whole it would appear that the results achieved by the Japanese air forces were small in relation to the effort expended. That he failed to make use of bomber aircraft during January and February 1944 must be largely attributable to the effectiveness of our air defence for he had at his disposal nearly 100 light and medium bombers. All that happened in this respect was one flight by a formation of medium bombers over the Arakan battle zone when no bombs were dropped, and a miserable effort at night

with a solitary bomber just north of Maungdaw. Some low-altitude machine gunning of our forward troops took place and a number of bombs were dropped by fighter-bombers, but all on a very limited scale. His army's ground plan for halting the Allied offensive in Arakan had met with initial success and there could not have been a better opportunity or a greater inducement to use an air striking force. The lack of any bomber offensive at such an opportune moment must remain something of a mystery since no satisfactory explanation has so far emerged. It is possible that the 5th Air Division realised that aircraft losses might not be replaced in view of the low priority of the Burma theatre. He may have wished to keep his bomber force intact either as a potential threat or for use during the Manipur campaign. Perhaps logistics lay at the root of the matter, for his problems of supply and maintenance in all theatres was aggravated by the constant war of attrition waged by the air and naval forces of the Allies. There is no doubt, however, that his air forces in Burma felt the impact of poor long term planning in his training organization for his replacement pilots and aircrews were generally inferior in quality than those who took part in their initial offensives. Moreover, his aircrew strength in Burma must have declined, again because of the higher priority given to operations in the South West Pacific Area.

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CHAPTER 4.

THE SECOND ARAKAN CAMPAIGN
DECEMBER 1943 - MAY 1944

Background

Operations in Burma were influenced to a profound extent by two distinct but quite separate factors which developed in the winter of 1943-44. The first was the decision of the Combined Chiefs of Staff to withdraw from South East Asia Command all amphibious resources in view of the developments in Europe which received an overriding priority. This move had the effect of destroying piecemeal the framework of the offensive operations against the Japanese for which detailed planning was well advanced. The second factor was the Japanese plan to mount offensive operations on the India-Burma frontier. Since large scale amphibious operations could not be contemplated, Allied plans in the Arakan sector of the front had to be related to the wider conception of placing our forces in favourable positions whence the re-conquest of Burma might be accomplished in the dry season of 1944-45. There was too, an additional aim in applying the maximum attrition to Japanese forces by engaging them vigorously in battle on land, sea and in the air. Unlike the previous year's campaign, land operations in Arakan did not envisage the capture of Akyab, although the island still constituted an ultimate objective when suitable resources could be made available.

In November 1943 as soon as the ground had dried out sufficiently, XV Corps, supported by No. 224 Group, R.A.F., began an advance from positions covering Cox's Bazar down the Mayu Peninsula. This is dominated by the Mayu range which rises very steeply to an average height of 1000 feet. To the west or coastal side of the range lies a flat coastal belt stretching to the sea and to the Naf river. To the east of the Mayu range is the Kalapanzin valley, a region mainly of paddy interspersed with swamps, woods, tangled undergrowth and some grassland. The chaungs (waterways) with which the coastal strip is intersected were almost as great an obstacle as the hills and the jungle. During dry weather they could generally be forded at low water, but at other times high tides made them difficult to cross. A subsidiary battleground lay in the Kaladan valley and here similar topographical features of hills, jungle and chaungs made movement by land forces difficult. Indeed, only the advent of transport aircraft enabled troops to operate there at all. In Arakan the two main rivers, the Mayu and Kaladan, with their tributaries, converge on what was the main Japanese base of Akyab. Since he commanded the entrances to these two arteries the enemy could make use of excellent waterways. For land communications the Allies possessed a road of doubtful quality from the rail-head at Donhazari southwards through Cox's Bazar and Bawli Bazar towards Maungdaw. Coastal craft could also be used, however, as far south as Cox's Bazar and later to Maungdaw when that village had been captured by our troops. At the beginning of the campaigning season the Japanese were ensconced at Maungdaw and Buthidaung, these two places being connected by an excellent metalled highway which tunnelled the upper parts of the Mayu range.

Climate and disease played no small part in the Arakan campaign. Temperatures in the low-lying country along the coast remain consistently high all the year round; humidity is high too, and these factors made campaigning an exhausting business particularly for the forward troops who had to

battle with the terrain, the climate and the enemy. A year earlier the first Arakan campaign had petered out, not only because the Japanese outmanoeuvred our forces, but also because sickness casualties were fantastically high among the army and air force units deployed there. Much was done during the lull in fighting to reduce the ravages of malaria and the sickness rate diminished considerably. This was due to efficient draining of bad areas on lines of communication, improved personnel discipline and various medical prophylactic measures which were introduced. In such a climate, however, diseases other than malaria were the products of the conditions. Dysentery was fairly common, cholera always a possibility (an outbreak actually occurred in the 81st West African Division), there were numerous skin complaints and scrub typhus was endemic in certain regions. Moreover, few escaped the torment of prickly heat. In all, Arakan can be regarded as an unattractive place in which to fight and this fact should always be considered when the fortunes of the land and air forces on the Arakan front are weighed. The land forces in particular were much maligned in certain quarters for an alleged failure to make substantial territorial gains during 1943-44 whereas in actual fact they exhibited great courage and power of endurance in defeating a fierce attack by an enemy whose forces needed far less paraphernalia of war to sustain them than the troops of more civilized nations.

The Initial Thrust down the Mayu Peninsula

Tel. SEACOS 1,
Adml
Mountbatten to
Chiefs of Staff
23 Oct. '43
Chiefs of Staff
to Adml.
Mountbatten
Tel. COSSEA 1
23 Oct. '43
A.H.B./IIJ50/97

Tel. SEACOS 46
Adml
Mountbatten to
Chiefs of Staff
18 Dec. '43
A.H.B./IIJ50/97

G.O.C.-in-C.,
14th Army
Cab.Hist.Seo.
ALFSEA 431/4.

As mentioned elsewhere⁽¹⁾ several plans for operations in Arakan were examined but all were eventually abandoned either through lack of resources or for other reasons. Our forces were therefore obliged to fall back on a plan for an advance with the limited objective of the Maungdaw-Buthidaung road and the mouth of the Naf river, and to kill as many Japanese as possible in the process. In the first Arakan campaign our forces advanced along both sides of the Mayu range but none had been on the range itself. The Japanese had made tactical use of this, advancing along the summit to split the British-Indian forces. Moreover, the enemy had advanced up the Kaladan valley and moved westwards across the mountains, thereby threatening our lines of communication. In anticipation that this would again be their plan, XV Corps were to advance down the Mayu Peninsula, using two divisions, with troops on the Mayu range and to the west and east of it, and also to throw out the 81st West African Division as a further flank guard to march down the distant Kaladan valley lying beyond the next range of hills.

The situation at the end of 1943 was that the Allies held positions covering Cox's Bazar on the general line Teknaf-Buthidaung-Paletwa. Contact with the enemy was established in November 1943 and as the monsoon floods subsided XV Corps troops probed deeper towards the Maungdaw-Buthidaung road in a series of toughly contested actions against the forward positions of the 55th Japanese Division. Reports were received that the enemy had turned the tunnels area into fortified positions, buttressing it with two strongholds at Razibil (Maungdaw) and Letwedet (Buthidaung). The XV Corps commander, Lieut-General Christison, proposed to sieze these two bastions and to leave the garrisons of the tunnels to be destroyed later. By the middle of

(1) See Chapter 2 Page 23

Chiefs of Staff
to Supreme
Allied Commander
29 Dec. '43
A.H.B./IIJ50/97

December 1943 the stage was set for the main attack upon the fortresses. The 5th Indian Division was deployed on the coastal side of the Mayu range and the 7th Indian Division on and to the east of it. But since another division was to be landed on the Mayu Peninsula early in February 1944 to catch the bulk of the Japanese land forces between them and the troops advancing overland, the 5th and 7th Divisions were held back so as to leave room for the amphibious forces to land behind the Japanese. When towards the end of December operation Pigstick was cancelled on instructions from London, no reason existed for delaying the advance of XV Corps. Christison was therefore ordered to push forward and clear the Mayu Peninsula far enough south to enable the Naf river to be used for sea supply.

On 9 January 1944 Maungdaw fell to the 5th Division and the attack was turned against the Razabil fortress. By the end of the month, though Razabil still held out, enough of the area had been occupied to allow XV Corps to press along over the Ngakyedauk pass against Buthidaung. This was the position when on 4 February 1944 the Japanese launched their counter offensive.

Air Support in Arakan - December 1943 - Jan 1944

ACSEA Tact.
Memoranda
Page 53,
A.H.B./IIJ50/47/34

For the few remaining weeks of 1943 the squadrons of No. 224 Group were occupied in giving the limited scale of air support called for by XV Corps during a period of skirmishing. For both XV Corps and No. 224 Group were engaged in regrouping their forces for the coming offensive. By the end of December 1943, No. 224 Group had available some ten squadrons for direct and indirect support of the army. Tactical reconnaissance was in the hands of No. 6 (IAF) Squadron based at Cox's Bazar while the powerful 40-mm Hurricanes of No. 20 Squadron were located farther south at the fair-weather strip of Nidania. The two Vengeance dive-bomber units, No. 8 (IAF) and No. 82 (RAF) Squadrons, were operating from Dohazari and Double Moorings in the Chittagong area. Of the six⁽¹⁾ Hurricane IIc squadrons which had to combine the multifarious roles of escort, defence, reconnaissance and offence, all were perforce situated at airstrips in the region of Chittagong, Comilla and Agartala, their precise locations being Chiringa, Chittagong, Lalmai, Agartala and Parashuram. In addition Nos. 136, 607 and 615 (Spitfire V) Squadrons were based at Dohazari and on two fair-weather strips near Ramu, east of Cox's Bazar. This deployment represented the most forward that could, in December 1943, be arranged. In January 1944, however, a number of fair-weather strips were opened near Cox's Bazar and to the south, and thus a general forward movement took place. The two Vengeance squadrons, for instance, moved from Chittagong to the airstrips at Joari and Juncher, in the vicinity of Cox's Bazar, while all Hurricane units, now numbering eight⁽²⁾ squadrons, were based south of Chittagong save for Nos. 30 and 60 Squadrons which remained farther back at Agartala and Fenny.

(1) Nos. 11, 60, 79, 134, 258 and 261 Squadrons.

(2) Nos. 11, 20, 30, 60, 79, 134, 258 and 261 Squadrons.

A.M. War
Room Stat.
Summaries
Nov. '43 -
June '44
A.H.B./IIJ51/6

Up to the end of December 1943 the tactical bombing and ground strafing operations of No. 224 Group were spread fairly evenly over the whole Arakan area. Not only were attacks made upon enemy positions on the Mayu Peninsula and in the Kaladan valley, but a substantial number of sorties were flown against enemy points of concentration and supply dumps at Rathedaung, Myohaung, Minbya and Akyab. These operations had little effect upon the early stages of the XV Corps advance but they had no small bearing upon the outcome of the major battle which took place in February 1944. From 30 December until 3 February, however, practically all tactical light bomber effort was expended in close support and our advances at Maungdaw and Buthidaung were both preceded by intensive dive-bombing of enemy strongholds. More than once the Vengeances of No. 8 (I.A.F.) Squadron and No. 82 Squadron mounted nearly fifty sorties between them in a single day. In all during this period, Vengeance aircraft made 28 attacks against fortified enemy positions on the Mayu Peninsula, comprising some 552 sorties of which 23 were abortive. Nearly 280 tons of bombs were dropped.

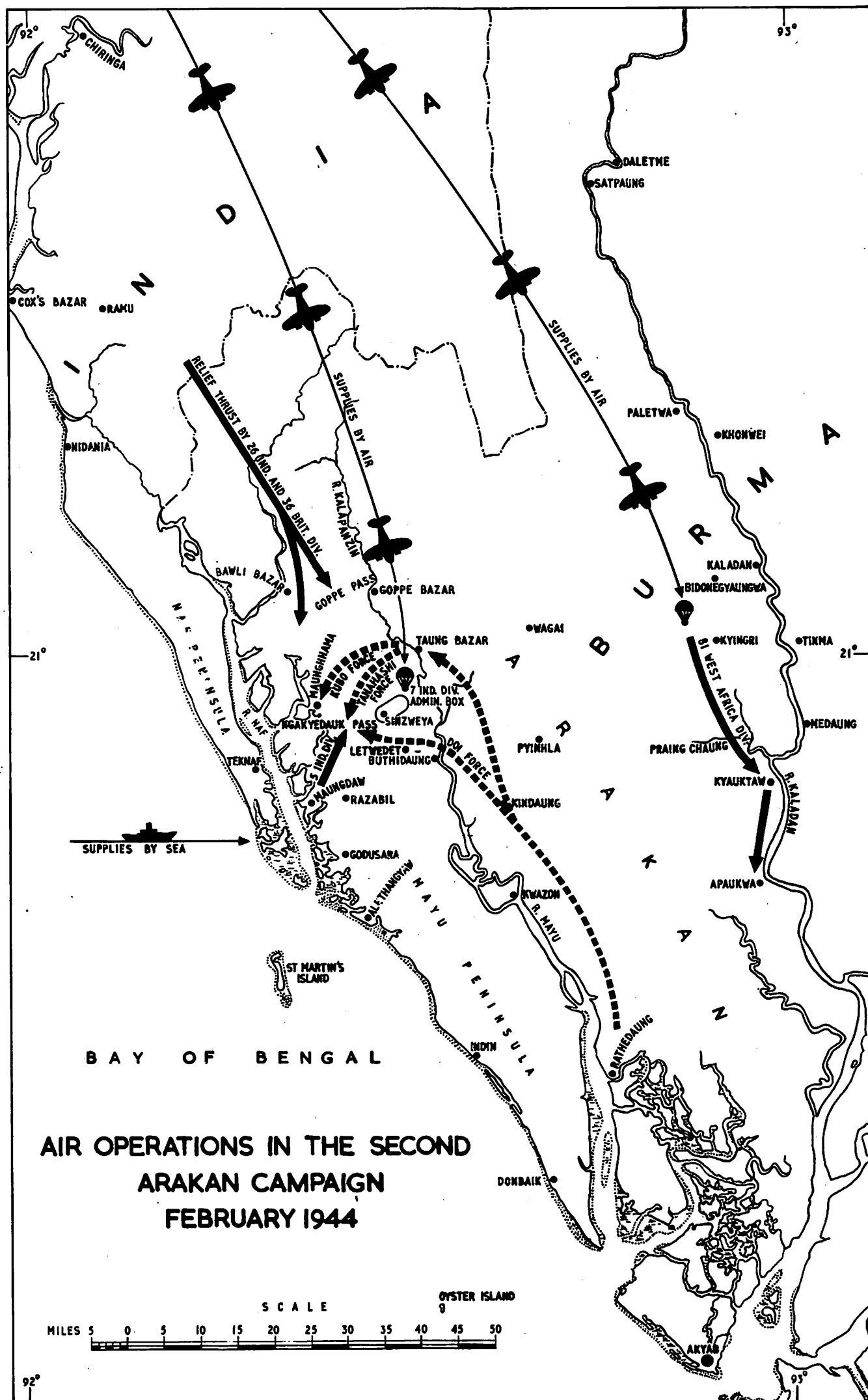
3T.A.F. to No. 224
Group. File
MS/8/41/Air
Optl.Inst.4.
A.H.B./IIJ50/
84/139

In Arakan too, in January 1944, the Strategic Air Force took part in an attack designed to soften an enemy stronghold in anticipation of a general advance. During the operations our ground forces were to be withdrawn to positions not less than 1000 yards from the perimeter of the area to be attacked, and immediately after the bombing they intended to occupy the strongpoint. The target area lay at Razabil, three miles east of Maungdaw and took place between 1000 and 1030 hours on 26 January 1944. First of all 24 Vengeances dive-bombed Razabil thereby indicating the target for sixteen B-24's and seven B-25's of the Strategic Air Force. It is interesting to note that No. 224 Group loaned to the Strategic Air Force three aircrew who knew the target well from the air. The majority of bombs fell in the area, one 2000 lb. bomb obliterating the top of a small hill containing enemy positions. But an appreciable time-lag occurred before the army could move to the assault and the enemy did not apparently suffer serious or lasting damage from the bombardment. The area of attack was 1000 by 600 yards and the bomb load nearly 50 tons. The target was undoubtedly too large for the weight of bombs dropped and it would appear that such attacks needed to be more accurate or more concentrated to be really effective. But no useful purpose can be served at this point in attempting an overall evaluation of the work performed by the Allied air forces during the early stages of the Arakan campaign; the continuous nature of air operations demands a wider perspective.

The Japanese Counter-offensive in Arakan - February 1944

A.M. File
C.27122
Despatch by
Gen. Giffard

While XV Corps troops were probing southwards from Cox's Bazar, the 81st W.A. Division was concentrating near Chiringa where it was maintained partly by air supply. It then moved eastwards over what had hitherto been considered impassable jungle clad hills into the valley of the Kaladan at Daletme with the object of protecting the flank of our forces astride the Mayu range north of the Maungdaw-Buthidaung line. To effect the movement of the 81st West African Division a jeep track 73 miles long had to be built from Chiringa to Daletme across four mountain ranges. This jeep track was later abandoned and from the moment the Division debouched into the river valley it became exclusively dependent upon air supplies for food and ammunition alike.



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Come what might its maintenance thus remained a continuous and inescapable obligation for our transport aircraft.

Translation &
Interrogation
Report No. 242
Aug. 1946
A.H.B./IIJ50/75

But the exploits of the 81st W.A. Division were thrust somewhat into the background from early February onwards by a series of events which took place on the main Arakan front. There were in fact two phases of the Japanese plan for operations on the India-Burma frontier. In the first, an offensive was to be launched against our forces in Arakan with the object of capturing the port of Chittagong, while in the second, timed to commence a month later, an attempt was to be made to capture our bases at Imphal and Kohima and thus forestall any Allied advance into Burma. In making their plans for this overall offensive, the Japanese assumed that all available Allied reserves would have to be committed to meet their attack in Arakan before the second phase was launched on the central front. The enemy did not appreciate the fact that their advantage in interior land and river lines of communication could be counterbalanced by the Allied use of air supply. Moreover, as a corollary of this, they did not realize that, when they had cut our lines of communication, our troops would no longer be forced to fall back and fight a battle to re-establish those lines; our troops would simply hold their positions with the aid of supplies dropped from the air.

SEACOS 92. Adml
Mountbatten to
Chiefs of Staff
14 Feb. '44.
A.H.B./IIJ50/97

In Arakan the 5th and 7th Indian Divisions were massing for an assault on Buthidaung when on 4 February 1944 the Japanese initiated one of their characteristic movements of infiltration and envelopment. Their plan was an ambitious one. Their first objective was the Ngakyedauk pass across the Mayu range over which the 7th Division maintained its communications with the 5th Division to the west and with the life-line of the Maungdaw-Bawli Bazar road northwards. The road itself was then to be cut and both divisions annihilated while the victorious Japanese troops marched upon Chittagong. At first the Japanese attack in Arakan must have seemed well on the road to success. The infiltration through our lines and past our left flank was swiftly accomplished, control of the Ngakyedauk Pass secured and the Bawli road brought under fire. So certain were the Japanese of success that Tokyo radio announced victories at the appropriate times according to their pre-arranged timetable.

Tel. SEACOS 90
Adml Mountbatten
to Chiefs of
Staff Feb. '44.
A.H.B./IIJ50/97

R.A.F. fighter reconnaissance aircraft were out continuously over the battle area (indications of a Japanese advance having been received) but little or no enemy movement could be seen. In this the terrain helped the enemy and, coupled with his discipline and skill in camouflage, effective cover of their movements was achieved. Once the enemy had secured control of the Ngakyedauk Pass, the 7th Division was cut off from the main body of our forces while the communications of the 5th Division became highly precarious. According to all precedents from the Malayan campaign onwards our forces, deeply embarrassed by the severance of their communications, should have hastily abandoned their fortified positions and beaten a retreat towards their base, thus affording to the enemy the opportunity for which he was seeking. In fact nothing of the sort occurred. The enemy's intention, though not the point of attack, had been divined and orders were given that any formation or unit cut off would hold their ground. At Army H.Q. arrangements were set in train to meet this eventuality and several days rations, together with ammunition and medical supplies for more than a division were

(13437)

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packed ready for dropping and stockpiled at R.A.F. airfields for delivery by air should the need arise. These preparations had a far reaching effect upon the battle and when supplies were called for there was no delay. Supply dropping to the 7th Indian Division began on 8 February 1944.

G.O.C.-in-C.
14th Army
Cab.Hist.Sec.
ALFSEA 431/4

Although the Japanese closely invested the 7th Division's defensive areas, called 'Boxes', and harassed the communications of the 5th Division from the hills overlooking the Bawli road, he made no further headway. Despite ferocious attacks our strongholds stood firm and by 20 February the shortage of food and ammunition and the lack of any tactical success began to have their effect upon the Japanese. He had suffered severe casualties and he was demoralized by an entirely unexpected reverse for which his plans had made no provision. His whole administrative system was faced with a complete breakdown for his plans had been laid on the assumption that he could bring about the wholesale retirement of our forces by infiltration and outflanking movements as in the past and that captured booty would sustain him for further conquest.

A.M. File
C.27122.
Despatch by
Gen. Giffard.
Telegram 98.
Adml Mountbatten
to Chiefs of
Staff 18 Feb.
A.H.B./IIJ50/97

Throughout the battle the enemy's supply lines were harried from the sea and air so that the Japanese attempts to remedy the situation after his plan had failed were unsuccessful. Owing to the poor state of the Arakan roads he had to bring up most of his supplies by coastal craft and inland water transport which were shot up and destroyed by our aircraft and light naval forces. The 7th Division, on the other hand, was supplied entirely by air and despite enemy opposition our aircrews continued to maintain this process until the momentum of the enemy's attacks had spent themselves. After that the issue was never in doubt. During the third week in February the battle turned definitely in our favour and on the 23rd the enemy began to retreat. The following day the 7th Indian Division broke out over the Ngakyedauk pass and made contact with the 5th Indian Division. Other Allied forces advancing southwards from Cox's Bazar to relieve the pressure on 7th Division joined in the battle. In his efforts to escape the enemy broke up into small parties which were hunted down in the jungle. It took some time to do this in the close mountain country since some enemy detachments had to be wiped out completely. Nevertheless, it was possible for XV Corps to continue its general offensive on 5 March and there is little doubt that our overall air superiority had been largely responsible for this. To the accompaniment of constant air support, direct and indirect, XV Corps troops subsequently captured the enemy fortress of Razabil, the tunnels area and Buthidaung after protracted and heavy fighting. At the beginning of May, XV Corps troops withdrew from Buthidaung and took up monsoon positions on the general line Godusara-tunnels area-Taung Bazar. Both the 5th and 7th Divisions were transferred from Arakan to Manipur, the former largely by air at the end of March and the latter by air and surface transport early in May. Thenceforth the XV Corps front was held by the 25th and 26th Divisions.

ACSEA File
AGRG/306
Third T.A.F.
to D/AC.-in-C.
8 July '44
A.H.B./IIJ50/
103/68

The Maintenance by air of XV Corps - February-March 1944

Passim

At first the small scale supply dropping effort in Arakan was effected, from 12 December 1943, by a few aircraft of No. 31 Squadron, Agartala, the recipients being advanced elements of the 81st West African Division near Paletwa in Kaladan. When No. 62 Squadron, based at Comilla, became

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operational on 7 January 1944, they assumed responsibility for the supply by air of the entire Division. But as commitments increased with the envelopment of the 7th Indian Division in February, a substantial reinforcement of transport aircraft became necessary. Not only had Troop Carrier Command to sustain the beleaguered troops near Buthidaung and the 81st W.A. Division in Kaladan, but also our outposts in the Chin Hills, Stilwell's Chinese forces advancing down the Hukawng valley and the garrison at Fort Hertz in north Burma. No. 31 Squadron, R.A.F., though deeply committed to operations in the Chin Hills and elsewhere, commenced supply dropping in the Mayu peninsula area on 8 February 1944. Two days later No. 194 Squadron, which had just reached Bengal from its training ground in the Punjab, joined Nos. 31 and 62 Squadrons. Lastly, No. 117 Squadron, a recent addition to South East Asia from the Mediterranean theatre, began supply dropping on 24 February. These four squadrons comprised the entire R.A.F. element of Troop Carrier Command but they alone could not keep pace with the demands made by the land forces. The American squadrons of T.C.C. could not assist since they were fully employed on the northern sector of the front.

Diversion of Aircraft from the India-China air route

Telegram 96
S.A.C. to
Chiefs of
Staff
18 Feb. '44
A.H.B./IIJ50/97

When the emergency arose in Arakan the transport squadrons of Troop Carrier Command were already operating on a narrow margin of reserve. Moreover, the practice flights and actual fly-in of General Wingate's Special Force to north central Burma scheduled to begin early in March and if the crisis in Arakan lasted that long it seemed that two major commitments of air supply would overlap. While the Arakan campaign, after the initial Japanese successes, progressed favourably for the Allies, it could not be foreseen when overland supply would again become possible. The expulsion of enemy forces from a wild and mountainous jungle country could not but take time and the Wingate operation could not be postponed since its timing had been related to the moon period. Unless, therefore, additional transport aircraft could be acquired for use in Arakan, the Supreme Allied Commander felt that the insertion of Wingate's Special Force inside enemy territory would have to be abandoned.

Telegram 98
S.A.C. to
Chiefs of
Staff 18 Feb.
'44. A.H.B./
IIJ50/97

CCS. Paper
411/4
26 Nov. '43

It was anticipated that there would be a deficiency at the peak period when both operations overlapped of about thirty-three C-47 aircraft or their equivalent lifting capacity. The only transport aircraft that could be quickly made available were those of the U.S. Air Transport Command plying between India and China. The diversion of these aircraft from their legitimate task, however, meant the loss to China of about 2500 tons per month but Mountbatten had no authority to divert that amount without the approval of the Combined Chiefs of Staff. At 'Quadrant' the Supreme Allied Commander, S.E.A. had been authorized to divert up to 1100 tons per month from the Hump route over a period of six months to meet the requirements of operation Tarzan⁽¹⁾. This operation, however, had not been put into effect, yet while the policy decided upon by the Combined Chiefs of Staff no longer held good, the tenor of

(1) The plan of operations for an advance to the Indaw-Katha area.

discussions at Sextant and subsequent meetings with the Generalissimo was to the effect that diversion would be permissible to meet unforeseen emergencies. Mountbatten therefore sought the approval of the Combined Chiefs of Staff for the diversion of twenty-seven C-46 aircraft from the Hump route. This was considered a maximum requirement and although the Supreme Commander hoped that fewer aircraft would be needed, he asked for the power to call upon that number during the Arakan emergency. Because the Wingate operation had a direct bearing on the operations designed to ensure the protection of the air route to China⁽¹⁾ the Combined Chiefs of Staff gave permission for the diversion of C-46 aircraft from the Hump route. On 24 February the India-China Wing of the U.S. Air Transport Command received orders to place twenty-five aircraft at the disposal of Troop Carrier Command for operations within 36 hours. These aircraft operated in Arakan until the middle of March.

Airborne Relief of the 7th Indian Division

Telegram 65,
Chiefs of
Staff to Adml
Mountbatten
24 Feb. '44.
A.H.B./IIJ50/97

The air supply to the 7th Division - since referred to as the 'Admin. Box' because it contained a preponderance of administrative troops - was carried out by the transport aircrews with great skill and courage. Only one Dakota was lost and this occurred on the opening day's operations (8 February 1944) when our transport aircraft, after dropping about half their loads, fell foul of an enemy fighter sweep. Save for the Dakota lost, all our aircraft were forced to return to their bases. On the following day seven out of sixteen aircraft were forced to abandon their sorties owing to intense light anti-aircraft fire and some aircraft were badly damaged. Despite enemy interference, however transport aircraft flew daily to the Admin. Box to drop not only basic supplies, but also the SEAC. newspaper, cigarettes and mail from home. The despatch of these amenities doubtless made the troops realize that their predicament was merely temporary and by no means hopeless.

It should be recalled at this point that the success of supply dropping operations during February 1944 was only possible with the maintenance of an air superiority which in the opening stages of the offensive the Japanese did their utmost to contest.⁽²⁾ His fighters were mobilized in central Burma and sent for a time as many as the unprecedentedly high number of 80 sorties in a single day, although it is significant that his bombers rarely appeared. On various occasions our Spitfires intercepted and shot down a fair proportion of the enemy aircraft with but small losses to themselves. But the appearance of enemy aircraft over the dropping zones seriously complicated the problems of those whose business it was to arrange the details of supply dropping and escort flights. There were anxious moments when enemy aircraft were reported to be in strength over selected dropping zones. Our transport aircraft, when necessary, were recalled, sometimes on the outward journey and sometimes in the middle of dropping.

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- (1) Operations in north Burma were designed to capture Myitkyina thereby giving the Allies an intermediate base for transport aircraft flying the Hump route and also a base for fighter aircraft.
- (2) See Chapter 3 Pages 38-42.

Review of Air
Transport ops.
H.Q. ACSEA
A.H.B./IIJ50/
47/70.

Ibid.

Characteristically accurate small arms fire from isolated detachments of the enemy ensconced within our lines provided another threat to the success of these operations. This danger, together with that from enemy aircraft, was partly met by transferring the time of dropping to the hours of darkness. This in turn involved the adoption of a special recognition procedure though the fact that few loads were brought back undelivered after the opening days' operations was due more to the invention and resourcefulness of the pilots than to the smooth working of the recognition procedure. The standard of co-operation varied from place to place. The dropping of supplies by night was further complicated by ingenious attempts on the part of the Japanese to entice the aircraft to deliver the loads to themselves; at various times green verrey lights were seen to be discharged from areas which were undoubtedly held by the enemy. It was, however, impracticable to supply the H.Q. 'box' of the 7th Indian Division by night since its dropping zone was overlooked by and within small arms range of features occupied by the enemy. For the delivery of supplies to it, special circuits were designed for the aircraft so as to keep them as far as possible out of range of the enemy's fire. While dropping was in progress, covering fire was sometimes provided by tanks but nevertheless our aircraft supplying the 7th Division's H.Q. 'box' were frequently hit by small arms fire. Occasionally the margin of air supply over ground requirements in this 'box' was perilously fine. One Dakota crew saw ammunition dropped by them during the first two or three circuits actually in use before leaving the dropping zone. Three times ammunition dumps in the H.Q. 'box' were blown up by Japanese artillery and the entire stores had to be replaced by air.

O.R.B's Nos. 31,
62, 117 & 194
Squadrons
Feb. & Mar. '44

Statistics of air supply during the period 8 February to 12 March 1944 are instructive. Supply carrying aircraft flew 714 sorties and delivered nearly 2300 tons of varied freight to the land forces in the Mayu peninsula area. There were 629 sorties by R.A.F. transport aircraft, 444 by day and 185 by night. Thirty-nine sorties were abortive (20 day, 19 night), the unsuccessful night sorties being mainly rendered so by the absence of ground signals at the dropping zones and those by day owing to enemy action. The R.A.F. delivered 1837 tons of supplies of which approximately 30 per cent was dropped free and 70 per cent parachuted; the dropping and parachuting were resorted to within the same load on about half the sorties. The remaining 85 sorties and 446 tons represents the effort of 25 C-46 aircraft diverted from the Hump air route. Three R.A.F. squadrons operated from 8 or 9 February while a fourth squadron joined them on the 24th. When the C-46's became available during the third week in February it was possible to divert some of the R.A.F. aircraft to other vital tasks. Air supply in the Mayu Peninsula area by Nos. 31 and 62 Squadrons ceased on 28 and 29 February, No. 194 Squadron on 1 March and No. 117 Squadron on the 12th. By that time overland communications were again in full operation.

Summary - Air Supply

The massive intervention of our transport aircraft in the Arakan battle had a decisive effect upon the Japanese offensive. As long as our troops held firm, the supply problem of advanced enemy troops behind our lines remained insoluble. They could not fight upon the food and

ammunition which they had hoped to capture nor could they be supplied to any appreciable extent along the devious jungle tracks which had been used for their advance. They were, in fact, trapped, and though they might fight with the blind tenacity of the cornered Japanese soldier, the ultimate issue could not be in doubt. In fact by the beginning of March the situation in Arakan had been completely restored. The whole episode, however, was rich in lessons for the strategist and may well be considered to mark the turning point in the history of land warfare in the Far East. For it was clear that the weapon that the Allies might henceforth employ to neutralize the hitherto baffling mobility and endurance of the Japanese soldier was the ubiquitous transport aircraft. Moreover, the Arakan campaign set the pace for the battles that were shortly to follow on the central front where greater numbers, greater distances and a much longer period of time were involved.⁽¹⁾

The main battle in Arakan lasted seventeen days and at the end of it the enemy was seven days overdue on his ration issues. Instead of completely isolating the British troops the Japanese themselves became the hunted and disillusionment set in as was inevitable when their carefully laid plans went awry. Suffering the pangs of hunger and privation, dive-bombed and machine-gunned in their bunkers, the Japanese broke up into small parties and endeavoured to make their escape. While the enemy had expected XV Corps troops to receive some measure of air supply they gravely miscalculated its possibilities and were confounded by the quantity of supplies delivered. Nor did they think that we could hold out for any length of time on air supplies alone. Thus at last the Allied forces on the Burma front had defeated a Japanese offensive with all the moral benefits that that involved. The fact that five Allied divisions were used to defeat a Japanese task force the size of one does not alter this fact. There is no doubt that the battle greatly boosted the spirits of the troops for they had seen convincing evidence that encirclement did not mean retreat or annihilation. The chief means by which the Japanese offensive was defeated lay in the employment of a technique which the enemy could not abruptly acquire. The roots of air supply were too deep to be capable of sudden cultivation by the enemy and the only kind of atmosphere in which air supply could live - that of fighter supremacy - was not a Japanese prerogative. The enemy gained in Arakan only one apparent objective in that he had forced five Allied divisions into battle with the object of furthering his broader design on the central front. But the enemy overlooked the fact that not only could transport aircraft rescue besieged troops but also that the same aircraft, by virtue of their flexibility, could carry troops from Arakan into the next battle arena.

Close Support Operations in the Mayu Peninsula area

During the advance of our forces towards the Maungdaw-Buthidaung road during January 1944, practically all tactical bombing in the XV Corps area was concentrated in the region of the Mayu Peninsula and this trend continued throughout the remainder of the campaigning season. The offensive

(1) For a description of the administrative structure and organisation of transport aircraft on the Burma front see Chapter 6 pp 104-114.

fighter effort, however, was more widely distributed since these operations were designed principally to interfere with Japanese communications leading into the Arakan battle zone. Hurricanes were out daily seeking and destroying enemy river-craft, coastal craft and motor transport to good effect, so much so that enemy movement by day practically ceased. Indian Air Force Hurricanes carried the burden of fighter reconnaissance, tactical, visual and photographic, and they also flew many message dropping sorties. An Air Observation Post squadron (No. 656) of Auster aircraft also co-operated with the land forces from the advanced airfield of Chota Maungnama, near Maungdaw.

ACSEA File
ACRG/306. Air
Mshl. Baldwin to
Air Mshl Garrod
8 Jul. '44
A.H.B./IIJ50/
103/68

Simultaneously with the launching of his ground offensive on 4 February 1944, the Japanese Air Force made an attempt to interrupt our close support and supply dropping operations but in this he met with small success. Our immediate reaction was to increase the number of escort sorties and to initiate standing patrols over the battle zone as occasion demanded. This meant that the Hurricanes had to increase their effort since with the preoccupation of the three Spitfire squadrons with interception duties, the Hurricanes had to bear the burden of escort, patrol and offensive fighter operations. The Hurricanes squadrons performed these tasks efficiently though just how many sorties they flew to accomplish their several tasks is not clear from the statistics available.

3rd T.A.F. to
No. 224 Gp. &
S.A.F. Encl. 10
A.H.B./IIJ50/
84/222

Aircraft of the Strategic Air Force also participated in attacks against tactical targets in the Mayu battle zone. American B-25's at 1000 hours on 8 February bombed enemy positions near Buthidaung after Vengeances had indicated the target by dive-bombing attacks. A similar operation was mounted on the following day. Small formations of not more than three Wellingtons also took part and dropped 4000 lb. bombs in daylight on enemy positions near Buthidaung on 10, 11 and 12 February and on the 21st nine B-25's attacked the entrances to the tunnels on the Maungdaw-Buthidaung road. The main tactical bomber effort, however, was performed by Nos. 8 (IAF) and 82 Squadrons whose Vengeances were in action over the Mayu Peninsula nearly every day. These operations continued from 5 February until 21 May and during the period they made some 122 raids comprising 1835 sorties and dropped 1053 tons of bombs in the Mayu battle area alone. In the same period R.A.F. Wellingtons dropped over 14 tons of bombs in the course of eight sorties while B-25's flew 25 sorties against tactical targets and dropped just under 32 tons of bombs.

No. 224 Group, instead of assisting an offensive in Arakan as originally planned, found itself involved in a grim defensive battle. The enemy's move to out-flank the 7th Indian Division, reaching as far as Taung Bazar, was harried the whole time by Vengeances. Although there was some difficulty in finding targets in the battle area, the air forces took every opportunity to attack reported concentrations of enemy troops, bunker positions and lines of communication. But while the results of air attacks in support of the army could not always be observed from the air, an analysis of army reports testifies to their effectiveness in terms of men and animals killed and positions weakened, if not destroyed. That tactical air support fell short of the ideal did not deter the army from being unanimous in their belief that the air support given during the Arakan campaign helped them to advance when the initiative was ours and to hold out and later to counter-attack in moments of enemy pressure. A more tangible result of direct air

support operations was the beneficial effect upon the spirit of our own troops and the opposite effect upon the morale of the enemy.

Problems of Tactical bombing in jungle country

Staff Study
of tact. ops.
H.Q., ACSEA.
pp. 153-154.
A.H.B./IIJ50/
47/34

The results of tactical bombing, particularly by strategic aircraft, were generally disappointing for on many occasions when our troops reached enemy strongholds it was found that air bombardment had inflicted little damage. The main reason was the depth of Japanese fox-holes, the hilly country and terrain, consisting of jungle so thick that at first our air reconnaissance failed accurately to pin-point vulnerable enemy positions. The enemy's capacity for absorbing punishment from the air without losing the will to fight was another factor in close support bombing. This was countered by the application to his positions of a fire-power or bomb load of such a magnitude as would seem in other theatres to be out of all proportion to the object it was hoped to achieve. Such a concentration of bombs over any area held by the enemy did help, however, to find an answer to the gift of the Japanese for camouflage though there were occasions when an area was found to contain more bunkers than even the most careful and thorough reconnaissance had disclosed. For instance, when attacks were confined to pin-point bombing of those bunkers whose existence was known, it was sometimes found by the ground troops that had followed up, that other bunkers existed. On one occasion it was thought, even after bombing, that only three bunkers existed, whereas in fact there were eight. Only complete saturation of an area could ensure a chance of all bunkers being hit or the troops in them at least held down while our own forces launched an assault.

Staff Study
of tactical
operations
pp. 150-151.
A.H.B./IIJ50/
47/34

The problem presented by the strength and depth of many of the enemy's bunker positions was never properly solved. The bombs carried by light bombers and fighters did little damage unless they made direct hits and the use of heavy or medium bombers for the task was, of necessity, restricted. Moreover, when heavy attacks were carried out with the help of the Strategic Air Force, no really decisive success was achieved and during the Arakan campaign the army made no effective assault in conjunction with these attacks. The resources in heavy bombers were small and great distances, difficult terrain and unsuitable weather over mountain country all combined to make effective close support bombing by heavy aircraft a problem of considerable complexity. For instance, the target usually consisted of well camouflaged fox-holes and bunker positions in jungle country possessing no outstanding landmarks and bombers had to attack from bases 400 miles away. To make a comparison with Europe, it was as if Bomber Command were asked, in conjunction with Second T.A.F. (but with bad signals communications) to attack at the right moment before a ground assault trenches occupied by a few hundred stout hearted men on the thickly wooded foothills of the Swiss alps. What advantage the heavy and medium bombers had in the weight of the blow was offset by their greater margin of error which forced our troops to start their assault at a greater distance from their objective. Even dive-bombers could not guarantee success in jungle country and the problem remained of bringing the bomb line near enough to our own troops for them to take advantage of the temporary paralysis which accurate bombing could inflict upon the enemy. As the campaign progressed, however, pilots of light bombers gained an intimate knowledge of the country

over which they operated and of Japanese concealment tactics. These factors led to a great improvement in the effectiveness of close support bombing, particularly after the introduction of dummy attacks following the bombing of enemy positions which kept the enemy underground while our troops made a closely co-ordinated assault.

Staff study of tactical ops.
H.Q. ACSEA
pp. 151-152
A.H.B./IIJ50/
47/34 3rd
T.A.F. File
17/2/Air,
Encls 87A/88A

Perhaps the chief difficulty in Arakan was to find suitable targets and to identify them. The Japanese penchant for camouflage complicated matters for traffic was rarely seen during daylight on roads and tracks while supply depots and strongholds were well hidden in the jungle. This necessitated careful and thorough reconnaissance. For target identification artillery smoke shells were at first used effectively and until the enemy made attempts to put down diversionary smoke. The answer was found in the use of coloured smoke shells which were later made available and these proved of great assistance in foiling the enemy's attempts to confuse targets. But the real solution lay in the use of R/T communication between ground and air and towards the end of the Arakan campaign R/T was in fact used to inform aircraft of the precise moment when smoke shells were put down. The idea was no new one since during the first Wingate expedition of 1943, the adoption of wireless communication to direct aircraft on to selected targets had been mooted, though in the event no opportunity had arisen to experiment with it. Thus the modest beginnings of R/T control of tactical aircraft in the Arakan campaign indicated great possibilities but the battle finished before the army and R.A.F. could benefit from their experience. The lessons which emerged, however, were later to be applied and R/T was eventually to be regarded as an indispensable part of close support operations.

The System of Tactical Control and its effect

ACSEA File
ACRG/306. 3rd
T.A.F.
to D/Air C.
-in-C. 8 Jul.
44 A.H.B./
IIJ50/103/68

In South East Asia the tempo of air support gradually increased during the dry season of 1943-44 and reached a high level during operations in Arakan. Military commanders became increasingly conversant with the possibilities and limitations of aircraft available and their choice of targets indicated a fair knowledge of the factors involved. Moreover, they became more confident in the use of aircraft against targets in close proximity to their own troops. Aircrews of squadrons engaged were kept informed about the land situation by army liaison officers, they developed a keen interest in ground tactics and paid visits to forward troops. In this way both services learnt something of the other's problems, inter-service reserve was to a large extent broken down and a higher degree of co-operation resulted.

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In Third Tactical Air Force the system used for the control of tactical squadrons was somewhat different to that in other theatres. In Burma, responsibility for the control of aircraft in the air had to be delegated to wing operations rooms owing to the great dispersal of units. Similarly, owing to the distances involved and the unreliable communications, control of a limited portion of the available tactical air strength was given to a unit known as an Army Air Support Control. One A.A.S.C. was placed under each group headquarters and they were established for the purpose of permitting forward army units to request air support by W/T. On the Burma front group commanders drew up a programme of

operations each day (in consultation with the appropriate military headquarters) for the employment of the majority of squadrons. The residue, including tactical reconnaissance aircraft, were allotted to the A.A.S.C. for use as required without reference to group headquarters. A wing commander was located with each A.A.S.C. as R.A.F. liaison officer and he made the final decision as to the employment of the aircraft allotted to him. It is interesting to note that in the XV Corps area, air support was allied with the artillery rather than with the infantry. This was considered by XV Corps to be more satisfactory in that the gunners were more used to thinking in terms of supporting fire and that the infantry found it more convenient to have only one channel through which to ask for support.

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of tactical
ops. H.Q.
ACSEA, pp.
306-308
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But No. 224 Group at Chittagong, operating in conjunction with XV Corps, whose headquarters were south of Cox's Bazar, were separated by a distance of about 100 miles with communication only by telephone or by air. The Group, though represented by a wing commander at Corps H.Q., could not effectively retain control of its squadrons many of which were, to all intents and purposes, operated by the army. As a result, the tactical squadrons of No. 224 Group were less flexible than they might otherwise have been. Decentralized control inevitably failed since No. 224 Group, in view of its operational commitments, had not only to carry out a considerable number of close support tasks but had, with the same aircraft, to perform escort duties and mount long range attacks upon enemy lines and means of communication.

Fighter Reconnaissance

As in other theatres, fighter reconnaissance embraced, in order of importance, tactical and photographic reconnaissance, message dropping, contact sorties and artillery reconnaissance. These tasks were carried out in Arakan by Hurricane IIB's of No. 6 (I.A.F.) Squadron and Auster aircraft of No. 656 Squadron. Experience garnered in the course of operations during 1942 and 1943 illustrated clearly that the handbooks and manuals of army co-operation could only form a basis for the tactics actually employed in South East Asia. For the difficult nature of the terrain, long distances between forward troops and forward airfields and other factors, which differed greatly from the conditions found in other theatres, meant that the theory of fighter reconnaissance had to be adjusted to meet local conditions. The air forces covered two distinct areas of the Burma front. The first was in Arakan and the second from Imphal as far east as Bhamo and as far south as Mandalay. Although this chapter is concerned with the former region it should be mentioned that both areas differed considerably.

Tactical Reconnaissance

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pp. 376-378.
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Aircraft of No 6 (I.A.F.) Squadron, operating from their base at Cox's Bazar were required to cover an area extending roughly south to Akyab and east to the Kaladan river. The terrain to the south along the coast is flat and the lines of communication were mainly down broad river valleys fairly easily followed, while to the east very dense jungle covered the Arakan Yomas and presented a vastly different picture. Tracks were almost completely hidden for long stretches and a high standard of map reading and navigation was required to obtain any results. Sorties were usually flown at about 50 feet in the open country and at 100-150

feet over the jungle. From a greater height nothing of value or indeed nothing at all could be seen.

Ibid

Since air superiority over the Burma front had passed into the hands of the Allies, the Japanese were extremely air conscious and it was only by complete tactical surprise that any troops could be caught in the open by day. When they were seen they immediately took cover in the dense jungle at the side of the roads or in the slit trenches which he constructed wherever he camped. Complete surprise could, in fact, be achieved by flying at 50 feet and in this way No. 6 (I.A.F.) Squadron was able on occasions to confirm the presence of enemy troops in certain areas. Perhaps the greatest value of tactical reconnaissance lay in its deterrent effect upon the use of lines of communication by the Japanese in daylight, to report enemy activity in villages and their use of roads. The Japanese invariably employed coolie labour to bring up supplies and while they were often caught in the open along the roads it was difficult to decide whether they should pay the supreme penalty for their collaboration. However, it was a simple matter to make the coolies drop their loads by firing over their heads and the burdens thus abandoned were, if destructible, subjected to machine-gun attack.

At first pilots flew their sorties singly but later, flying over dense jungle alone was considered to be trying on the nerves of pilots and a section of two aircraft became the accepted practice for all operations. The second aircraft flew behind and to one side of his leader, weaving slightly, for the Japanese small arms fire was extremely accurate and constant evasive action had to be taken throughout a sortie whilst over enemy territory. Despite this, many tactical reconnaissance Hurricanes were hit though seldom with fatal results. The Hurricanes did not confine their activities to reconnaissance alone but carried out attacks whenever opportunity presented itself. In most cases, however, no result could be observed by pilots although on occasion a subsequent report would confirm the effectiveness of an attack. Dawn sorties proved the most profitable, particularly against enemy motor transport, since their vehicles could usually be caught returning to harbour at first light, while sorties flown on moonlit nights invariably caught one or two lorries by surprise.

Japanese camouflage was almost perfect and he took a great deal of trouble to render even the most unimportant features inconspicuous. Pilots therefore had to develop the art of looking into the jungle rather than at it. This was a point that new pilots could never understand and not until they acquired the art, which usually came to them quite suddenly on about the eighth sortie, did they appreciate the technique of spotting enemy activity in close country. The sorties themselves lasted anything from 40-80 minutes and on the whole produced results which certainly warranted the employment of tactical reconnaissance aircraft, contrary to the belief of the sceptics who maintained that the country did not lend itself to that type of operation.

Tactical Photographic Reconnaissance

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tactical
operations H.Q.
ACSEA pp. 377-
378. A.H.B./
11J50/47/34

Gen. Slim to
Air Mshl
Baldwin.
A.H.B./11J50/
47/50

Ibid.

At all times on the Arakan front photographic reconnaissance played an important part in the work of fighter reconnaissance squadrons. Cameras used were F.24 with 5" and 8" lenses, one oblique and one vertical camera usually being carried. But the photographic equipment carried by tactical reconnaissance Hurricanes was very much out of date and this applies equally to the ground equipment. A delapidated Brownhall trailer served one squadron for nearly three years and this deficiency in suitable equipment greatly effected photographic reconnaissance.

Topographical information of Arakan was grossly inadequate and inaccurate and the air forces were therefore required to provide large numbers of oblique and vertical photographs of the battle areas. These photographs had to be modern since streams and rivers were apt to change course at frequent intervals and warlike activity often altered the appearance of tracks and villages from the air. The demand for photographs, however, was far in excess of what could be provided by a single squadron and throughout the whole campaign the complaints raised by R.A.F. squadrons and by the army indicated a conviction that photographic reconnaissance and interpretation fell far short of army requirements and had little value for the briefing of tactical squadrons. Aircraft of No. 6 (I.A.F.) Squadron did some valuable work in the XV Corps operational area and fulfilled many of the army's demands, but equipped as they were with old fashioned cameras, their output was strictly limited. Moreover, the processing facilities were inadequate to supply the large quantity of prints required. It thus became necessary for Third T.A.F. to enlist the aid of P.R. aircraft but this too had serious drawbacks. All the facilities of the P.R. Force were located in the Calcutta area and by the time the photographs had been processed, interpreted and flown back to units in the forward areas, an absolute minimum of 18 hours had elapsed. R.A.F. squadrons were concerned with attacking enemy locomotives, river steamers, motor transport, aircraft on the ground and troop concentrations. Since many targets could not be discovered by visual reconnaissance, photographic evidence was necessary but by the time the processed photographs had reached the squadrons it was impossible to guess where the locomotive or steamer or the nomadic enemy force might be.

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Photographic sorties were flown at varying heights from 2500 to 6000 feet save for the low oblique photographs which were taken at ground level. By fitting each aircraft of a section with cameras double results were achieved on sorties, each aircraft taking photographs in turn while the other acted as look out and cover. Here again map reading had to be of the highest standard for the approach to target areas for mosaics were frequently rendered difficult by the absence of suitable land-marks and no successful method was evolved by which the second aircraft could direct his leader on to the correct photographic run. Success was therefore largely dependent upon the experience of pilots and in this connection new pilots soon adapted themselves to local conditions. A very large area had to be covered by fighter reconnaissance aircraft and their work undoubtedly helped in the production of accurate maps of country which hitherto had been only superficially surveyed.

Message Dropping

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of tact.ops.
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Lines of communication from bases to forward areas were generally poor on the Burma front and thus fighter reconnaissance squadrons were often employed to drop messages, photographs, small quantities of urgently required medical supplies and even newspapers to forward troops. No special technique was adopted, the pilot stowing in his cockpit the package to be dropped and throwing it out when the dropping zone had been located. These sorties were 90 per cent successful. Perhaps one of the most important aspects of this work was the dropping of photographs which were needed quickly by forward troops in anticipation of an immediate assault upon enemy positions.

Contact Reconnaissance

Ibid

Contact reconnaissance was another function of fighter reconnaissance aircraft which in Burma probably assumed a wider importance than in other theatres. In Arakan, however, its scope was limited compared with other sectors of the Burma front where troops advancing into jungle country were soon out of touch with their bases. Nevertheless, fighter reconnaissance aircraft in Arakan were able on occasions to contact forward troops thereby providing the supply dropping Dakotas with up to date information and also enabling army commanders to keep their fingers on the pulse of formations under their command.

Various means of recognition were adopted so that troops could make themselves seen in the jungle; the most common sign was an orange coloured umbrella that was hoisted to the level of the tree tops and which could be seen quite clearly by our aircraft. No communications other than visual ones were used and the sorties were confined solely to contacting land formations. Along dense jungle paths and in close hilly country a surprisingly high number of contacts were made and where previous liaison had been possible with the formation to be contacted, the success was almost 100 per cent. The importance of pilots knowing the people with whom they were working might well, at this point, be stressed since mutual trust was evidently the key-stone to success in all fighter reconnaissance operations.

Artillery Reconnaissance

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of tact.ops.
H.Q. ACSEA,
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Until the advent of No. 656 (AOP) Squadron on 24 January 1944, fighter reconnaissance aircraft performed the task of artillery observation. Air to ground communication was the first problem to be solved and the following method invariably employed. The F.R. squadron, equipped with a jeep or 15 cwt truck with VHF and W/T HF apparatus, sent forward an R.A.F. pilot and Air Liaison Officer, to the division or brigade with whom it was desired to co-operate. During operations it was the practice for the A.L.O. to call aircraft on the W/T HF without any recourse to otherwise unreliable communications and there was thus no time lag other than that taken for the aircraft to reach the target area. Communications were almost 100 per cent effective and were rarely the cause of an unsuccessful shoot. Close liaison was maintained with the Gunners and consequently nearly all shoots were carried out with the procedure agreed upon beforehand or explained to the battery commanders by the R.A.F. officer or A.L.O.

In the dense country usually found on the Burma frontier, high explosive shells were not easy to locate unless the pilot of the F.R. aircraft knew exactly, or within a hundred yards or so, where to look for them. Smoke shells were therefore used on all ranging shots, generally a couple of rounds or until the target had been identified. In hilly country shots often disappeared over a narrow ledge and were lost in the valley below, and so a 'creeping' procedure was adopted which, though a little more costly in ammunition, in the end produced results with no greater expenditure than would have occurred had shots been lost. Once the ranging rounds had been clearly fixed, no further difficulty was experienced in directing the fire and producing very satisfactory results within 10-12 minutes of the commencement of the shoot. Very few impromptu shoots were tried owing to the inability of pilots to see any target worth engaging. On occasion, however, opportunity targets were reported on the HF link to the squadron and sometimes aircraft were called up and briefed whilst over the target. There is no doubt that close liaison with the Gunners and excellent R/T communications were responsible for the very high percentage of successful shoots.

O.R.B. No.
656
Squadron
Jan-May 44

As already mentioned No. 656 (Air Observation Post) Squadron began operations with their Auster III aircraft on 24 January 1944. From that date until they ceased operations in Arakan on 11 May, the Squadron augmented the work of No. 6 (I.A.F.) Squadron, not only in the task of artillery observation but also in contact reconnaissance and message dropping. No. 656 Squadron, though an R.A.F. unit, was manned by army pilots. Their location during the Arakan campaign remained as close as possible to the headquarters of XV Corps. They first operated from the strip of Chota Maungnama, near Maungdaw, until the Japanese counter-offensive in February forced them to move further back. The Squadron H.Q. remained alongside XV Corps on the move of the latter to Bawli Bazar and their aircraft then operated from Mambur, to the east of Cox's Bazar.

Air Liaison Sections

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of tactical
operations
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One A.L. Section, comprising a G.S.O.II and two G.S.O.III's, was attached to every F.R. squadron. The latter was situated on an airstrip as near as possible to the appropriate headquarters of the Corps or division from which tasks were received. Sorties were ordered by signal or telephone during the evening or night for the following day's operations, but further immediate requirements would often later arise ... Ideal conditions when aircraft were located at an airstrip with land-line communication with the army formation were not always possible owing to the ebb and flow of battle. In such cases W/T was used though cypher work greatly restricted the speed with which reports could be transmitted and prevented them from being as clear and comprehensive as was desired.

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In fighter reconnaissance work in Arakan tactics were changed to meet local conditions and the squadron pilots were left to their own devices in this matter. Owing to the very long periods at high rates of effort, little training could be carried out save on the rare slack days; even then only new pilots could benefit. Nevertheless, the standard of flying, photography and especially navigation, was extremely high and few abortive sorties occurred through lack of experience or inadequate training. In all it can be said that fighter reconnaissance squadrons in the Burma theatre performed a difficult task well, bearing in mind the problems which beset

them. Their work was never spectacular and it received none of the glamour and publicity that surrounded the activities of their comrades in bomber and fighter squadrons.

The Maintenance by Air of the West Africans in Kaladan

Report by
81st Division
A.H.B./IIJ54/55

Air supply to the 81st West African Division in the Kaladan valley began on 12 December 1943 and continued throughout the campaigning season. At first No. 31 Squadron supplied advanced elements of the Division but from 7 January 1944 the task was exclusively performed by No. 62 Squadron operating from Comilla. The jeep track, 73 miles long, from Chiringa to Daletme was completed on 17 January and when the Division was concentrated in the Satpaung-Daletme area the tenuous line of communication was abandoned. Thenceforth the troops remained dependent for their maintenance solely upon transport aircraft. Thus sustained they marched southwards and occupied Paletwa unopposed on 24 January and despite strong enemy opposition had captured Kyauktaw by 3 March. They had reached Apaukwa when a Japanese counter-attack developed and the Division subsequently lost Kyauktaw and retired to positions covering Kaladan village. In April 1944, most of the Division moved westwards over the Arakan Yomas into the Kalapanzin valley to provide closer protection to the left flank of XV Corps troops on the Mayu Peninsula. Subsequently, the 81st Division was withdrawn via Buthidaung and Taung Bazar to the neighbourhood of Chiringa whence they had started nearly five months before.

The Kaladan valley not only provided formidable obstacles to ground movement but also presented many problems to the R.A.F. Shapeless jungle hillocks gave pilots no landmarks until they reached the river and yet somehow they contrived to find their way with comparative ease over the mountain fastnesses and manoeuvre their aircraft in narrow valleys and turbulent air. When the West Africans reached the lower reaches of the Kaladan, where more open country was encountered, supply dropping became somewhat easier. Here strips were built to take Dakotas although this meant additional dangers from enemy guns which sometimes overlooked the strips. Some landings were made in daylight under the cover of Hurricane escort while at other times Dakotas were detailed for unescorted night flights with landings by improvised flare paths and guiding bonfires.

3rd T.A.F.
File Encl. 18A.
A.H.B./IIJ50/
84/176

During December 1943 the 81st West African Division was strung out along their jeep track. The supply dropping which began on the 12th was performed by a single aircraft of No. 31 Squadron. The initial sortie was rendered abortive by the awkward position of the dropping zone but the pilot, having searched the area, reported that a suitable area existed on a ridge south-south-west of Satpaung. Unfortunately communications with the advanced West African troops broke down and no word could be passed to them that supplies would be dropped on the ridge. It was realized, however, that the troops might be without supplies and so a second sortie was made on the afternoon of 12 December. The load was duly deposited on the ridge selected by the pilot during the initial sortie but the area proved to be inaccessible from Satpaung and much time was spent by the West Africans in collecting the supplies. A more suitable dropping zone

was found, however, and a second drop took place on 15 December. From the 18th two sorties were arranged to take place on alternate days until the bulk of the Division had reached Daletme. On 7 January 1944 a force of brigade strength required maintenance by air and from the 14th the entire Division was dependent upon airborne supplies.

Report
by 81st
Div.
A.H.B./
IIJ54/
55

The possibility of building Dakota strips had been foreseen during the planning stages of the Kaladan operation and consideration given to the selection of a site in open paddy fields north of Kyauktaw. The stereoscopic examination of air photographs revealed what appeared to be an excellent position just south-east of Medaung and this was confirmed by R.A.F. reconnaissance. When the area had been captured the selected site was found to be very suitable and the preparation of the strip, with the aid of local labour, began at once. The strip was used from 21 to 26 January 1944 and during that time 51 Dakotas landed on it, about two-thirds of them by night. The aircraft took in Bofors guns for the defence of the airstrip and for action against any Japanese armed launches that might have used the Kaladan river. The Dakotas also took in some small river boats, outboard motors, seventy-four bullocks and important equipment including motor cycles. Airfield control was carried out with great enthusiasm and efficiency by an R.A.A.F. officer and another flown in by No. 62 Squadron. On their return trips the transport aircraft brought out 28 casualties, these being all that remained after intensive activity by light aircraft. Several small strips for light aircraft had, in fact, been previously constructed and such good use had been made of them that Moth aircraft evacuated 156 casualties in eight days from a strip at Khonwei. Some 25 casualties were also evacuated by R.A.F. Moths and U.S.A.A.F. light aircraft from Tinma, the American aircraft operating for a couple of days and then vanishing from the scene. Elsewhere on the 81st Division front a light aircraft strip was opened near ~~the~~ ^{Pienggaung} from which 41 casualties were evacuated between 21 and 27 February 1944.

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Translation &
Interrogation
Report
247 A.H.B.
/IIJ50/75
(c)

The initial advance of the 81st Division, sustained by air supplies, mainly by parachute, was made in the face of comparatively light enemy forces since the Japanese had earlier transferred some of their troops from Kaladan to take part in their offensive in the Mayu Peninsula area. When the 81st Division reached Kyauktaw and beyond during February and early March, the Japanese became alarmed at the threat to their lines of communication leading into the Mayu Peninsula. So serious did the enemy regard this threat that they withdrew troops from Mayu in the middle of the battle there in order to reinforce Kaladan. These troops, together with other reinforcements halted the West African advance early in March, thereby complicating the task of supply landing and casualty evacuation and forcing the Division to operate on the strength of supplies parachuted to them. A Dakota strip which had been built could not, in view of the tactical situation, be used save by a few communications Moth aircraft. As a result the Division's mobility was seriously impaired since they were obliged to carry the many casualties sustained during the bitter fighting. But as soon as a lull occurred, light aircraft flew out 42 casualties though they could not do more in the short time available. However, another Dakota strip was prepared at Bidonegyaungwa and remained in use from 12 to 15 March 1944. During that time 34 Dakotas landed carrying in 746 reinforcements troops and flying out 212 casualties, most of the outboard motors, 4000 lb. of salvage and some small river boats which were no longer required. These operations were not performed without enemy interference, but the two determined attacks made by the enemy against our troops defending the strip were repulsed.

Report by 81st
Div. 1943-44
A.H.B./IIJ54/
55

During March 1944 a decision was made to evacuate surplus troops and equipment and for the remainder of the 81st W.A. Division to move into the Kalapanzin valley. Most of the surplus personnel and motor transport were taken out of Kaladan over the old jeep track but the R.A.F. were required to move westwards by air the casualties and some items of heavy equipment. To do this a Dakota strip was opened near Kyingri and on 27 March, twenty-five Dakotas landed and flew out the Bofors guns, baggage and 212 casualties while Tiger Moths took out a further 22 wounded men.

After breaking contact with the Japanese near Kyingri, the bulk of the 81st W.A. Division embarked upon their arduous march across the Arakan Yomas and by 10 April were concentrated at Wagai, a village in the hills some 10 miles east of Taung Bazar. Air supply to elements of the Division in the Paletwa area continued during their withdrawal over the old jeep track, while at Wagai the troops were given a short rest and a large supply drop. About 156 tons of supplies were dropped at Wagai in the course of 47 sorties between 15 and 18 April 1944. Thereafter, supplies were dropped from time to time during the remainder of the march into the Kalapanzin valley. Casualties were sent to Taung Bazar for air evacuation to rear hospitals. From the positions in the Kalapanzin valley the 81st W.A. Division was given the task of harassing Japanese lines of communication between Kindaung and Buthidaung until 8 May while XV Corps troops retired to their monsoon positions. During this period the last light aircraft strip functioned at Pyinhla and between 27 April and 8 May forty-one casualties were evacuated from it. The 81st Division moved to the Taung Bazar area during the first week in May there to remain until monsoon rains rendered the country impassable.

Summary of the Kaladan Campaign

From the R.A.F. point of view there is no doubt that the campaign in Kaladan was a success and this can be clearly illustrated by quoting the words of the Commander, 81st West African Division, whose force received over 3000 tons of supplies during February, March and April 1944. He said:

Report by Maj-
Gen. Woolner
81st Div. 1944
A.H.B./IIJ54/55

'No words of mine can do justice to the achievements of the R.A.F. in support of the Division. Their faultless supply dropping, the skill with which they landed their Dakotas on our airstrips in rapid succession, the devotion of the Moth pilots in evacuating casualties, the promptitude and accuracy of their air strikes, the plentiful supply of air photographs which they provided, together with the air letter service and daily message dropping, taken together, constituted an outstanding effort of co-operation. Above all there was a most heartening feeling of comradeship between the two services'.

The outstanding characteristic of the campaign in the Kaladan valley was perhaps the mobility endowed upon it by air supply. Although the Division did not accomplish its allotted task and had to be diverted to the Kalapanzin valley, the daring and unprecedented venture of maintaining a Division in the wilds upon airborne supplies alone nevertheless justified itself. For much further inform-

ation as to the solution of the problems arising from the maintenance by air of ground troops was thereby gleaned. A very cordial relationship developed between the West Africans and the squadron crews who supplied them. The latter came greatly to respect these stalwart soldiers for their courage and endurance while the former regarded with unconcealed admiration the strange purveyors of food and ammunitions from the skies. They flocked round crews when they landed and were zealous of their care of the goods which the Dakotas dropped from the sky when they could not land.

Casualty Air Evacuation during the Arakan Operations

The evacuation of wounded and sick by light aircraft and by Dakotas was a subsidiary advantage which flowed from the air supremacy established by the Allied air forces. Although plans for the campaigning season of 1943-44 recognized the need for light aircraft, most of the resources were allotted to the central and northern fronts, consequently casualty evacuation by light aircraft in Arakan was an improvised affair. American L-5 aircraft operated in Arakan for a few days only and a few R.A.F. Fox Moths performed some valuable work in evacuating casualties from hastily prepared strips, sometimes within range of the enemy's guns. The L-5's were withdrawn for operations in north Burma and the high rate of effort of the Fox Moths resulted in poor serviceability. Action was therefore taken to modify Tiger Moths for carrying stretcher cases although the extemporary modifications incorporated in them meant taking a slight flying risk since the rudder control of the aircraft was affected.

Report by
3rd T.A.F.
A.H.B./IIJ
50/47/50

The first big task of light aircraft was to clear the casualties of the 81st W.A. Division from Paletwa and from February until the end of the Kaladan operation over 600 casualties were flown out to Ramu and Bawli Bazar whence they were lifted by Dakotas to Comilla and other base hospitals. Isolated units on the Mayu front also derived benefit from light aircraft operations, 421 casualties being flown out. The troops in the Mayu Peninsula area were, however, more fortunate than those in Kaladan since Dakota strips were generally available for casualty evacuation. In all, light aircraft evacuated over 1000 casualties between January and May 1944. Operating for long hours over the front lines they frequently flew for as many as eight hours a day. By their devotion and ability to land their aircraft in small jungle clearings they must have saved a great many lives besides relieving army units of the embarrassment of carrying wounded and sick men.

The development of casualty evacuation in Burma was inevitably bound up with the growth of air transport support to the land forces. Prior to 1944, the year in which the evacuation of casualties by air on a large scale first became a practicable undertaking, opportunities for the provision of what was to become a vital service were few in number. During 1942 and 1943 supplies were delivered largely by parachute dropping owing to the absence of suitable landing fields. Occasionally, however, it was possible for casualties to be rescued by Dakotas, as during the retreat from Burma in 1942, at Fort Hertz and in the first Wingate expedition. Nevertheless, the evacuation of wounded by air in South East Asia did not begin on any scale until the opening of the Japanese offensive in Arakan in February 1944, when heavy fighting was precipitated. A number of light aircraft of miscellaneous provenance were collected and with their aid a shuttle service was operated between improvised landing grounds at Taung Bazar, Paletwa and Goppe Bazar and the airfield at Ramu, which at that time provided the

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most advanced strip suitable for the use of heavy aircraft. With the help of the army, a number of ambulance personnel were stationed there and the casualties, that had either been carried overland or deposited by light aircraft, were picked up by the Dakotas and transported to the hospital bases further west. At various times, all types of aircraft took a hand in the evacuation of casualties from the Arakan front and, after some weeks, Dakotas were able to land on the strip at Bawli Bazar, almost within the fighting zone. But since neither heavy nor light aircraft could be spared specifically for the evacuation of casualties, the removal of sick and wounded remained on a basis of expediency and improvisation. Nevertheless, during the Arakan operations over 6000 casualties were evacuated by air.

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CHAPTER 5THE SECOND PHASE IN THE BATTLE
FOR AIR SUPERIORITY
MARCH - JUNE 1944

It is not unreasonable to assume that the most important single factor moulding the progress of all operations on the Burma front was the establishment and continued maintenance of air superiority. One might even assert that, with one or two possible exceptions, this supremacy was without precedent in the history of land warfare between industrialized nations. It was only fitfully contested by the Japanese whose air strategy after February 1944 was based on the hit-and-run policy of the confessedly weaker side; it is precisely for this reason, however, that the factor of the virtually unchallenged Allied air superiority is not always given its due when the fortunes of war on the Burma front are weighed. Without it, our ground forces would have received no more direct support from fighters, fighter-bombers and dive-bombers than the enemy, and our transport aircraft would have been forced to make their flights as furtive as his. Without it, our offensives into Upper Burma could never have been launched nor the defence of Imphal sustained. It provided the unchanging background upon which the pattern of events was unfolded.

During the campaigning season of 1942-43 and for a few weeks following the 1943 monsoon, the Japanese had undoubtedly been able to make some show against the Hurricanes which then formed the backbone of our fighter defence. Their Oscars, flown by experienced pilots, had proved tough opponents for the Hurricanes to tackle and their Dinahs had outflown the latter to make reconnaissance flights over Bengal and Assam. But the advent of Spitfires in November 1943 sealed Allied air supremacy over Arakan. Within a fortnight they had shot down the three successive Dinahs which the enemy had ventured to send over our lines. A series of air battles⁽¹⁾ then followed in which the incontestable superiority of the Spitfire to any fighter aircraft the enemy could produce was amply demonstrated. As a result of the mauling he received at the hands of the Spitfires the enemy had practically ceased to make use of his bombers by day and his fighters no longer attempted to make deep penetrations. The Spitfires had, in fact, compelled him severely to restrict the offensive use of such aircraft as he possessed.

A further stage in the enforcement of our air superiority was reached in the spring of 1944 when American long range fighters - P-51 (Mustangs) and P-38 (Lightnings) - began to operate in force. These aircraft were now able to seek out the enemy at his forward airfields and owing to the apparent ineffectiveness of the Japanese warning system, they could often destroy his aircraft before they were airborne. During a series of sweeps over enemy airfields at Heho, Anisakan, Shwebo, Onbauk and elsewhere in central and Upper Burma in March and April 1944, a considerable number of enemy aircraft (estimated at over 100) were destroyed on the ground in addition to many others in air combat. In May it appears

(1) See Chapter 3

that some improvement in the Japanese warning system was effected since his aircraft were more often airborne for the defence of his airfields than hitherto. The blows delivered to enemy air power in Burma were serious enough but his problems were aggravated by the low priority accorded the Burma theatre by his high command which made reinforcement and replacement of aircraft and aircrews highly uncertain. In due course he was forced into the position of conducting air operations in Upper Burma and Manipur from bases hundreds of miles away in the Rangoon area and beyond. The forward airfields, which the enemy had constructed in abundance, could only be used under cover of elaborate camouflage and dispersal arrangements merely as advanced refuelling stations and emergency landing grounds. But it must not be forgotten that while the Japanese air forces were being rendered to a state of impotence in central Burma, Spitfires in Arakan and Manipur and American fighters in Assam protected our bases and installations and attacked whenever possible such aircraft as the enemy could send over the India-Burma frontier.

The Opposing Air Forces

Japanese
sources
A.H.B./IIJ50/75
and
A.H.B./IIJ50/49

From November 1943 to February 1944 the strength of the Japanese 5th Air Division had remained fairly constant at about 370 aircraft of all types. This figure may be divided into 200 fighters, 110 light and medium bombers and 60 reconnaissance aircraft. The casualties inflicted by Spitfires and American fighters in air combat were generally made good by reinforcements from Japan but in February 1944 three air regiments of the 5th Air Division were transferred to the South West Pacific. These movements left some 120 fighters, 80 bombers and 70 reconnaissance machines in the Burma area, giving a total of 270 aircraft. In June 1944, 30 reconnaissance aircraft left the Burma area and by the end of that month the 5th Air Division had by losses and withdrawals been reduced to an approximate strength of 125 aircraft. In order to compare the difference in aircraft strengths between the enemy and the Allies, it might be mentioned that from March to June 1944 the Allied air forces in north-east India possessed about 1000 aircraft of all types of which 600 were fighters.

Orders of
Battle H.Q.
A.C.S.E.A.

For the defence of the American bases in Assam and the protection of the India-China air route, the Northern Air Sector Force - a subordinate formation under Third Tactical Air Force - had three squadrons of P-40 aircraft and three squadrons of P-51's. The backbone of the air defence of Imphal was provided by the Spitfire squadrons operating under No. 221 Group, who were also required to give cover to the Allied forces operating further to the east, inside Burma, and to the transport aircraft supplying them. Also available for defensive or offensive operations on this front was the P-51 element of the U.S. Air Commando Force, a specially formed unit charged with responsibility for supporting Wingate's Special Force. In Arakan⁽¹⁾ there were usually two squadrons of Spitfires, one U.S. P-38 squadron and five squadrons of Hurricanes available and at Calcutta a Beaufighter squadron, equipped with A.I., and two Spitfire squadrons remained at readiness for the defence of the city, though in the event they had no operational work to do. Detachments of No. 176 (Beaufighter) Squadron were located at Imphal and Chittagong.

(1) For details of squadrons, see Appendix 6

Since defensive air operations revolved principally around the defence of Imphal it would be appropriate to include here more details relating to air defence matters on that front. Three Spitfire squadrons were available concurrently throughout the period of the siege of Imphal, though for a few days following 13 March the defence of the plain was weakened by the detachment of a Spitfire flight to operate from 'Broadway', a landing ground in enemy territory occupied by Wingate's Special Force. As a general principle, one Spitfire squadron was located complete with ground personnel on the plain of Imphal, while the other two were based upon airfields in the Surma valley to the west, their aircraft being thus available according to circumstances to operate during daylight from landing grounds on the Imphal plain. As explained in Chapter 6, aircraft were flown out of the plain in the evenings as far as possible, not only to diminish the number of men there, but also because of the difficulty of providing aircraft guards by night. As a supplementary defence force there were also available four squadrons of Hurricanes, now obsolescent as defensive fighters, whose normal role was ground attack. They too were for the most part based upon rear airfields. In order to deal with night air attacks a detachment of No. 176 Squadron, flying Beaufighters and equipped with night fighter devices, was moved to Kangla on 8 March 1944.

O.R.B's
Nos. 81, 136,
607 and 615
Squadrons
Mar./Apr. '44.

The Spitfire VIII's of No. 81 Squadron had, from 19 February, been operating from the plain of Imphal. Within a few days of the launching of the Japanese offensive on 7/8 March, No. 136 Squadron arrived at Wangjing with mixed Spitfire V's and VIII's and No. 615 Squadron, flying Spitfire V's, was moved into the Surma Valley. Both these squadrons came from Arakan where in previous months they had taken good toll of the Japanese air force. Early in April, No. 81 Squadron moved back to Kumbhigram in the Surma Valley; on 17 April No. 136 Squadron returned southwards but was replaced by No. 607 Squadron with its Spitfire VIII's and before the end of the month the latter had moved into the main airfield at Imphal. This change over of Nos. 136 and 607 Squadrons was accomplished with the aid of transport aircraft which carried the squadrons' ground personnel between Manipur and Arakan. The frequent moves combined with the cramped conditions of living on the Imphal plain caused less disturbance to the efficiency of the squadrons than might be supposed, despite the fact that while many of the pilots were old hands experienced in combat with the Japanese, there were many others quite new to conditions on the Burma front.

Offensive Fighter Operations over Enemy Territory

Although this section deals principally with offensive fighter operations against enemy airfields from March to June 1944, a period in which the back of Japanese air power in Burma was broken, the counter air force effort was not confined exclusively to this type of action. Heavy and medium bomber attacks upon enemy airfields and installations were periodically carried out. As time went by, however, bombing was seldom used as a method of attacking enemy air forces. The large number of enemy airfields in Burma and the fact that they were mainly used as forward strips, upon which aircraft were seldom based for long and at which few servicing facilities existed, made them generally unprofitable as bombing targets. Japanese proclivity towards camouflage and dispersal, plus their

capacity for repairing runways with expedition, further reduced the desirability of extensive bombardment of enemy airfields. Apart from air attacks upon the latter and their installations, the interdiction of the Japanese supply system, a continuous obligation of the Allied air forces, undoubtedly had a tremendous adverse effect upon the ability of the Japanese air forces to maintain and operate their aircraft in forward areas. These operations are covered in a subsequent chapter since they are difficult to assess here.

Our operations in Burma during the spring of 1944 envisaged the insertion by air of a force the equivalent of two divisions deep into enemy territory and since in the event our campaigns in Manipur and north Burma were also air supplied, the protection of our troops, transport aircraft and bases assumed a particular importance. At first, air operations in the battle for air supremacy were largely and necessarily defensive in character since Eastern Air Command was engaged in planning its operations and in concentrating its long range fighter force. Thus when Wingate's Special Force was launched into north central Burma on 5/6 March 1944, the time was particularly ripe for the adoption of offensive tactics, for the successful establishment of landing grounds behind enemy lines presupposed little or no enemy interference, at least in the initial stages. While the Allies remained on the defensive the great advantage which the newly acquired numerical strength had bestowed upon them did not weigh heavily in their favour. Experience had shown that defensive fighter operations were not necessarily decisive. Fighters relegated to the passivity of routine patrols above the ground held by their own troops had at times in the past failed conspicuously. Trenchard's theory that a brisk offensive against hostile aircraft over their own territory would more likely ensure security had been proved quite recently in the Western Desert; for attack was the best defence and offensive patrols were the tactical expression of defensive strategy. Early in 1914 Churchill had told the House of Commons that 'Passive air defence against aircraft is perfectly hopeless and endless. You would have to roof the world to be sure'. In the same year when at the Admiralty, then responsible for the air defence of London, Mr. Churchill laid it down that 'the great defence against the aerial menace is to attack aircraft as near as possible to their point of departure'. What applied to the air defence of London in 1914 applied equally to the air defence of our troops and installations in South East Asia in 1944. The air route to China, the Special Force operating a couple of hundred of miles from the nearest fighter base, the great defensive area from Assam to Arakan, all presented an impossible patrol problem. Inadequate radar equipment and the nature of the terrain, which rendered the warning system ineffective in many places, eliminated the possibility of an effective defence system. Logically therefore the solution was a vigorous offensive to destroy the ability of the Japanese air force to operate over both Burma and India.

March, April and May 1944 constituted the crucial period of Allied offensive fighter operations over enemy airfields. The 459th U.S. (P-38) Squadron, the 530th U.S. (P-51) Squadron and the P-51's of the Air Commando Force did most damage during the period to the Japanese air forces. Enemy airfields at Bhamo, Kawlin and Anisakan in north Burma, the Meiktila group, Heho and Aungban in Central Burma, Toungoo and the Rangoon airfields in southern Burma were the major targets and provided good hunting. In this task the 'Y' service was employed to its full extent and proved of great

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3TAF/7/5
Encl. 62A
Optl. Inst.
41. 3 Mar. '44
35/9/Ops.
A.H.B./IIJ50/
84/229A

value, 81 aircraft being destroyed in a period of seven weeks as a result of briefing information passed from this source.

The Opening of the Offensive 3 to 19 March 1944

ORB. ACSEA
Int. App. 'M'
Mar. '44

Operations by offensive fighters at the beginning of March formed part of a pattern in which heavy and medium bombers of the Strategic Air Force, S.E.A. and aircraft of the Fourteenth U.S. Air Force operating from China, maintained an offensive against enemy airfields. Throughout February 1944 and up to 6 March, some 29 strategic bomber attacks were carried out principally against Heho and Aungban though Toungoo, Bhamo, Magwe, Akyab and the Rangoon group of airfields were also visited. United States B-24's from China bases assisted in attacking the airfields of Lashio and Loiwing.

P-51 fighter-bombers of the Air Commando Force began the fighter offensive on 3 March when twelve of them bombed and machine-gunned Shwebo airfield, though no enemy aircraft were found there. On the 6th, airfields in the Rangoon area were swept by six R.A.F. Beaufighters and a total of eight enemy aircraft were claimed as either destroyed or damaged. The following day ten P-51's and ten B-25's of the Air Commando Force attacked Bhamo airfield with bombs and machine-gun fire and on the same day two P-51's visited Heho and Anisakan; no enemy aircraft were caught on the ground during these operations although in the latter raid six Oscars were encountered during the flight. They were careful to avoid combat, however, and no claims other than one Oscar damaged could be made.

ORB. ACSEA
Int. App. 'M'
Mar. '44

JICA/CBI
1448 p.14
A.H.B./IIJ50/
47/27

At 0645 hours on 8 March, nine B-25's and sixteen P-51's were despatched to attack Indaw and Katha airfields and twenty-three 1000 lb. bombs were dropped on runways. Once again no enemy aircraft were seen. But during the morning of the same day it appears that the enemy brought up a considerable number of aircraft to his forward airfields of Shwebo, Onbawk and Heho, doubtless to support his land offensive against Imphal and Kohima which was scheduled to begin on 7/8 March 1944. Between 1230 and 1630 hours on 8 March, 21 P-51's of the Air Commando Force caught the enemy by surprise at Shwebo and its satellite Onbawk with spectacular results. Aircraft of all types, some with ground crews at work on them, were dispersed on the airfields and armoured cars and petrol bowlers were also found. It was estimated that 35 enemy aircraft were destroyed on the ground by bombs and machine-gun fire and that two or three others were shot down in air combat. Buildings were set on fire, refuellers were hit and heavy casualties inflicted upon personnel. Anisakan was also visited and bombed during this operation but the airfield did not appear to be in use. The only casualty in these attacks was one P-51 which was believed to have crashed into an already damaged Oscar. A few hours later a P-51 and a B-25 flew over Kawlin and Bhamo but no enemy aircraft were found there. When night fell twelve Hurricanes of No.5 Squadron found large fires still burning at Shwebo and aircraft were attacked in dispersal pens with unknown results. Finally, 15 P-51's and five B-25's took off to attack Onbawk and Shwebo but of the former only two reached the target area. The B-25's, however, dropped bombs on both sides of the runway at Shwebo and in the dispersal areas, twelve enemy aircraft being claimed as destroyed. Thus at the close of 8 March 1944 the wreckage of perhaps

47 enemy aircraft were strewn over his airfields, and much damage to his airfield installations had undoubtedly been done.

ACSEA File
DACC/O14
Encl. 8
A.H.B./IIJ50/
105/4/3

At 0725 hours on 9 March, 15 P-51's took off to attack Onbauk airfield. A twin-engined bomber, well camouflaged in a revetment, was set on fire and an Oscar damaged. The entire airfield area seemed devastated with bits of aircraft such as propellers, engines and tailplanes lying about although destroyed and damaged aircraft appeared to have been cleaned up. On 10 March three P-51's flew over the airfields of Kawlin, Bhamo, Onbauk and Shwebo but no enemy activity could be seen. Later in the same day six B-25's were despatched to bomb Heho, where remnants of the Japanese force from Shwebo and Onbauk had dispersed, but owing to ground haze the objective was not discovered. Heho was, however, reached on the 11th by P-38's of the 459th Squadron.⁽¹⁾ Twelve of these aircraft took off from Chittagong and found at least 20 enemy aircraft at Shwebo in the act of taking off and more than twelve Sally and Helen medium bombers on the ground. It was estimated that seven enemy fighters were shot down and three damaged by the P-38's while four aircraft were destroyed and two damaged on the ground, all for the loss of one P-38. On returning to base one of the P-38's attacked enemy aircraft and troops at Meiktila airfield destroying one Dinah. Four other P-38's intended to strafe Aungban but failed to find it. Enemy aircraft were, however, found on another strip in the Heho area where two enemy aircraft were destroyed on the ground and two of the Oscars which intercepted were shot down, five others being claimed as damaged.

O.R.B., ACSEA
Int. App. 'N'
Mar. '44
JICA/CBI
No. 1834
15 Apr. '44
A.H.B./IIJ50/
47/27

No further offensive activity took place against enemy airfields, though a constant watch was maintained upon them, until 16 March when nine Liberators of the Strategic Air Force bombed Ywattung airfield near Prame by night. On the 17th eight P-40's of the Northern Air Sector Force bombed and machine-gunned Myitkyina airfield and on the 19th Meiktila was attacked by 12 P-51 fighter-bombers of the Air Commando Force. No enemy aircraft were found either at Myitkyina or Meiktila. Finally, at night on 19 March, ten Liberators were directed against Heho but only one found the primary target and bombed it.

Ibid

The result of the Allied offensive effort against the enemy air forces, according to our own analysis, was to cripple the air offensive which the enemy had undoubtedly been planning in support of his land operations west of the Chindwin. Certainly his bomber effort was for a while confined to light harassing raids, mainly at night, and his fighters, some of them carrying bombs, did nothing comparable to their efforts in February over Arakan. Moreover, the fly-in of the Wingate force behind enemy lines was accomplished without interference from the air, but whether this was owing to the surprise achieved or to our air offensive against his airfields cannot, in the absence of confirmation from Japanese sources, be readily assessed. From 19 to 24 March, however, the Japanese Army Air Force was obliged to cease operations, other than reconnaissance, in order to accomplish repair and maintenance.

Japanese
sources
A.H.B./IIJ50/49

(1) The 459th U.S. Squadron became operational under No. 224 Group, R.A.F. on 5 March 1944.

The Fighter Offensive - 25 March-4 April 1944

A.H.B./IJ50/
84/84
3 T.A.F. to EAC.
25 Mar. '44
Encl. 35B
File BUR/S.
10275/2/Air

The Allied fighter offensive ceased for some days following 19 March only because the enemy had withdrawn his aircraft from forward airfields. The next offensive against the Japanese air force took the form of an intruder operation and occurred on 25 March 1944. A comparatively large enemy force, operating against our airfields in the Chittagong area, had successfully avoided interception. Among the fighters which had been scrambled were ten P-38's whose long range enabled them to be diverted as intruders to Shwebo. Finding no enemy aircraft there the P-38's flew on to Anisakan where they intercepted 35 Oscars returning to base. Nine enemy fighters were probably shot down and three others damaged while two other enemy aircraft were destroyed on the ground.

Ibid.
E.37A

JICA/CBI
1034 p.21.
A.H.B./IJ50/
47/27
File ACC/6
Pt. XIII
Air C.-in-C. to
C.A.S. 15 Apr.
'44 Encl. 65.
A.H.B./IJ50/98/
1/M.
Tel. SACSEA to
COS 18, Apr. '44
A.H.B./IJ50/
97. JICA/CBI
1834 P.1/
A.H.B./IJ50/
47/27

The second day of April marked the beginning of another highly successful phase in offensive fighter operations. Twin-engined P-38's first swept the airfields of Meiktila and Heho during which they claimed the destruction of eight enemy aircraft on the ground and four more in the air, for the loss of one P-38. Four P-51's of the Air Commando Force continued the assault on 3 April and at Anisakan claimed two enemy aircraft destroyed on the ground and three damaged. But the greatest success was achieved on 4 April 1944. Early that morning P-38's surprised the enemy at Aungban, the Heho satellite, and probably destroyed ten aircraft on the ground there. At 0800 hours 19 P-51's of the Air Commando Force took off to strafe Aungban. The approach was made from the north over Nawngkhio and Anisakan, which were inspected and provided no suitable targets. The P-51 force circled once to mislead any radar plotting and then approached Aungban from the north completely surprising the enemy. Japanese ground crews were at work on some of their aircraft; one aircraft was being towed towards the strip, another was destroyed while its propeller was ticking over preparatory to taking off. Four enemy aircraft blew up after receiving direct hits from rocket projectiles. Each P-51, in the space of six minutes (1001-1007 hours), made four strafing runs at aircraft on the ground before leaving the target area. A.A. positions together with airfield buildings were attacked with machine-gun fire and rockets. In all, some 25 enemy aircraft were claimed as destroyed, all of which exploded or caught fire, two others were probably destroyed and eight damaged. At the conclusion of the attack four Oscars were observed coming in from the east, one of which was shot down in flames. On the return flight a twin-engined aircraft was destroyed on the ground at Anisakan. All the P-51's returned safely the only battle scar being slight anti-aircraft damage to one aircraft. P-38's, one of which was lost, visited Aungban the following day and found the airfield almost completely burnt out and thus discovered no worthwhile targets.

Air Operations against Enemy Airfields. 15 April-8 May 1944

A.H.B./IJ50/98/1(M)
Tel. ACC/390
27 Apr. '44
Air C.-in-C. to
C.A.S. File
ACC/6 Pt. XIII
Encl. 80
O.R.B. ACSEA
Int. App. L
Apr. '44

No further concentrations of enemy aircraft were found until 15 April when twelve P-38's caught 20 Japanese aircraft on the ground at Heho and four others in the air. Of the former, six were destroyed and two damaged. Airfield installations were also attacked. Two days later the same airfield was again visited and on this occasion nine P-38's found 17 enemy machines either on the ground

or in the act of taking off. Seven aircraft were destroyed on the ground and two others shot down. Sandwiched between these two raids, on 16 April, nine P-38's destroyed three aircraft on the ground at Zayatkwinn, one of the Rangoon group of airfields. On the same day, two P-51's of the Air Commando Force destroyed a couple of enemy aircraft at Anisakan.

O.R.B. ACSEA
Int. App. 'L'
Apr. '44

Since the beginning of March bombers of the Strategic Air Force had not often been used for strikes against enemy airfields but on 21 April four out of eight B-24's despatched dropped nearly eleven tons of bombs on Lashio. On the 23rd long range American fighters returned to the attack when twelve P-38's of the 459th U.S. Squadron machine-gunned Kangaung (Meiktila group). Few enemy aircraft were found, though one was destroyed on the ground with three damaged, while another was shot down in air combat. Two days later, P-38's mounted two raids, the first against Heho and Aungban by ten aircraft - one enemy aircraft was destroyed on the ground at the latter - and the second by eleven P-38's who claimed two enemy aircraft destroyed and two damaged on the ground at Heho, six others being shot down in air combat. On 29 April, 17 P-38's swept Heho and Aungban but found no enemy aircraft at either strip; on their way back, however, they encountered 15 Oscars and without loss to themselves the P-38's claimed three destroyed, two probably so and three damaged. Also on the 29th twelve Spitfires - which hitherto had been reserved for purely defensive operations - attacked Meiktila airfield destroying one enemy aircraft. Another force of ten Spitfires, one of which was lost, strafed Kangaung. This airfield was again visited on 3 May by eight P-38's when three enemy aircraft were shot down and two others damaged for the loss of one P-38.

Air C.-in-C.
to C.A.S.
10 May '44
File ACC/6
Pt XIV
O.R.B. ACSEA
Int. App. 'B'
May '44

Two attempts on 5 May to seek out and destroy enemy aircraft on the ground at Anisakan, Kangaung and Meiktila were unsuccessful. Twelve P-38's found only three or four derelict aircraft at Anisakan and twelve Spitfires encountered heavy cloud and thick haze over the Irrawaddy which made the identification of targets impossible. On the 7th, however, ten P-38's destroyed one and damaged two enemy aircraft on the ground at Kangaung and of six Oscars encountered in the air, three were claimed as destroyed. On the following day P-38's were again over Kangaung where two enemy fighters were damaged in air combat.

Intruder Operations - 10 May-7 June 1944

A.H.B./
ILJ50/98/1/(N)
Tel. ACC/938
Air C.-in-C.
to C.A.S.
23 May '44
File ACC/6
Part XIV
O.R.B. ACSEA
Int. App. 'D'
May '44

Another successful phase in offensive fighter operations began on 10 May and the number of enemy aircraft destroyed illustrates that it was upon a policy of intrusion that the Allies could mainly count for the elimination of Japanese air power in Burma as a factor of military importance. This process was sometimes fast and spectacular, sometimes slower, but was invariably effective. The P-38's of the 459th U.S. Squadron remained the protagonists of the period, being responsible for 28 of the 53 enemy aircraft claimed as destroyed between 10-19 May. But a part scarcely less important was now being played by the P-51's of the 530th U.S. Squadron of the Northern Air Sector Force, which destroyed the balance. Indeed it was the latter squadron that had to its credit the most striking success.

Ibid.

ACSEA File
Air C.-in-C./58
E.44. A.C.M.
Peirce to
Gen. Stratmeyer
13 May '44
A.H.B./IIJ50/
103/65

O.R.B. ACSEA
Int. App. O
Jun. '44
A.H.B./IIJ50/49
Japanese
sources.

A.H.B./
IIJ50/98/1(N)
Tel. ACC/938
Air C.-in-C.
to C.A.S. 23 May
ACSEA File
ACC/6 XIV
ORB. ACSEA
Int. App. 'D'
Jun. '44

A.H.B./
IIJ50/98/1(N)
Tel. ACC/971
Air C.-in-C. to
C.A.S.
7 Jun. '44
File ACC/6 XIV
O.R.B. ACSEA
Int. App. 'O'
Jun. '44

A.H.B./
IIJ50/98/1(N)
Tel. ACC/995
Air C.-in-C. to
C.A.S.
22 Jun. '44
File ACC/6 XIV
O.R.B. ACSEA
Int. App. 'P'
Jun. '44

On 10 May P-38's finding no aircraft at Heho, went on to Aungban where eight Oscars were seen. Three enemy aircraft were set on fire and four revetments attacked burned furiously and may have contained aircraft. Other P-38's attacked the airfield at Kangaung where four aircraft were probably destroyed on the ground and two others in air combat. On the 11th, twenty-four P-51's of the 530th Squadron were over Meiktila and encountered 25 or more Oscars. During the ensuing combats the P-51's claimed 13 Oscars destroyed, two probably so and six damaged at no cost to themselves. The Squadron followed up this blow on 12 May in the same area; eleven enemy aircraft were perhaps shot down and six others damaged. The fact that enemy fighters were airborne to counter the P-51 raids may have reflected increased confidence on the part of the Japanese in their warning system for our attacks did not achieve the degree of surprise as had previously been the case. It would appear that the enemy had made strenuous efforts to reduce the deficiency which hitherto had been largely responsible for his losses on the ground. Moreover, the Meiktila area had been temporarily reinforced by the 87th Air Regiment, equipped with Tojo fighters. This unit arrived on 7 May but returned to Sumatra on the 22nd of the same month.

A sharp attack by 22 P-51's of the 530th Squadron on 14 May did, however, surprise the enemy at Meiktila during which seven aircraft were probably destroyed. American P-38's also destroyed five enemy aircraft on the ground at Heho on the 15th and at Kangaung, three enemy aircraft were destroyed and perhaps as many as ten shot down, with damage to several others. On 17 and 18 May, P-38's attacked grounded aircraft at Kangaung and Shwebo, destroying two at the former and five at the latter airfield. A considerable offensive fighter effort was mounted on 19 May but no substantial results were achieved. Twenty-two P-51's and twelve Spitfires set off to attack Meiktila but bad weather prevented them from completing their task. Over Nawngkhio airfield, sixteen P-38's shot down two and damaged two other enemy aircraft. Finally on 19 May, a P-51 on a weather reconnaissance saw and attacked two grounded aircraft at Kawlin; the pilot reported that his aircraft had been hit and he did not return to base.

After 19 May intruder operations reaped small reward since the Japanese gave little opportunity for air combat and heavy cloud made sweeps upon enemy airfields difficult although something at least was attempted. On 22 May two Beaufighters of No. 211 Squadron destroyed an aircraft on the ground at Shwebo and on the following day P-38's encountered Oscar fighters over Kangaung, two of which were shot down. During a sweep of the Meiktila group of airfields on 25 May a P-38 failed to pull out of a dive and crashed into the ground. On 29 May, fifteen P-40's and twenty P-51's of the Northern Air Sector Force dropped over ten tons of bombs on Bhamo airfield.

No further results were achieved until 6 June when two Beaufighters of No. 211 Squadron set fire to two and damaged a third enemy aircraft on the ground at Hmawbi, near Rangoon. On the same day 18 P-38's of the 459th Squadron sighted 30 or more Oscars airborne and above them near Meiktila. Three Oscars may have been destroyed and six damaged for the loss of two and damage

Japanese
sources
A.H.B./
IJJ50/49

to three P-38's. Twelve of these twin-engined fighters, on 7 June 1944, swept Meiktila, Kangaung, Thedaw, Thabutkyon and Kwetnge airfields but no enemy activity could be seen. This virtually saw the end of offensive fighter operations owing to the onset of the monsoon and to the fact that the remnants of the 5th Air Division, as was their wont, retired to bases far beyond the range of Allied fighters to recoup their losses as best they might.

Defensive Air Operations over the India-Burma frontier

At the beginning of March 1944 the Japanese 5th Air Division had concentrated a considerable proportion of its air strength upon airfields in central Burma, presumably in order to give support to his Army's major offensive against Imphal and Kohima. A few days before the Japanese began their land offensive, however, Wingate's Special Force was flown into north-central Burma and the decision the Japanese subsequently made to attack this airborne invasion resulted in reduced enemy air activity over the India-Burma frontier and practically no close support, during March, for his troops operating west of the Chindwin. Moreover, as already described, the fighter attacks made by the Americans upon Japanese airfields during March and April 1944, reduced still further the potential Japanese air effort.

Allied defensive fighter operations during March, April and May revolved principally around the problem of protecting IV Corps on the plain of Imphal and also the stream of aircraft carrying supplies to the beleaguered garrison. An attempt was also made to provide some measure of air defence for the Special Force but the provision of adequate early warning, as in the case of Imphal, presented an insoluble problem. Nevertheless, enemy air attacks never represented a serious threat and were generally on a petty scale. Yet since the maintenance of our forces on the Imphal plain rested solely upon their supply by air, the security of this life-line was a matter of primary importance for even a small Japanese fighter force could have upset the delicate balance between the huge military appetite of IV Corps and the tonnage of supplies which Troop Carrier Command could deliver and it was the task of Third Tactical Air Force to prevent that catastrophe.

The previous immunity with which the Japanese Dinah reconnaissance aircraft had flown over the Imphal plain came to an abrupt end on 4 March when at 0752 hours Spitfires of No. 81 Squadron shot down a Dinah near Paungbyin. Two days later another Dinah was destroyed by the same squadron over Palel. This reconnaissance activity heralded enemy air attacks over the Manipur battle zone but in the event the emphasis of enemy air operations which lasted from 10-19 March was against the jungle airstrips (Broadway and Chowringhee) used by the Special Force in Burma some 200 miles east of Imphal.

Air Defence of Broadway and Chowringhee, 10-19 March

The Wingate Expedition, which had been launched into Burma on the night of 5/6 March 1944, took the enemy so much by surprise that he made no attempt to interfere with our establishment of the airstrips until 10 March. On the morning of that day our troops which had been landed at Chowringhee - a secondary jungle clearing - abandoned the strip and the same afternoon two Lilys and 20 Oscars

JICA/CBI
1448 p.15
A.H.B./
IJJ50/47/27
O.R.B. ACSEA
Int. App. 'M'
A.H.B./
IIM/444/1A

bombed and machine-gunned the area. The only result achieved by the enemy was the destruction of a few derelict gliders. The Japanese appeared to be unaware at this time of the location of Broadway, the principal base of the Special Force, and not until the 13th did the enemy air force attempt to attack it. By that time, six Spitfires of No. 81 Squadron, a light warning set and anti-aircraft guns had been established there. The Spitfires had in fact arrived on 12 March and between 1025-1045 hours on the following day the Broadway strip was attacked by two waves of 15 Oscar fighters. Five Spitfires were scrambled but the last of these was only just airborne when attacked by Oscars at 300 feet and was shot down three miles from the strip. The remaining four Spitfires fought a fairly successful air battle with the Oscars and prevented them from carrying out an effective raid. Bofors guns co-operated successfully, concentrating upon those Oscars which attempted to attack the Spitfires. Enemy bombing with 50 kg. bombs was not very effective but one of our aircraft on the ground had to be written off and three Ghurkas were wounded as a result of strafing attacks. Spitfires claimed three enemy fighters destroyed and six damaged while anti-aircraft guns accounted for another Oscar.

O.R.B.
ACSEA Int.
App. 'H'
Apr. '44
A.H.B./
IIM/A44/1A

O.R.B. No. 81
Squadron
Mar. '44
JICA/CBI
No. 1448.
A.H.B./IIM50/47/27
No. 221 Group
to 3rd T.A.C.F.
18 Mar. '44
File BUR/S.
10375/2/Air
Encl. 33A.
A.H.B./IIM50/84/84

At 1600 hours on 16 March the enemy renewed his attack upon Broadway and three Sally medium bombers, escorted by six Oscars, dropped fragmentation bombs. A P-51 of the Air Commando Force - twelve of these aircraft had been sent into Broadway on 13 March - was destroyed on the ground before it could take off but no other damage or casualties were sustained. The Spitfire detachment and four P-51's were airborne but no contact with the enemy was made. On the 17th twelve Oscars raided Broadway and caught our defences by surprise. Owing to inadequate warning only two Spitfires could become airborne in time, each of which shot down an Oscar; one of these Spitfires was piloted by the Squadron Commander who was shot down and killed. Three other pilots had reached their aircraft and were heavily machine-gunned while endeavouring to start their aircraft; all three grounded Spitfires were destroyed. Two pilots had miraculous escapes but the third died from wounds. Since the warning system had been completely destroyed, the one remaining Spitfire was withdrawn from the strip and the experiment of maintaining a fighter detachment at an air-strip so exposed was not repeated. Henceforth the air defence of Broadway depended upon fighter aircraft on patrol and operating from bases in the Imphal area. Further attacks upon Broadway were made by the enemy at 1150-1330 and 1420-1555 hours on 18 March and between 0745-0955 hours on the 19th. In each case the enemy escaped unscathed and although personnel casualties were few, radio sets, stores of the Air Commando detachment and a number of light aircraft were destroyed.

The Japanese air attacks on Broadway, however, failed to prevent the routine fly-in of supplies to the stronghold and supply dropping to elements of Wingate's Special Force continued unhindered. Moreover, the light aircraft force carried on their task of evacuating wounded men to Broadway whence the casualties were taken westwards by Dakota to India. Up to 19 March no transport or light aircraft using the jungle airfield had been intercepted by the enemy.

Enemy Air Activity over Manipur - 10 to 19 March 1944

No. 221 Group
to 3rd T.A.F.
13 Mar. '44
File Bur/S.
10375/2/Air,
Encl. 31A.
A.H.B./
IIJ50/84/84
O.R.B. ACSEA
Int. App. 'H'
Apr. '44
A.H.B./IIM/A44/
1A

Although units of the Japanese 5th Air Division diverted some of their effort against Broadway, they nevertheless managed to mount a few raids in the Imphal area. At 0500 hours on 12 March, two enemy aircraft attacked Kumbhigram airfield inflicting little damage but causing some minor civilian casualties. A fighter sweep, consisting of about 20 Oscars, approached the Silchar area from the south-east at 1045 hours on the same day. Near Tiddim they attacked two of our tactical reconnaissance Hurricanes, one of which was shot down, the pilot baling out. Ground observers in this area saw two aircraft collide and since all Allied aircraft were accounted for, they must have been Oscars; the enemy lost two aircraft in a similar manner over Arakan on 31 December 1943. Although 18 Hurricanes and 23 Spitfires were scrambled for the enemy raid, the only contact was by twelve Hurricanes, which took off later than the other fighters and which were jumped by Oscars near Patharkandi. Two Hurricanes were damaged and they claimed damage to three Oscars. Two of the four P-51's which also took off to intercept contacted the enemy formation at 24,000 feet and made several attacks while six other P-51's were diverted from an offensive operation in the Chindwin area in order to cut off the raiders as the latter returned to base. The P-51's gained contact and chased the enemy formation for some distance before it was lost in the haze. Claims by the P-51's amounted to one destroyed and two damaged. American P-38's were despatched from Chittagong as intruders to Shwebo in the hope that the Oscars would return there but their effort proved fruitless.

No. 221 Group
to 3rd T.A.F.
13 Mar. '44
File Bur/S.
10375/2/Air
Encl. 31A.
A.H.B./
IIJ50/84/84

The ineffective Allied opposition to this enemy fighter sweep was mainly the result of confusion brought about by divided responsibility and control. The Air Commando Force, charged with the task of supporting Wingate's Special Force, was located at Hailakandi in the Surma Valley. On this occasion the Air Commando received plots from the R.A.F. Operations Room and scrambled the only four P-51's at Hailakandi and, as already mentioned, recalled other P-51's from a fighter-bomber operation. This was done without the R.A.F. being aware of the fact. Six P-51's flew a course almost the same as the bandits - from the south-east - and another P-51 flew in from the east, both tracks being plotted as hostile. The single aircraft was regarded as the greater menace since it was taken to be a reconnaissance aircraft while the other two tracks were known to be fighters and offensive action against ground targets not being considered likely. Consequently, six Spitfires and six Hurricanes were retained over the Imphal Valley to catch the supposed reconnaissance aircraft and No. 136 Squadron was vectored on to the P-51's.

O.R.B. ACSEA.
Int. App. 'H'
Apr. '44
A.H.B./IIM/A44/1A
File DACC/014
(ACSEA)
A.H.B./
IIJ50/103/65

Enemy operations on 16 March 1944 began before dawn at 0445 hours when six Sally medium bombers were over the Imphal plain. One of these was intercepted by a Beaufighter of No. 176 Squadron detachment and shot down in flames near Minthami. At 0745 hours on the same day there followed a typical fighter sweep by 20 or so Oscars in the Imphal area. Eighteen Hurricanes and 24 Spitfires were scrambled but of these only two formations of seven and six Spitfires were able to make contact. Combats took place over the Chindwin valley and in the vicinity of Paungbyin at 18,000 feet, claims being two Oscars probably destroyed and three damaged without loss.

A.H.B./
IILJ50/47/42
ACSEA Air
Staff Aug. '45
O.R.B. ACSEA
Int. App. 'H'
Apr. '44
A.H.B./IIM/A44/
1A

On 17 March, at 0440 hours, two enemy aircraft dropped bombs on military camps on the Imphal plain. Unfortunately a bomb fell on the new IV Corps headquarters killing 20 men and injuring 12 others. Soon after dawn, at 0620 hours, the Japanese mounted another sweep during which the airfields of Tuliha and Palel were strafed by 12 Oscars. One Dakota, one B-25 and one Hurricane were damaged on the ground at Tuliha and a Spitfire was lost near Palel; no interception was effected although anti-aircraft guns were able to claim the destruction of two enemy aircraft and damage to several more.

Ibid.

The spell of increased enemy activity, which began on 10 March and ended on the 19th, was on a smaller scale than the twelve days offensive effort which took place over Arakan in February 1944. Twin-engined bombers had been used to a limited extent and, save for a few isolated incidents, this was the first time they had appeared since the beginning of the year. That they operated only at night against targets on the India-Burma frontier is significant, but they were also used in escorted daylight raids upon the Broadway strip where the enemy rightly assumed that he would meet less powerful opposition. But the losses sustained during the Allied attacks upon enemy airfields greatly depleted the strength of the 5th Air Division and save for reconnaissance activity, the enemy was forced to break off air operations for a few days for the repair, maintenance and replacement of his air forces.

Japanese
sources
A.H.B./IILJ50/49

Enemy Air Activity - 25-28 March 1944

On 25 March enemy air activity resumed and his air operations were generally directed against targets in Manipur although a few raids were mounted in Arakan and against the Broadway airstrip. Also for the first time in several months, the 5th Air Division hazarded a bomber force in a daylight raid over Indian territory which ended in disaster.

ACSEA File
Air/162/ASP
O.R.B. ACSEA
Int. App. 'H'
Apr. '44
A.H.B./IIM/A44/
1A

One of the most determined attacks for some time, and aimed at our airfields in the Chittagong area, was mounted by the Japanese on 25 March 1944 and was doubtless a retaliation to our offensive fighter operations. A small number of bombers and about 35 Oscar fighters approached Chittagong at 0710 hours. The formation split up and lost height rapidly, elements of the force subsequently strafing the airfields of Chittagong, Cox's Bazar and Chiringa. One section of two aircraft also strafed mine-sweepers off the Naf Peninsula inflicting casualties and damage to one of them. The attacks upon Chittagong and Chiringa met with little success, but the Sally and five Oscars which raided the Cox's Bazar strip killed 75 coolies and injured 150. Spitfires, Hurricanes and P-38's were scrambled but made no contact in the target area. Ten of the P-38's, however, were diverted as intruders to Shwebo and Anisakan and, as mentioned elsewhere in this chapter, reaped a useful dividend.

At 0720 hours on 26 March, two weeks after the main Japanese land offensive had been launched, their troops received for the first time direct air support from elements of the 5th Air Division. On this occasion, Lily light bombers and eight Oscars bombed and strafed Allied troops near Tonzang, between milestones 120/125 on the Imphal-Tiadiin road. On the same day two light raids were carried

out against the Broadway strip, the first at 0920 hours and the second at 1400; neither raid was intercepted by Allied fighters, nor did the anti-aircraft defences make any claim.

Japanese

sources.

A.H.B./I1J50/49

Tel. 141

SAC to COS

18 Apr. '44

A.H.B./I1J50/97

Tel. ACC/864

Air C.-in-C. to

C.A.S. 15 Apr.

File ACC/6

Pt. XIII E65

A.H.B./

I1J50/98/1(M)

A signal victory was won by the American fighters defending Assam on 27 March 1944 against an enemy striking force which had been despatched to bomb the Digboi oil-fields. The enemy ran into bad weather and dropped their bombs haphazardly, certainly not on the target. On their return flight the enemy formation was intercepted by American fighters and owing to a shortage of fuel the former found themselves at a tactical disadvantage. According to the Japanese, nine Helen medium bombers were despatched, accompanied by about 60 fighters, and they have admitted the loss of eight bombers, the ninth crash landing in Japanese held territory. The Allied estimate of the raiding force amounted to 18 Helens and 20 Oscar fighters, 24 of which were claimed as destroyed. Whatever the true figures⁽¹⁾ there is no doubt that the Japanese lost their entire bomber force in an operation that achieved nothing since there is no evidence of enemy bombing on this date. Also on 27 March, two Oscars over Myitkyina and five over Kamaing were intercepted by American fighters and four of them were claimed as destroyed; these Japanese fighters were probably remnants of the Digboi force. During the day's operations, the Americans lost two P-51's and one P-40.

ACSEA File

Air/162/ASP

O.R.B. ACSEA

Int. App. 'L'

Apr. '44

A.H.B./IIM/A44/1A

Between 0730 and 0825 hours on 28 March 1944, Spitfires intercepted two Sallys and 15 Oscars in the Tamu area and claimed two destroyed and three damaged. Also on the 28th a Dinah reconnaissance aircraft successfully reconnoitred Imphal and Kohima. Further to the east two enemy bombers and four fighters attacked the Broadway strip between 0730 and 0930 hours and although intercepted by our fighters on patrol, damage to one enemy aircraft was the only claim that could be made. After 28 March enemy air activity fell away until 2 April, apart from an attempt by two Lilys to drop supplies to their own troops operating against Broadway. The only result was the free gift of the greater bulk of the supplies to our troops, in whose perimeter they fell, and the destruction of one Lily by Bofors guns.

Enemy Air Activity over Manipur - 2-14 April 1944

Enemy activity over Manipur reached its peak in April when raids made upon targets in the Imphal area were comparatively frequent and when the enemy air forces no longer took any particular interest in our airstrips behind enemy lines. Somewhat belatedly he decided to give some measure of air support to his troops investing Imphal and Kohima, though in the event his air operations were singularly ineffective.

O.R.B. ACSEA

Int. Apps. 'J'

and 'K'

Apr. '44

A.H.B./IIM/A44/1A

On 2 April a Dinah reconnaissance aircraft appeared over the Tiddim area and was shot down by anti-aircraft fire. After dark on 3 April, at 1944-2126 hours, Beau-fighters of No. 176 Squadron succeeded in intercepting and

(1) Information from Japanese sources is not very reliable since it has been obtained from officers who had to rely on their memories for facts.

shooting down two Lilys over Tamu, some 50 miles east of the Beaufighter base. At about the same time a solitary enemy aircraft dropped a few bombs on Kumbhigram airfield. Before dawn, at 0425 hours, on 10 April, Tulihal airfield was bombed by three aircraft and on the 11th the Japanese adopted a new tactic of mounting a diversionary sweep while a small force of escorted bombers attacked military objectives. Between 0750 and 0845 hours a fighter sweep of 15 Oscars was intercepted by Spitfires near Thaungdut, the engagement was inconclusive, while at 0820 hours two enemy bombers and six fighters unsuccessfully attacked a bridge west of Imphal. Next day at 1350 hours, nine Oscars mounted a sweep in the region of Ukhrul; intercepting Spitfires damaged two enemy fighters without loss.

Japanese Air Attacks against Airfields - 15-26 April 1944

From 15 to 26 April nearly all Japanese air attacks in the Manipur area were aimed at our airfields, probably in the hope that air supply to the besieged IV Corps would be affected which in turn might ease the pressure on the Japanese troops. These raids upon our airfields achieved little, none of our strips was unserviceable for more than two or three hours, he did little material damage and personnel casualties were comparatively few.

O.R.B. ACSEA
Int. App. 'K'
Int. App. 'L'
Apr. '44
A.H.B./IIM/A44/
1A Tel. ACC/
390 Air Co.-in-C.
to C.A.S.
27 Apr. '44.
File ACC/6,
Pt. XIII E.80
A.H.B./
IIJ50/98/1(M)

Between 0755 and 0850 hours on 15 April six Lilys, accompanied by 30 Oscars, bombed the Imphal main airstrip. Fourteen Spitfires intercepted the fighters and claimed one Oscar destroyed and two damaged, while anti-aircraft fire accounted for another enemy aircraft. Two days later, at 1530 hours, six Sally medium bombers attacked Palel airfield while 30 Oscars provided a diversion. One Oscar was shot down and three other enemy aircraft damaged but a further three Japanese aircraft were shot down by a force of P-51's which were diverted from a bombing raid to intercept the raiders as they withdrew. At 1655 hours on 21 April, eight Oscars ineffectively bombed and strafed Kangla airfield; there was no warning and 24 Spitfires were airborne too late to intercept. Three Sallys and six Oscars at 0620 hours on the following day appeared over Imphal airfield but no attack developed. An hour later two Oscars attacked Tulihal airfield and three others the airfield at Imphal when one of our aircraft was destroyed on the ground. Anti-aircraft fire accounted for perhaps three enemy aircraft with damage to three more; there was no interception although Spitfires were on patrol at the time. On the 23rd a solitary enemy aircraft dropped a few bombs near Kohima.

O.R.B. ACSEA
Int. App. 'L'
Apr. '44.
A.H.B./
IIM/A44/1A
Tel. ACC/390
Air Co.-in-C.
to C.A.S.
27 Apr. '44.
File ACC/6
Pt. XIII,
Encl. 80
A.H.B./
IIJ50/98/1(M)

Although the contraction of the warning system in the Manipur area had made contact difficult for defensive fighters, so that a policy of intrusion had to be relied upon chiefly for the punishment of the Japanese air forces, R.A.F. fighters were nevertheless able to show several creditable performances. On 25 April at 0725-0825 hours, 15 Oscars operated to the south-west of Imphal and another nine in the region of Silchar. Two Dakotas on their way to Imphal were shot down but the eight Spitfires which intercepted an enemy force attempting to strafe Lalaghat airfield probably destroyed three of the enemy with damage to five more. On the following day the enemy sent out a diversionary sweep of 20 Oscars between 0900-1020 hours while three Lilys and six Oscars raided Tulihal airfield at 1000 hours. Ten Spitfires were scrambled and with

seven Hurricanes, diverted on return from escort duties, made contact with the fighter sweep. Twenty-one Spitfires were scrambled for the bombing raid and another six Hurricanes diverted. Four enemy aircraft were probably shot down during the air battles and eight were damaged; at Tuliha anti-aircraft guns claimed the destruction of an enemy bomber. At 0900 hours on 28 April, 12 Oscars bombed and strafed our positions near Kohima but there was no interception.

Ibid.

Also on 26 April a Dinah reconnaissance aircraft was caught by two Spitfires and shot down east of Patharkandi. Prior to this date five enemy reconnaissances of the Manipur area had been successfully accomplished. On 28 April another Dinah may have reached its base after covering Imphal and Kumbhigram although it was damaged by Spitfires at 1750 hours. Other Dinahs were shot down off Oyster Island in Arakan at 0905 hours on 1 May and over Imphal on the 4th.

Enemy Air Activity over Manipur - 1-18 May 1944

O.R.B. ACSEA
Int. App. 'B'
May '44
Tel. ACC/938
Air C.-in-C. to
C.A.O.S.
23 May '44
File ACC/6 XIV
Encls. 11
A.H.B./11J50/98/1(N)

Between 0800 and 0835 hours on 1 May, six Sallys and nine Oscars attacked our forward positions near Bishempur and Allied motor transport on the Tiddim road was also strafed. One enemy aircraft was shot down by anti-aircraft fire. Three of the Oscars intercepted three Dakotas, one of the latter got away, one force landed and one was lost. A fighter sweep at 0810-0920 hours on 4 May was mounted by the enemy in the region of Tamu-Ukhrul and at 1500 hours on the 5th, twelve Oscars bombed and strafed targets in the Kohima area. At 0730 hours on 6 May 1944, six Sallys and 15 Oscars approached the plain of Imphal and intercepting Spitfires probably destroyed a Sally and a couple of Oscars. This enemy force also lost six more aircraft to anti-aircraft fire.

Ibid.

At 0630-0700 hours on 9 May, 20 Oscars bombed and strafed Palel and at 0405 hours the following morning six enemy bombers attacked our positions near Bishempur. Soon after first light, at 0715 hours, 20 Oscars mounted a strafing attack in the vicinity of Buri Bazar. On the 11th at 0325 hours, three enemy aircraft bombed Tuliha airfield. Three hours later twelve Spitfires were scrambled and intercepted 25 Oscars west of Tamu, two of which were shot down and three damaged. On 14 April two enemy fighter sweeps were plotted over the Imphal plain. At 0710-0815 hours north-east of Imphal, a force of 23 Spitfires shot down one and damaged three Oscars out of a total of twelve; two hours later 15 Oscars were intercepted east of Kohima and eleven Spitfires claimed two enemy aircraft destroyed and nine damaged for no loss.

On 15 May 1944, six Lilyys accompanied by eight Oscars and Tojos - this was the first known instance of the offensive use of the Tojo fighter in Burma - attacked an advanced airfield of the Northern Air Sector Force in the Hukawng Valley. United States P-40 fighter-bombers on 17 May, after bombing Kamaing, encountered ten enemy aircraft at 4,000 feet and destroyed three of them for no loss. Further enemy attention was directed to the northern sector of the front on 18 May when the Japanese, having held the only all-weather airfield at Myitkyina for two years, were forced to bomb it. The raid was carried out by eight

Oscars at 1420 hours and they succeeded in destroying one C-47 and damaging three others. P-40's intercepted after the attack and claimed four Oscars as damaged; anti-aircraft guns probably shot down a couple of Oscars.

Enemy Air Activity over Manipur - 18 May-17 June 1944

O.R.B. ACSEA
Int. Apps. 'D',
'O' and 'Q'
May '44.
Tel. ACC/971
Air C.-in-C. to
C.A.S. 7 Jun.

Just before noon on 18 May, eighteen enemy aircraft were plotted over the Imphal plain. No attack developed and the Spitfires which intercepted the enemy force may have shot down five and damaged four enemy aircraft for the loss of one Spitfire. P-51's of the Air Commando Force also scrambled but they did not make contact. On 21 May, at 0625 hours, a Dinah reconnaissance aircraft flew over the Imphal battle zone and was not intercepted. Soon afterwards at 0715 hours, Oscars were active over Bishenpur where two tactical reconnaissance Hurricanes were attacked, one being shot down and the other damaged. Nine Spitfires intercepted 15 Oscars, which had previously attacked Allied positions near Bishenpur, and although the enemy aircraft were chased for some distance no damage was inflicted upon them. Two days later, at 1210-1250 hours, 20 Oscars mounted a sweep of the Imphal plain and to the north of it. Spitfires were scrambled but cloud conditions and the splitting up of the enemy force into small groups prevented contact being made. Two Hurricanes on a rhubarb were jumped by Oscars, one of the former being shot down. On 24 May at 1220 hours, seven Oscars flew at 3,000 feet over Bishenpur but no attack was made; the Spitfires which scrambled did not intercept.

Ibid.

At 0720 hours on 25 May 1944, 20 Oscars approached Imphal from the north-east and were intercepted by Spitfires near Palel. One enemy aircraft was destroyed and five damaged. On 29 May at 0715 hours, eight Oscars were seen north of Imphal but the Spitfires which endeavoured to intercept failed to do so. At 0800 hours, however, 20 Oscars appeared south-east of Palel at 12,000 feet and these aircraft were engaged. The enemy force split up and withdrew but other Spitfires found the enemy in groups of three or four, and four Oscars were damaged before cloud cover enabled them to escape. One Spitfire did not return to base. Finally on 30 May at 1630 hours, 20 enemy aircraft were observed in the region of Palel but no attack developed and no interception made. After 30 May, enemy activity lapsed in the Manipur area until 8 June when at 1100 hours 15 Oscars strafed our positions near Churachandpur. A similar raid was made the following day by six Oscars. The enemy wound up his air offensive on 17 June with a fighter sweep of 15 Oscars over Palel at 1100 hours. Two interceptions were made by Spitfires which probably shot down ten enemy aircraft for the loss of one. The Oscars did, however, reap one small reward in that they shot down a Wellington engaged in ferrying supplies to Imphal.

Principal Factors Relating to the air defence of Manipur

In the foregoing pages only a bald analysis has been given of defensive air operations over Manipur and the impression that Spitfires had been less successful in intercepting enemy aircraft than in Arakan during earlier months is a correct one. But the circumstances in

Arakan and Manipur were in no way analogous and it is necessary at this point to outline the problems which confronted No. 221 Group in their efforts to protect the beleaguered IV Corps and the transport aircraft sustaining them.

ACSEA File
Air/739
3rd T.A.F.
to HQ.ACSEA
10 May '44

The tactics which were employed to gain air dominance over Arakan centred around the Spitfire squadrons backed by Hurricanes for use as cover during re-fuelling and re-arming, and for patrol work. A force of co-ordinated Spitfires adopting the 'dive and zoom' and tight weaving tactics which we had perfected, had confounded the Japanese who at first had relied upon the manoeuvrability of their aircraft and dog-fighting for success. After February 1944, the Japanese no longer endeavoured to obtain initial height advantage since they realized that this was impossible in action with Spitfires. And so the enemy countered our tactics by adopting a defensive circle and splitting into small groups, sometimes at varying heights from 20,000 feet to ground level, when the circle was broken. The dispersed groups of enemy aircraft were very difficult to attack and our fighters were invariably compelled to split up. Moreover, the Spitfire squadrons had already lost a number of experienced pilots in air combat and at the time of the Manipur campaign were losing many more as operational tours were completed.

A.H.B./
IIJ50/98/1(M)
Tel.ACC/364
Air C.-in-C.
to C.A.S.
15 Apr. '44.
File ACC/6
XIII
Encl. 65.
A.H.B./
IIJ50/47/42
H.Q. ACSEA
Air Staff,
Jan. '45

But the greatest factor relating to the air defence of Imphal was the curtailment of radar cover. The radar outposts, observer units, filter and operations rooms and all other ground installations requisite for the operation of fighter squadrons, were in existence in and around the plain of Imphal long before the battle was joined. Even at the best of times, however, the mountainous nature of the country surrounding the plain made the efficient operation of radar devices a difficult matter and although the various radar stations had been sited so as to avoid as far as possible all permanent echoes and to supplement each others deficiencies, there always remained weak spots in the warning system. It soon became apparent that the difficulties of operating radar sets in the Imphal area would be greatly enhanced by the Japanese advance as one by one the outlying posts had to be withdrawn. An early loss was that of the station at Tamu on which much reliance had always been placed for detecting the approach of enemy aircraft over the Chindwin. After it had been evacuated, on 17 March 1944, it was no longer possible to locate the movements of enemy aircraft east of the high wall of mountains separating the plain of Imphal from the Kabaw Valley. By 31 March the station operating to the north-east of Imphal on the Ukhrul road and also the G.C.I. station at Moirang to the south had been withdrawn farther into the plain. The Indian Wireless Observer Companies at the same time had also to be taken back from the mountains, leaving a number of serious gaps through which low flying aircraft might penetrate without being observed. The Wireless Observer Companies were, however, of limited value owing to inexperience. One or two were engulfed in the tide of the enemy advance.

A.H.B./IIJ50/47/15
A.O.C. No.221 Gp.
Nov. '44
HQ. ACSEA
Air Staff
Jan. '45.
A.H.B./IIJ50/47/42

The result of this great curtailment of radar and observer cover was to leave many completely blind spots over the mountains surrounding the plain. Up to 20 April the Japanese had concentrated upon high flying tactics and interceptions were generally successful. But Japanese low-flying attacks were first attempted on 21 April when the strip at Kangla was bombed. A similar raid was made upon

Tuliha! the following morning. Nothing was seen of these raiders by the radar stations and since the Japanese aircraft thereafter chose to come in low, it was practically impossible to detect the approach of hostile aircraft. To make the situation still more difficult, the Japanese when mounting a fighter sweep - their usual form of offensive action - split their formations and operated singly or in sections as soon as they reached the Imphal plain, calculating that they would thereby cause the maximum confusion to our defences. In this they undoubtedly achieved some success since it was impossible to keep continuous check upon a score of enemy aircraft flying low and suddenly reported simultaneously from many points. Under such circumstances it was difficult on the plotting tables of the filter and operations rooms to maintain any coherent tracks, particularly if at the same time a couple of squadrons of fighter-bombers were returning from operations and perhaps transport and communications aircraft were on their way to airfields in the rear. Inevitably, the information and directions passed on to our fighters were often scrappy and contradictory and on more than one occasion the day ended with the latter chasing vigorously towards the Chindwin the tracks to which their own flight was giving rise.

A.H.B./
IILJ50/47/15
A.O.C.
No. 221 Gp.
Nov. '44.
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To deal with this difficult situation, counter-measures were improvised with a fair degree of success. Defensive patrols from airfields inside the plain were found to be too expensive in petrol - all of which had to be flown in - and were therefore discontinued at an early date. But whenever unidentified aircraft were reported as approaching the plain, no time was wasted in trying to identify them; their position was passed at once to the operations room and fighters ordered into the air. In this connection the daily weather reconnaissance flight by Beaufighters over the Chindwin provided up to date information as to whether meteorological conditions were likely or not to favour an enemy foray. When the latter did materialize, it was found to be a useful device to send a fighter section to each of the two low main exits from the plain, at Palel and Churachandpur, not only to report on the position of the enemy but also to intercept him when he tried to make his escape. These tactics, modified by a fortunate accident, enabled a notable success to be scored when on 17 June the Japanese attempted their last operation of the season by sending up to a score of Oscars over the southern end of the plain. It so happened that a Spitfire was already airborne on a test flight and its pilot was speedily able both to report the position of the enemy and to deliver attacks upon them. When the latter in some disarray made for the usual exit along the Tiddim road, they were met by Spitfires which had been scrambled to meet them. As a result of the air battle our fighters probably destroyed ten enemy aircraft for the loss of one Spitfire whose pilot escaped.

Another development involved the establishment of visual control posts on four of the picturesque hilltops within the plain. Each was manned by a pilot from one or other of the squadrons and was equipped with a radio set of aircraft pattern worked by batteries, the purpose being that the occupant should keep watch for enemy aircraft when they were known to be in the vicinity and to report them directly to our fighters. This expedient proved of value, and although not adopted until well on into the siege after the monsoon had begun, it was responsible for the destruction of one and the damaging of two enemy aircraft. It is an

apt commentary on the conditions on the plain during the monsoon that the sites were found difficult to maintain owing to the problem of dragging heavy equipment up steep and slippery paths. The most useful of the control posts, near Bishempur, could not on a number of occasions be manned at all since the enemy had mined the road leading to it and indeed held the site itself for several days.

The problem set by the necessity of affording protection to the transport aircraft in their daily routine tasks was of a kindred nature. Since the transport aircraft supplying the Imphal garrison necessarily flew singly or in small numbers in order to maintain an even flow of freight from the base airfields, fighter escorts could not be provided. The Japanese were well aware of the weakness of our position and accordingly sent his fighters now and then to lurk on our lines of approach to the plain. By exploiting the advantages offered by the terrain and weather he reaped some reward, his success reaching its culminating point on 25 April when two Dakotas on their way to Imphal were shot down. Shortly afterwards, however, a plan that foiled his tactics emerged. An air corridor was established and all transport aircraft bound for Imphal were instructed to fly along it, while fighters maintained a continuous patrol throughout the hours of daylight. The exact alignment of the corridor was modified from time to time, though it always and inevitably added something to the length of the trip by transport aircraft both in and out of the plain. Spitfires of No. 81 Squadron, operating from Kumbhigram, provided most of the patrol but other squadrons also participated. It proved a complete success for after its institution the only aircraft lost was a Wellington that ventured to take a short cut and so fell into the clutches of the last enemy fighter sweep of the campaigning season. Since the enemy reaped such small dividends over the Imphal plain he decided that transport aircraft supplying our forces in the Myitkyina and Mogaung areas were less dangerous prey to seek.

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No. 170 Wing,
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The technique of night fighters required least adaptation to the circumstances. By day the Japanese were always chary of risking their bombers and on the few occasions when they did put in an appearance they were escorted by a swarm of fighters, being generally in the ratio of ten to one. They were, however, unmindful of the mauling their bombers had received at the hands of night fighters over Calcutta rather more than a year previously and attempted occasional small night bombing attacks on airfields and positions on the Imphal plain in March, April and May 1944. On 8 March a detachment of No. 176 (A.I. Beaufighter) Squadron moved to the landing ground of Kangla in anticipation of the enemy activity which, in fact, materialised some three weeks later. Interception by night was no less difficult than by day, despite the greater height at which the enemy flew. Sometimes it became possible to make use of the ground installations to the west as well as those on the plain. Night interceptions were never actually attempted over the plain itself owing to the many blind spots in our radar devices, save on one occasion when the attempt was made to guide the Beaufighter to its target by means of indicator shell bursts. Yet despite all handicaps the night fighters were not without success and during the course of the siege they accounted for three enemy aircraft.

Enemy offensive air activity reached its zenith in April when raids made upon targets in the Imphal plain were comparatively frequent. It was maintained throughout May at a pitch hardly less high, but with the onset of the monsoon rains quickly came to an end. In June only two enemy fighter sweeps reached the plain. It has been estimated that some 45 or more enemy aircraft were probably shot down by our fighters during the siege while something like 60 were damaged. To these totals should be joined the claims of the anti-aircraft units, including R.A.F. Regiment detachments, on the plain; they amounted to about 40 enemy aircraft probably destroyed and 19 damaged. Army casualties included less than 50 deaths by enemy air action, of which 20 were caused during a night raid on 16/17 March in which an unlucky hit was scored on the new IV Corps headquarters by fragmentation bombs. The ground casualties of the air forces were all caused by a raid on Tulihal on 26 April when the crew and passengers were caught alighting from an American transport aircraft, the pilot being killed and two other members of the crew injured. In addition a number of Manipuris were killed by enemy air attack. None of our airfields was unserviceable after raids by the enemy for more than two or three hours. We lost nine fighter aircraft over the area, the pilots of four being saved. Such were the fruits of Japanese air support for their ground offensive against Manipur.

Summary

In assessing the overall effect of Allied air superiority it is necessary to outline the difficulties under which the 5th Air Division in Burma operated, for they were greatly hampered by the technological shortcomings of the Japanese industrial machine, the initial misconception of the strategical use of air power and by the higher priority given to air forces operating in the South West Pacific Area. Japanese leaders saw air power only as an ancillary weapon extremely valuable to the conduct of surface operations. But they failed to visualize an air war and the exploitation of an air victory. The Allied victory in the air was made much easier by the limited Japanese appreciation of the principles of aerial warfare than it might otherwise have been. The enemy chained his air weapon to surface objectives; he failed to establish an air order of battle and the logistic structure necessary for its support. He dissipated his air resources piecemeal on a surface perimeter which, by its geographical nature, dispersed his air strength too thinly and led to its destruction.

On the non-operational side the Japanese made a serious mistake. Lacking a general depth to their technological echelon at all levels, the Japanese air forces could ill afford to lose those technicians and specialists which had been trained in pre-war days. Having planned a war of short duration and limited objective, Japan had not provided the training organization to replace losses through attrition with an acceptable product. Hence the early losses suffered by the Japanese air forces, both in pilots and technicians, confronted the enemy with an impossible replacement task. When she lost her well trained pilots and technical staff, she virtually lost the war. While thousands of aircraft could still be built, only hundreds could be maintained and only scores could be manned by pilots qualified to fight or bomb effectively. As yet we

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have no knowledge of the steps the Japanese took, if any, to remedy the defects in their training organization. We do know, however, that towards the end of 1943 the Japanese high command assimilated the lessons of the 1942 campaigns but by then it was too late to affect the outcome of the war though they did make strenuous attempts to improve the quality and increase the quantity of their aircraft. This change in policy is reflected in the various statements by leading Japanese personalities, either during the war or in interrogation after it, and the following comment by Giro Takeda of the Mitsubishi Aviation Company in November 1943 illustrates the point:

'Victory or defeat depends upon aircraft. Looking back we arms manufacturers have committed big mistakes. We failed to appreciate sufficiently the fact that behind the battle on the field lies the battle of production ... We are striving with desperate determination to produce in a very short space of time the larger number of planes necessary for the present large scale operations'.

While the overall strength of aircraft in the Japanese Naval and Army air forces increased during the war, reinforcements for the 5th Air Division in Burma, after February 1944, declined and they were never able thereafter to amass sufficient aircraft of the right types to fulfil the demands made upon them. Consequently, the Japanese ground forces in Burma were deprived of adequate air support and in the event the 5th Air Division dissipated its effort in attacks against Wingate's Special Force, against our airfields and transport aircraft, in a small measure of close support and in defence of his own airfields, interspersed by an occasional bombing raid; none of the enemy's air operations had any decisive influence after the initial stages of the campaign. There is some evidence for this assumption from Japanese sources.

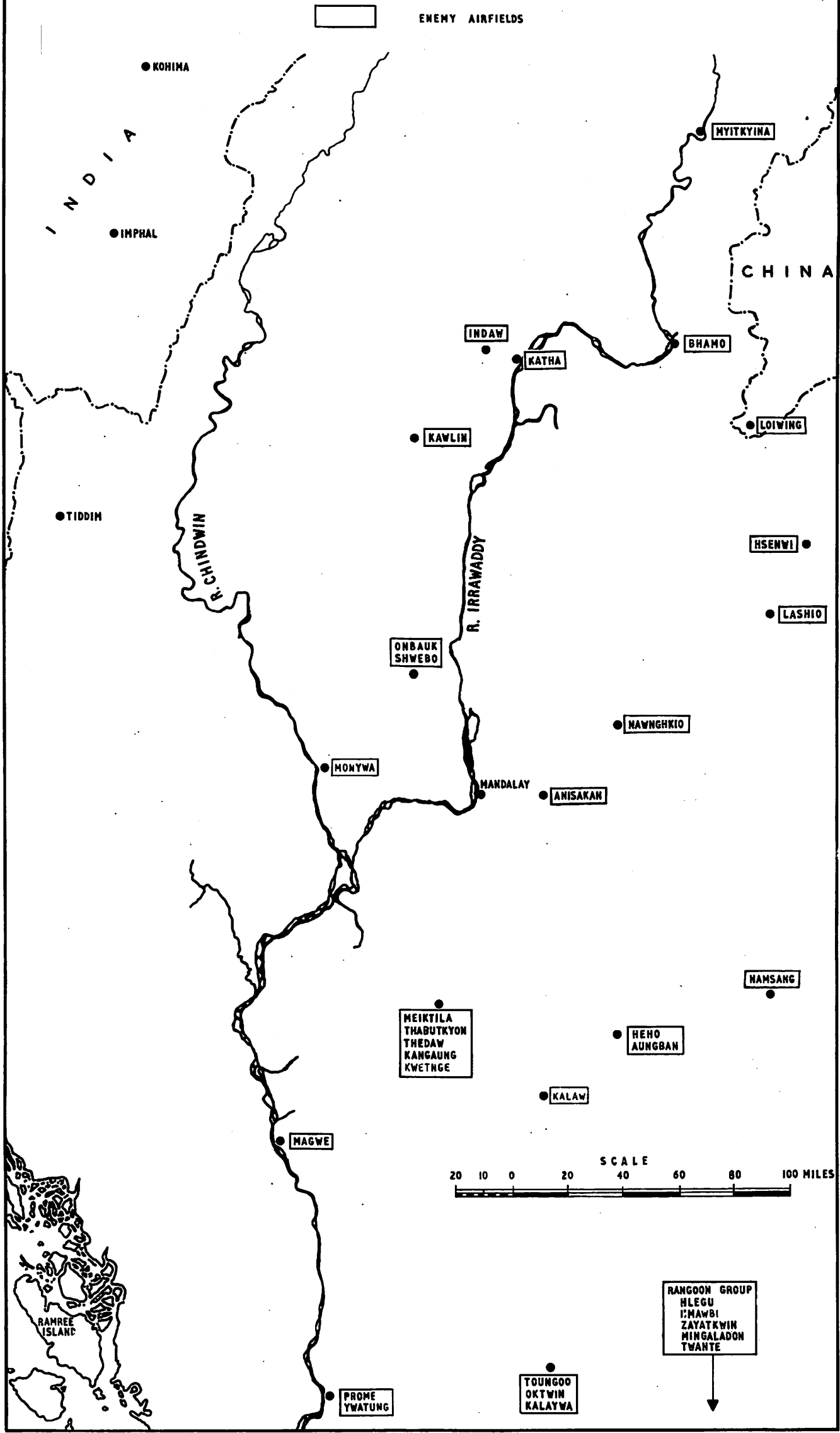
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Fighter aircraft of the 5th Air Division used base airfields at Meiktila, Kalaw, Toungoo, Pegu and Rangoon staging forward at times to Lashio, Myitkyina, Hsenwi, Shwebo, Monywa and Kawlin. Their bombers were based in Siam and Malaya but operated from the forward bases of Rangoon, Toungoo, Kalaw, Meiktila and Pegu. But owing to the intensity of Allied air attacks, the Japanese found the use of forward strips a hazardous undertaking. As a result of being denied the use of suitable airfields, the number of potential Japanese sorties was greatly reduced and, moreover, they frequently had to operate without the latest intelligence.

Ibid.

During the Manipur campaign, liaison between the 15th Japanese Army and the 5th Air Division was carried out either by signals communication or direct through staff officers. An air force signals unit was, in fact, attached to each ground division but owing to the difficulties encountered on the march, signals equipment could not always be transported and it is believed that these units did not function at all. Thus direct co-operation between air and ground forces could not be maintained and this affected greatly the degree of close support provided by the 5th Air Division for the 15th Japanese Army in Manipur and the 18th Division in the Hukawng valley. Since Allied fighter activity over Burma was at first on a small scale, it was possible for the Japanese army and

PRINCIPAL ENEMY AIRFIELDS
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divisional commanders and staff officers to make inspection flights and to carry out liaison work. By March 1944, however, Allied air supremacy had made these flights impossible and liaison had to be carried out by motor transport at night or on foot. The time thus lost was considerable and contact between army units and their headquarters became extremely difficult. As a result there were 'miscarriages in urgent and delicate operational liaison work', and aircraft had to operate without first hand knowledge of the ground situation.

The lack of air support was much lamented by the troops investing Imphal and Kohima. It has been said that only 40 days after crossing the Chindwin did one Japanese unit see a friendly aircraft flying overhead. When the men saw the aircraft they 'paid no heed to the shower of bullets and waved their hands and raised their guns with joy.' When the tide of battle turned in May both the 15th Japanese Army and 18th Japanese Division pleaded for air support but little help could be given by the 5th Air Division.

As indicated in the foregoing pages, the reduction of Japanese air power in Burma was accomplished in various ways. Enemy aircraft were shot down in air combat, others were bombed and machine-gunned on the ground; some fell victim to anti-aircraft fire. As events worked out, however, Allied fighters were able to take the heaviest toll of Japanese aircraft. R.A.F. Spitfires did most damage in air combat during the period November 1943 to February 1944 and from March onwards American fighters, supported to some small extent by the R.A.F., maintained a vigorous offensive over Japanese air bases as far south as Rangoon. By May 1944 a considerable proportion of the Japanese Army Air Force in Burma had been destroyed and we had achieved air dominance over all operational areas. Reinforcements, both of aircrew and aircraft for the 5th Air Division in Burma, were thereafter never in sufficient quantity or quality to impair our control of the air. But this condition was to some extent the result of Japanese reverses in the South West Pacific, a theatre endowed with a higher priority than Burma. In fact, one authoritative American document asserts that the Allies won air superiority in Burma almost by default. It must be remembered, however, that in February 1944 the enemy had about 380 aircraft in Burma which, in existence, remained a potential threat to the success of both land and air operations of the Allies. Indeed, the establishment of air superiority in Burma assumed a particular importance owing to the nature of the campaigns fought there. All ground and air operations in Burma were an exploitation of air supremacy and since the campaigns were air supplied, without complete control of the air our operations could not have been accomplished by the methods employed. Moreover, the liquidation of Japanese air power in Burma greatly accelerated air action against his communications, in close support and in air supply and thereby made possible the rapid surface advances of succeeding campaigns.

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CHAPTER 6OPERATIONS IN MANIPUR - 1944INCLUDING
THE SIEGE OF IMPHALTopographical and Strategical Background

The encirclement by the Japanese of the Allied land forces on the plain of Imphal during a period extending from March to June 1944, gave rise to what proved to be the largest sustained maintenance of ground troops by air supply up to that time. The Japanese offensive, aimed through Manipur at Imphal and Kohima and with loudly announced, though unplanned, further objectives in India, was foiled by the intervention of the Allied air forces whose transport aircraft during the campaign delivered over 20,000 tons of supplies to the beleaguered garrison on the plain, flew reinforcements to the tune of well over 20,000 men, evacuated more than 10,000 casualties and performed numerous lesser services. An attempt will be made in this chapter to explain how the task was accomplished but first of all it is necessary to describe the topography of the battle arena and the strategic importance of the Imphal plain to the Allies in South East Asia.

For some hundreds of miles east and east-north-east of Calcutta lies a vast well populated plain of paddy fields and palm trees interspersed with villages. This flat well populated country eventually merges into green foothills and then into the mountain ranges of the Chin and Naga hills. These rise to a height of some seven thousand feet but since they are barely twenty-five degrees from the equator snow rarely rests upon their summits and, save for the bare cliff walls here and there, they are covered by a mantle of jungle. As seen from the air their verdant contours are not uninviting, though those who have to traverse them on foot have a different picture to offer of an almost impassable and fever ridden country with few human inhabitants and rare pathways. In the midst of the mountain fastnesses lies an enclave possessing the characteristics of open paddy fields and villages. This is the plain of Imphal which is formed by an opening in the defiles and gorges followed by the Manipur river in its intricate course through the Naga and Chin hills to join the Chindwin at Kalewa about a hundred air miles to the south. The plain covers a very irregular area of some six hundred square miles in all and lies at a height of approximately three thousand feet above sea level. The mountainous and jungle clad country which surrounds the plain separates it on the north-west from the valley of the Brahmaputra, on the south-west from the Bengal plain and on the east from the Chindwin valley. It is an isolated spot possessing few overland links with the outer world. During the war the main entrance to the plain was supplied by an all-weather road which wound its way northwards through some magnificent scenery along precipitous mountainsides to Kohima and reached the Bengal-Assam railway at Dimapur. But there were also tracks leading west to Silchar, south past Bishenpur to Tiddim and Kalewa, north-east to Ukhrul. Before the war none of these would have been considered passable save in the dry season and even then only for animal traffic. The Tiddim track had, however, in 1942-43, been developed with great labour into a road as a supply line for our advanced forces operating in the Chin hills and the Silchar track had been made passable for jeeps in dry weather. The latter also carried the telephone line westwards and the Japanese, possibly for this reason,

attached some importance to it, taking great pains to cut it. At this point it may be added that they were to show that they were able for their part to make use of the steepest and skimpiest of jungle paths in their offensive against the plain.

The climate of the Imphal plain is comparatively temperate and even during the warmer period of the year the nights remain cool. The absence of the usual Indian 'hot weather' undoubtedly favoured the European garrison, whose troops would have been more sensitive to the heat than those of the enemy. There are flies and mosquitos in plenty, but the plain even under wartime conditions was not intensively malarious. In this also the defenders possessed the advantage for their health position was in fact sharply in contrast with that of the Japanese, whose base in the Kabaw valley to the east lay in an airless and heat-struck enclave pervaded by a virulent type of malaria.

Throughout the period of the siege the weather was of prime importance for operations by both land and air and a knowledge of its vagaries was indispensable for their planning and conduct. The dry season usually comes to an end in May and the south-west monsoon reaches the area about the first week in June. Rainfall and cloud amount abruptly increase, though even prior to this an increasing number of rain and thunderstorms interrupt the mainly fair weather of the earlier part of the year. In April and May the monthly rainfall in Bengal, at the foot of the hills which surround Imphal, is about fifteen inches. Over the hills themselves the rainfall is heaviest and the rains and thunderstorms most persistent, but in the Imphal plain itself the rainfall is only five inches a month. In the dry period before the monsoon the presence of dust particles hanging in the atmosphere over the plain constituted a factor of some importance in operational flying, since it was usually difficult to see downwards for more than fifteen hundred feet or so. But with the advent of the monsoon the air cleared and other problems appeared. As the storms increased in frequency they, and the associated cloud, became a considerable hazard. Towering banks of cumulo-nimbus cloud extend from a base of one or two thousand feet above the plain to a height of 25-30,000 feet and obscure the surrounding hills. The storms and clouds are also associated with violent squalls, exceedingly bumpy flying conditions and a torrential rainfall reducing visibility to nil. From the point of view of those responsible for the air supply of the Imphal garrison, the dominating factor was the frequent presence over the mountains west of the plain of a thick and high wall of storm clouds, an area through which it was impossible for transport aircraft to fly.

Both air and ground forces were hampered by the weather, though it naturally affected the air forces more. Enemy fighters could and did occasionally make use of cloud cover to make sneak raids upon transport aircraft and interception under such conditions was extremely difficult. More important still was the fact that transport aircraft themselves were often forced to wait some diminution in the storm clouds before they could attempt to penetrate to the Imphal plain. It is needless to add that any amelioration in the weather was exploited to the full. But the inevitable result was a sharply fluctuating amount to supplies delivered daily instead of the smooth flow which would have demanded so much less of crews, aircraft maintenance personnel, air supply companies, coolie labour and airfield installations. On the

occasions of favourable weather these all had to work with far greater intensity than average load figures might suggest.

The siege of Imphal, which lasted for three months at the close of the campaigning season of 1943-44, was a colourful and impressive incident in the widespread and bitter fighting throughout and around north Burma, which reached a new pitch of intensity in the opening months of 1944 and which centred around the possibility of opening a new land route to China from Assam. But since the possibilities of maintaining encircled forces by airborne supplies had recently been demonstrated by the Arakan battle, it cannot be held that any novel principles or methods of warfare were illustrated by the course of the siege, though certainly much was learnt about the administrative details of air supply. The main significance of the siege of Imphal though momentous was in fact negative and hinged upon the disastrous consequences which would have been entailed by its surrender.

When in 1942 the Japanese overran Burma they paused at the foot of the great curtain of mountains and jungle, that under the successive names of Naga, Chin and Lushai hills, extends southwards from the eastern Himalayas to the sea and seals off Burma from India. This desolate tract is nowhere less than a hundred miles deep and it is in the heart of its fastnesses that the Imphal plain lies equidistant from Burma, Bengal and Assam. This remote valley at once became of high strategic importance to the Allies as soon as Burma had passed into enemy hands. From the air point of view it was of peculiar value since on it alone was it possible to find sites for airfields in relatively close proximity to the front and to enemy bases. The next easternmost airfields were in the Surma valley behind the barriers of mountain and cloud and in any case were too far to the rear to provide bases for collective action by fighter-bombers and short range ground attack fighters. But however useful the Imphal plain might be as an advanced base, it would in the hands of the enemy have constituted the most dangerous of threats.

The Imphal plain constitutes the kernel of the Hindu state of Manipur and although it has more than once been conquered by Burmese invaders in the past, its main link with the outside world lay northwards along the road through Kohima to the Bengal-Assam railway at Dimapur and it remains part of India. In our hands it was a useful base for the maintenance of our forces on the west bank of the Chindwin and in the Chin Hills and a threat to the Kalewa gap leading into the plains of central Burma. But in the hands of the Japanese it would have been a menace to the security of the Allied lifeline to China. Had the Japanese managed to penetrate along the Kohima road and cut the railway at Dimapur, the main line of communication to the American air bases in the upper valley of the Brahmaputra would have been severed and the maintenance of Allied forces operating in eastern Assam and the Hukawng valley would have been difficult, if not impossible. And had we been forced to abandon the airfields in eastern Assam the last link with China would have been cut and the Chinese armies and the Fourteenth U.S. Air Force finally isolated. A lesser consequence would have been the solid establishment of the Japanese in the hill country and the imperilling of our forward positions in the plain of Bengal itself. Finally, in India, where prestige counted for so much, the conquest of even a single Indian state by the Japanese might have had widespread repercussions upon morale and politics. Seen in this light, the plain of Imphal thus constituted a prize whose capture by the enemy might have altered the whole course of the war in south-east Asia.

The Military Setting

A.M. File
C. 30061/45
Despatch by
Gen. Sir C.
Auchinleck
Jun.-Nov. '43

Since the Japanese conquest of Burma the battlefront had extended northwards from Arakan with the Allied forces thinly holding such fragmentary positions of the Chin and Lushai hills as were accessible from the west. Towards the end of October 1943, Japanese infantry pushed westwards from the Kabaw valley and columns of about 300 strong made limited advances in the Fort White, Webula and Haka areas. There they paused for consolidation, bringing up supplies along the Kalemmyo-Fort White road. In November 1943 further attacks were launched culminating in our withdrawal from the Falam, Haka and Fort White districts thereby threatening our hold on the Chin Hills and affording to the enemy greater security of the vital Kalemmyo-Kalewa gap which provided a gateway to the west from central Burma and the Chindwin valley. The 17th Division held Tiddim and thence the front curved north-eastwards to the Chindwin which in its upper reaches formed a barrier between the outposts of the contending armies.

During the monsoon of 1943 the Japanese garrison in Burma had remained at four divisions. By November, however, two additional divisions had arrived, one from Java and the other from central China, and by February 1944 a further two had made their appearance - another from central China and the remaining one from Guadalcanal. At the same time there also came an army headquarters and an independent mixed brigade. At the beginning of March 1944 the enemy strength in Burma had increased to eight divisions and an independent brigade. Of these, three divisions, the 15th, 31st and 33rd were concentrated on the Chindwin front under the Fifteenth Japanese Army.⁽¹⁾ The advent of reinforcements for the enemy in north Burma had been observed from January onwards and an offensive across the Chindwin and into the Chin Hills was expected. Nevertheless, the execution of our plans for attacks in north Burma had not been delayed and at the end of February and the beginning of March, General Wingate's Special Force was launched into the hill country bordering the Upper Irrawaddy from Katha and Bhamo to the Myitkyina railway.

On the Allied side three divisions, the 20th, 17th and 23rd, and one tank brigade, all under IV Corps, held two defence positions in the Chin and Naga hills. The 17th Division was astride the southern entry into the Imphal plain, the 20th Division along the Tamu road defended the Kabaw valley while further north and west the 23rd Division had one brigade at Ukhrul and the remainder disposed to the south and south-east of Imphal. These were our main positions when on the night of 15/16 March the enemy crossed the Chindwin in boats that had been carefully assembled despite air attacks and began his offensive. Once again the enemy's ability to conceal his movements and to confound air reconnaissance was amply demonstrated. Part of the Japanese force crossed the Chindwin river by a pontoon bridge that was constructed after dark and dismantled before daylight. Movement then took place by night and the days spent in lying up under cover of thick jungle. By using little known tracks and exploiting the mobility for which his troops had been noted since the Malayan campaign, he hoped to overwhelm the Fourteenth Army by speed and ubiquity. His ambitions were high, for his ultimate purpose was a full scale invasion of the hill country on the India-Burma border. To the south the Japanese 33rd Division hoped speedily to cut the Tiddim road at its northern extremity and annihilate the 17th Division, whose motor transport the enemy then calculated would be available to move his troops

(1) Commanded by Lieut-General Mataguchi, the officer largely responsible for the enemy plan for operations in Manipur.

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ation Reps.
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Military
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Translation and
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Report.
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14th Army to
11th Army Gp.
26 Mar. and
2 Apr. '44
Cab.Hist.Sec.
SACSEA 1034
SACSEA 1035

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northwards to the perimeter of the Imphal plain, on which he reckoned he would then have at his mercy two enfeebled and perhaps demoralised divisions. To the north he planned to strike with his 31st Division through Ukhrul to seize Kohima and with it the control of the Manipur road, while in the centre the Japanese 15th Division advanced through Tamu to Palel. With Imphal and Kohima in his hands the enemy planned to sustain his extended units with supplies brought up along the roads through Tamu and Tiddim. It will be seen, therefore, that the survival of his forces at Kohima depended upon the early capture of the Imphal plain itself. It was a bold plan but it had been formulated without regard to the recent events in Arakan which had demonstrated the significance of the use of transport aircraft for the maintenance of encircled troops. Moreover, he fondly imagined that his Arakan offensive, which had begun a month earlier, had drawn all Allied reserves into the southern sector of the front and that his victory in Manipur would be assured long before Allied troops could be transferred from Arakan to Imphal. Here again he miscalculated the ability of transport aircraft to convey large bodies of troops from one battle area to another with the utmost expedition.

In the face of the Japanese advance the Allies employed on a larger scale the strategy that had served so well in Arakan by withdrawing and concentrating our forces in positions that we were prepared to defend until the moment came to take the offensive. The 17th Division had been ordered to evacuate Tiddim if there was a danger of being cut off. The Japanese 33rd Division had moved through difficult country with great speed, however, and although the 17th Division began its withdrawal on 13 March it did not reach Imphal until the first week in April, more or less intact, after smashing several Japanese road blocks on the way. The successful removal of the bulk of 17th Division's motor transport thus caused one portion of the enemy plan to go awry. To the east and north, fighting withdrawals were also completed by the 20th and 23rd Divisions. Nevertheless, the enemy made formidable progress. By the beginning of April he had infiltrated across the mountains and jungle around the southern perimeter of the plain and had cut the track leading westwards to Silchar and the Surma valley while to the east he was pressing forward from the Kabaw valley towards Palel. In the north bitter fighting developed for the possession of Kohima while elements of the Japanese 31st Division, on 29 March, established a road block on the Imphal-Dimapur road thus effectively severing the line of communication to the railhead at Dimapur.

Meanwhile there were under way defensive measures of a type on which the Japanese had not reckoned. A parachute brigade was flown in to Imphal and shortly after its arrival fought a stiff rearguard action west of Ukhrul, holding up the Japanese advance on this sector while leading elements of the 5th Division, which were flown up from Arakan, concentrated at Imphal. At a critical time the 5th Division was enabled to place a stop on the Imphal-Ukhrul track north-east of the plain. Thus when in early April the Japanese completed what they doubtless considered their investment of the Imphal plain they were faced, not by the two isolated divisions they had expected, but by four divisions in fighting trim and in receipt of maintenance by air. To the north XXXIII Corps opened its headquarters at Dimapur with the 2nd Division under its command and prepared to relieve the besieged garrison at Kohima. Beginning on 6 April the 7th Division, formerly in action on the Arakan front, moved by air and surface transport to Imphal and Dimapur. When the move had been completed, IV and XXXIII Corps had six divisions arrayed against three of the enemy.

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Such was the situation when towards the end of April the infiltrating flood of the Japanese advance had reached its high water mark. The impetus of the offensive had carried the enemy far into our lines and he had overrun the Naga hills. Our remaining centres of resistance were with XXXIII Corps on the Assam railway to the north and with IV Corps encircled on the Imphal plain to the south. In May the tide was gradually to turn and the Japanese were to begin their disastrous retreat back to the Chindwin. All our operations, both in resisting the enemy offensive and in delivering our counter-offensive were dependent to an unprecedented and largely unforeseen degree upon air supply. There was the great garrison on the Imphal plain which possessed no land communications with India. Although supplies could be brought by road to Dimapur, nevertheless many of the units under XXXIII Corps - the garrison at Kohima, for instance, and later our forces operating eastwards to Ukhrul and in the hills on either side of the Manipur road - were dependent upon the dropping of supplies by air. But since the number of transport aircraft available was limited, the needs of our forces on the Imphal sector of the Burma front had always to be balanced against those of Allied troops elsewhere; the American/Chinese troops advancing through the Hukawng and Mogauing valleys, Wingate's Special Force fighting on the Myitkyina railway, the 81st West African Division in the Kaladan Valley and the radar outposts and garrisons in the Chin Hills and Arakan. At times even wider claims had to be weighed, as when transport aircraft borrowed from the Mediterranean had to be returned thither because of the great urgency of their tasks in that theatre of war. Of such matters this chapter will later treat.

Air Bases on the plain of Imphal

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A.H.B./IIJ
50/47/42

For reasons explained in Chapter 5, the enemy air attacks in support of the ground assault on Imphal could never be more than spasmodic and were generally on a petty scale. Yet since the maintenance of our forces defending the Imphal plain rested upon their supply by air, the security of their life-line was a matter of primary importance. Every expedient possible was therefore employed to ensure that the Allied transport aircraft in the daily discharge of their routine duties should be subject to no enemy interference either while flying or on the ground. The local defence problem from the air point of view was three-fold. First of all the transport aircraft engaged in delivering the supplies upon which all depended had to be protected. There was the defence of the air force installations without whose existence the transport aircraft could not fly and little or no air support could be given to our forces fighting on the perimeter of the plain. Lastly, the latter had to be protected against any possible air attack. In short, it was necessary to destroy or drive off enemy hostile aircraft approaching either the plain or the supply corridors leading to it.

Ensconced in the middle of jungle-clad mountains, the plain of Imphal had never been the haunt of tourists and unlike the vale of Kashmir, its counterpart at the other end of the Himalayas, was rarely visited by Europeans. In normal times the European population of this distant isolated state of Manipur was confined to two or three British political officers and a few missionaries. Neither Imphal nor Manipur was on the normal visiting list of senior British officials in India, and Lord Curzon was the only Viceroy ever to visit the state. Its seclusion had, however, been broken by the advent not only of the army but also of the Royal Air Force and despite the difficulties of approach had, in 1942 and 1943, developed considerably its potentialities as an air base. When in March 1944 the ground threat to Imphal developed, it had for some months been the seat of No. 221 Group, from which R.A.F. units in north-east India were controlled, while the various squadrons located on

'The War in
Burma'
McKelvie.

Passim

the plain were under No. 170 Wing. Also in the Imphal area we were various other air force units including a signals wing. An all-weather airfield had been constructed hard by the town of Imphal and also at Palel and there were fair-weather landing grounds in use at Wangjing, Sapam, Tuliha and Kangla.

O.R.B. No. 170
Wing, R.A.F.
Mar. '44.

In March 1944, two Spitfire Mark VIII squadrons (Nos. 81 and 136) were at Kangla and Wangjing, there were Hurricanes of Nos. 28 and 5 Squadrons at Imphal and Sapam, and at Tuliha and Palel three squadrons (Nos. 11, 34 and 42) had been placed. In the adjustment caused by the encirclement of the Imphal plain by the Japanese, it was planned to move units so as to allow transport aircraft the use of the all-weather airfields at Imphal and Palel and, to supplement these, valuable cargo space in the relieving Dakotas to the tune of 324 tons was utilized to carry rolls of bitumenised hessian with which it was hoped to make the strip at Tuliha all-weather. In the event, the landing ground at Palel broke up and had to be placed unserviceable for repairs. In any case it was unsuitable for use, particularly at night, owing to the proximity of forward Japanese units which were in a position to overlook it and who shelled it from time to time. Although at Tuliha the bithess provided a firm runway, the hardstandings proved of doubtful endurance and as a matter of prudence it was decided not to use this landing ground for transport aircraft. The weakness was due, not to the failure of the bithess, but to the fact that it had been laid too late in the season when the earth beneath had already become sodden with the rain and no longer gave a sure foundation. Serious congestion at the main airfield of Imphal, where the single runway was very narrow, was only averted by the use of the fair-weather strip at Kangla which turned out to possess much better natural drainage than had been expected, and which was nearly always capable of taking transport aircraft within two days of the heaviest rain. Only a small portion of the supplies delivered were dropped to outlying army units. This occurred mainly from the second half of May onwards when our forces were advancing beyond the perimeter of the plain into the wild country to the north and north-east.

The Policy of Relief by Air and its Execution

When the campaigning season of 1943-44 opened, the time was ripe for the application of the experience which had been garnered and the course of our operations as planned was to be dependent upon airborne supplies to an unprecedented degree. The maintenance by air of Allied radar outposts and forward garrisons among the hills had become a routine affair. At the end of 1943 a division of West African troops crossed the westernmost Arakan mountains into the upper valley of the Kaladan and was thenceforth dependent upon airborne supplies for everything. Far away to the north the Chinese-American forces, under General Stilwell, in their advance down the Hukawng Valley, were coming more and more to rely upon air transport for their maintenance. Towards the end of February 1944, the first long range penetration brigade of General Wingate's Special Force crossed the Chindwin in its eastward march. This foray was on a much larger scale than its predecessor, for it included the landing in March of four other brigades by glider and transport aircraft in jungle clearings in the heart of territory nominally held by the enemy, all five being maintained exclusively by air. Meanwhile an unplanned demonstration of the military significance of air transport had been afforded by our victory in Arakan where the enemy had succeeded in cutting for over a fortnight the land communications of one division and dangerously imperilling those of another. For the fulfilment of these many commitments there were operating by the end of February 1944,

eight squadrons⁽¹⁾ of Dakotas, four British and four American, under the integrated headquarters of Troop Carrier Command. There were also some 25 C-46 aircraft which had been lent by the U.S. Air Transport Command as an emergency measure to help frustrate the Japanese Arakan offensive. These aircraft returned to the Hump air route early in March. Both the technique and practice of air supply were fast developing in South East Asia when in the course of March 1944 the major Japanese offensive of the season was launched into the Chin Hills and the threat to Imphal arose.

Reinforcement of IV Corps

SACSEA Directive No. 11
5 Mar. '44
Cab.Hist.Sect.
SACSEA 1031

At an early date Allied commanders in South East Asia had interpreted correctly that Japanese activity in the Kabaw and Chindwin valleys heralded an offensive against Manipur. Since the area to be defended was by any standards a large one the Supreme Allied Commander, on 5 March 1944, called upon his Army and Air Commanders-in-Chief to report on the general position on the IV Corps front and in particular on their proposals for reinforcing the area. The problem of air reinforcements was comparatively simple since the majority of tactical squadrons were already in the Bengal area and could be moved about more or less at will by H.Q. Third Tactical Air Force. During March, for instance, No. 221 Group received six additional tactical squadrons making 14 in all available for operations in Manipur. The problem of providing additional troops for IV Corps was more complex and depended largely upon the ability of congested lines of communication to move, and subsequently to maintain, further army formations in the battle area.

Telegram. 1515
Mountbatten
to Pownall
13 Mar. '44
Cab.Hist.Sec.
SACSEA 1033

Early in March it had been decided that if there was a risk of the 17th Division being cut off it should be withdrawn along the Tiddim road to the perimeter of the Imphal plain. The enemy launched his offensive on the night of 7/8 March, a week earlier than had been expected, and since the 17th Division had not begun to withdraw until 13 March it found its route to Imphal cut off by elements of the 33rd Japanese Division. Consequently the IV Corps Commander was forced to commit for the next three weeks all available reserves in the Imphal plain to help the 17th Division extricate itself from its predicament. The only way in which the IV Corps reserves could be reformed - an urgent necessity - was by bringing up the 5th Division from Arakan by air and surface transport. But no transport aircraft were available to assist this move. Troop Carrier Command was already fully employed and disposed only eight squadrons of Dakotas; unless, therefore, additional transport aircraft were received from some other source, reinforcements for IV Corps could not be provided in time to influence the battle. The arrangements by which the 5th Indian Division were to be sent from Arakan by road and rail, over desperately overcrowded lines of communication to Imphal, would have meant a grave delay of 12-14 days and the leading brigade could hardly have begun to arrive before the end of March. Since this might have had fatal results, Mountbatten decided to take the responsibility of ordering the necessary aircraft to be diverted from the Hump air route immediately, and to place them at the disposal of Troop Carrier Command for transporting the 5th Indian

Telegram from
Mountbatten to
Chiefs of
Staff 15 Mar.
Cab.Hist.Sect.
SACSEA 1033

(1) See Order of Battle at Appendix No. 6

Min. SC4/438/G
Mountbatten
to Giffard
16 Mar. '44
Cab.Hist.Sec.
SACSEA 1033

Division to the central front. This decision was taken, somewhat belatedly, on 15 March. It subsequently transpired that the British Chiefs of Staff felt that Mountbatten should have acted several days earlier in arranging the fly-in of the 5th Division to Imphal, so that the Combined Chiefs of Staff would have had more time to consider the implications of diverting aircraft from the Hump for this purpose. Unfortunately, the Supreme Commander had been incapacitated by an accident, sustained while touring Stilwell's battleground, which kept him in hospital for a week with both eyes bandaged. When on 13 March he left the American hospital at Ledo and flew to Comilla for a meeting with Slim and Baldwin, he learned for the first time the seriousness of the situation in the IV Corps area. In fact, it was not until Mountbatten questioned Slim closely as to the dates he required reinforcement that the Supreme Commander realised that unless he took the extremely undesirable step of diverting aircraft from the Hump, it would in all probability be too late to meet the threatened Japanese attack upon Imphal. Yet during the Supreme Commander's absence from Delhi, no suggestion had been made to Mountbatten's Chief of Staff by the 11th Army Group how drastically the position had deteriorated or suggesting the need for flying in reinforcements.

Telegram from
Mountbatten
to Chiefs of
Staff 15 Mar.
Cab.Hist.Sec.
SACSEA 1033

On 15 March Mountbatten telegraphed to the British Chiefs of Staff that unless he received orders to the contrary before the 18th, he would order 20 C-46 aircraft off the Hump - they had in fact already been ordered off - to fly in the 5th Division. Mountbatten's written orders were, in fact, issued on the 16th in anticipation of approval by the Chiefs of Staff; such an order was contrary to his directive as well as to his personal instructions from the President. By taking this independent action and by asking for very rapid approval on a matter of such importance, he took the risk of losing the goodwill of the U.S. Chiefs of Staff. Mountbatten, however, considered that nothing mattered but the battle and that the Hump route would in any case be lost if this went against us. Fortunately, the Supreme Commander was supported by the Prime Minister and the British Chiefs of Staff and approval came from Washington on 17 March for the aircraft to be diverted and retained for one month. The move of the 5th Indian Division began on 19 March; two brigades joined IV Corps at Imphal and the third was flown direct to Dimapur to join the first arrivals of XXXIII Corps. Some 758 sorties were flown by U.S. C-46 aircraft and Dakotas of No. 194 Squadron, R.A.F. in transporting the Division in about a quarter of the time it would have taken to reach its destination by overland routes.

Marshall to
Stilwell
17 Mar. '44
Cab. Hist.
Sect. SAC
SEA 1033

Just prior to the fly-in of the 5th Division, a parachute brigade was flown from north-west India to reinforce the Imphal garrison. An Army Air Support Control unit was likewise taken by air from Poona in western India and a brigade was similarly flown from western Bengal to Jorhat for service with XXXIII Corps. The movement by air of the ground personnel of R.A.F. fighter squadrons became a routine affair. In the second half of March, steps were taken to provide further reinforcements for IV Corps and to bring the headquarters of XXXIII Corps, the 2nd British Division and other troops to the Dimapur area. The first elements of the latter formations arrived on 3 April. In the meantime Lieutenant General Slim decided to bring in the 7th Indian Division from Arakan on the heels of the 5th and the move of the former began on 6 April.

Air Trans.
Ops. H.Q.
ACSEA. Air
Staff. A.H.B./
IIJ50/47/70

Two brigades of the Division joined XXXIII Corps at Dimapur and the third was flown in to Imphal and placed under IV Corps.

Need for Additional Transport Aircraft

H.Q. ACSEA
Air Staff
Jan. '45. A.H.B./
ILJ50/47/42.

During March 1944 it became clear that a new emergency commitment was arising for the Allied air transport organization and that the means to meet it would have to be dove-tailed into the requirements of the Allied forces fighting on other sectors of the Burma front. Extra stocks of petrol and bombs had already been brought into the Imphal plain in anticipation of the cutting of the Manipur road, a piece of prudent foresight whose value was later to be realized, but further action was now required. The situation in fact called for a general re-adjustment of the distribution of air transport resources in the light of the Japanese threat to Imphal. The fundamental difficulty lay in balancing the needs of all Allied forces being supplied by air, of allotting for their maintenance a proportionate share of the transport aircraft available and also of the administrative and logistic facilities of base airfields. But such measures as were taken on the spot by either army or air force organizations could be no more than palliatives and could do little to diminish the fundamental gravity of the situation. The 20 C-46 aircraft borrowed from the Hump would have to be returned by the middle of April and no reinforcements in the shape of fresh transport units were expected until 1 July 1944 when an American combat cargo group of 100 C-47 aircraft was due to arrive.

Tel. SEACOS 123
Mountbatten to
Chiefs of Staff
25 Mar. '44.
Cab. Hist. Sect.
SACSEA 1304.

The transport aircraft already at the disposal of the Allies in South East Asia Command, about 130 Dakotas and 20 C-46's, were working magnificently and could not be driven harder without risking heavy wastage in aircraft and crews. The existing strength of transport aircraft was, in fact, barely sufficient to meet immediate needs and did not permit the expansion of commitments which operations in Manipur might entail. An additional 100 Dakota aircraft, it was estimated, would therefore be required by Troop Carrier Command. A part of this need could be met by retaining beyond the month for which they were originally allocated, the 20 C-46 aircraft diverted from the Hump. These aircraft represented the equivalent lifting capacity of 30 Dakotas. It remained to find 70 Dakotas and on 25 March the Supreme Allied Commander telegraphed to the British Chiefs of Staff asking that this number should be provided for South East Asia Command and also that the 20 C-46's should be retained for a further period. Since the Japanese invading Manipur were operating ahead of reliable lines of communication it seemed likely that a successful defence could be turned into a decisive victory, assuming of course that sufficient transport aircraft could be made available to enable our forces to hold Kohima and Imphal.

Tel. COS(L) 1237
BCOS to JSM.
Washington
26 Mar. '44.
Tel. COS(L) 1240
27 Mar. '44.
Cab. Hist. Sect.
SACSEA 1034.

The British Chiefs of Staff agreed with Mountbatten's interpretation of Japanese intentions and with his estimate of the threat facing the Allies but could do little to help. They did, however, undertake to despatch

Tel. COPSE 76
 Chiefs of Staff
 to Gen. Wilson
 29 Mar. '44
 Cab.Hist. Sect.
 SAGSEA 1035

20 Dakotas from the United Kingdom⁽¹⁾ and agreed to examine the possibility of transferring an R.A.F. squadron of 25 Dakotas on loan to South East Asia. This was as far as Britain could go without prejudice to 'Overlord'. But since these measures would only go a small way towards meeting requirements, the British Chiefs of Staff proposed that the U.S. Chiefs of Staff should authorise the diversion of 70 Dakotas - or their equivalent lifting capacity in C-46's - from the Hump route and extend the period of loan of the 20 C-46's already diverted. Approval was subsequently obtained for S.E.A.C. to retain the 20 C-46's until the middle of May but the Americans would not agree to further diversions from the Hump air route. The Combined Chiefs of Staff therefore agreed that transport aircraft for S.E.A.C. could only be provided with least effect upon planned operations if they came from the Mediterranean theatre. Orders were given for the transfer of one U.S. transport group of 64 C-47 aircraft and one R.A.F. squadron of 25 Dakotas to South East Asia Command, the former to remain for one month and the latter until the monsoon began in May. As it seemed unlikely that large scale operations involving the use of transport aircraft would take place until midsummer, the Combined Chiefs of Staff felt that the temporary transfer was not likely seriously to affect operational commitments in the Mediterranean. Seventy-nine Dakotas (only 15 R.A.F. aircraft were subsequently provided) arrived in India early in April and began to operate immediately.

Planning Conferences held at Comilla - April 1944

14 Army
 to 11th
 Army Gp.
 3810/1/Q
 10 Aug. '44
 Cab.Hist.
 Sect. AIF
 SEA 89/6

On 29 March 1944 the main line of communication from the Imphal plain northwards along the Manipur road was cut by the enemy. The track from the plain to Silchar remained open for a few days longer but this too was soon closed. The divisions and the air forces based on the plain of Imphal had thus been encircled and a siege that was to last for some three months had begun. Henceforth they were dependent upon airborne supplies alone for their survival. A similar problem had arisen rather more than a month earlier when the 7th Indian Division in Arakan had been cut off from its supply bases and had been maintained by air. But the present crisis was on a much larger scale and it seemed likely that months rather than weeks would pass before the enemy could be expelled from the hill country and driven across the Chindwin. A preliminary meeting to discuss plans for air supply was held at the headquarters of the 11th Army Group at New Delhi on 14 April and this was followed on 17 and 18 April by full scale inter-service conferences at the Fourteenth Army headquarters at Comilla. They were attended on behalf of the ground forces by Lieutenant-General Stilwell and Lieutenant General Slim, and for the air forces by Air Marshal Baldwin and Brigadier-General Old, all with their staff officers. Representatives were also present from the 11th Army Group and from

- (1) Air Chief Marshal Peirse claimed that these 20 aircraft had already been promised to form an additional transport squadron. Aircrews had to come from local manpower resources and had to be trained at the Air Landing School in India. Since the A.L.S. required aircraft to train crews as replacements and for the new squadron the Air C-in-C. had no means of translating the promised aircraft into an accession of strength to Troop Carrier Command until the training programme had been completed.

Air Command, S.E.A. It was thus a very comprehensive gathering. Upon a review of the whole situation it was agreed that the daily tonnage requirements of the encircled units of IV Corps should be stabilised at 480, and of R.A.F. units on the plain at an additional 60, making thus in all 540 tons. On this basis a plan was agreed for the supply of Imphal.

14th Army to
11th Army Gp.
3810/1/Q
10 Aug. '44
Cab.Hist.Sect.
ALFSEA 89/6

But even at this early date it was not contemplated that a daily flat rate of delivery could be maintained throughout the period of the siege. It was assumed with some accuracy that the latter would last until the end of June and in order to meet variations in the demand for air supply from other sectors of the front, certain changes in the basic daily delivery were agreed. Upon consultation between the Fourteenth Army and Eastern Air Command, it was accepted as policy that up to the end of April extra deliveries should be undertaken so as to build up a balanced reserve of thirty days' stock on the plain. This would enable deliveries from 1 May to be reduced since the reserve would thenceforward be consumed down to fifteen days'. The rate of supplies could then be increased to the Chinese-American forces who, it was foreseen, would then be establishing their bases in the Hukawng valley in their advance on Myitkyina. From 1 June it was planned to fly-in to Imphal the full daily maintenance requirements until the completion of the operation using the fifteen days' reserve as a cushion against unforeseen contingencies. Other items agreed at Comilla included the policy of giving overriding priority to the supply dropping commitments to troops in the field since their mobility was not compatible with the holding of any considerable reserves. Any increase in their demands would have to be met at the expense of deliveries to IV Corps. Whether with the transport aircraft available the plan adopted at the Comilla conference could ever have been precisely executed must remain an academic question, since from the very beginning the current of events was undermining its foundations.

Failure of the Comilla Plan and its Consequences

Cab.Hist.Sect.
ALFSEA 306/3
Pt. II 'B'

It should be remembered that the administrative organisation behind the transport aircraft had been improvised by the Army and air forces and that it was no fault of the staffs of either service that the Comilla plan began to go awry. The causes lay further afield. The position in north-central Burma was such that a decision had soon to be made at Fourteenth Army headquarters that certain aircraft earmarked for the supply of Imphal would have to be diverted to meet the more urgent needs of Wingate's Special Force and some time then elapsed before the requirements of the latter could be standardized. There were various unforeseen movements of personnel by air, including those of an army brigade and some R.A.F. squadrons. The commitments to the West Africans in the Kaladan Valley proved both heavier and longer than had been anticipated. The carriage of 324 tons of Bithess from Calcutta early in May in the attempt to make the landing ground at Tulihal weatherproof further ate into the services of the transport aircraft available. But above all there was the capricious behaviour of the weather. In June it was to be more favourable than calculated, with the resultant stimulus to air deliveries, but in April and May the reverse was to be the case. Bad weather not only prevented flying for hours and even days, it also concentrated supply operations into the fair periods during which the administrative symptoms of strain and congestion described

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elsewhere⁽¹⁾ were greatly magnified. Moreover, the facilities and installations at Imphal and Kangla and also at the base airfields were subjected to demands which could not be met.

Cab.Hist.Sect.
ALFSEA 306/3
Appendix 'G'
Tel. 174
SAC to COS
2 Jun. '44
A.H.B./ILJ
50/97

The inevitable result was that deliveries soon began to fall short of the figures agreed at Comilla and by May a serious backlog was developing. As soon as the plan began to fail measures were taken on the spot to minimise the deficiencies in supplies. The scale of rations for the troops on the Imphal plain had already been reduced early in April to sixty-five percent of the regular field service standard and no further reduction was possible without endangering their fighting capacity. Casualties were normally flown out by transport aircraft on return sorties and two entire hospitals were now evacuated westwards by air. As a further measure some 50,000 men were to be removed from the plain, troops engaged mainly upon administrative duties and whose presence was not essential for defence. During May nearly 30,000 such were evacuated. Similar measures were taken to bring down the requirements of the R.A.F. units on the plain. These had already been reduced both by the need for supplying air cover to the operations of XXXIII Corps in Assam and because of the difficulty of providing adequate guards for aircraft by night. In the course of May the number of squadrons fully based on airfields in the Imphal plain was brought down to a minimum. For air defence there remained the Spitfires of Nos. 607 and 615 Squadrons at Imphal and Palel and the detachment of night fighters of No. 176 Squadron now at Tuliha. The Hurricanes of No. 1 (I.A.F.) Squadron engaged upon tactical reconnaissance for IV Corps formed another unit at Imphal. Apart from these, there were two squadrons of Hurricane fighter-bombers (Nos. 42 and 113) at Kangla and Tuliha and the ground attack 40 mm. Hurricanes of No. 20 Squadron at Imphal, for the land forces were unable to dispense with the close support they gave and their short range made it impossible to operate effectively from bases in the Surma Valley. There remained only the R.A.F. Regiment, which was reinforced by some additional flights flown in, a few indispensable signals and maintenance personnel and a small mobile field hospital. As a final measure the A.O.C. No. 221 Group split his own headquarters and sent the administrative sections back to Silchar.

HQ. ACSEA
Air Staff
Jan. '45
A.H.B./ILJ50/
47/42.

In the process of flying in supplies to Imphal, little could be done to alleviate the effects of the weather, though something at least was attempted. The worst stretches of the route from the base airfields to the plain of Imphal nearly always lay over the high mountains immediately to the west of the plain. Often when aircraft were unable to penetrate the storm and cloud around them, the skies were relatively clear over the first portion of their journey while IV Corps, with fine weather also over the plain, often could not understand why aircraft were not bringing in supplies. It not infrequently occurred that transport aircraft took off, reached the mountains not far from the plain and then had no option but to return. Sometimes they flew to their own base airfield, however distant, and sometimes they were forced to land at the nearest serviceable airfield with their freight. In order to reduce to a minimum the westward flying of transport aircraft compelled by the weather to return to their base, and

(1) See Pages 108-114.

also to lessen the administrative difficulties bound up with the landing of stores intended for Imphal at any of a dozen airfields in eastern Bengal or Assam, a staging depot was established at Kumbhigram. At this easternmost airfield west of the mountains, Dakotas balked of their entry into the plain could land and discharge their freight. When sufficient stocks had accumulated at Kumbhigram, they were flown over the mountains at a favourable moment, the flying hours consumed by the second transshipment being thus reduced considerably.

Ibid.

A small detail of co-operation between the R.A.F. and U.S.A.A.F. deserves mention at this point. Since the base airfields from which the transport aircraft operated lay far to the east of the maintenance units where demands for all items of equipment were met, much time was lost in obtaining articles required unexpectedly at the former. A local arrangement therefore emerged between the British and American squadrons for the interchange of spare parts from forward stores and crashes. As a result of this agreement many an aircraft which might otherwise have been grounded for days or even weeks was back in the air within a few hours.

The Need to Maintain Transport Aircraft strength

SEACOS 148
Mountbatten
to Chiefs of
Staff. 1 May
'44. A.H.B./
IIJ50/97

Despite the reinforcements from the Middle East, and the extemporaneous measures taken when the Comilla plan began to fail, the backlog continued to mount up so that by early May the situation again became critical. The Dakota squadrons borrowed from the Mediterranean were to be withdrawn from operations on the Burma front on 8 May and no further reinforcements were expected until 1 July. Meanwhile the stocks at Imphal were dwindling and any reduction in the number of transport aircraft would have brought to the foreground the disastrous alternatives of either leaving the four divisions on the Imphal plain to surrender, or ordering them at whatever cost - it might have amounted to their existence - to fight their way out as best they could. In either case the Japanese would have scored a major victory and secured possession of the plain. On 1 May the Supreme Allied Commander telegraphed the Chiefs of Staff asking permission to retain the 79 Dakotas on loan from the Middle East until the battle in north Burma had been settled or until the arrival of the first combat cargo group from the United States. As an alternative it was suggested that 48 C-46 aircraft should be withdrawn from the Hump air route to bridge the gap between the departure of the 79 Dakotas to the Mediterranean and the arrival of transport aircraft from America. This latter proposal was not favoured by the Chiefs of Staff, however, since a serious situation had developed in China which demanded that the maximum tonnage should flow over the Hump into that country.

Tel. No. 2413
Combined Chiefs of
Staff to SEAC.
6 May '44
Cab. Hist. Sect.
SACSEA 1038

SEACOS 155
Mountbatten to
Chiefs of Staff
8 May '44.
A.H.B./IIJ50/97
SEACOS 157 11 May '44
CABX 1193
Stratemeyer to
Mountbatten 11 May '44
CAB. HIST. SECT.
SACSEA 1039

As a solution to the transport aircraft problem in South East Asia the Combined Chiefs of Staff agreed that the 79 Dakotas could be retained for a further period but that they must return to the Mediterranean by 31 May. The Americans arranged an earlier despatch of 100 C-47's from the United States, the target date now being 22 May. This, however, left a probable gap of 10-14 days between the departure of the 79 Dakotas and the date on which the Combat Cargo Group could be made ready for operations in South East Asia. Mountbatten and Peirse still hoped to bridge the gap with 48 C-46 aircraft from the Hump but Stratemeyer, who was unwilling to interfere with the business of supplying China

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Tel. 2590
Combined
Chiefs of
Staff to
S.E.A.C.
16 May '44
Cab.Hist.Sect.
SACSEA 1039

during a critical period in that theatre, recommended that supplies to Imphal should be carried in aircraft of the Strategic Air Force. These differing views were not put to the test for the problem was resolved on 16 May by the Combined Chiefs of Staff who, despite a protest by the Supreme Commander in the Mediterranean, authorised the retention of the 79 Dakotas in S.E.A.C. until the U.S. Combat Cargo Group became operational. Under no circumstances, however, could the Middle East aircraft be retained after 15 June and Mountbatten was urged to despatch some or all 79 aircraft as and when replacements became available.

Tel SAC 2424
Mountbatten
to Joint Staff
Mission,
Washington 15 May
'44. Cab.
Hist. Sect.
SACSEA 1039

As a final measure of self help within the Command, the Strategic Air Force was taken into service as a transport auxiliary, although the Air Commander-in-Chief only agreed to this at the end of May when the monsoon rains placed some restriction upon long range strategic operations. The assumption was that the earlier use of bomber aircraft for ferrying operations would have affected, among others, the Imphal battle, for the Strategic Air Force had, during the 1943-44 campaigning season, carried out an energetic assault upon enemy lines of communication in Burma and beyond. There is no doubt that these operations had a considerable effect upon the enemy's ability to maintain and reinforce his troops in Manipur. R.A.F. Wellingtons and American B-25's were withdrawn from their normal bombing operations in May, the former to carry the bombs subsequently to be dropped by Hurribombers on the besieging enemy forces, and the latter to ferry stocks of army ammunition. Other bomber crews were transferred to fly, after some training, the replacement Dakotas which the maintenance organization, by dint of virtually stopping all other work, was feeding to the squadrons. The bomber crews diverted for this task, whether flying their own aircraft or transferred for the time being to Dakotas, proved both keen and apt in their novel role. It was remarked that on the day the worst weather was experienced the best flying performance was that put up by a Wellington pilot who had only been converted to Dakotas for this specific operation.

The Struggle to Sustain the Imphal Garrison

Cab.Hist.
Sect. ALF
SEA 306/3
App. 'G'

It was indeed fortunate that the strength of transport aircraft in S.E.A.C. remained fairly constant for in the event only by a narrow margin were the defenders of Imphal supplied. At the beginning of June 1944, stocks at Imphal had sunk low and were still diminishing. On the first of the month, rations were held to cover sixteen days only, aviation fuel for seven days and there were no basic reserves of ammunition. IV Corps had asked for a daily supply of 475 tons but the Third Tactical Air Force had refused to commit itself to more than 373 tons and fell short even of this during May and the early days of June. It is hardly surprising, therefore, that Mountbatten became apprehensive of the ability of the air forces to keep IV Corps supplied and he held different views to the air commanders as to the underlying cause of the position at Imphal and its resolution.

SAC(44) 233
113th Meeting
Item 5. 7 Jun.
'44. Cab.
Hist. Sect.
SACSEA 1042

The Supreme Allied Commander considered that the air forces had been too optimistic in estimating the support that could be given in the provision of supplies for the Imphal garrison. He averred that the critical situation that had developed at Imphal was due, in part, to the inaccurate calculations of the air supply capacity of

(13437)

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SEACOS 176

Mountbatten to
 Chiefs of Staff
 8 June 1944.
 A.H.B./IIJ
 50/97

Tel. U.912
 Stratemyer to
 Peirse 8 Jun.
 '44. Cab.
 Hist. Sect.
 SACSEA 1042
 Tel. ACC/953
 Peirse to SAC
 3 Jun. '44
 Cab.Hist.Sect.
 SACSEA 1204

transport squadrons and bad estimates of the effect that monsoon weather might have upon operational effort. Mountbatten had indeed placed the position squarely before Peirse on 23 and 29 May and had received definite assurances that the supply of the Imphal garrison could be easily accomplished given reasonable weather conditions. An analysis of air supply operations, however, indicated that supply undertakings were not being met and that the situation was deteriorating. As a result a telegram was despatched to the Chiefs of Staff which included a statement to the effect that the Supreme Allied Commander reserved the right to ask for a diversion of aircraft from the Hump route if the position at Imphal became so desperate as to threaten the security of the Assam line of communication. For while it was clear that the Allied forces had to be given the maximum assistance, in the form of supplies, to counter the Japanese offensive in China, our forces there would be in grave danger if the Imphal battle was lost. The Allied air commanders, and Stratemyer in particular, were adamant that additional transport aircraft could not save Imphal and should not, therefore, be demanded from the Chiefs of Staff. Both Stratemyer and Baldwin held the view that sufficient aircraft were available to meet army requirements and to make up the back-log, if weather conditions allowed. In any case no bases existed to accommodate extra transport squadrons nor could the air supply ground organisation deal with additional aircraft. Thus the delivery of adequate supplies to Imphal rested largely upon the weather factor.

Owing to the success of measures taken to increase efficiency, together with an improvement in the weather, the air supply corner was turned by mid-June. But by then the ground situation had appreciably improved, it was evident that the Japanese were heading for disaster and the opening of the Manipur road had become a matter of days. The improvement of the supply situation was marked and although the road was at length opened on 22 June, the delivery of supplies by air continued at maximum rate until the end of the month in order to record the figures and problems of air maintenance on such a scale. The average delivery daily during the last week of the month amounted to 517 tons, so that at the end of the siege some start was being made in reducing the back-log. It is therefore worth stressing that even if the Japanese had been able to continue their investment of the Imphal plain into July, the garrison would in fact have been in better shape as far as supplies were concerned than it was a month earlier. It was a pure coincidence that almost within a week of the solution of the primary and short term maintenance problem the Manipur road was opened and the siege raised.

The Administrative Background of Airborne Relief

The crucial difficulty in maintaining the Imphal garrison by air was not the need for transporting sufficient supplies to enable it to hold out until the Manipur road had been reopened. When the siege was raised the Allied troops, though on short rations, were being adequately supplied and there was no limit, save that of ordinary human endurance under siege conditions, to their resistance. The problem was, in fact, twofold. Short term, it was to maintain by air an even flow of supplies needed for the defence of the garrison. Long term, it was to select, assemble and deliver all the varied articles necessary to transform defence into offence. The former was solved, as already explained, before the Manipur road had been reopened, but the latter

continued to provide food for thought. Apart from the air side of these problems there was also the ground aspect, military and administrative in character, which deserves scrutiny. It included the expansion and continual readjustment of the air supply units⁽¹⁾ whose functions involved the close collaboration of quartermaster, engineer and air liaison officer.

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Although the years 1942 and 1943 had witnessed a prodigious development in the construction of airfields with their ancillary installations in eastern Bengal and Assam, there were never too many for the weight of operations they had to sustain. Air transport operations in support of the Fourteenth Army were mounted mainly from the airfields at Comilla and Agartala. There were in existence only two established air supply depots to support them, though supplies were also stored elsewhere, at Chittagong for instance where stocks of air force petrol and ammunition existed. The main commitments in March 1944 were the supply of the 81st West African Division in the Kaladan and Wingate's Special Force in north-central Burma. When there suddenly arose the obligation of maintaining by air a large body of troops on the Imphal plain, it became necessary quickly to expand and re-organize the whole air supply organisation. This process brought with it a train of urgent supplementary problems in accommodation, storage, transport by road and rail and so forth. Extra depots were built up according to the capacity of the local railway, and on this basis the additional motor transport and labour were provided to carry stocks to store and thence to the aircraft. Handicaps were considerable. Save at Chittagong, where a second runway could be used, none of the airfields brought into use for air transport operations possessed sufficient hardstandings or taxi-tracks adequate for the quick loading and turn round of aircraft. And even though the existing depots were used as far as possible, their organisation had to be adjusted to meet novel needs. They had in the main been developed as bases to supplement inadequate land lines of communication and it had not been foreseen that they would become universal providers to an entire army corps fighting for its life.

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At base depots to the west, mainly in the Calcutta area, supplies were segregated according to their destination at one or another forward airfield depot. The wagons of the Bengal and Assam railway then conveyed them further eastwards to one of the river ports whence they were shipped across the Brahmaputra, a river unbridged throughout its length. The journey continued on the far bank along the few and remote lines which in days of peace had served the needs of rural East Bengal but now, despite the doubling of tracks and other improvements, were strained to capacity with military traffic. At their destination the supplies were unloaded and put into extemporized store until such time as the needs of Allied troops in the field dictated their removal. The air supply companies at the various depots were responsible for the reception, handling and storage, and later for the accurate and speedy production and delivery to the transport aircraft of the goods thus conveyed to them, a task with endless ramifications.

(1) These units were formed by the Indian Army Service Corps and located at air transport base airfields.

Despite the administrative experience that had been gained in almost two years of experiment and achievement, the air supply of the Imphal garrison gave rise to many problems and intensified a number of old ones, so that adaption and improvisation remained the prime necessities of the air supply companies. It was, of course, the size and comprehensive nature of the Imphal commitment that distinguished it from other air supply undertakings alike past and present. During the period 18 April to 30 June 1944, in which the garrison at Imphal was maintained at maximum rate and diversity by air, very nearly 18,000 tons of supplies passed through the custody of the air supply companies and were conveyed by air to the Imphal plain. Of these, not far short of 5,000 were handled in May alone, several times the quantity carried during the same month to the next highest consumer of airborne supplies - the 81st W.A. Division in the Kaladan valley. In June the bulk was much greater still.

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14th Army to
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The needs of IV Corps were stated weekly, the list of demands reaching the headquarters of the Fourteenth Army on Tuesday for requirements to be met from the following Monday onwards. It included not only the amounts of the constituent articles of supply but also their geographical distribution and priority. There would then follow a conference between the representatives of Fourteenth Army and Troop Carrier Command⁽¹⁾ at which the needs of the Imphal garrison and the demands from other sectors of the front were co-ordinated with the aircraft that might be available. The basic assumption in planning was that each aircraft should fly for six hours daily, making two trips on each of which it would carry 7000 lb. Allowances of one third were made for ground maintenance, and to offset the unfavourable weather a further fifth was added. It was, of course, axiomatic that no aircraft might refuel on the Imphal plain. The weekly commitment thus formulated at the army and air force headquarters were then transmitted day by day to the air supply depots and to the operations rooms where the units of the two services could arrange the details of their work.

Ibid

The stocking of air supply depots gave rise to a small difference on a point of policy, as between the army and air forces, which was solved by compromise in the course of operations. The military administrative authorities preferred to stock any given commodity at one airfield only, in order to simplify storage, economize in personnel and ease the adjustment of priorities. Such a policy, however, involved wastage in flying aircraft from airfield to airfield to collect the ingredients of a varied freight, and was regarded by the air forces as suggesting that the military planners regarded aircraft as lorries rather than ships. They favoured the mixing commodities at each base airfield supply depot. In the event, the supply bases at Agartala, Comilla and Jorhat developed as mixed depots, while Chittagong specialized in fuel and ammunition, Fenny stocked the fuel and lubricant needed for R.A.F. units on the Imphal plain, general miscellaneous stores were kept at Sylhet and mail was delivered direct from Calcutta.

The movements of transport aircraft were planned so as to make the maximum and most economical use of the available

(1) From 4 June 1944 the conference was held between Fourteenth Army and Third T.A.F. since Troop Carrier Command was dissolved on that date. See Chapter 1.

resources. For instance, an aircraft based on Agartala might open the day by dropping supplies to the West Africans in the Kaladan valley; on its return northwards, it would land at Chittagong and pick up a load for delivery at Imphal and then complete perhaps a further two or three sorties. Troops belonging to 16 Brigade of Wingate's Special Force, which were flown back from north Burma in May, were carried in aircraft based on Sylhet which first dropped supplies, then landed on a jungle strip to gather up their passengers; the troops were then flown to and deposited at Imphal, later to be collected by other aircraft, which had brought supplies for IV Corps, and were ready to take them further west. The aircrews, British and American, who flew these aircraft worked often to a point of exhaustion. When the weather was favourable there was no limit to the number of missions on which they might be required to fly. Their working hours extended throughout the hours of daylight and often also into the night. They snatched a meal when they could and were glad, after their freight had been unloaded, when they could take on a fresh cargo without having to wait on a sun-baked landing ground while stocks were being taken out of store and were being driven to them. It had been the original intention to accumulate stocks of supplies for 30 days, packed rations included, at or near each base airfield but save at Agartala this was never fulfilled. Owing to transport hitches, stocks were in fact not accumulated to cover more than seven days ahead and indeed frequently no stocks were accumulated at all.

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It deserves some mention at this point that the allocation of priorities in aircraft loads, as between the R.A.F. and Army components of the Imphal garrison, rested at first with Troop Carrier Command and later with Third Tactical Air Force, who did their best to judge the matter impartially. For considerable periods the delivery of supplies as a whole was largely on a hand-to-mouth basis, and whenever the question of allocations between the two services arose, the criterion for allotment was simply the urgency of the need. And so when R.A.F. stocks of petrol were small, aircraft which would otherwise have carried reinforcements for the Army were diverted to the ferrying of aviation spirit. On another occasion, when army stocks had sunk low, ammunition was carried in aircraft which would otherwise have lifted bombs or fuel for the R.A.F. The good faith of these emergency allotments as between the services was never even questioned and indeed they illustrated how there existed a close spirit of collaboration between headquarters staffs, and between squadrons and air supply companies on the airfields.

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A fundamental and inescapable difficulty of the air supply companies arose from their buffer position between the two services which functioned in sharply contrasted ways. The military administrative authorities, measuring exactly the capacity of railways, roads and waterways, could make nice calculations as to the quantities of supplies that could be transported from place to place, the time taken in transit and the number of personnel required for handling and storing goods whose flow could be reckoned at a fixed rate. The air forces were not in a position to offer corresponding certainties in the carriage of supplies. Apart from the intricacies of aircraft maintenance and repair, complicated as they were by the acute shortage of certain spares, there was always the weather to be regarded as an imponderable but nearly always unfavourable factor. After the onset of the monsoon, the operations of transport aircraft inevitably tended to become concentrated into the fair intervals in which

it was possible to negotiate the mountains surrounding the Imphal plain and during which the quick loading of aircraft became an intensive and exacting process. For instance, the movement capacity of the local railway made it possible to plan a daily delivery of 200 tons of supplies from the airfield at Sylhet and a sufficient number of transport aircraft were always available there to carry this amount as an average. But it was found, in practice, that owing to the weather the daily lift fluctuated from ten to three hundred tons and it became clear that if full advantage were to be taken of fair intervals, lorries and labour would be required to handle the maximum rather than the average lift. The air supply companies bore the brunt of the trials of the period of transition and stress before this ineluctable principle was accepted.

Under the strain of this and of kindred perplexities, the organisation of the air supply companies during the period of the siege became more complicated and specialized. Among the administrative developments that occurred before the relief of Imphal was the formation of skeleton staffs on each airfield to ensure the closest possible liaison between the neighbouring air supply companies and the local air force commander. They bore the title, Rear Airfield Maintenance Organisation, and dealt with such topical and domestic problems as were raised by the presence on the airfield of army lorries and pioneers, and of coolies employed by the air supply companies. The comings and goings of these folk were apt to be independent of airfield discipline and they had to be taught that movements across a runway, if unavoidable, must be restricted to occasions when there were no aircraft either about to take off or coming in to land. It was the business too of the Rear Airfield Maintenance Organisation, to ensure that loading parties should not seek after dusk in vain, among the camouflaged pens and taxi-tracks, for aircraft destined for operations early the next morning. Their problems, though they might appear small, were multitudinous and, as they all lay between two services, called for much improvisation and tact in their solution.

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The close liaison which was in fact maintained between army and air forces bore witness to the successful efforts of all concerned, though it would not have been human if there had not been small questions of alignment and co-ordination arising from time to time at the base airfields. One source of trouble was the inaccuracy of the Indian drivers conveying freight from the air supply depots to transport aircraft. Most of them had probably never set eyes until very recently upon the strange flying machines. They were now required to take their vehicles into close proximity of aircraft and they were unfamiliar alike with their grotesque shape and obtrusive external parts; on occasion they bumped into wing or tail, thereby causing the postponement of a flight by perhaps many hours until the damage had been repaired. There were sometimes difficulties also with the pioneers, likewise Indians, whose business it was to load aircraft, but who were not always physically capable of handling the weighty packages which sometimes comprised the freight. In times of greatest activity, as during fair weather periods, they worked hard enough but tended to feel the strain and there was nothing for it but for transport aircraft crews to take a hand in the loading. On these occasions too a lack of motor transport to convey supplies to waiting transport aircraft was sometimes felt. Lest, however, it should be thought that the difficulties at the base airfields were all caused by army personnel, it should be mentioned that a speedy refuelling of aircraft - a purely

air force responsibility - also constituted something of a problem. Bowsers were always in short supply and at several airfields the number of petrol filling points at the bulk installations were inadequate to deal with the requirements. Moreover, the pumping machinery was insufficient and on fair-weather strips the bowsers had excessively long distances to travel for refuelling.

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Para. 18
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Once the freight had been finally packed into the aircraft, its custody and delivery became solely an air force responsibility. Unless the weather had been pronounced as impossible by the Meteorological centre, the aircraft accordingly took off at the scheduled hour to find its way to the plain of Imphal. At this point all depended, not on planning, but on individual airmanship and experience. By far the greater part of flying was done blindly on instruments for among the crews of transport squadrons, the Imphal trip carried the worst reputation for weather. Although the Fourteenth Army considered it a factor which did most to disorganize the planned maintenance programme, the number of abortive sorties was surprisingly low, the rate in May - the worst month - being less than six percent. The most up to date devices for homing aircraft were not all available, yet it was possible to help those aircraft passing through the clouds over the surrounding mountains by utilizing the fixing stations at Tulihal, Kangla and Palel. These were too close together in their emergency sites around Imphal to fulfil their primary purpose, but were of use in passing bearings to transport aircraft that might guide them to the plain. A homing beacon was later established near the airfield at Tulihal. But even when the weather had done its worst and the aircraft had safely reached the plain, there remained pitfalls in store. Those responsible for the safe landing and parking of aircraft often had their work cut out for them at the Imphal and Kangla landing grounds, particularly in the clear intervals after a bout of foul weather. This was so above all towards the end of the siege when the daily delivery of supplies was reaching its climax. At Imphal, where there was little taxiing space, it became necessary for incoming aircraft to land in one direction and outgoing to take off in the other, the traffic being reversed every few minutes - a strange and impressive sight. The runway there, to add to the difficulty, was very narrow and ran closely parallel to a ditch flanking the embanked main road so that the situation lent itself to accidents. Although wrecked aircraft were removed with all speed, there were times when the strip was obstructed for a considerable period. On one occasion a Dakota ran down and severely damaged three Spitfires one after another near the runway. But on the whole, the wonder was that such accidents were not more frequent than they were. On the days of intense traffic, aircraft in order to avoid congestion, were often kept circuiting the landing ground for some time, a procedure which could hardly be expected to prove other than a strain on the flying discipline of their pilots. Only the unexpected availability of the fair-weather strip at Kangla prevented overcrowding at Imphal from proving a serious hindrance in the flow of airborne supplies.

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At their destination on the plain the transport aircraft were unloaded, a work in which the cheerful and gaily clad Manipuri women would collaborate, and their freight would once more pass into the hands of the army. The congestion at Imphal was eased, to some extent, by the formation of an organisation known as the Imphal Ground Control. It collected and distributed to their destinations,

all incoming stores, including the small portion not landed but dropped at the regular supply dropping zones on or near the plain. It also held responsibility for the rapid unloading and reloading of aircraft and also the general supervision and control of the motor transport and labour required for these tasks. The problems of the Imphal Ground Control were similar in some ways to those of the air supply companies at base airfields, particularly in so far as they arose from the great and unpredictable fluctuations in the influx of freight; but they were complicated by the additional difficulties common to all units working close behind the front. The Imphal Ground Control also supervised the movement of army personnel. During the siege, the reinforcements flown piecemeal in to IV Corps totalled over 12,000. In the other direction as already mentioned, nearly 30,000 troops on administrative duty, whose presence was not absolutely essential, were carried westwards over the mountains. In addition the 10,000 odd casualties evacuated by air during the same period passed through the hands of the Imphal Ground Control before their care became an air force responsibility on their arrival at the Imphal airstrip. The evacuation of casualties by transport aircraft on their return journey was no new phenomenon in South East Asia, but during the siege of Imphal was effected on an unprecedented scale proportionate to the size of the garrison that was being maintained by air.

Life of the Royal Air Force Units on the Plain of Imphal

At the beginning of March 1944, the plain of Imphal was as full of activity as befitted one of the most important advanced Allied bases in South East Asia. The numerous air force units established there had mostly had time to develop the local community spirit and could fairly be said to have settled down in their new environment, though there were shortages and stringencies usual in a pioneering settlement. No. 221 Group Headquarters and most of the units were housed in basha huts; some were using requisitioned Manipuri mud and wattle cottages and a few were living under canvas. At Group H.Q., the A.O.C. in person opened a new airmen's canteen on the evening of 3 March. Sport flourished. Efforts were being made to provide organised entertainment for those who sought it when the day's work had been done; at the Garrison theatre at Imphal an E.N.S.A. team presented a show that was well liked and there was also a concert party and a mobile cinema on the plain. If the latter functioned with less efficiency than American cinemas on other parts of the Burma front, no doubt the reason could be found in the difference in the quality of equipment and in the condition of the films exhibited. In another important aspect did the Americans score heavily over their less fortunate allies; the former derived much benefit from their canteen organisation which provided their troops with cigarettes, beer and the like of American origin. British troops, on the other hand, had for the most part to be content with canteen stores obtained from Indian sources. This condition was a legacy of pre-war days when the Government of India, who financed the British-Indian armed forces, barred the way to N.A.A.F.I. supplies in favour of the inferior indigenous provisions. The contrast in quality between N.A.A.F.I. and Indian canteen stores was clearly illustrated within S.E.A.C. itself, for in Ceylon N.A.A.F.I. functioned to the benefit of the troops stationed there. In Ceylon the troops had better beer, better cigarettes, better whisky and gin and were probably better fed than their unfortunate comrades in India.

But the armed forces stationed in isolated areas such as the Imphal plain had a different sense of values than those located in large centres of population. Consequently even a well worn film could provide a good deal of pleasure while 'live' shows were invariably welcome. Visiting entertainers did not always confine their work to the comparative civilization of Imphal itself; one famous comedian performed far to the east at Tamu on 5 March, where men of a radar outpost greatly appreciated a twenty minute show that he gave in one of the aircraft bays, using the bonnet of a jeep for his platform. There was also more home-made fare to supplement outside sources of entertainment. Quizzes, debates and gramophone concerts were frequently organised at a number of units. In another direction it deserves mention that the Ghurka-like Manipuris were considerably more esteemed in the services than the Indians of the plains. But it was the comparatively temperate climate that, above all, gave the Imphal plain a good reputation as a spot to be stationed.

However, there had already progressed the train of events that was greatly to modify the accepted service way of life on the plain. All ranks and trades were quickly to find themselves taking part in highly intensified defence measures. The digging of fortified positions and the provision of guards and patrols on a greatly extended scale was soon to occupy all the time that could be spared from the fulfilment of the usual servicing of aircraft and the other ancilliary tasks. The men of the maintenance party at Tulihal marvelled, in the opening days of March, at the arrival and departure from their airfield of the great host of transport aircraft which, had they but known it, was merely part of the armada that was conveying General Wingate's expedition to Burma. A little later, there was similar amazement at Palel when in the course of a few days the 5th Indian Division, complete with artillery and Jeeps, was disgorged direct from Arakan from another fleet of transports. Clearly something was afoot and a number of rumours were current for a short space until the situation became clear and the necessary information could be given.

By the middle of March the threat to Imphal had become very evident. Enemy air interest in the plain had become perceptible, while on land his troops had reached the Kabaw valley and were menacing Tiddim. On the evening of the 17th, the A.O.C. gave a talk on the general situation, in that same airmen's canteen which he had so recently opened, and elsewhere the latest information was brought to the notice of all ranks. The order was given for all men to carry arms. In case the telephonic land-lines should be cut, an emergency net-work of communications had been prepared. By 19 March units had begun to move into defended positions and the process of adaption to siege conditions had fairly begun.

Those responsible for the defence of the Imphal plain were under no illusion as to what to expect. It was on 7 March that at a conference called by the R.A.F. Defence Officer at No. 221 Group H.Q., the general principles of defence were explained to representatives of the various units. In the event of an enemy offensive threatening Manipur, the R.A.F. formations would be fitted into the general scheme of defence as planned by IV Corps. This hinged upon the creation around a central 'keep' of compounds, or 'boxes', each holding as many men as would ensure its effective defence, all to be self-contained but mutually supporting - tactics which in the recent past had

been found effective against the usual Japanese offensive methods. The inmates of each box would provide the necessary number of guards and patrols and for their protection would utilize entanglements, bunkers, trenches and other simple but effective devices akin to those which had been exploited time and time again since their forefathers in a distant corner of the world had employed them to stave off the Roman invasion of Britain, nearly 2000 years earlier. Within a day or so of the conference at No. 221 Group, the sites for the future boxes had been chosen and men of the R.A.F. units on the plain were working with a will at all possible moments digging and building and practising with an intensified vigour the use of sten guns and hand grenades. Mock alerts were sounded to test the speed with which the improvised defences could be manned and everyone prepared with a good heart for the coming fray.

Housing conditions in the boxes varied. Some were composed of orthodox bashas and tents, others included portions of Manipuri mud and wattle cottages while of others it was claimed that they were entirely underground. But the cramped and often very uncomfortable conditions inseparable from the quartering of several units in a box were cheerfully borne. A major difficulty, however, was the need for providing aircraft guards and defensive patrols by night, though these were really the responsibility of the army.⁽¹⁾ Moreover, the R.A.F. Regiment could provide only a limited number of men for duty on the plain.⁽²⁾ It was not uncommon for a quarter of the total squadron or unit strength to be on guard duty at night, while on occasion this rose to fifty or even one hundred percent manning of defences. But it could hardly be expected that men whose sleep was regularly broken at night would remain efficient servicers of aircraft or keepers of a radar watch by day; and so, to relieve them and to solve the guard problem, aircraft were sometimes flown out in the evenings to airfields further west, the ground crews being split into an advanced servicing party on the plain with the main body located at the rear airfield.

Conditions were particularly difficult at Palel where Japanese troops were only two or three miles distant. The members of No. 42 (Hurricane) Squadron stationed there moved, on 19 March, into a defensive box which had been built around a small hill at the southern end of the landing ground, the aircraft being parked in bays around the hill. The box consisted of a series of slit trenches dug by the Squadron, protected by sandbags and sited to defend the aircraft. Squadron personnel not only worked, ate and slept in the box but provided guards by night out of their own numbers; it was invariably overcrowded and owing to water rationing lacked adequate washing facilities, so that there were some cases of dysentery. Although the box possessed the essential qualification of being well sited from the defensive point of view, it was not suited for prolonged occupation. There were no communication trenches between the defence points and it was impossible to construct them because of the

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- (1) Details of the policy and events relating to the defence of R.A.F. airfields and installations on the Burma front will be found in the R.A.F. Regiment Monograph.
 - (2) Owing to the global manpower shortage action was afoot to reduce the size of the R.A.F. Regiment. But the timely intervention of the Air C.-in-C. enabled the Command to preserve the majority of R.A.F. Regiment units in S.E.A. See further the R.A.F. Regt. Monograph.

taxi tracks. Consequently, each man was immobilized in his particular trench during the hours of darkness and had there been casualties it would have been impossible for the medical officer to reach them. There was little provision for the supply of food in case of a lengthy attack, so that each individual was dependent largely upon his emergency rations. There were usually air raid warnings at least once each day, although the enemy target did not generally lie at Palel. The hard work and excitement, including two enemy ground attacks on the airfield, proved too much for some of the more highly strung individuals and there were a few cases of anxiety neurosis. The first ground attack occurred on the night of 30 April in which a party of about 100 Japanese took part. They were held up by the wire entanglements so they fired their machine-guns and threw grenades in an attempt to destroy the aircraft, but no damage or casualties resulted. The following night, an hour after dusk, a second attack developed and firing broke out all round the box. One airman, trying to reach his slit trench, was shot, probably by his own comrades, and died almost immediately. Although firing continued throughout the night there were no further casualties. As a result of these attacks it was decided, early in May, to remove the unit. Yet despite the conditions No. 42 Squadron during April 1944 flew 506 sorties and dropped over 100 tons of bombs on the enemy - an achievement of which the pilots, who were at readiness from dawn to dusk, and the ground crews who serviced the machines, might well feel proud.

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In some ways the men of the radar outposts had the rougher time. In the normal course of events they had to maintain a twenty-four hour watch and they were also responsible for the safety of very valuable and highly secret equipment, while on the other hand they could only operate effectively in advanced and exposed positions which made them vulnerable to air and ground attack. The station at Tamu was the earliest to be effected by the enemy advance; in the small hours of 10 March rifle and machine-gun fire broke out in its vicinity and its men were given the stand-to warning. Guards were subsequently doubled and in the days that followed it became clear that the Japanese were trying to encircle the area. Finally, on 17 March, the headquarters of the local army division gave orders to pack up the heavy equipment and on the following night it passed in convoy westwards to the Imphal plain along the endangered road. Even on its new site within the perimeter of the plain the station found itself menaced by Japanese patrols and its diesel engine had to be stopped at night lest its noise should betray its whereabouts to the enemy. These experiences were by no means unique; other radar stations also operated with the enemy more or less on their doorstep and the buildings of one, for instance, were burnt down as a result of enemy shell fire. Nevertheless, the men working under these conditions of strain and emergency proved well able to continue the work of detecting-as far as topography allowed - the approach of enemy aircraft and to retain their key position in the air defence organization of the plain.

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Such endurance could no doubt be associated mainly with the heightened morale perceptible on all units as the enemy drew nearer. The operations of the day entered into the lives of all in a fashion normally out of the question. From many points of advantage on the hillocks that studded the plain, it was possible to observe the enemy positions on the surrounding hills, and the sound of gunfire was everywhere and often to be heard, sometimes close at hand. Lectures on the military situation were regularly and

frequently given to intensely interested audiences of all ranks, an activity in which the army liaison officers proved most helpful. The ground crews of the fighter-bomber squadrons, after servicing and loading their aircraft, were able without interruption to watch the latter take off, fly to a target visible perhaps no more than four or five miles away, drop their bombs and return - an unusual demonstration which unquestionably helped in the maintenance of so high a serviceability rate for aircraft despite the countervailing difficulties.

Perhaps it was the very absence of so many wanted amenities that helped to stimulate the men on the Imphal plain. Mail, of course, continued to arrive by air. Newspapers, however, were no longer delivered though a local R.A.F. news sheet 'The Imphal Daily News' was issued, from 14 April onwards, by the Intelligence Branch of No. 170 Wing so that the progress of events both locally and in other parts of the world should be made known to all. At Palel and at other stations in close proximity to the enemy, there was little to do beyond the daily round of work with its superimposed guard and patrol duties but sleep, for in addition to the strictest blackout, silence was enforced from twilight to dawn. At one time it was believed that small enemy groups had managed to infiltrate behind our lines and no place could be deemed completely secure. But as the weeks passed, and particularly from the beginning of May onwards, the enemy was gradually pressed backwards into the mountains to the north, south and west and in the less forward boxes there was some relaxation. The mobile cinema resumed its programmes, entertainment parties once more visited the plain and football matches between units again lent a touch of serenity to the scene.

Under normal conditions the Imphal plain is a reasonably healthy spot, but with the advent of war there came many troops from the Indian plains who brought with them the germs of malaria and dysentery. When men were herded together under cramped conditions of life in defensive boxes, the possibilities of infection considerably increased. Consequently, cases of illness developed among the R.A.F. who were often living with Indian Army formations whose troops carried the germs, and whose standard of hygiene and sanitation were not European. Since there were no sick quarters in the boxes, all those who succumbed to any complaint were, of necessity, sent to the single R.A.F. mobile field hospital on the plain where there were 120 beds. The Army invariably evacuated any case whose illness was likely to last for more than two or three days, but this was not a policy which the R.A.F. could follow, owing to the greater difficulty in replacing experienced and technical airmen. Cases of malaria and dysentery were therefore frequently nursed at the mobile field hospital - where they formed the majority of the inmates - until they could be returned to their units. Sometimes patients were discharged in as little as six days for malaria and five for dysentery, a considerable achievement on the part of the hospital staff whose work deserves some mention at this point.

When the threat to Imphal developed, the nursing sisters at the hospital were sent back to Bengal and their work thenceforth fell to the orderlies who throughout the period of the siege were hard pressed. Minor difficulties were caused from March onwards by the complete absence of laundry facilities and also by the absence of Red Cross comforts, and among other privations there was, for instance, no lime juice or lemonade for febrile patients. Other

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matters were dealt with as they arose. There was some skill required when for a time the hospital came under fire and the few patients suffering from anxiety neurosis grew restive. On a more general subject, Punks were ingeniously improvized to overcome the effects of warmer weather. But as time wore on, it was the problem of overcrowding that became most insistent. It was finally solved partly by putting pressure on the authorities to build more basha huts - tents, invariably stuffy, were at first offered - and by a scheme of local evacuation arranged independently of the general plan, by which patients likely to remain for more than a short time were flown to the next eastern-most R.A.F. mobile field hospital, located at Kumbhigram; most of these did not return to the plain during the siege. Thus with patience and ingenuity the most pressing problems were solved despite the acute shortage of staff inside and the stringent and emergency conditions outside. It should be remembered, however, that only the smallest fraction of the R.A.F. garrison fell sufficiently ill to enter the hospital.

The improvement in the military situation which in the latter half of the siege permitted some relaxation of the tension for most units, did not pass without some expression of disappointment that the proudly finished earth-works would not, after all, be put to the test. It was also accompanied by a marked deterioration in the weather with the advent of the monsoon. Although the total rainfall on the plain, even during the wet season, is comparatively moderate, nevertheless it usually occurs in the sharp sudden downpours so familiar in India and is thus always liable to cause unpredictable floods. The repair and refuelling party at Kangla, for instance, had to spend some time in attempting to stem the brimming tide before it overran the area in which their tents had been pitched, while at other units men had to fill in waterlogged trenches and fox-holes. In its way, mud was found to be as unpleasant as the dust of earlier days. There was, of course, no hangar on the plain so all work on aircraft had necessarily to be done in the open. Nevertheless, the high rate of aircraft service-ability previously maintained by all squadrons did not diminish with the worsening of the weather; in fact, it increased month by month from an average of 85.5 percent in March to 88.2 percent in July. Thus the work of the ground crews continued faithfully in support of the work of those who flew the aircraft located on the Imphal plain.

Offensive Air Operations on the IV and XXXIII Corps fronts

Disposition of Squadrons Under No. 221 Group, R.A.F.

O.R.B.s of the
various
squadrons
concerned

From the middle of December 1943 when No. 221 Group under Air Commodore H.V. Rowley moved into the Imphal plain, its squadrons were employed in giving the limited scale of air support called for by IV Corps which was then occupied in regrouping its units for planned operations. These envisaged advances towards, and possibly across, the Chindwin river. Air support was to be provided by the tactical squadrons of No. 221 Group which in December 1943 comprised No. 170 Wing at Imphal controlling No. 28 (Tac. Recce) Squadron, No. 155 (Mohawk) and Nos. 5, 34, 42 and 113 (Hurricane) Squadrons, all save the latter based upon the plain of Imphal. Further west, at Kumbhigram, was No. 168 Wing with Nos. 45 and 110 (Vengeance) Squadrons; thus No. 221 Group could call upon a maximum of eight squadrons to perform the tasks of bombing, ground attack,

reconnaissance and defence. Towards the end of December 1943, the Mohawk squadron was withdrawn and bomb carrying Hurricanes made their appearance. Then early in January, No. 81 (Spitfire) Squadron⁽¹⁾ relieved the Hurricanes of purely defensive work, though the latter had still to fulfil the roles of patrol and escort.

Ibid.

During January and February 1944 the number of squadrons under No. 221 Group had increased by three, the additions being No. 1 (I.A.F.Tac.Recce) Squadron, No. 81 Squadron and No. 123 (Hurricane) Squadron. Further reinforcements could not be provided since the majority of tactical units under Third T.A.F. were required in Arakan, firstly to assist the advance of XV Corps and later, when the enemy counter-attacked, to help the land forces to inflict a severe reverse on their antagonists. By 4 March, however, the fate of the Japanese in Arakan had been sealed and further tactical units could be transferred from the No. 224 to the No. 221 Group⁽²⁾ area during March 1944 to counter the foreseen enemy offensive against Manipur. By the end of the month No. 221 Group had three Vengeance (Nos. 82, 84 and 110), nine Hurricane (Nos. 1, 5, 11, 28, 34, 42, 60, 113 and 123) and two Spitfire (Nos. 81 and 136) squadrons. Four of the Hurricane units were equipped to carry bombs and two others were employed on tactical reconnaissance. Save for the two Spitfire squadrons all these units were available for the direct support of IV Corps but when in early April XXXIII Corps moved into position at Jorhat, they were likewise dependent upon No. 221 Group for direct support. At an early moment of the siege, No. 28 (Tactical reconnaissance) Squadron located on the Imphal plain was split and one of its flights was sent to operate from an airfield in Assam. Some ground attack squadrons were also sent back, partly for the same purpose and partly because of the problem of providing guards for aircraft and the acute supply difficulties on the plain. But aircraft remaining at airfields near Imphal continued when possible to give support to the relieving forces advancing from the north. Vengeances located at Kumbhigram frequently used airfields on the plain as bases for operations in support of IV Corps and XXXIII Corps alike.

Early Tactical Air Operations December 1943 - February 1944

In November 1943 the enemy had launched a minor offensive which had culminated in our withdrawal from the Falam, Haka and Fort White districts, thereby threatening our hold on the Chin Hills. The Japanese paused south of Tiddim, however, and both sides spent the remainder of the year consolidating their positions. In January 1944 elements of IV Corps took the offensive and on the 25th occupied Kyaukchaw, an enemy fortress that blocked the line of advance from Tamu to the Chindwin. The tempo of air support naturally increased during the operation and the ground assault was preceded by air attacks in which both strategic and tactical aircraft participated.

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- (1) No. 81 Squadron, however, spent a fortnight during February operating in Arakan.
 - (2) Command of No. 221 Group was placed, on 17 February 1944 in the hands of Air Vice-Marshal S. F. Vincent whose rank at the time was that of Air Commodore.

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3rd T.A.F. to
EAC. 4 Feb. '44.

In January 1944 arrangements were made to carry out experimental air operations on the IV Corps front with the assistance of the Strategic Air Force against a selected enemy strongpoint at Kyaukchaw. The attack was carried out on 17 January 1944 between 1455 and 1620 hours by 18 B-24's, 9 B-25's, 24 Vengeances and 12 Hurricanes. The bombing was accurate and well concentrated and during the night our troops deployed in the difficult jungle terrain around the objective, which was attacked the following day. Considerable resistance was still encountered and Kyaukchaw was not finally occupied until 25 January.

Ibid.

It is apparent that too much was expected from the bombing attack. The army was duly impressed by the accuracy of the bombing and the spectacular results in terms of smoke and dust, but they were equally impressed by the survival of the Japanese troops in the target area. One of the first lessons that emerged was that bombing, however accurate and impressive, could cause practically no casualties among troops in good trenches or shelters. It would appear that many army officers had not been taught this lesson, for many of those who witnessed the air attack entered the area expecting very little opposition. On the other hand, the results of the bombing were disappointing even to the air forces. Due allowance was evidently not made for the limited effect 50 tons or so of bombs would have in an area measuring some 120,000 square yards. Having regard to the comparatively small number of enemy troops spread over the target area, it was unreasonable to expect much positive destruction or many enemy corpses. At the same time the effects of the bombs on enemy morale was not exploited. The infantry attack did not take place until 16 hours after the completion of the bombing. This was not in the original plan and was due to special circumstances so the point should not be laboured. But the air attack illustrated clearly that heavy bombers could do little to assist the army in areas of low density in enemy troops and that tactical bombing in jungle country needed to be directed against pin-point targets in close co-ordination with the ground assault.

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A main centre of activity for the squadrons of No. 221 Group lay in the area south-east of Tiddim around Fort White where vigorous fighting was taking place, but apart from direct support, Vengeances and Hurricanes ranged farther afield to maintain constant harassing attacks upon enemy lines of communication, supply dumps and enemy occupied villages in the Kabaw and Chindwin valleys. And when in February increased enemy activity on the east bank of the Chindwin was discovered, attacks were made not only upon enemy camps and storage areas along the Chindwin as far north as the Uyu river, but also upon small vessels and concentrations of rafts which were destined to carry two Japanese divisions across the Chindwin for their major offensive of the dry-season. In the three months December 1943 to February 1944, the two Vengeance squadrons (Nos. 45 and 110) of No. 221 Group flew some 668 sorties in direct and indirect support of IV Corps and dropped 287 tons of bombs, while bomb carrying Mohawks and Hurricanes dropped 288 tons in the course of 712 sorties. In addition an unknown number of offensive ground-attack fighter sorties were flown by Hurricanes and tactical reconnaissance aircraft were out daily observing troop movements, taking photographs and dropping messages for IV Corps.

Tactical Air Operations during the
Siege of Imphal, March-June 1944

O.R.B. ACSEA,
Int. App. 'M'
Mar. '44 A.H.B./
IIM/A44/1A
Air Staff.
HQ. ACSEA
A.H.B./IILJ50/
47/42.

Staff Study
of Tactical
Operations
A.H.B./IILJ50/
47/34 pp.
377-369
HQ. ACSEA
Air Staff.
A.H.B./IILJ50/
47/42.

In early March 1944 the weight of air support switched from Arakan to the Manipur front and, as experienced by No. 224 Group on the coastal sector, the squadrons of No. 221 Group, instead of fighting in support of an offensive, found themselves taking part in a grim defensive battle. Since the first enemy thrust against Manipur developed from the south around Fort White and Tiddim, it was logical that direct support operations should, at first, be concentrated mainly in that region, although enemy supply bases and areas of concentration along the Chindwin continued to receive attention by Vengeance and Hurricane bombers. By the middle of March the three pronged Japanese offensive against Imphal and Kohima was fairly under way and No. 221 Group's tactical squadrons had then to provide close support over a wide area of the Chin and Naga hills. Yet despite the high rate of effort aimed at hindering the progress of the infiltrating flood of enemy troops, the Japanese made formidable advances and our ground forces contracted towards the plain of Imphal. In this fluid period of the battle the work of the tactical reconnaissance Hurricanes of No. 1 (I.A.F.) Squadron and No. 28 Squadron was particularly valuable. They searched day by day for enemy movements and positions,⁽¹⁾ delivering attacks as opportunity offered; owing both to the wild and rugged nature of the countryside they had to cover, and to the ingenuity of the enemy in laying traps and in concealing himself, this was a task that called for a high degree of skill in both flying and observation. They also spotted for artillery units, took photographs as required, passed information as to the location of our own forces and dropped messages. During the retirement of the 17th Division northwards from Tiddim to the Imphal plain, for instance, they were an invaluable help in maintaining touch between our troops, moving along the mountain road, and IV Corps far away on the plain. To the former they dropped mail, newspapers and even cigarettes.

Ibid.

No less valuable was the work of the ground-attack Hurricanes and Vengeance dive-bombers which operated sometimes in direct and sometimes in indirect support of IV Corps. They performed an indispensable service in the early period of the Japanese advance by their persistent attacks upon the forward enemy lines of communication, at a time when the Japanese were making every effort to bring up his stores and armament westwards to concentration points on the Chindwin from his railheads at Ye-u and Wuntho. The effectiveness of these attacks is illustrated in the remarks of a Japanese transport officer, 'M.T. must be kept under cover during the day. If discovered by the enemy, strafing is inevitable. Everybody back from the front speaks of the frightfulness of these attacks everywhere there are burnt out vehicles which have crashed down into the valleys, their drivers riddled with bullets'. Thus the enemy became chary of using motor transport save by night and the main targets by day became the slower substitutes which they frequently pressed into service. These were sampans and other rivercraft, convoys of bullock carts, mules and even elephants, three of which were accounted for by a single aircraft of No. 5 Squadron. Another squadron came to specialize in what proved to be very remunerative

(1) For further details of tactical recce. operations see Chapter 4 pp 58-63.

attacks upon Japanese lorries on moonlight nights. At first the vehicles were detected by their headlights, but after two or three evenings they took to moving without artificial illumination and the Hurricane pilots were thus compelled to seek their prey by selecting such well known traffic lines as the road from Ye-u to Kalewa and searching for the shadows cast by the lorries as they picked their way in the moonlight. When the Japanese shortage of motor transport is taken into consideration it will be realized how materially these attacks helped to blunt the offensive impetus of the enemy.

Since it is impossible to record each individual tactical air operation in detail, it is appropriate that this chapter should follow a general pattern although a few attacks are worthy of comment at greater length. For instance, the speed with which some operations had to be mounted to meet the unexpected needs of a tactical situation which in the earlier period of the siege was particularly fluid, was demonstrated on 29 March. At about six o'clock in the evening when the word to stand down had already been passed to the squadrons, an urgent call suddenly arrived for all aircraft to attack no less than a battalion of Japanese which, after infiltrating across the wildest part of the country, had debouched upon the Imphal plain and had just been detected by a tactical reconnaissance Hurricane only ten miles north-east of Imphal airfield. Since night falls swiftly in these latitudes, speed was essential. To load the aircraft all hands were quickly summoned and a motley array of helpers, including equipment clerks and specialist officers, was soon to be seen eagerly but inexpertly carrying bombs and ammunition out of store. Pilots straight from their bath and tea were airborne within 30 minutes; there was no time for briefing and most simply made haste to follow their leader. In all, 33 Hurricanes of Nos. 1 (I.A.F.), 28, 34, and 42 squadrons participated in what proved to be a highly successful assault. In the failing light the aircraft landing lights were used to locate, rout and pursue the numerous and fleeting targets and from the evidence of captured enemy documents, enemy casualties from air and artillery attack numbered over 215 officers and men. Most of the aircraft landed in the dusk, but at least one made an excellent landing in the dark without a flare-path.

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29 Mar. '44.

O.R.B. HQ.ACSEA
Apr. '44
Int. App. 'J'
WIS No. 22
ACSEA File
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O.R.B. ACSEA
Int. May '44
App. 'B'
WIS No. 26

In early April Kohima was threatened as well as Imphal and direct support was consequently divided between IV and XXXIII Corps, although until May the greater part of the tactical air effort centred around Imphal. The principal areas of operations by Vengeance dive-bombers and bomb carrying Hurricanes lay in the Churachandpur region of the Tiddim road; against the road block set up by the Japanese at Kanglatongbi on the Imphal-Kohima road; against concentrations of enemy troops attempting to open the Tamu-Palel road westwards and against the 33rd Japanese Division investing Kohima. The latter was held by a small garrison, including administrative troops, which gallantly resisted a numerically stronger enemy force for some fourteen days. Ammunition and food at Kohima were adequate but, from 5 April onwards, the water ration had to be reduced to half a pint per man when the Japanese got astride the water pipe line. The air forces, however, apart from the usual delivery of ammunition and food by parachute, dropped water to the besieged defenders until on 15 April the latter fortunately discovered a new source of supply. On 15 and

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 23 Jun. '44.
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 A.M. File
 C. 27122.
 Desp. by
 General
 Giffard.

18 April the enemy made determined attempts to destroy the Kohima garrison but with the aid of effective bombing and machine-gun attacks by the R.A.F., the Japanese were ejected from the footholds they had gained. The relieving Allied forces advancing from Dimapur, after some hard fighting, were able eventually to break through the defences of the enemy astride the Dimapur-Kohima road and to gain touch with the Kohima garrison on 20 April, which by that time had been driven on to one small hillock, called Summer Hill, in the centre of the area. Kohima village, however, remained in enemy hands and the Dimapur-Kohima road was still closed to Allied traffic.

On and around the Imphal plain, tactical operations provided an illustration of a close association, not always elsewhere practicable, between the two services. Their chiefs, when they met for the evening conference at No. 221 Group headquarters, could at one time while discussing the situation, observe simultaneously from the verandah the fruit of their co-operation as a Hurribomber squadron flew past to deliver the final attack of the day against the Japanese outpost on the headland of Mapao, visible only four or five miles to the north. It was by no means unusual for the pilots of direct support squadrons to visit of an evening the brigade about to mount an attack, consult the commander of the army units participating and study from advanced Allied positions the lie of the target which they would then bomb or strafe the following morning.

O.R.B. ACSEA
 Int. App. 'L'
 Apr. '44
 H.Q. ACSEA
 Air Staff
 Jan. '45 A.H.B./
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 O.R.B. ACSEA
 Int. App. 'B'
 May '44.
 A.H.B./IIM/
 A44/1A

Ibid.

Further afield ground-attack Hurricanes penetrated as far east as the main railway, running from Sagaing to Wuntho and beyond, to attack locomotives and rolling stock. Nearer at hand they constantly searched the Chindwin for enemy rivercraft, of which many were successfully attacked. The single tank regiment available to the Japanese in Burma and which they had committed to the Manipur campaign also suffered at the hands of Hurricanes, especially from the end of April onwards when four 40-mm. canon Hurricanes of No. 20 Squadron operated from airfields in the Imphal plain. Hurricanes also flew protective patrols and more frequently provided escorts to supply dropping Dakotas as well as to Vengeances, B-25's and other bombers when they operated in the IV Corps area. Another aspect of their work lay in the delivery of machine-gun attacks upon targets indicated through army channels; they often strafed Japanese bunkers, fox-holes and gun positions, sometimes alone and sometimes in conjunction with Hurribombers and Vengeances.

By the beginning of May the Japanese offensive against Imphal had been held at almost every point and it could fairly be said that the tide was on the turn. Some 6000 of the enemy had already been killed. From their bases on the Imphal plain the 17th Division was now attacking southwards past Bishenpur on the Silchar track and Tiddim road, while the 5th Division was pushing northwards towards Kohima, where elements of XXXIII Corps were slowly but surely consolidating their position and beginning to press southwards. But along the Tamu-Palel road to the east the enemy was maintaining his pressure and still menacing the plain from close quarters. It was in this sector that the enemy attempted to infiltrate into the plain of Imphal itself during May, but the timely intervention of Allied tactical aircraft, which attacked at extremely short notice any concentration of troops in the foothills, was largely instrumental in repelling the Japanese. The emphasis of direct support operations in May, however, moved to the

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Despatch by
Gen. Giffard

O.R.B. H.Q.,
ACSEA Int.
May '44
App. 'D'
WIS. No. 28.

Kohima area. To the accompaniment of intensive air operations by Hurricanes and Vengeances the 2nd and 7th Divisions cleared Kohima itself after some weeks of severe hand-to-hand fighting in which the Japanese lost heavily. Our own casualties were by no means light. Kohima village was re-captured on 2 June and by the 6th we had captured the Aradura Spur, which covered the road some two miles south of Kohima. The clearing of this difficult and hilly country marked the first step in the Allied counter offensive. With the Kohima area firmly in our hands the stage was set for a further advance southwards to re-open the Dimapur-Imphal road.

While aircraft of the Strategic Air Force and Vengeance light bombers were used for tactical bombing, it was the Hurricane fighter-bomber squadrons which above all were most bound up with the course of operations day by day. Their very exact attacks on enemy positions in the field were greatly valued by the land forces, and time and time again the army units in whose support these attacks had been made, signalled back their appreciation of the accuracy of the strike. On 10 May for instance, our forward troops near Tegnoupal could plainly see bunker fragments and bodies cast upwards by an attack by twelve aircraft of No. 42 Squadron. On another occasion such was the confusion caused that over a score of Allied prisoners were able to escape back to our own lines. Bombing attacks by Hurricanes almost always greatly cheapened the cost of the subsequent ground assault and became an indispensable part of the regular pattern of Allied advance. The army came to regard 200 yards as a suitable distance between their troops and the area of bombardment. But even beyond the immediate battle area, bomb-carrying Hurricanes - and Vengeances too - made an effective contribution to the battle. That considerable success attended the attacks against Japanese base headquarters, dumps and lines of communication, was witnessed by friend and foe alike. On 9 May ground sources reported that 100 troops had been killed and 300 more wounded during a bombing attack by 23 Hurricanes against the Japanese 15th Divisional H.Q. at Homalin. Hurricane ground-attack fighters also maintained unremitting war on enemy troops, his bunker labyrinths and his battle train. A typical foray was that of eight Hurricanes on 15 May when ten enemy vehicles were attacked. Three lorries were set on fire, one of them becoming a blaze and starting grass fires, which enveloped and destroyed eight petrol laden trucks. These operations, it must be remembered, were carried out against a backcloth of monsoon rain was mud at the base airfields, low lying cloud and mist over the hills. Although in May the monsoon rains curtailed operations to the extent that the prodigious number of sorties flown in April was not equalled, it does not imply any slackening of effort on the part of air and ground crews. Indeed, the task of the latter in May was probably harder than hitherto since despite the rain and mud, and the need of some to mount guard by night, they managed to maintain a high rate of serviceability.

Translation
and Interrogation Report,
SEATIC 247
April 47
P. 25
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IIJ50/75.

Strategic aircraft also participated in operations against tactical targets, 125 sorties being flown by Wellingtons, 106 by B-25's and 12 by Liberators. Apart from one attack on the Mintha-Tamuroad, the whole of this effort was directed against targets on the Imphal-Tiddim road, especially in the neighbourhood of milestones 87 and 120, two points of great tactical importance in preventing enemy reinforcements and supplies from moving along the

road. These attacks, together with others carried out by tactical aircraft, must have been a success for Lieut-General Mataguchi⁽¹⁾ after the war, declared that the bombing of the road near Kennedy Peak seriously affected the logistic support of the 33rd Japanese Division. The road was constructed on a steep slope and when the road surface was destroyed or blocked by Allied bombing much time and trouble had to be spent in man-handling supplies over the damaged sections while a detour was being built. Attacks upon enemy positions by strategic bombers were not so successful, however, as evidenced by the bombing of Ningthoukhong, a small village in the south-west corner of the Imphal plain, on 9 May. In all, some 35 B-25's and 13 Wellingtons made what appeared to be an accurate attack, but as experienced in Arakan,⁽²⁾ the enemy withstood the effects of the bombardment and repulsed the subsequent ground assault.

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84/215.

In addition to the sorties mounted by aircraft of the Strategic Air Force against tactical targets, Hurricane fighter-bombers flew 5145 sorties during March, April and May 1944 and they dropped 869 tons of bombs. Of 208 abortive Hurricane bomber sorties, no less than 181 occurred in May alone when particularly bad weather greatly hampered air operations. Even so, the Hurricanes were less affected by adverse weather than the Vengeance squadrons who in the same period failed to complete 404 of the 3643 sorties flown; during these sorties the Vengeances dropped 1868 tons of bombs.

It would be profitless here to analyse the problems which confronted the tactical squadrons of No. 221 Group during the Manipur campaign since their difficulties were similar to those encountered in Arakan during the earlier months of 1944. Such matters have been discussed in Chapter 4. It is therefore sufficient to say that like Arakan, the principle of a combined army/air force headquarters had not yet been adopted in Manipur and several months were to pass before both army and air force commanders operated side by side. During the fierce battles which raged around the Imphal plain and Kohima in the spring of 1944, No. 221 Group controlled all tactical squadrons operating on the front and the former needed to co-operate with both XXXIII Corps and IV Corps at Dimapur and Imphal respectively. Consequently, the control of aircraft for close support had to be decentralized and was, of necessity, placed in the hands of the senior R.A.F. officer, a wing commander, at each corps headquarters. Yet despite the obvious disadvantages which accrued it has been said that the enemy's efforts to deploy in the Imphal plain during May 1944 were decisively defeated by Hurricane and Vengeance attacks at short intervals upon any concentrations of enemy troops reported by army units through our Air Support Control operating at a high standard of efficiency. Moreover, the constant air attacks upon the enemy's lines of communication prevented him from concentrating his full potential strength about the perimeter of the plain of Imphal.

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- (1) The Japanese Commander of the Manipur offensive.
 - (2) The results of bombing by strategic aircraft in the IV Corps battle zone were similar to those in Arakan. In Chapter 4 pp 56-57 will be found a summary of attacks upon tactical targets by heavy aircraft in Arakan; the analysis applies equally well to the bombing operations undertaken on the Manipur front.

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of Tactical
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The Raising of the Siege and After June and July 1944

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28 Jun. '44
A.H.B./IIJ50/
97 H.Q. ACSEA
Air Staff
A.H.B./IIJ50/
47/42.
Tel. 196
SAC to COS
5 Jul. '44
A.H.B./IIJ50/
97.

With the onset of the monsoon, the logistic difficulties of the enemy further intensified and after the beginning of June the pace of the Allied advance quickened. Elements of Wingate's Special Force, which had been diverted from their original function in order to help in the Manipur battle, moved far to the north-east. Maintained by air supply they penetrated through the Naga Hills cutting the communications of the Japanese in the Ukhrul area and harassing the enemy astride the Manipur road. Meanwhile the 2nd Division advancing southwards from Kohima and the 5th Division moving northwards from Imphal, were making a determined effort to clear the enemy from the Imphal-Kohima road and so pave the way for overland supply. On 22 June 1944 the two divisions established contact at milestone 109 and thus the land communications of the Imphal plain with the outside world were reopened. On the following day the first convoy of lorries passed through the defiles into the plain. Its load included a bottle of beer for every man in the garrison - a well appreciated token that the days of the worst privation were over.

Ibid.

Yet though the siege of Imphal had been raised and the number of Japanese killed had risen to some 14,000, the direct threat to the plain had not been completely removed. The enemy clung to his positions in the hills above Palel, from which he was able to overlook and occasionally to shell the airfield, and it was not until the end of July that he was finally ejected. Only with the occupation of Tamu on 6 August could the plain of Imphal be said to have been freed from the menace that had overhung it for almost five months. It is worth recording that the most daring attempt on the part of the Japanese to damage air force property on the plain actually occurred in this period when they still lingered on the eastern edge of the perimeter. It was on the night of 3/4 July that a Japanese patrol of not more than a score of men, taking advantage of darkness and the noise of guns, managed to reach the dispersal area at Palel airfield. Small bombs were attached to two Harvards, two Hurricanes and three Spitfires, all of which were destroyed or damaged, and a bomb was thrown into an empty workshop basha. Guards of the R.A.F. Regiment went into action with the intruders, but prolonged searches extending into the next day failed to run them to earth and they probably regained their own lines safely.

No. 221 Group
App. 'Q'
Nov. 1944
A.H.B./IIJ50/
47/15.

Throughout June and July the tactical air forces maintained their constant harassing of enemy lines of communication, provided direct support for the advancing Allied troops, bombed and strafed his supply dumps and flew tactical reconnaissances. Strategic bombers kept up their heavy raids on the Imphal-Tiddim road despite atrocious weather conditions. But air operations during this period took on a different character than that in earlier months, for the attacker was becoming the attacked. The period of defence and attrition being over, the tactical squadrons of No. 221 Group could look forward to the prize which all air forces hope for - the annihilation of an enemy in retreat. Positive results in the form of men killed, storage areas devastated and transport destroyed were hard to achieve, though substantial dividends had already been reaped, against an enemy with such a high standard of camouflage and concealment who, when on the offensive, moved in small groups with little impedimenta. No army can maintain its standard of camouflage in retreat, however, and the air forces in Manipur proved again what had been demonstrated in other

theatres of war, that an enemy experiencing overwhelming pressure from advancing land forces provided the best targets for air attack.

Despite monsoon rain and cloud Hurricane fighter-bombers during June and July 1944 flew a total of 2883 sorties (436 were abortive mainly owing to the weather) and dropped 580 tons of bombs; Vengeance sorties were fewer than in earlier months since their numbers had been reduced by the withdrawal in June of two out of three squadrons from the No. 221 Group area. Nevertheless, 530 sorties were flown during the two months under review and nearly 227 tons of bombs were dropped by these aircraft; 141 sorties were, however, unsuccessful. These figures do not illustrate the true level of air effort since in addition a large number of offensive and defensive fighter sorties were flown as well as tactical reconnaissances. During the whole period of the Manipur operations - from March to July 1944 - tactical aircraft of No. 221 Group flew over 25,000 sorties, a figure achieved by a varying number of squadrons from nine to a maximum of fifteen.

Summary of the Manipur Operations

The 1944 campaign in Manipur witnessed the defeat of an ambitious Japanese attempt to neutralize the important army and air base of Imphal which, in Allied hands, constituted a threat to the enemy's hold on Burma. Following the penetration deep into Burma by the troops of General Wingate's brigade in 1943, the Japanese were made painfully aware that, despite the natural barrier of the mountain fastnesses which separate India from Burma, they could not prevent the infiltration of Allied troops through the thick jungle country. This rendered the enemy's grip on Burma somewhat precarious and General Mataguchi soon realized that to ensure its defence he would need to capture the plain of Imphal whence an Allied overland re-conquest of Burma might be launched. With the capture of Imphal by the Japanese, repercussions would have been felt far beyond the confines of the Manipur front. With the Imphal plain firmly established as a base the enemy would have been favourably placed to harass or cut our main line of communication to the American air bases in the upper valley of the Brahmaputra and the maintenance of Allied forces operating in eastern Assam and the Hukawng Valley would have been difficult if not impossible.

At first sight it would appear that the Japanese blundered in fighting a prolonged and fierce battle for Kohima when a severe blow to Allied strategy could have been delivered if Kohima had been by-passed and the Assam line of communication cut. It must be remembered, however, that the 31st Japanese Division investing Kohima had already achieved a phenomenal feat in reaching the area by using devious jungle tracks and while they appreciated the enormous advantage in a further advance northwards the problem of supplies, particularly of ammunition, made it impossible for them to do so. For Imphal remained in Allied hands and no supplies could reach the 31st Division save over the almost impenetrable jungle-clad hills which they themselves had recently passed. Only the fall of Imphal and with it the use of the roads from the Chindwin Valley through Tiddim and Tamu, could have made possible a Japanese advance to Dimapur and the Assam railway. In fact the 31st Japanese Division, having infiltrated into the Kohima area, found themselves isolated. Accordingly,

Japanese
sources

from the date it went into action on 15 March until after the retreat from Kohima, which was ordered on 3 June, the Division received practically no rations of any kind and had to exist on what could be requisitioned locally. Allied resistance around Imphal and the continuous air assault upon Japanese supply dumps and means of transport sealed the fate of the 31st Division at Kohima and by the time the monsoon broke malaria, dysentery and beri-beri had become rife among the underfed and weakened troops.

The other two Japanese divisions, besieging the Imphal plain, also felt the impact of Allied air dominance, though they were less affected than the unfortunate 31st. The success of the Japanese plan depended upon their ability quickly to capture the plain of Imphal and with it the mass of food and stores belonging to the British garrison. When Allied resistance - made possible by air supply - held the Japanese at bay, their attempts to bring up reinforcements and supplies were thwarted in large measure by Allied fighters operating in small numbers which harassed enemy supply lines over a wide area. Nor must it be forgotten that throughout the whole length of the enemy's tenuous communications from Rangoon northwards, Allied aircraft both strategic and tactical, maintained constant pressure. Since control of the air had passed into Allied hands, the Japanese were forced to transport supplies furtively by night and for a while he was enabled to resist at Imphal. But his problems of supply, aggravated by the frequent breakdown of his motor vehicles, became impossible once the monsoon had begun and thereafter the outcome of the Manipur battle could not be in doubt.

During the Manipur campaign the Allied air forces provided the measure of support to the ground troops required by contemporary developments in the art of war and by the nature of the terrain across which the contending armies faced each other. Much of the country was close, densely wooded or covered with thick undergrowth, so that the recognition of targets presented to even the most experienced crews a problem of considerable complexity. Another factor lay in the nature and characteristics of the enemy as a fighter on the ground. Three things distinguished him; his tenacity and stamina which enabled him to take great punishment from the air and still retain his fighting spirit; his skill to camouflage his positions which made it difficult to locate them from the air or the ground; and finally, the beaver-like propensity for digging himself into the ground by excavations that ranged from a number of shallow fox-holes to hold one or two men to an elaborate system of bunkers unharmed by all but direct hits from heavy bombs or shells. By virtue indeed of the nature of both, the terrain and the Japanese were highly suited to each other.

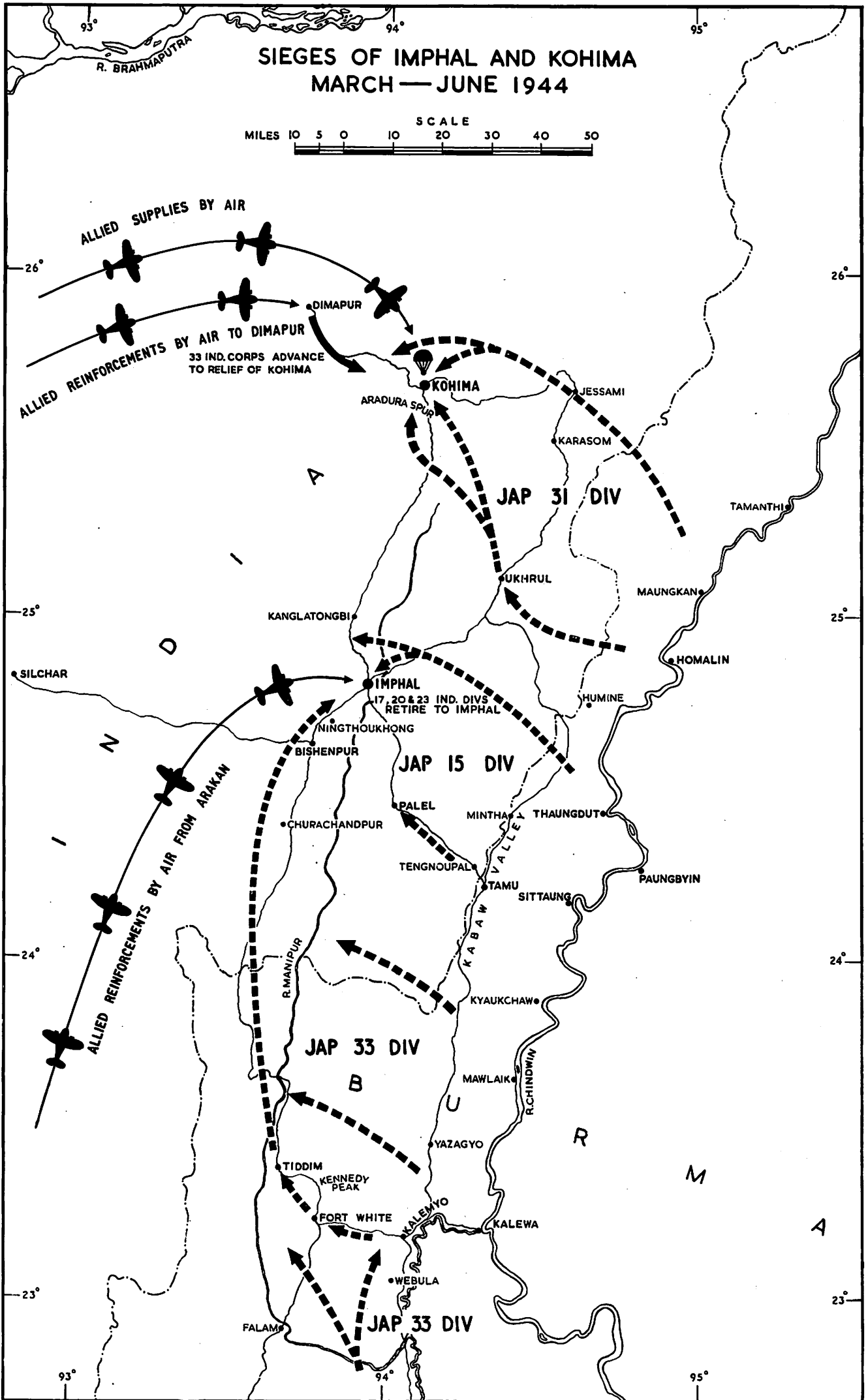
The difficult nature of the country and the enemy's complementary skill in camouflage were overcome to a great extent by the intimate knowledge that aircrews came to have of the country over which they were operating. Such knowledge undoubtedly proved an accurate method of providing close support, for aircrews were sometimes given targets that in other theatres of war would probably have been regarded as too difficult for identification. The complexities of close support operations have already been discussed elsewhere in this chapter but certain conclusions follow from the operations conducted that are worthy of note. The heavy bomber was not found to be the complete remedy against an enemy entrenched in bunker positions since,

apart from the doubtful accuracy of such strikes, our troops often could not advance sufficiently rapidly in the jungle to take advantage of whatever effect the bombing might have had. But the fighter-bomber and dive-bomber, with their high rate of serviceability and greater flexibility, proved effective aircraft in close support operations. For instance, the Hurricane could be employed against targets in valleys hemmed in by cloud, conditions that demanded high manoeuvreability if the target was to be reached at all.

The occasions when air support was called for and most effectively given were too numerous to mention and it was not always possible to assess the results achieved. General Giffard, the Army Commander-in-Chief, had no hesitation in saying, however, that in neither offence nor defence could the army have achieved the success it did, had it not been for the casualties inflicted upon the enemy and the interdiction of enemy lines of communication by aircraft of the Allied air forces. 'The heartening effect on our own troops by the obvious evidence of our air superiority' he said, 'was most inspiring.' Conversely, its disheartening effect upon the enemy is evidenced by the statements of prisoners and from captured documents.'

The defensive significance of air power in the South East Asia theatre of war became fully apparent in the spring of 1944 when for the first time sufficient aircraft were available effectively to sway the course of the battle. The nature of the India-Burma frontier - more than 700 miles of tortuous mountain jungle - was such that until 1944 operations had been unusually difficult and inconclusive. In 1944, however, the Japanese attempted two offensive operations, the first in Arakan in February and the second aimed at Imphal and Kohima in March, during which the enemy succeeded in enveloping large bodies of Allied troops by surprise infiltration through almost impassable jungle terrain. In each case, all ground supply lines were cut and at Imphal, the whole plain was surrounded for nearly three months. Yet the army was able to hold out and eventually to turn an apparent disaster into a victory by the timely intervention of transport aircraft operating in skies controlled by the Allies. The failure of the Japanese to prevent or even seriously to interfere with the work of the many transport aircraft necessary to sustain the beleaguered ground forces meant the failure of both offensives.

During the Manipur operations of 1944 the Allied air forces delivered over 20,000 tons of supplies to the troops and air force units engaged, flew in some 20,000 reinforcements and evacuated over 10,000 casualties and 30,000 non-essential personnel from the plain of Imphal. But statistics alone are not a fair or adequate measure of the contribution of air supply to Imphal. Effort expended and tonnage delivered may or may not be the yardstick of success. In the final analysis, the success of the operation must stand or fall upon the ability of the air forces to meet the Imphal emergency, an emergency not of its own creation. It is true that the Imphal garrison was supplied only by the narrowest of margins as evidenced by the crises which arose during the course of the siege. It is also true that the defenders were obliged to exist and fight on a reduced ration scale. That IV Corps was able to maintain itself and ultimately to lift the siege was largely attributable to air supply. The operation was an example of the effective use of air power almost without precedent. The operation was, however, of a magnitude unforeseen and the administrative organization behind the transport squadrons had not



been devised to deal with the problems which beset it. The operation, conceived in haste and conducted under arduous conditions, threw up a plethora of difficulties, reduced efficiency and illustrated clearly the urgent need for a permanent organization to handle the movement and maintenance of large forces by air instead of the administrative structure which hitherto had adequately fulfilled the limited demands made upon it.

The siege of Imphal provided an isolated and distinct operation which illustrated the effectiveness of air supply used as a temporary or emergency measure and within the scope of the established doctrine of its employment. Although a larger number of troops were supplied by air for a longer period of time than in any previous campaign, it must be remembered that the theory underlying the employment of air power did not, in the spring of 1944, envisage the regular supply of armies as a normal function of air forces. But what the operation did characterize above all else was the remarkable speed and flexibility of air power without which the Imphal emergency could not have been overcome. Transport squadrons were transferred from the Mediterranean theatre and were operating over the Burma front in a matter of days. Aircrews were converted from bomber to transport aircraft and with only the briefest training functioned well. The sudden emergency called for adaptability and air power was flexible enough to meet the demands placed upon it. Indeed the Japanese, to their discomfort, failed to appreciate this fact and though they anticipated some measure of air supply to Imphal they were astounded at the quantity flown in.

The raising of the siege of Imphal was a decisive victory over the Japanese since their defeat meant, in effect, that never again could they launch a major offensive against Indian territory. The victory was made possible through the agency of air power - air superiority, air transport and tactical air support, in that order of importance, and to a lesser degree the operations of the Strategic Air Force indirectly contributed to the battle. These factors enabled 120,000 men of the Imphal garrison to hold out and eventually to counter-attack. The contribution of air power to the battle is confirmed in the following extract of an Order of the Day by Lieut.-General Slim, Commander of the Fourteenth Army:-

'What you owe to our comrades in the Allied air forces I need not remind you. Our whole plan of battle was based on their support. There could have been no success had they failed us. Their share in our combined victory was magnificent and historic'.

General Giffard, the Army Commander-in-Chief, also acknowledged the part played by the air forces in the Manipur campaign:-

'There is no doubt that, if we had not had air supply, we should have lost the Imphal plain and the position on the eastern frontier of India would have been grave.'
'It is with gratitude and admiration that I acknowledge the immense debt which the army owes to the air. No one who like myself has watched them is likely to forget the courage, determination and skill of pilots and crews who have flown through some of the worst weather in the world, and over appalling country in performing their allotted tasks.'

By the end of July 1944 elements of three Japanese divisions were struggling through the monsoon mud in an endeavour to reach the temporary safety of the east bank of the Chindwin. Some continued to resist for a while in the hills east and south of Imphal; others died of wounds, disease and starvation in the jungle. Meanwhile the lorries laden with supplies were once more plying from the railhead at Dimapur to the Imphal plain along the Manipur road whose milestones roughly daubed in red with Japanese characters bore witness to the recent presence of the enemy, and perhaps also to his hopes that when it was again open to traffic the vehicles would be his. The necessary repairs to the roadway were put in hand and the telephone system restored. And so there was resumed the preparation of the plain of Imphal for what it had long been intended - as a stepping stone from the Brahmaputra valley to that of the Chindwin and as a main base for the recovery of north Burma with all that that implied.

SECRET

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CHAPTER 7

OPERATIONS OF THE SPECIAL FORCE
FEBRUARY-MARCH 1944

Since the beginning of the 1943-44 campaigning season Chinese/American forces advancing from their base in Assam had crossed the mountains into the Hukawng Valley, while other detachments were moving southwards from Fort Hertz in the direction of Myitkyina - all of whom received their supplies from transport aircraft of Troop Carrier Command. The objectives of this campaign, as outlined in Chapter 2, were no less than the possibility of re-opening the land route to China from the west, from Ledo in north-east Assam through Myitkyina to the railhead of the former Burma road at Lashio. Thus by implication, Allied designs included the eventual re-occupation of northern Burma as far south as Nawnghkio and Wuntho, if not Shwebo. In order to assist the advance of Stilwell's forces down the Hukawng Valley and to create a favourable situation for exploitation by IV Corps, it was now proposed fully to utilize the policy of long range penetration, the potentialities of which had been demonstrated in the first Wingate expedition of 1943(1). In that brave if strategically profitless campaign, which in retrospect might be regarded as a reconnaissance in force, long range penetration troops had operated for some months behind enemy lines but the Allies had been denied full benefit of the hardships and sacrifices made by these troops since there had been no exploitation by main forces. Nevertheless, the Wingate expedition of 1943 had provided some dividends for it had shown that, administratively, the size of the force that could be maintained behind enemy lines in Burma need only be limited by the number of transport aircraft available to supply them, always assuming of course that the transport aircraft were backed by the necessary air bases and logistic facilities. The Wingate expedition had also demonstrated, though in 1943 few opportunities had occurred to practice it, a method whereby air attack could be given greater effect in jungle country by R.A.F. officers operating with the ground forces and controlling tactical aircraft by wireless.

Tel. 2415
C.O.S. to
C.-in-C.
India,
14 Aug. '43
A.H.B./IJ
50/103/62A
Encl. 5A
COS(Q) 12
10 Aug. '43
A.H.B./ID5/310

On his return to London in the summer of 1943, Wingate reported in person to Mr. Churchill. From the United Kingdom Wingate was ordered to Canada where he rendered a further report, this time to the Combined Chiefs of Staff during the Anglo-American conferences held at Quebec in August 1943. The account given by Wingate of his experiences in Burma earlier in the year duly impressed the Chiefs of Staff and they decided that long range penetration forces should be used extensively in forthcoming operations. They felt that their value in the war against Japan had been proved and that expansion on a considerable scale was desirable. Sufficient troops were to be made available from Imperial resources to raise several long range penetration brigades for the campaigning season of 1943-44 and the Americans subsequently agreed to form a special air unit to support the land force. The air unit became known variously as Project 9, the 5318th Provisional Air Force and finally as the First Air Commando Force; the latter title will subsequently be used in this narrative.

(1) See Vol. III Chapter 9.

Maj.-Gen.
Lentaigne
H.Q. Special
Force. A.H.B.
IIJ/54/50

The discussions which took place during the summer and autumn of 1943 relative to the formation of long range penetration brigades are of little consequence in an air history and all that need be recorded is the final composition of the land force. In mid-September 1943 Wingate, now a Major-General, returned to India with the nucleus of a staff to control and command the long range penetration brigades, which collectively became known as Special Force. On 25 October 1943, H.Q. Special Force opened at Gwalior, in central India, and took over full command and responsibility of those brigades already allotted to the Force. By early November 1943 the Special Force consisted of 77th Brigade, which had been reconstituted in July after the first Wingate expedition; 111th Brigade, which since April had been training in long range penetration tactics; and the 70th Division which was being formed into three independent brigades 14, 16 and 23. The sixth brigade to be earmarked for the Force was the 3rd (West African), which did not arrive in India until November 1943. Thus the Special Force in its final form comprised the equivalent strength of two infantry divisions. It was treated as an independent formation and came directly under the command of Fourteenth Army. Although containing mostly British troops but with some Ghurkas, West Africans and Burmans, the Force was designated, ostensibly for security reasons, 3rd Indian Division. This was, however, a somewhat paradoxical title since no Indian troops were, in fact, members of it and the title was in some quarters regarded as a psychological blunder.

R.A.F. Component
Special Force

File AHQ(I)
117/51/Air
Encl.7

After the Wingate Expedition of 1943, the value of R.A.F. officers accompanying long range penetration groups was discussed at some length by A.H.Q. India, A.H.Q. Bengal, Brigadier Wingate, IV Corps, Nos. 221 and 224 Groups. The Senior Air Staff Officer at Air Headquarters, India, for instance, considered that in view of the shortage of suitable R.A.F. officers in India, co-operation should be carried out by selected army officers after the latter had been given a short course of instruction in relative air matters. These officers should then be detailed as air advisors to L.R.P. commanders in future operations. Both Wingate and the IV Corps Commander were adamant, however, that R.A.F. officers should be provided to carry out liaison duties, for the confidence thus engendered was thought to be a factor of considerable importance. In 1943 a Dakota had landed behind enemy lines to rescue sick and wounded troops and the pilot had had the greatest confidence in landing knowing full well that an R.A.F. officer had selected and approved the landing area. Similarly, R.A.F. tactical commanders had derived added confidence in ordering attacks by tactical aircraft upon targets selected by R.A.F. officers in the field who knew the capabilities and limitations of the aircraft employed. The course of events would appear to vindicate Wingate's theory for in 1944 officer aircrew other than pilots went into the field and proved somewhat less efficient than pilots with recent combat experience.

O.R.B. R.A.F.
Component
Special
Force.
App. 'A'
Oct. 1944

The principle of R.A.F. personnel serving with long range penetration groups in 1944 having been accepted, an R.A.F. Component, Special Force, officially came into existence on 6 November 1943 and started functioning as such early in December. Its headquarters were established at Gwalior alongside those of the Special Force. R.A.F.

officers were to be allotted on the basis of one squadron leader, one flight lieutenant and three other ranks for each of the six brigade headquarters, while the eight columns of each brigade had an establishment of one flight lieutenant and three other ranks. This gave a potential strength in the field of some 60 R.A.F. officers and 162 airmen. Two-thirds of the latter were to be wireless personnel for the operation of R.A.F. signals equipment, while the remainder were to be aircraft hands, the plan being that they should provide additional manpower for the erection and dismantling of radio sets. At six rear brigade headquarters, six signals officers and 66 other ranks were allotted. All these were required sooner or later, either in the field or at rear brigade headquarters. In practice, the reserve officers remained at Gwalior as long as possible in the training wing while airmen, in the first place, moved to rear brigades there to carry out hardening and jungle training. The procedure finally decided upon was for an airman from a rear brigade to replace a casualty and for the vacancy at rear brigade to be filled by a reserve.

RAF/S.F/
S.5
4 Oct. '44
A.H.B./IJ50/47/
48.

Air C.-in-C.
to A.C.A.S.(P).
19 Nov. '43
IG14 E.25A
Air C.-in-C.
to A.C.A.S.(P).
17 Jan. '44
IG14 E.35A

When the R.A.F. Component was officially formed, R.A.F. personnel for 77th and 111th Brigades were almost complete and Wingate was pressing for sufficient R.A.F. men for 16th Brigade. For the latter a signals officer and virtually the entire complement of airmen was obtained from the R.A.F. Assault Wing(1) in mid-December 1943. Other officers arrived about the same time from various sources, some being volunteers from the United Kingdom whence they were flown. The men from the Assault Wing were already physically hardened and although 16th Brigade was the first to be committed to operations early in February 1944, after the R.A.F. contingent had been under training in their new role for only six weeks, not a single case of physical breakdown occurred among them and the sickness rate was negligible. R.A.F. personnel for the columns of the three reserve brigades (14, 23 and 3 W.A) had not so far been provided since Wingate had not decided upon their operational role. Not until 17 January did Wingate ask for full R.A.F. representation for these brigades and this resulted in unjustified censure of the R.A.F. by senior army officers of the Special Force for the alleged delay in providing R.A.F. personnel.

The Air Forces Available for the Support of Special Force

DD of Plans
EPS.2393
20 Sep. '43
ID5/310

After the Quebec conference, General Arnold sent for Colonels John R. Allison and Phillip G. Cochrane of the U.S.A.A.F. and told them that he was so impressed with Wingate's scheme that he had decided to give him a private air force from American resources. Apparently either Allison or Cochrane would be air commander and Wingate would have complete control of his air force, which was not to be used for R.A.F. or Tenth Air Force operations. This information was obtained from Colonel Allison on his visit to England but was quite unofficial and allegedly confidential. It so happened that at the time various

(1) The R.A.F. Assault Wing was a unit formed to take part in the amphibious operations which were later cancelled when the bulk of the landing craft were withdrawn from South East Asia.

Air Min. to
A.H.Q. India
22 Sep. '43
A.H.B./ILJ50
103/62A
Encl. 22A

branches of Air Ministry and Air Headquarters, India were busily occupied in endeavouring to meet the air requirements outlined by Wingate at Quebec, in the form of Dakotas, light aircraft and light bombers. The sudden acquisition by Wingate of a private air force, quite unknown to the Air Ministry and A.H.Q. India, caused some embarrassment since the additional aircraft necessary to support Special Force were not now required from British resources. However, on 22 September 1943, the Air Ministry was able to inform the A.O.C.-in-C., India that a United States air task force was an actual fait accompli and that General Arnold's memorandum on the subject, approved by General Marshall, had been passed through the Supreme Allied Commander designate to the Air Ministry. Responsibility for the assembly and training of the Air Commando Force was placed in the hands of Cochrane and Allison, designated commander and deputy commander respectively. The initial training of the Force was to take place in Washington, later to be completed in India.

Ibid.

The Air Commando Force as originally envisaged was to comprise light aircraft, gliders, transport aircraft and fighters. This composition was designed to increase substantially by gliders and transport aircraft the potential capacity of the R.A.F. and Tenth U.S. Air Force to maintain long range penetration brigades by air, and to increase the actual mobility of columns by providing air lifts for troops over difficult country where no tactical advantage existed in surface penetration. One major factor in the Air Commando was considered to be the ability of its transport aircraft to 'snatch' gliders without the tug aircraft landing and while this device was later to become an accepted practice in many theatres, it was at the time experimental and untried in actual operations. Fighters in the Air Commando Force were provided for the protection of gliders and transport aircraft and to make the Force independent of both R.A.F. and Tenth U.S. Air Force for fighter cover. The light aircraft component was designed primarily to ensure that those troops unfortunate enough to be wounded or to fall sick would have a reasonable chance of survival. In the first Wingate expedition, casualties were perforce abandoned so as to avoid endangering the remainder of a column. There was no doubt in the minds of the light aircraft sponsors that the technique of flying out casualties from tiny impromptu jungle airstrips would greatly enhance the morale of troops engaged in long range penetration. And so it proved to be.

C.-in-C. India
to C.O.S.
24 Sep. '43
EPS Folder.
A.H.B./ID5/310

The proposal that the Air Commando Force should operate independently under the strategic control of General Wingate in support of his brigades caused some consternation at Air Headquarters, India, since the outstanding lesson of the war had been that air forces must operate under the single direction of an air commander working in close collaboration with the responsible army commander. Owing to the complex system as proposed for South East Asia Command, the introduction of a separate air force further complicated an already amorphous structure of command and control. In the event a suitable compromise was reached in that while the Air Commando retained its identity and function as a separate air force it was, prior to the commencement of operations, placed under the control of the Air Commander, Third Tactical Air Force who co-ordinated its activities with those of other tactical and transport units engaged in supporting operation Thursday.

JICA/CBI
No. 1448
A.H.B./ILJ
50/47/27

During December 1943 the First Air Commando Force arrived in India by air and towards the end of the month a detachment reached the training ground of the Special Force to carry out combined training in support of troops on the ground. Though not originally planned, the Air Commando on reaching India acquired a squadron of B25 medium bombers and an airborne engineer company. Detachments from other American units were also added until, with the highly trained personnel brought from the United States, the total of all ranks was approximately 900. The Force was organized into a headquarters, an assault force of twelve B25's and 30 P51's, a light plane force of 100 L4's and L5's, four Helicopters and a transport force of 150 CG4A (WACO) gliders, thirteen C47's and twelve UC64's. The Air Commando Force followed no recognizable table of organization and was likewise wholly original in its methods of operation. The organization, which apparently was never committed to paper, was based rather upon the abilities and personalities of the individuals that composed it. The status and discipline in the Air Commando Force, said to have confounded more than one high ranking visitor, was confused by the fact that officers and enlisted men shared alike and no question was ever raised about personal appearance. Rank was permitted no consideration and it was common to see bearded and begrimed officers and men lining up together for their food. About morale, however, there seems to be no doubt and it would appear that both Cochran and Allison enjoyed the unquestionable loyalty of the officers and men under their command. The arrival of such a force in South East Asia was not without its complications, from both British and American points of view. It was perhaps natural that other commanders, hungry for aircraft in a low priority theatre and unaware of plans rigidly kept secret, would propose other uses for all the equipment. Through it all, however, the Air Commando Force retained its identity and functioned only in the role for which it had been designed.

Other Air Forces Available
to Support Special Force

It was not anticipated that the Air Commando Force could provide all the necessary air support during the operations of Wingate's Special Force and transport, bomber and tactical aircraft of formations under Eastern Air Command were also to co-operate. Direct and indirect support was to be provided by the squadrons of No. 221 Group and in particular by No. 84 (Vengeance) Squadron which had carried out training with the Special Force in central India. The A.O.C. No. 221 Group, however, was responsible for the air defence of the Manipur area and also held responsibility for the assistance of IV Corps in the form of tactical reconnaissance and close support. Thus the resources of No. 221 Group which could be made available for the direct assistance of long range penetration brigades were somewhat limited. In cases where calls for tactical support from No. 221 Group by Special Force conflicted with demands already made by IV Corps, and it was beyond the capacity of No. 221 Group to meet both demands, these requests were to be passed to Third Tactical Air Force for a decision in conjunction with Fourteenth Army. For the Air Commando Force was directly responsible to the Air Commander, Third T.A.F. and was not subordinate to No. 221 Group. The Air Commando Force being specially allotted and trained for operations with the Special Force was, in general, given a

Minutes of
Conference
3rd T.A.F.
16 Jan. '44
14th Army
Op't. Inst.
No. 51
9 Jan. '44
A.H.B./ILJ
50/47/27

free hand to carry them out subject, however, to their operations being co-ordinated with those of other aircraft of Third T.A.F. and Troop Carrier Command and also to ensure the minimum practicable embarrassment to the air warning and defence system. But for practical reasons of location and communication, operational liaison for the air operations was normally carried out by the Air Commando Force at Lalaghat with No. 221 Group at Imphal.

Troop Carrier Command was to be responsible in conjunction with the Air Commando Force for flying in the main body of Special Force and subsequently of supplying it in the field, though the latter's requirements had naturally to be related to those of other troops elsewhere on the Burma front. While the Air Commando would provide the spearhead for the initial airborne operations, their C47 tugs were to be augmented by thirteen U.S. aircraft of Troop Carrier Command. Subsequent to the glider operations the main burden of lifting the long range penetration brigades into their operational areas fell to Troop Carrier Command who assembled aircraft of Nos. 31, 62, 117 and 194 Squadrons of the R.A.F. and the 27th and 315th Squadrons of the U.S.A.A.F. for the purpose.

Air Cmr.
3rd T.A.F.
17 Mar. '44
A.H.B./ILJ
50/84/227

Indirect support for the Special Force was to be provided by the squadrons of the Strategic Air Force whose bombers would attack enemy communications and troop concentrations during critical periods. As already mentioned, 221 Group was to help as far as its other commitments allowed. Major-General Stratemyer, Air Commander Eastern Air Command, S.E.A., seeing that the general direction of air operations would be complicated by the variety of commands involved appointed, on 29 February 1944, the Air Commander, Third Tactical Air Force as his air representative to co-ordinate all air operations during operation Thursday.

Planning

The trend of Asian planning for the winter of 1943-44 has already been traced in Chapter 1 but it is now necessary to synthesize the overall strategy with the detailed plans for the operations of Wingate's Special Force. Under the direction of Fourteenth Army, planning for the employment of long range penetration brigades had developed during the autumn of 1943, but at Wingate's instigation, along very flexible lines. For detailed plans had constantly to be adapted and revised to keep them in phase with the changing tactical situation on the India-Burma frontier. It had originally been intended to commit the 16th, 77th, and 111th Brigades into their operational areas by jungle approach marches through forward Japanese positions in a manner similar to that accomplished by 77th Brigade in 1943. But this had an obvious disadvantage in that the fighting power of the troops would be adversely affected by long and arduous marches through difficult terrain. With the advent of the Air Commando Force, with its transport aircraft and gliders, Wingate evolved a plan for introducing 77th Brigade by air into Paoshan in China, subsequently to march westwards across the Salween river. The remaining brigades were to go on foot.

AAF. IBS
to CG.U.S.A.A.F.
Washington
22 Mar. '44
Annex. 1
A.H.B./ILJ
50/47/27

The plan had to be modified in January 1944 when it became evident that the Japanese were guarding every likely crossing place on the Chindwin. At the time it was thought that the enemy anticipated a second Wingate expedition but later it became evident that enemy activity along the banks

of the Chindwin had been in preparation for a general offensive against Manipur. It therefore seemed impossible that more than one brigade could enter Burma overland and that this brigade would necessarily have to follow a circuitous route to avoid the Japanese troop concentrations along the river barrier. For the time being, however, the Chindwin route was considered impracticable and a solution had to be found for inserting the brigades deep into territory nominally held by the Japanese. A plan therefore emerged for the movement of the entire force by air and this would not only save the troops an exhausting march but would give them longer in the field for actual operations. At this point it might be mentioned that Wingate had been convinced by his previous experience that troops should not be called upon to operate behind enemy lines for more than three months. A review of air transport resources and commitments, however, indicated that insufficient aircraft existed in South East Asia to make the operation entirely airborne though it was anticipated that two brigades could be lifted by air early in March and two more later in the month. The remaining two brigades would have to walk.

ACSEA File
AP/3602/17
OCW/MDF
16 Jan. '44
Cmdr. Spec.
Force A.H.B./
IIJ54/50

Wingate now visualized that each brigade operating behind enemy lines would require a stronghold into which it could retire for rest and refitting during a prolonged operation. It was a necessary part of his plan that each brigade would, in fact, establish such a stronghold within its operational area, as soon as the tactical situation would allow it, from which each brigade would dominate the surrounding countryside in the manner of a Norman baron. The stronghold must cover, if it could not safely include, a Dakota strip twelve hundred yards in length from which fighters could also operate on occasion. If the stronghold was sited well away from any line of communication, it was visualized that even if an enemy threat developed, it could never be in such strength that it could not be neutralized by garrison troops and mobile columns supported by field artillery. Anti-aircraft guns would be installed to counter enemy air attacks. It may seem incredible that Wingate's archaic conception, savouring as it did of the activities of Robert Bruce, could be effective in contemporary warfare, yet his strongholds proved in the event to justify their name. But the analogy with Robert Bruce ends in fundamentals for Wingate's strongholds depended for their survival upon air supply. Nevertheless, the scheme shows a remarkable blending of the old with the new.

Rear H.Q.
3rd Div.
21/17/G
15 Mar. '44
A.H.B./IIJ
50/47/28

The implications and details of the final plans were not resolved until a conference was held at H.Q. Special Force on 31 January - 3 February. The assembly of the Force had now to be completed with some urgency since only one month remained to undertake detailed planning, production of aircraft loads and movement schedules, training of troops in loading gliders and aircraft, selecting the necessary air bases and so on, before the airborne operation could be launched early in March 1944. Detailed planning was, however, carried out under difficult conditions owing to the lack of central control and the fact that the various headquarters involved were far apart and only rarely was it possible to get all the principals together. The consolatory feature of detailed planning was the fact that so many schedules were worked out and then discarded that when the time came to launch the operation, schedules could be turned out at a moments notice without any difficulty. Eventually it was agreed to set up a small headquarters at Lalaghat and Troop Carrier Command agreed to operate their H.Q. from the same place for the period of the operation.

14th Army/
EAC Optl.
Inst. 4
A.H.B./ILJ50
105/4/8

On 4 February 1944, Fourteenth Army and Eastern Air Command issued a joint instruction to the Commander, Special Force which outlined the tasks to be accomplished. Most important of all was the need for Special Force to assist Stilwell's Chinese/American forces in their advance upon Myitkyina by drawing off and disorganizing the enemy forces opposing them and preventing the reinforcement of these forces. The second function of the long range penetration brigades was to create a favourable situation in the hope that Generalissimo Chiang Kai-Shek would allow his Yunnan forces to advance across the Salween river.⁽¹⁾ Finally Wingate's forces were to inflict the maximum confusion, damage and loss on the enemy forces in north Burma.

Cmdr. Spec.
Force A.H.B./
ILJ54/50

To implement this directive it was Wingate's intention to compel the withdrawal of the enemy from all areas of Burma north of the 24th parallel, that is, the line Temu-Nankan-Bhamo-Mengma. He visualized 16th, 77th and 111th Brigades converging upon the focal point of Indaw in such a manner and with such timing as to cut effectively the enemy communications with his 31st and 18th Divisions then opposing IV Corps and the Ledo sector of the front respectively. The governing principle of the operation was to be a concentration of effort at the decisive point; the latter being that part of Burma within a 40 miles radius of Indaw. Once this had been accomplished, Wingate anticipated that the liberated area would be garrisoned throughout the monsoon by a normal infantry division flown in and maintained what was thought to be an all-weather strip at Indaw, the brigades of Special Force being thus relieved after three months operations just before the monsoon was due to break.

Before the tasks allotted to the Special Force could be finally completed, however, the plans propounded by Wingate were severely modified by the fortunes of war. Although the Indaw airfield was at length captured it proved, contrary to our intelligence, only a fair weather strip incapable of being converted into an all-weather airfield before the monsoon broke. Owing to the siege of Imphal no reserves from Fourteenth Army could be made available to exploit the captured airfield nor could further troops be provided by Special Force since 14th Brigade was already committed and 23rd Brigade diverted to support XXXIII Corps in the Kohima area. The changes of plan made necessary by the fluidity of the tactical situation may be traced in the pages that follow. It is sufficient here to give Wingate's outline plan before his brigades were committed to battle, based upon the operational instructions issued to them on 28 February 1944.

From their area of concentration near Ledo (whence they left on 5 February), the columns of 16th Brigade were to march southwards and, aided by air transport, to cross the Chindwin on or about 25 February, subsequently to move against Indaw. During the march 16th Brigade would find a site suitable for establishing as a stronghold. The Brigade would then deny the enemy possession of the areas Indaw, Naba and Banmawk by the use of road blocks and a stronghold. The columns of 77th Brigade between 6-9 March were to be flown into the Kyaukkwe Valley and at the most suitable landing ground a stronghold would be established. The Brigade would then cut all rail, road and river communications of the 18th Japanese Division between parallels 24 and 25 degrees. Between 10-13 March, 111th Brigade would

(1) See Chapter 2.

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be flown in to an area southwest of Tigyaing, subsequently to sever enemy road and rail communications between Wuntho and Indaw. The brigade would establish a stronghold at the earliest possible moment suitable for maintaining columns north of the Nankan railway station.

Original
Air Lift
Plan. Op.
Thursday
DATPO 41
A.H.B./ILJ54/11

D-Day for the main airborne operation had been chosen in relation to the moon period for 5 March 1944. By reconnaissance, areas where landing strips might be prepared were selected at:

96°45' E.- 24°45' N. (Broadway)
96°46' E.- 24°29' N. (Piccadilly)
96°24' E.- 23°57' N. (Chowringhee)

and named after the main thoroughfares of New York, London and Calcutta. Broadway was situated approximately 20 miles east of Mohnyin, Piccadilly about 30 miles east of Mawlu and Chowringhee some 20 miles south-east of Katha. Operating from Lalaghat on D-Day, Dakotas were to tow 40 gliders to Broadway and 40 to Piccadilly. In these gliders would travel not only combat troops but also airfield construction parties with their equipment, including Bulldozers, with which the landing areas would be prepared for the reception of Dakotas on D plus 1. By D plus 3 the fly-in of 77th Brigade to Broadway and Piccadilly would be complete and on D plus 4 the movement of 111th Brigade to Piccadilly and Chowringhee would begin; the establishment of an airstrip at the latter would, of course, be carried out by glider borne troops. The whole operation, under the code-name of Thursday, was scheduled for completion by D plus 6. It was an ambitious programme and could undoubtedly have been carried out successfully as originally planned had not the current of events undermined its foundations. But fortunately no difficulty was experienced in competing with any of the many changes of plan which were subsequently found to be necessary.

Training

EAC 373
EAC to
ACSEA
1 Apr. '44
A.H.B./ILJ
50/47/27

During the period from early January to the beginning of operations on 5 March, an exceedingly active period of training was carried out. In January 1944 a detachment of the Air Commando Force practised the dropping of supplies from Dakotas to perfect night dropping technique and to effect co-ordination with the long range penetration groups. The flights involved short trips of 20-25 miles and took place over fairly level terrain, though serious hazards were present in the form of many hillocks which rose abruptly from otherwise level country. The dropping zones were in brush country with scrub undergrowth thus necessitating various identification methods such as flares and brush fires, all of which provided excellent practice. In addition, much routine training in the towing of gliders in both single and double tow, the 'snatching' of gliders both loaded and light, took place by day and by night. During the period experiments were also carried out with all types of loading, including routine supplies, equipment and pack animals.

Rear H.Q.
Spec. Force
21/17G.
15 Mar. '44
A.H.B./ILJ
50/47/28

It was originally planned to organize a full scale rehearsal which included the lift of 52 gliders into Tamu a short time before the actual operation commenced. This, however, was eventually abandoned and instead a small scale trial, rather than a rehearsal, was staged for D minus 4. This consisted of four pairs of gliders fully loaded being flown out across the Imphal plain and back. No difficulty

(13437)

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was experienced with tow ropes on this occasion and the rehearsal proved an excellent try out for the ground organization.

Preliminary Operations by 16th Brigade

The easiest routes from India to the Chindwin were, as already mentioned, closely watched by an enemy mindful perhaps of Wingate's exploits in 1943, and a major clash with Japanese troops was not at all desirable until the long range penetration brigades had reached their operational area. The problem of inserting the larger portion of the Special Force behind enemy lines was overcome by making them airborne but 16th Brigade, for which no transport aircraft were available, had to walk. In early February 1944, General Stilwell's Ledo Road had been pushed across the rugged Patkai mountains at their lowest pass and had already reached the upper reaches of the Chindwin in the Hukawng Valley. It might be possible for 16th Brigade to go some distance over the Ledo Road and then swing away on one flank or the other. By so doing, Stilwell's battleground would be by-passed and, thus avoiding entanglement with the enemy, 16th Brigade would be free to march upwards of 300 miles in order to reach the area of operations around Indaw. It was axiomatic, of course, that the long range penetration columns moving overland would arrive there much about the same time as the two brigades which were scheduled to fly in early in March.

On 5 February 1944 the leading elements of 16th Brigade set off over the Ledo Road for Tagap Ga whence they veered south to Lulum Nok and into the difficult and largely unsurveyed country towards the south. Supply dropping to 16th Brigade began on 10 February and thereafter they became solely dependent upon air transport for their survival. Thus aided the Brigade reached the Chindwin north of Singkaling Hkamti on 29 February and it was planned that the crossing of the river barrier would be assisted by the provision of amphibious equipment flown in by gliders. Hitherto Chindit warfare had been somewhat primitive and the crossing of rivers one of the principal problems of long range penetration. Now the troops of 16th Brigade found themselves up to date. But so that the Brigade might cross the Chindwin unopposed a small scale glider operation was carried out on 28 February. On that day a glider, containing two pilots and a British patrol of 16 men, landed on a sandbank near Minsin, situated some miles south of Singkaling Hkamti. One of the pilots and three passengers were injured when the glider landed but despite this misfortune the patrol was able to keep the Japanese garrison at Singkaling Hkamti occupied while 16th Brigade crossed the river north of the village. The two glider pilots made their way back to India fifteen days after the landing but doubtless this was a forced march since the intention was evidently to snatch out the glider after depositing the patrol in Burma. Presumably the glider was too badly damaged for it to be flown out.

JICA/CBI
No. 1448
29 Mar. '44
A.H.B./ILJ
50/47/27

JICA/CBI
No. 1449
1 Apr. '44
A.H.B./ILJ
50/47/27

At six o'clock on the evening of 2 March 1944 two gliders, each with a pay-load of 4000 lb., landed successfully on a sandbank north of Singkaling Hkamti and discharged a number of folding boats and outboard motors. Within five minutes of the landing the first craft was in the water to inaugurate a mechanized ferry service for 16th Brigade. It had been intended to snatch out the gliders as soon as they had unloaded. Both were set ready, their tow ropes extended across two poles so that the

Dakota's grapnels should duly catch them. Instead of the expected jerk the pilots heard the sound of heavy weights falling about them for a supply drop, which had been arranged for 16th Brigade from a different base, had begun. The two Dakota tugs circling aloft awaiting the completion of their task had not bothered to identify the intruding aircraft and assumed them to be Japanese. The tug aircraft returned to base and the two newcomers, unaware of the panic they had started, proceeded to drop heavy loads of boots and clothing without parachutes. The following day, however, the gliders were snatched out and towed back to India but they returned five days later to retrieve the river craft when 16th Brigade had finished with them.

Offensive Air
Operations

During February 1944 the Air Commando Force carried out numerous reconnaissances and offensive air operations in preparation for the fly-in of the Special Force. A close watch was kept upon enemy troop concentrations and movements and upon airfields in central Burma. A deception plan was inaugurated to divert attention from the Indaw area and care was taken to avoid flying over the district until the last moment when reconnaissances of the actual landing areas were made. Further afield Allied aircraft carried out many operations in central and southern Burma, with special emphasis on Mandalay and Rangoon, in the hope that the enemy would anticipate an immediate airborne operation against the former. But the enemy did not react favourably and he made no change in his plans for invading Manipur.

JICA/CBI
No. 1448
29 Mar. '44
A.H.B./ILJ
50/47/27

The first operations of the Air Commando Force, which commenced on 3 February 1944, had the twofold object of softening up the area in which Wingate's Special Force was to operate and to provide the aircrews of the Air Commando with useful experience of jungle air operations. By reaching far behind the India-Burma frontier the Air Commando assault force found such targets as bridges, warehouses and locomotives along the main Japanese lines of communication leading to north Burma. These operations were not without loss but they proved invaluable in acquainting pilots with the Burma terrain, providing intelligence for future operations in support of the long range penetration groups and in developing methods of operation. In regard to the latter, the B25's were almost always used in concert with the P51's. Together they made up an assault force capable of almost any type of attack. The B25's carried a 75-mm. gun in addition to six .5 calibre machine-guns in the nose, which made it a devastating ground straffer as well as a bomb carrier. Versatile use was also made of the P51 which could carry 2 x 1000 lb. bombs (twice normal capacity) or three rocket projectiles under each wing, in addition to its normal fighter fire power. In all during the period 3 February to 4 March 1944, the offensive element of the Air Commando Force carried out 54 operations comprising 71 sorties by B25's and 385 by P51's for the loss of three aircraft.

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Operations of the Light
Aircraft Force

By February 1944 the light aircraft element of the Air Commando Force had assembled enough L1's and L5's to begin establishing itself as an important factor on the Burma front. There were four (numberless) squadrons of light aircraft, each commanded by an officer and consisting of 25 sergeant

pilots. Every pilot was a trained mechanic and as far as possible he was given an aircraft to fly and maintain.

The L1 was equipped with a stretcher compartment behind the pilot and could transport two and sometimes three stretcher patients. It could land and take off from almost any paddy field. The L5 was designed to carry one sitting case but on occasion two occupied the rear cockpit. Somewhat faster than the L1 (about 100 m.p.h.), the L5 required about 300 yards of smooth surface for a take off. Each squadron was equipped with both types of light aircraft. The L1, however, was obsolescent and as they became casualties they could not be replaced. The role of casualty evacuation had not been foreseen when they were first built and the twin purposes for which the light aircraft were designed were artillery spotting and liaison work. For these tasks the L5 was better than the L1 and the latter had been suffered to go out of production. They were therefore very precious and whereas the loss of an L5 was regarded as all in the days work, the loss of an L1 was a serious matter since stomach wounds needed a stretcher and only the latter aircraft could carry one. The light aircraft were also used for supply dropping. The L5's could be rigged with 'bomb racks' under each wing, from which parachute packs of 75 lb. could be suspended. In addition, a special wedged shaped trough could be installed in the rear cock-pit, which the pilot could empty by turning the aircraft on its side.

Ibid.

Operations of the light aircraft up to D-day of operation Thursday on 5 March were distributed over a wide area. Two squadrons were sent to Ledo and Taro, in north-east Assam and Burma, to help the evacuation of Chinese-American casualties in that area and also those of 16th Brigade now marching through north-west Burma. A third squadron was sent to Tamu to assist in the evacuation of British-Indian casualties. Subsequently this squadron aided the glider passengers forced down along the Chindwin. About ten aircraft were sent to Arakan for a short period and flew out many casualties during the Japanese counter-offensive there. During all these operations the Air Commando Force lost a number of aircraft though only two fatalities occurred.

The Main Glider Operation 5 March 1944

On the late afternoon of 5 March, eighty gliders with their tug aircraft were waiting at the airfield of Lalaghat for the time of departure, and the culminating moment of months of training and experiment had arrived. Twenty-six C-47 glider tugs were assembled, 13 of them belonging to the Air Commando Force and 13 provided by the American element of Troop Carrier Command. Since the Air Commando had 26 pilots experienced in the art of double towing, they were each given command of an aircraft, while 26 pilots furnished by T.C.C. were detailed as second pilots for the D-Day operations. It had been planned that each tug would carry 1000 lb. of cargo to be dropped simultaneously with the release of the gliders, in the dropping zones adjacent to Broadway and Piccadilly, but owing to the difficulties experienced during practice flights in obtaining altitude with gliders in tandem, the 1000 lb. was removed from the tugs. Since the cargo constituted essential materials required immediately following the initial glider landings, Troop Carrier Command provided twelve R.A.F. Dakotas and

TCC to EAC
16 Mar. '44
A.H.B./ILJ
50/47/27
Encl. 29c

the Air Commando Force their ten UC-64's to transport the freight. These supply dropping operations were, however, largely unsuccessful.

Air C.-in-C.
to C.A.S.
11 Mar. '44
Tel. 808
A.H.B./
11J54/11.
3 T.A.F. File
8/40/Air
Part II
Encl. 83A
A.H.B./11J
50/84/134B

Five days before D-Day, on 1 March 1944, the two landing areas of Broadway and Piccadilly had been photographed but during the days that followed they had been deliberately avoided to prevent Japanese attention being drawn to the area. Soon after noon on D-Day, Colonel Cochrane's intuitive apprehension - or 'hunch' as the Americans would call it - led to the despatch of a B25 to photograph the landing zones. Earlier in the day Air Marshal Baldwin, charged with the task of co-ordinating the air aspects of the operation, had issued a signal to all units concerned saying "Weather is suitable. Carry out operation Thursday". At Lalaghat, transport aircraft were lined up at one end of the runway and long nylon tow-ropes, rigged for double tow lay nearby. CG-4A (WACO) gliders were massed at the opposite end of the airfield, while the men destined to fly in them were grouped into parties in a nearby wood. On the airfield General Wingate directed loading operations from a small tent. The time for take-off was 1740 hours, which would enable the gliders to arrive at Broadway and Piccadilly, some 260 miles or so to the east, just after dusk. But within half an hour of the time at which the first aircraft was due to take off, the whole venture was in danger of cancellation. For at that moment aerial photographs, taken at 1500 hours that afternoon by a B25, were presented to the commanders responsible for the mounting of operation Thursday. One of these photographs indicated that Piccadilly - the principal landing area - had been hopelessly obstructed.

The Obstruction of Piccadilly
and its consequences

G.O.C.-in-C.
14th Army
Cab. Hist. Sect.
ALFSEA
431/4.
3rd T.A.F. File
8/40/Air
Encl. 262/264
A.H.B./11J50
84/134B

The aerial photographs produced so dramatically at the eleventh hour showed that both Broadway and Chowringhee were still clear but that Piccadilly had been systematically obstructed by tree trunks, making it definitely unfit for gliders. A hurried conference therefore took place on the airfield between the principal commanders concerned(1) to decide what should be done. The obvious inference from the obstruction of Piccadilly and the first which came to mind was that the whole plan had been betrayed. That Broadway and Chowringhee were still clear did not necessarily refute this assumption since it might well be that the enemy had planned an ambush. The possibility of abandoning or postponing the operation was soon rejected for it was by no means certain that the Japanese had really got wind of the venture. Of the landing areas it was proposed to use, only one could have been known to the Japanese by any means other than direct revelation of the details of the plan. That one was Piccadilly for the simple reason that photographs of this field had appeared in the American magazine Life and apart from this the Japanese were well aware at the time that the field had been used in the manner described in that periodical. During the summer of 1943 a staff photographer of Life had flown in the R.A.F. Dakota which had landed in the field, subsequently to be known as Piccadilly, and had

(1) Lieut.-General Slim, Fourteenth Army; Air Marshal Baldwin, Third Tactical Air Force; Major-General Wingate, Commander, Special Force; Brigadier-General Old, Troop Carrier Command and Colonel Cochrane, Air Commando Force.

been an eye witness to the evacuation of 17 sick and wounded men of the first Wingate expedition. It can be imagined, however, how ominous, on the evening of 5 March 1944, the discovery of the obstruction of Piccadilly appeared and how considerable was the risk taken.

O.O.C.-in-C.
14th Army
Cab. Hist. Sect.
AIFSEA 431.
3rd T.A.F. File
8/40/Air
Encl. 262/264A
A.H.B./11J50
84/134B

Both Slim and Baldwin, as senior land and air force commanders, were in full agreement that the operation should continue and that Broadway alone should be used on the first night. During planning Wingate had, in fact, directed that in the event of obstruction being found at the last moment on any one landing ground, the field immediately to the south would be used. It was therefore logical and in accordance with Wingate's plan to switch the sorties from Piccadilly to Chowringhee. This, however, was opposed by Brigadier Calvert, Commander 77th Brigade. He presented strong arguments against putting down his Brigade at Chowringhee for it would then be half east and half west of the Irrawaddy and a difficult river crossing would have to be accomplished before a portion of his brigade could concentrate in the operational area. Since the splitting of 77th Brigade was tactically undesirable, Wingate agreed to carry on the first night using Broadway alone, particularly since it would have been impossible to reload the gliders with personnel of 111th Brigade for Chowringhee(1). It was probably fortunate that Broadway alone was used since the lessons learned in the glider landings there were put into practice the following night when Chowringhee was utilized.

TCC to EAC
16 Mar. '44
3rd T.A.F. File
8/40/Air
Encl. 263A
A.H.B./11J50
84/134B.
E.A.C. to
HQ. ACSEA
12 Apr. '44
A.H.B./11J50
47/27. Encl. 30

While it had been decided to concentrate as many gliders as possible into Broadway, the business of landing there provided many imponderable factors, not the least of which was the possibility of an opposed landing. Eight gliders were therefore to be despatched carrying engineering, communications and security personnel with their equipment; a break would then follow permitting the organization of ground lights for subsequent gliders. A red flare was also carried in the first glider to be fired as a warning to others of impending danger but according to the commander of the glider force no one intended to use it since heavily laden gliders in double tow were not likely to be able to make the return journey. The first tug aircraft of the advanced guard left Lalaghat at 1812 hours and the fourth at 1827. The remaining gliders followed, beginning at 1905 hours. In all some 52 gliders in double tow were despatched in the first wave but only about 35 were to reach their destination at Broadway, 267 air miles from base.

The loading of Glider

E.A.C. to
HQ. ACSEA
12 Apr. '44
A.H.B./11J
50/47/27
Encl. 30

A study of the manifests for glider loadings at Lalaghat illustrated their incompleteness and unreliability. In general gliders were allotted to brigades which in turn allotted them to columns, the commanders of which arranged the loadings in accordance with their tactical requirements. But the situation became immensely more complicated by the fact that the two landing operations planned for D-Day were, at the last moment, telescoped into one landing at Broadway. Hence the glider loadings of those despatched on the first night did not reflect fully the careful planning which went

(1) See details of plan, p. 141.

into the two-pronged operation. The gliders carried little more than combat troops and their essential weapons and ammunition, together with American airfield engineers. The freight of each aircraft was segregated into pens beside the runway and the weight of contents duly checked before loading. But somehow or other the men emplaned with additional personal equipment.

3rd T.A.F. File
8/40/Air
Eng. to
HQ. E.A.C.
28 Mar. '44
A.H.B./ILJ50/
84/134B.
Encl. 282A

As one officer expressed it the gliders were to contain the 'fire-power of a column, less non-essential mules.' Three of the latter were, however, transported for the purpose of making the wireless equipment mobile. The mules were loaded in a glider in simple bamboo stalls and no difficulty was experienced. The first day gliders also carried, in addition to weapons and ammunition, duplicate sets of flare-pots to mark the landing area, airfield lighting equipment, a wireless set, homing equipment and rations. The American 900th Airborne Engineers Company transported in the first night's operations four bulldozers (loaded without detaching the blade), two scrapers, one grader, one jeep and a miscellaneous collection of small tools.

The Breaking of Glider
Tow-ropes

Rear H.Q.
3rd Ind. Div.
21/17/G.
15 Mar. '44
A.H.B./ILJ
50/47/27.
TGC to EAC
3rd T.A.F. File
8/40/Air
Encl. 263A
A.H.B./ILJ50
84/134B

Soon after the departure of the first few tug aircraft matters began to go awry. Owing to broken tow-ropes four gliders were wrecked in the vicinity of Lalaghat. Some broke loose near and east of the Chindwin river and others over the Irrawaddy. One tug, having developed electrical trouble, returned and cut its gliders loose over Lalaghat after a flight of over two hours. Another tug crew, owing to high fuel consumption, believed that they would not have sufficient fuel to reach the target area, so returned and released their gliders over Imphal. Of the 17 gliders which failed to reach Broadway, 13 could be attributed to the breaking of tow-ropes; nine of the gliders landed in enemy territory, thereby staging an admirable though unplanned diversion. Most of the occupants of these gliders eventually reached friendly territory or joined 77th Brigade at Broadway. Casualties to the crews and passengers in the gliders which crash landed were not serious and morale was in no way affected. One determined officer was forced down twice in the vicinity of Lalaghat, each time finding his way back to the ground control. On his third appearance he was distressed when he found it was too late to obtain a seat for Broadway until the following night.

A.H.B./ILJ50
84/134B
Encl. 264A

The parting of the double tow-ropes of gliders resulted in the depositing of two glider loads each in the immediate neighbourhood of the 31st and 15th Japanese Divisional headquarters, and three in that of the Regimental H.Q. in the Paungbyin area. It thus appeared to the Japanese Intelligence that a large scale commando diversion was being carried out against them to frustrate their advance against Manipur. There is little doubt that this unplanned deception had a greater effect upon the enemy's mind than anything likely to have been planned. Supposing as he did operation Thursday to be a desire to foil at the last moment his own offensive plan, he disregarded the fact that large numbers of aircraft were passing over his head to unknown destinations until it was too late for him to counter them. Had he grasped what was happening a little earlier, which he might well have done but for the descent of gliders upon his headquarters, he might have substantially interfered with the plan and thus might have exerted very serious effects upon

the concentration and movement of columns. Of the experiences of the men inadvertently deposited in enemy territory, it is not proposed to treat. It might be mentioned, however, that the glider parties in some cases, formed themselves into minor commando forces. The officer in charge of one party, for instance, impressed upon his men that no-one was to think of himself as a survivor but rather as a member of an unusually well-found patrol which, after all, had the initiative. 'Our position' he commented, 'was on paper complicated but in practice was simplified by the fact that we did not know where we were and had no map of the area.'

Tel. 808
Air C.-in-C.
to C.A.S.
11 Mar. '44
A.H.B./ILJ54/11

Air Commando
to CG.CBI.
28 Mar. '44
A.H.B./ILJ
50/47/27
Encl. 30
Annex. A.

The breaking of glider tow-ropes may be attributed to a combination of factors. It should first be stated, however, that full load practices with double tow were undertaken many times during the preceding three months of training and preparation. Perhaps the primary cause of the trouble lay in the overloading of gliders. Operations had been planned on the basis of 4500 lb. per glider but this figure was alleged to have been exceeded by last minute additions of personal equipment. Some gliders were said to have carried a load of over 6000 lbs. Since only 26 tug aircraft were available it was necessary to obtain the maximum lift, hence the decision to employ double towing which according to theory should only be attempted as an emergency measure at a cruising height of 2000 feet. On 5 March 1944 double tow operations were performed after dark for a radius of 260 miles and across a mountain range 7000 feet high. The moon was almost full but was partly offset by bad hazy conditions making it difficult for glider pilots to see the position of the tug aircraft and twin glider, despite the fact that special lights had been installed on the wings and fuselage of the tugs. Communication between tug and glider took the form of an ordinary field telephone with a wire attached at intervals to the tow-rope; there were instances of this inter-communication failing. Glider pilots had no qualified second-in-command and were accompanied in most cases by a mechanic or other person with some flying experience. Subsequent glider operations were conducted with two pilots per aircraft. Most of the difficulties were encountered after altitudes of over 8000 feet had been reached and after the turbulent air over the mountains had been negotiated. As the tug aircraft began their descent, poor visibility over the Chindwin and the tendency of gliders to overrun the tugs (accentuated by heavy loads) created a surging effect which caused considerable fatigue among the pilots. The parting of tow-ropes invariably occurred when both gliders surged at the same time and when the shock of the tow-rope was taken up simultaneously by the one lead rope. Finally, it should be mentioned that in order to allow the nylon tow-ropes to unkink, these had been laid out for about a fortnight along the edge of Lalaghat airfield, where every truck drove over them with impunity. They had probably also been weakened by the strong sun by day and a drop in temperature with heavy dew at night.

Shortly after 2300 hours, tugs began to return from Broadway. Crews were interviewed after landing and it was learned that some aircraft required an hour and twenty minutes full throttle operation at 2500 rpm. to obtain the necessary altitude to clear the mountains. Yet no engine trouble other than slight overheating was experienced. Fuel consumption was abnormal, however, and a number of aircraft returned with

little fuel left in their tanks. After an hours deliberation it was announced that the C-47 aircraft proceeding on a second flight would tow single gliders only.

Landings
at Broadway

The first glider down at Broadway was piloted by the Commander of the glider force and the third by Colonel Alison, who had qualified as a glider pilot especially for the operation. Unfortunately, the American lieutenant-colonel who had been designated airfield controller was in one of the missing gliders but Colonel Alison took over and attempted to signal the gliders in. The hazards facing the advanced gaggle of gliders might well be imagined since they were obliged to land, admittedly in moonlight, in an unknown jungle clearing with perhaps an enemy waiting in ambush. After the first landings a British patrol fanned out on a perimeter of 360 degrees to find no enemy in the immediate vicinity of Broadway. But other perils beset the gliders for the landing area was found to possess a rough surface probably caused by the hauling of trees across the clearing when the ground was wet. The furrows thus made were overgrown with grass and could not be detected by aerial reconnaissance.

Tel. 808
Air C.-in-C.
to C.A.S.
11 Mar. '44
A.H.B./IIJ54/11

JICA/CBI
No. 1834
15 Apr. '44
A.H.B./IIJ
50/47/27

Nearly all gliders of the initial wave that reached Broadway crashed on landing and in most cases the landing gear was ripped away making them difficult to move. Colonel Alison laid out the flare pots to mark a landing area and prepared to marshal the incoming fleet. A green and white light was placed 300 yards to the north of the field to mark the spot where the gliders were to be released from their tug aircraft at an altitude of 200 feet. Flare pots were placed in a large diamond roughly 150 yards to each side, to mark the landing area on the field, each of two released gliders to land on either side of the flare placed in the middle of the diamond. The fact that the gliders were generally wrecked in landing, and hence immobile, resulted in the piling up of gliders and necessitated hastily moving the diamond to prevent a worse situation. Colonel Alison's efficient handling of the landing arrangements undoubtedly diminished the subsequent losses but his task proved more onerous than could have been expected. Each damaged glider when brought to a standstill provided a source of danger to its successors. As night wore on the number of accidents thus tended to increase until finally it was decided that no more aircraft could be received.

Various opinions were expressed as to the cause of the gliders crashing on landing. Undoubtedly the primary cause was the unexpected roughness of the ground, but other factors contributed to the chaos. Loads were incorrectly loaded with the centre of gravity too far forward or too far back. Loads were insecurely fastened and the centre of gravity tended to slip back, causing the gliders to stall on release of the tow-rope; this applied particularly in the case of heavy loads such as bulldozers. Finally, the overloading of gliders increased their landing speed and made them more difficult to control. Although the majority of gliders landed in the diamond flare path, two of them crashed into the jungle, killing most of the occupants. One trouble was said to have been the difficulty of Dakota pilots in gauging their exact altitude. The landing plan at Broadway was not therefore used in subsequent glider operations when gliders were released at 1000 feet and allowed to judge their own landings along a flare path.

Yet despite the confusion caused by tow-ropes breaking and the glider crashes on landing, a portentous quantity of equipment had been landed, together with over 500 men. What had been a few hours earlier an unfrequented forest glade was now a busy airfield strewn with wrecked gliders, where men were erecting defences, sorting equipment and organizing a camp - while at the emergency dressing station the medical officers were treating the injured and elsewhere the chaplain was preparing to bury the dead. Of the engineering equipment, one bulldozer and one scraper had been lost and the Commander of the 900th Engineers Company was among the 24 people killed. Twenty of these were men in the two gliders which crashed in the jungle. Despite the glider crashes at Broadway, only four casualties proved fatal and in all about 25 men were injured.

Activities at the Base Airfield of Lalaghat.

At 0227 hours on 6 March 1944, the ground control at Lalaghat received the code-word 'Soyalink' which meant that there was trouble at Broadway. On receipt of this message, eight C-47's towing nine gliders were on their way to Broadway. With the exception of the leading tug, whose pilot successfully released his twin gliders over the target, the remainder - all of them in single tow - were recalled to base. It is worthy of note that under exactly the same conditions in which double tow gliders were precipitately freed from their parent aircraft, no difficulty was experienced with gliders in single tow. Moreover, the latter crossed mountains 7000 feet high twice and returned safely to base.

Those at Lalaghat, however, had no knowledge whether the trouble at Broadway was because of an ambush, as had been feared, or for any other reason. Efforts to contact Broadway failed and the prolonged silence led to the belief that Allied troops were in close contact with an undetermined number of the enemy. Communications with Broadway were, however, re-established at 0630 hours when Brigadier Calvert requested light aircraft with fighter cover to be sent to the stronghold to evacuate their casualties. Thus at the conclusion of the first night's operations there was little cause for optimism with regard to the future but at 1000 hours on 6 March the gloom at Lalaghat cleared when Wingate was able to make wireless⁽¹⁾ contact with Calvert at Broadway. The former learnt that our forces were in full possession of the landing field and that there had been no enemy interference, and that the first transport aircraft could be received at dusk that evening.

Summary of D-Day Air operations

As a result of the glider operations carried out during the night 5-6 March 1944, some 539 men and three miles were landed at Broadway. The gliders also carried just over 29 tons of supplies though this figure, based on glider manifests, must have been greatly exceeded. The documents relative to the D-Day operations provide an incredible contradiction of facts and figures and in no two instances can the

(1) Only one wireless set was sent in and had it been lost or damaged, the consequences might have been disastrous.

ACSEA to
D. of Ops.
17 Mar. 1944
A.H.B./11J54/11
Rear H.Q.
3 Ind. Div.
21/17/g.
15 Mar. 1944
A.H.B./11J
50/47/28

Ibid.

statistical information be found to correspond. This may have been owing to the confusion caused by telescoping two landings into one, the breaking of tow-ropes and crashes on landing. However, a study of available figures would appear to indicate that 62 gliders were despatched from Lalaghat of which the eight in single tow were recalled. Some 54 gliders therefore attempted to reach Broadway and of these 37 probably arrived, eight landed in friendly territory and nine in enemy territory. Only three of the gliders which reached Broadway were sufficiently intact to be flown out. Something like 24 men were killed and 25 injured. To these figures should be joined the number of men in the missing gliders who were not subsequently recovered; these amounted to about 75. Thus the cost of mounting a hazardous airborne operation to secure an airfield in the heart of enemy held territory was not more than 124 men killed, injured or missing. The majority of gliders were, however, a total loss.

In addition to the glider landings, ten C-64 aircraft of the Air Commando Force and twelve Dakotas of Nos. 31, 62, 117 and 194 Squadrons, R.A.F. attempted to drop supplies over Broadway but these operations, supplementary to the main effort, were largely unsuccessful. Poorly equipped for night flying, only two C-64's reached Broadway and the supplies they dropped - without parachutes - were damaged on landing. Three C-64's were lost during the operation. Though six R.A.F. Dakotas dropped 36,000 lb. of supplies, the failure of the other six aircraft is difficult to understand since they were probably over the target - if indeed they went to the right place - shortly before midnight and by that time our troops were in possession of Broadway. It may well be, however, that their arrival at Broadway coincided with the worst of the chaos caused by the piling up of gliders at the landing ground. In any event the Dakotas found no lighted dropping zone and they returned to base with their loads.

Operations on D plus 1 and 2
6-8 March 1944

The Fly-in to
Broadway

3rd T.A.F. File
8/40/Air
Eng. Co.
to EAC.
28 Mar. '44
A.H.B./ILJ50
84/134B.
Encl. 282A

At first light on 6 March 1944, the American engineers which had been landed in gliders during the night, began to prepare the landing strip for Dakota aircraft. This was mainly a grading job on paddy soil containing a high proportion of clay and suitable for fair-weather use. Bulldozers hauled the damaged gliders to the perimeter of the jungle clearing and then levelled off hummocks, grading and filling water buffalo holes with which the field was studded. British soldiers assisted in cutting grass and working with pick and shovel.

Ibid.

Soon after dawn, at Calvert's request, light aircraft appeared over the field having flown from their bases at Tamu and Taro at tree top height, with supplementary fuel tanks to get them to Broadway. All the injured were successfully evacuated. One light aircraft cruised over the nearby jungle to locate a crashed glider in which two men were reported to be still alive. Previous attempts to find the glider had failed but the light aircraft found the wreck, an azimuth was shot and a rescue party, after an hour's work cutting their way through the dense undergrowth, reached the glider. The dead were buried and the two men still alive were taken back to Broadway.

Tel. 801
 Air C.-in-C.
 to C.A.S.
 10 Mar. '44
A.H.B./IIJ54/11
 D. of Ops.
 ABF-41 3
 T.A.F. File
 A.H.B./IIJ50
 84/227

Since the D-Day operations had been drastically curtailed it was planned that as soon as the strip at Broadway had been completed, Dakotas would be flown in on the afternoon of 6 March, under strong fighter escort, and that operations would continue throughout the hours of darkness. But the signal announcing that Broadway could accept transport aircraft was not received until half past six that evening. The cancellation of the daylight programme, however, may have been a blessing in disguise since the enemy remained in the most extraordinary ignorance of what was going on and the location of Broadway. The entire operation therefore took place at night.

21/17/G
 3rd Ind. Div.
 15 Mar. '44
 A.H.B./IIJ
 50/47/28

The American engineers and British troops toiled throughout the hours of daylight on 6 March preparing a strip 1400 yards long for powered aircraft and as the evening shadows lengthened the novel airstrip, deep in enemy territory, was finished. But strictly speaking it no longer belonged to the enemy for the airfield was ringed with enough troops to hold it for the time being. The runway was marked out with electric lights and a wrecked glider provided the control tower where Colonel Alison, with his wireless set, was ready to bring in the fleet of transports. The first of these took off from Lalaghat at 1730 hours and by 2110 hours twenty-four United States C-47's and three R.A.F. Dakotas of Troop Carrier Command had been cleared. All aircraft from Lalaghat carried a pay load of 4500 lb., representing the glider loads that had not been transported on D-Day. There then followed 38 sorties by R.A.F. Dakotas from Hailakandi, all aircraft being loaded to the maximum permissible weight of 6000 lb. Apart from three R.A.F. Dakotas which lost their way, all aircraft landed safely at Broadway where no difficulty was experienced in handling them. The 62 transports which landed carried 889 men of 77th Brigade, 114 animals and nearly 18 tons of supplies. Not one Dakota was lost though two aircraft of No. 194 Squadron, R.A.F. were damaged when they collided on the ground; they were flown out three days later. Crews were briefed to fly at definite heights. Outward bound they maintained the minimum safe altitude of 8000 feet to clear the mountains and on return trips the aircraft flew at 9000 feet. Routes to and from Broadway were specified and altered from time to time during subsequent operations.

The Establishment of Chowringhee

Rear H.Q.
 3rd Ind. Div.
 15 Mar. '44
 A.H.B./IIJ
50/47/28
 3rd T.A.F. File
 Encl. 264A.
 A.H.B./IIJ50
 84/134B.

With the enforced abandonment of the landings at Picoadilly on D-Day it seemed likely that serious congestion at Broadway might arise and it became highly desirable to open a second landing ground to ensure that the maximum number of aircraft could be handled at the receiving end. Moreover, the curtailment of the D-Day operations had placed the planned fly-in of 77th and 111th Brigades somewhat behind schedule. Wingate therefore proposed to exploit Chowringhee to the utmost. It was, however, subject to two disadvantages. The first was that it lay perilously near to enemy air and ground forces and in a completely flat and open area of forest traversed by motor transport in all directions. The second drawback was that the troops put down there would be of little tactical use until they had crossed the Irrawaddy westwards. As events were to prove, the latter was a serious obstacle, which resulted in the loss of certain animals, equipment and consequent disorganization.

TCC to EAC
19 Mar. '44
A.H.B./ILJ
50/47/27
Air C.-in-C.
to C.A.S.
8 Mar. '44
A.H.B./ILJ54/11

As a result of the experiences of D-Day, only twelve gliders in single tow were flown into Chowringhee by the Air Commando Force on the night of 6-7 March 1944. All gliders reached the landing area but one overshot and crashed into the jungle, killing all occupants. Another glider crashed on landing and it was unfortunate indeed that both these aircraft were carrying airfield construction equipment all of which was rendered useless. Thus the engineers at Chowringhee, bereft of mechanical gear for constructional purposes, were obliged to do their best with manual labour and hand tools. Needless to add the completion of an airstrip was inevitably delayed. In all 183 men and 2400 lb. of supplies were landed at Chowringhee by glider on 6-7 March and apart from the American engineers they were all members of 111th Brigade.

Ibid.

Plans for the night of 7-8 March 1944 had been laid on the assumption that Chowringhee would be serviceable for Dakota aircraft at dusk. At midday on the 7th, word was received from Chowringhee that they lacked mechanical equipment and that unless they received a bulldozer, only about 1000 yards of runway would be ready at midnight. A Dakota was immediately sent from Lalaghat to Calcutta to collect an additional bulldozer, the aircraft returning to its base at 1930 hours. The equipment was loaded in one of the four gliders leaving Lalaghat at 2100 hours for Chowringhee while another bulldozer was towed thither in a glider from Broadway. At 2315 hours on 7 March Chowringhee sent the code-word 'Roorkie' which indicated that the strip was ready to receive transport aircraft, and shortly after midnight the first of 24 American C-47's took off from Lalaghat. Two hours later, however, a message from Chowringhee implied that the strip was only 900 yards long whereas a minimum of 1300 yards was deemed necessary for heavily laden Dakotas to land safely. The 24 aircraft then airborne were recalled, but the seven which did not receive the message landed, fortunately without incident, at Chowringhee. A further 282 men of 111th Brigade and three tons of supplies were landed.

Completion of the Fly-in of 77th and 111th Brigades

While attempts were being made to complete the strip at Chowringhee during the night 7-8 March, the fly-in of 77th Brigade to Broadway continued, some 87 R.A.F. and U.S.A.A.F. Dakotas landing there during the hours of darkness. On the following night, 8-9 March, 82 Dakota sorties were flown conveying troops of 77th Brigade to Broadway while 78 Dakotas landed at Chowringhee with elements of 111th Brigade. One more night saw the completion of the movement of 77th Brigade to Broadway; this involved 94 Dakota sorties. In the course of 40 sorties to Chowringhee, further troops of 111th Brigade were landed there.

3rd Ind. Div.
15 Mar. '44
A.H.B./ILJ
50/47/28
ACSEA to
D. of Ops.
17 Mar. '44
A.H.B./ILJ54/11

General Wingate spent the night of 7 March at Broadway and returned to Lalaghat on the 8th after visiting Chowringhee on the way. While at the latter, Wingate had been impressed by the risk involved in continuing to use this exposed southern airfield. It had already fulfilled its role of affording a lodgment for four columns of 111th Brigade and even more important, of providing a distraction from Broadway. Wingate therefore switched the remainder of 111th Brigade to Broadway, which by that time had proved its ability to handle much heavier traffic than had been anticipated during initial planning. Chowringhee was therefore abandoned on the morning of 10 March and enemy aircraft attacked the field a few hours later. The Japanese continued to attack Chowringhee for a

couple of days, thus indicating his mistaken impression that it was the principal airfield. It is also believed that this led the enemy to make a wrong distribution of his available resources of ground troops in the first instance. The fly-in of 111th Brigade therefore continued to Broadway and no less than 125 Dakotas landed there during the night 10-11 March 1944. The following night only a small detachment of 111th Brigade remained to be moved to Broadway and these men were transported in four Dakotas. Simultaneously, eight C-47's of the Air Commando Force flew in air force equipment with which it was proposed to make Broadway suitable for the operation of fighter aircraft.

Also on 11-12 March at night, four gliders on single tow, containing collapsible boats and other equipment, were landed on sandbanks on the Irrawaddy to assist the river crossing of those troops of 111th Brigade which had been landed at Chowringhee. This operation cannot be regarded as being entirely successful since the gliders were late in leaving Lalaghat and a solitary R.A.F. Dakota, charged with the task of dropping additional river crossing equipment, failed to complete its mission. The crossing of 111th Brigade was therefore further delayed and had not been completed by first light on the 12th. The four C-47 tugs, after releasing their gliders, landed at Broadway and returned an hour and a half later to the banks of the Irrawaddy to snatch out the gliders. Only two were, however, retrieved since the other two had been badly damaged on landing, necessitating their destruction.

21/17/G.
3rd Ind. Div.
15 Mar. '44
A.H.B./IIJ
50/47/28

Yet another operation had been scheduled to take place on 11-12 March but once again plans went awry. A small body of troops known as 'Dah Force' was to have been introduced into a landing area prepared by local labour and known as Templecombe, situated in the Kachin country east of the Irrawaddy. The intention was for Dah Force to raise Kachin levies for action against the Japanese and to buy over an independent force of some 3000 Chinese guerillas who were reported to be in the vicinity and going to the highest bidder. It so happened that communications with the clandestine agent at Templecombe broke down and it could not therefore be known whether the landing area was, in fact, secured and marked out for gliders. At the last moment Dah force deplaned, the troops were reloaded into Dakotas and flown into Broadway whence they were to march overland to Templecombe.

Summary of Operation Thursday

In the space of seven nights Allied transport aircraft, with a spearhead of American gliders, landed two brigades with their animals, equipment and full organization in the jungles of enemy occupied Burma upwards of 250 miles from their bases. It was an operation entirely without parallel in the war against Japan and in view of the underlying factors, it was accomplished at remarkably small cost. For in the early stages the whole venture was imperilled by the obstruction of Piccadilly by the Japanese and the unexpectedly rough surface of the Broadway clearing. But in analysing the subsequent and highly successful fly-in of 77th and 111th Brigades, several points are worthy of emphasis. We had achieved a high degree of air superiority. The enemy remained in the most extraordinary ignorance of the place and scale of the airborne operations. The weather was very favourable indeed. The pilots of the transport aircraft were not just air-line pilots, but were mainly highly

experienced in night operations under fire and many were trained to an extent which allowed them to find tiny dropping zones in difficult terrain. The whole operation was carried out by night. Broadway, located in an inaccessible area, remained singularly free from enemy interference. These factors might be examined more fully.

The smooth assembly and fly-in of the large number of aircraft required to lift the two brigades into Broadway and Chowringhee was doubtless in part due to our air superiority. Air reconnaissance was carried out by Allied aircraft at will, while continuous attacks upon enemy troops, lines of communication, airfields and vulnerable points, caused the enemy considerable discomfort and kept his air force on the defensive. Enemy attempts at deep reconnaissance were thwarted by Spitfires and Japanese Dinahs were destroyed on 4 and 6 March over the Imphal plain. Not until the 12th did the enemy succeed in carrying out a reconnaissance of our bases on the central sector of the front and by that time the first phase of operation Thursday had been completed. Moreover, when enemy reaction first took place in the shape of a concentration⁽¹⁾ of aircraft at Shwebo, Onbawk and Anisakan on 8 March. P-51's of the Air Commando Force inflicted severe casualties upon them⁽²⁾. This air offensive against enemy airfields was maintained on the days that followed, principally by American fighters. There is no doubt that the attacks contributed to the complete absence of enemy aircraft over Broadway during the actual period of operation Thursday, and to the fact that the Japanese remained unaware of what was going on. It would be prudent at this point, however, to mention that the enemy suffered disadvantages in the lack of intelligence, bad radar and poor communications. Moreover, he was busily occupied at the time in massing for his offensive across the Chindwin westwards and his planning had always ⁽³⁾ been very inflexible. Nevertheless, he belatedly attacked Chowringhee on 10 March, some hours after it had been abandoned by our troops, while Broadway remained unmolested until the 13th by which time it was too late for the enemy to affect the outcome of the operation.

The weather throughout the operation was ideal with the moon almost full. The clear weather greatly assisted navigation in that the Chindwin and Irrawaddy rivers were plainly visible in the moonlight. On the other hand ground haze, probably caused by forest fires, helped to conceal the proceedings from Japanese eyes. The air was generally smooth save on two nights over the mountains.

It had been suggested that on D plus one, daylight operations should commence. In view of the absence of enemy reaction it was felt that time allowed all operations to be carried out under cover of darkness and it was hoped that by so doing the enemy would remain in ignorance of the exact location of the landing areas. Also the possibility of enemy air attack at night was very much less. The speed with which it is essential to land and build up a sufficiently

-
- (1) These aircraft were brought up in order to support the Japanese offensive against Manipur but must be regarded as being a potential threat to Thursday. Indeed those aircraft which survived our attacks were for a while used against the jungle airstrips.
 - (2) See Chapter 5.
 - (3) See Chapter 5.

large force must, of course, be weighed against the claims of security. In the case of operation Thursday the decision to operate solely at night was undoubtedly a correct one. It is reasonable to assume, however, that in mounting an airborne operation of a similar nature, speed might well prove to be more important than security, particularly if there is a possibility of inclement weather.

It may well be asked why this operation, which penetrated more deeply into territory actually held by the enemy than any other attempted up to that time, should have met with such complete success. The word 'success', in this instance, applies to the airborne aspect of the operation since it would be profitless here to analyse the long term military implications. The guiding principle of operation Thursday lay in the establishment of our own airfields and strongholds. These were to be located where the enemy was not in force and could not arrive in force for some considerable time. This resulted in the acquisition at small cost of a defended airfield (Broadway) just as useful to the Allies as Bhamo or Indaw, and without the hazard of descending out of the sky upon or near enemy defences. The Japanese had already shown with what speed he was capable of assembling powerful forces on main lines of communication and it seems likely that had we attempted, as at one time contemplated, to descend upon Indaw itself, or some other apparently undefended and tempting area, the insertion of our forces behind enemy lines might never have been accomplished.

Lest it should be thought that the entire operation was faultlessly carried out it is necessary to record some of the mistakes made⁽¹⁾, not with the object of criticizing those responsible, but so that the lessons may be assimilated. For to be wise after the event is not a cardinal sin but a virtue. Perhaps the first lesson which emerges from operation Thursday is that when possible paratroops should be dropped first to clear the ground with hand tools so that gliders or transport aircraft could land with the minimum risk, and to provide security for initial landings. The parting of glider tow-ropes has already been mentioned and all that remains to be recorded on this subject are the comments of Colonel Cochrane. He said:

'For conditions where absolute peak performance is necessary, single tow operation should be used. For conditions where less than peak performance is required, double tow can safely be used and is the more efficient lift, within the limitation of range. As a rule of thumb we advise the following; for day operations or operations with the moon for medium distances over level terrain, double tow should be used to get maximum lift. For peak performance conditions such as crossing high mountains at night or where heavy loads have to be carried for extreme ranges, single tow is recommended.'

Colonel Cochrane also implied that glider pilots were insufficiently trained to carry out the difficult and hazardous task assigned to them on D-Day.

The general direction of the operation was rendered somewhat complicated by the fact that the Air Commando Force

(1) For those interested in administrative lessons the document A.H.B./ILJ50/47/28 should be examined.

Report by Air
Mshl Baldwin
A.H.B./IIJ
50/84/227

Maj.-Gen.
Wingate
A.H.B./IIJ
50/84/134B
Encl. 264A

was more or less an independent formation and that other units involved included No. 221 Group, Troop Carrier Command and Third Tactical Air Force. Air Marshal Baldwin was, in fact, appointed representative of the Air Commander, Eastern Air Command to co-ordinate the air aspects of operation Thursday. It has been said that this authority did not go far enough and that at an early date in the planning stages 'command' should have been given to an officer whose duties would be to watch training, agree planning and to weld the force into a co-ordinated whole, responsive to his direction. On the other hand General Wingate appeared quite satisfied with the air organization and claimed that the plan would never have succeeded but for the allotment of the Air Commando Force for the sole purpose of supporting Thursday. But it is not proposed at this point to discuss the blessings or otherwise of the endowment of a private air force to a specific land formation, nor is it proposed to discuss the loosely woven threads of air control since the operations of Special Force subsequent to the fly-in are involved. These matters will be assessed in a later chapter.

On the credit side, acknowledgment must be made of the courageous manner in which American glider pilots landed their aircraft in unknown jungle clearings, the fine work accomplished by the American engineers under demoralising circumstances and the remarkable flying control instituted at Broadway. Moreover, the hazards taken by Troop Carrier Command in landing by night fully laden Dakotas on impromptu airstrips with less than 24 hours previous preparation per strip, were such that only bold and resourceful commanders would be prepared to accept. It is worthy of note that the Air Commander, Troop Carrier Command himself carried out numerous reconnaissances of the areas which were to be used and was first in the field when Dakotas were making their initial landings.

In many instances statistics do not measure the success of an operation but in the case of operation Thursday, it can fairly be said that they do. In the course of seven consecutive nights, 5-11 March 1944, seventy-four glider and 660 transport sorties were flown to Broadway and Chowringhee. Some 9052 men and their personal equipment, 1359 animals and 227 tons of supplies were transported. These figures may not be one hundred percent accurate but they are sufficiently reliable to indicate the effort involved. Details of the figures might well be quoted:

	<u>Sorties</u>	<u>Men</u>	<u>Animals</u>	<u>Tons</u>
RAF/TCC.	331	4,622	830	105
USAAF/TCC.	197	2,382	377	76
Air Commando	132	2,048	152	46
Broadway	506	7,035	1,027	198
Chowringhee	154	2,029	332	29

During the operation not one Dakota was lost through enemy action although three C-64's did not return from the D-Day operations and minor damage occurred to six Dakotas through accidents on the ground. Most of the gliders were not recovered. The transport aircrews had weathered a period of intense strain and by exerting the maximum effort during the hours of darkness, had achieved their purpose. But the task of the Allied air forces was not yet complete for two more brigades were later to be flown in, all units of the Special Force needed maintenance by air, casualties had to be evacuated and a new system of tactical air support developed in the field. Of such matters this narrative will later treat.

CHAPTER 8

OPERATIONS OF THE SPECIAL FORCE MARCH TO MAY 1944The Military Background

In Chapter 7 mention has been made of Wingate's original plan to introduce his Special Force into the area around Indaw, the northernmost communications centre of any importance in Upper Burma. The Force was then to seize and hold an enclave into which ordinary army units would be flown by transport aircraft, and towards which IV Corps in Manipur would advance. Had this occurred not only would the Japanese communications leading to Stilwell's battleground in the north have been severed, but the British-Indian divisions would have been delivered from the mountain fastnesses of Manipur in which they had long been confined. But this plan was modified by the fortunes of war long before operation Thursday was launched, for the Japanese advance across the Chindwin had been foreseen, and Wingate had been warned that an exploitation of Special Force operations by IV Corps might not take place. When in January 1944 it became evident that the operations of Special Force would not be supported by main forces, Wingate began to study how to increase the effectiveness of his long range penetration brigades in the light of the changed circumstances. This, however, lies in the realm of purely military policy and all that need be recorded is what actually happened.

Cab. Hist. Sect.
ALFSEA 28/1
ALFSEA 28/2
Gen. Wingate
to C.-in-C.,
India,
27 Jan. '44

The Japanese were slow to react to operation Thursday and apparently judged at first that the insertion of Special Force behind the front line was just another Wingate raid similar to the one in the previous year which had had only a nuisance value. Subsequently, however, the enemy appreciated our intentions with considerable accuracy. They realized that our landings were designed to cut the Mandalay-Myitkyina lines of communication and so isolate the 18th Japanese Division opposing Stilwell, to compel the diversion of troops from the Manipur front and to consolidate a base behind enemy lines for future operations. But the Japanese rarely deviated from carefully laid plans and did not divert any major forces to deal with Special Force. Instead, they concentrated against it all available administrative troops, including certain elements of divisions not yet committed to the Imphal offensive. These forces suffered heavily in their attempts to clear their lines of communication and had eventually to be reinforced by troops of the 53rd Japanese Division, then facing the Chinese forces in Yunnan.

Cab. Hist. Sect.
ALFSEA 431/4
Campaign of
the 14th Army
1943-44

A. H. B./IIJ54/50
Summary of
Special Force
operations.
Aug. 1944

As soon as 77th and 111th Brigades had been landed at Broadway and Chowringhee, they split up into columns and began to deploy for their appointed tasks. The first real clash between long range penetration troops and the enemy occurred on 16 March 1944 when 77th Brigade attacked Japanese positions near Mawlu. They then established a road and rail block and light aircraft strip at Henu, which effectively severed the main line of communication to the 18th Japanese Division. The enemy's fierce attempts to dislodge 77th Brigade failed for the latter's grip had tightened to an extent that it would have taken a major offensive to remove it. By 24 March Aberdeen had been established as 16th Brigade's stronghold and the first troop carrying Dakotas were landing there. Part of 111th Brigade was moving across to the Bhamo-Myitkyina road to operate against that line of communication leading to Upper Burma, while other elements of 111th Brigade were making for

the Mu Valley to operate against enemy communications leading to Manipur. The stage was thus set precisely as Wingate had planned it but the Japanese, after months of inactivity, launched their offensive against Imphal and Kohima. Until the strength and direction of the enemy offensive was clear, the High Command was reluctant to commit more troops to long range penetration since they might need them to fight a defensive battle. All available transport aircraft might also be required to supply possible beleaguered divisions in Manipur, if the land communications were out.

It seems likely that Wingate feared that the Japanese thrust would affect his plan and to remove his remaining brigades out of reach of the High Command, he proposed to commit them both forthwith, before his right to do so had been abolished. The first brigade to be flown in was the 14th and would co-operate with the 16th Brigade against Indaw; 23rd Brigade would follow but Wingate had not decided where to send them. At this point it might be mentioned that the sixth brigade of Special Force, the 3rd West African Brigade, had already been earmarked as garrison troops for the strongholds established by other brigades. Part of the 3rd W.A. Brigade had earlier been flown into Broadway to garrison that stronghold and the remaining troops were to be flown into Aberdeen after 14th Brigade had been deposited there. The first elements of the latter arrived at Aberdeen on 23 March 1944 but owing to bad flying weather and other commitments of Troop Carrier Command elsewhere on the Burma front, it was not until 4 April that the move was completed, and not until 12 April were the last troops of 3rd W.A. Brigade flown in.

A.H.B./IIJ54/
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Summary of
Operations
H.Q. Special
Force. Brig.
Lentaigne

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JICA. 1834.
pp. 2-3

At this vital stage of the long range penetration campaign the fortunes of Special Force were dealt a severe blow. On 24 March 1944 an American B-25 aircraft in which Major-General O. C. Wingate was travelling, crashed into the hills near Bishempur, killing all on board. Wingate was succeeded by Brigadier W. D. A. Lentaigne, formerly commander of 111th Brigade. Then on 31 March, 23rd Brigade of Special Force, the only one not yet committed to the field, was placed under XXXIII Corps for short range penetration operations in support of the Manipur campaign.

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Operations of
Special Force,
Brigadier W.
Lentaigne.
Aug. '44

The attack by 16th Brigade upon Indaw during the last week of March failed, mainly owing to the exhaustion of the troops involved - they had just completed an arduous march of 400 miles or so - the prior warning received by the Japanese of the attack, and also because our troops were short of water. Early in April 1944 the Brigade returned to Aberdeen for rest and refitting and the main concern of Special Force during April revolved around the block at Henu, now called White City. Early in the month the White City fortified block was made even stronger by heavy weapons flown in by gliders and transport aircraft. But with the 16th Brigade threat to Indaw temporarily removed the Japanese were free to make another effort to dislodge 77th Brigade from White City. On 10 April the Special Force was relieved of the task of cutting communications leading to the Chindwin since the Japanese in their offensive across the river did not rely to any great extent upon re-supply of their forces but anticipated living upon captured booty to sustain them. However, since 111th Brigade was no longer to harass enemy communications leading to Manipur, they were able to operate on the Wuntho-Pinlebu-Thayetkyon road to prevent enemy reinforcements moving towards

Aberdeen and White City. Nevertheless, there had been a large build up against the latter and the Japanese began their major assault against the block on 11 April. The battle raged until the 17th when the Japanese, owing to severe casualties, retired. During the big and decisive battle at White City the other brigades had not been idle; they continued to harass enemy communications over a wide area. Broadway was still being used as a stronghold and all enemy ground attacks against it were repulsed. Aberdeen remained quiet.

Ibid.

So ended the initial stage of Special Force operations in Burma, that of the establishment of strongholds and blocks on enemy lines of communications. Broadway could be considered secure at the conclusion of the fighting there. Aberdeen had never experienced an enemy ground attack and was completely established as a stronghold. The White City block, after long and bitter fighting, had defeated the Japanese attempts to remove this stranglehold on their communications and after 17 April could look forward to a long period free from serious interference. With three such secure bases from which to operate, each comprising a Dakota and numerous light aircraft strips and adequately garrisoned, Special Force was free to devote itself to such tasks as were considered desirable.

A.H.B./ILJ50/
47/31 HQ. 3rd
Ind. Div. 26
Jun. '44
Operation
Holiday

Towards the end of April 1944 a second attack upon Indaw West airfield was made by 16th Brigade and this time they were aided by the diversionary activity of 14th Brigade. On 27 April the airfield was captured almost unopposed and a rather ridiculous situation arose, for the Allies now held a captured enemy airfield and no plans existed to exploit the gain. For by now it was quite certain that no troops could be spared from India to hold the airfield during the monsoon. In any case, 16th Brigade found the airstrip unsurfaced, uncambered and undrained, and therefore fit only for fair weather use. The Brigade was ordered to hold the airstrip for a couple of days and to destroy all installations in the area. The columns of 16th Brigade were then to march to Aberdeen and Broadway and fly out from there during the last moon period before the break of the monsoon.

Cab.Hist.Sect.
ALFSEA 431/1
Campaign of
14th Army
1943-44

The future plans for Special Force had now crystallized. Fourteenth Army had resisted the temptation to move the force westwards against the Japanese invaders of Manipur, for despite the grave tactical situation, notably at Kohima, the strategic position was good. Three enemy divisions fighting in Manipur were operating at the end of a very precarious line of communication and it seemed evident that if Imphal could be held with the aid of supplies by air, the Japanese would starve. Special Force was therefore diverted entirely to the task of helping the advance of Stilwell's forces on Mogaung and Myitkyina for with this help there promised to be a successful offensive. Moreover, with the approach of the south-west monsoon, the fair-weather strips held by Special Force in Burma would soon become useless and it was thus necessary to get physical touch with the Chinese-American forces for the evacuation of the sick and wounded. On 27 April 1944 orders were given for a new fortified block to be established between Pinbaw and Hopin by the 111th Brigade, while protection was to be given by the 14th and 77th Brigades operating west and east of the railway respectively. This new block was to be held until 22 May at least in order to achieve the same results as

White City while being nearer to Stilwell's battle-ground. At the same time, Broadway and Aberdeen with their fair-weather airstrips, would be evacuated and White City too would close down as soon as 111th Brigade had established their Hopin block. This block, originally called Clydeside, later became known as Blackpool after the former code-name had been compromised. It was visualized that when Blackpool had been established and the Japanese attempts to break it had been overcome by the four brigades of Special Force, it would then be possible to release two brigades to co-operate with the Chinese-American forces in the capture of Mogaung. In this way the 18th Japanese Division would be caught between the British forces advancing from the south and the Chinese-American troops coming from the north. The Blackpool fortified block was established on 7 May 1944, White City being evacuated two days later. Aberdeen closed down on the 5th and Broadway on 13 May 1944. This ended the second phase of Special Force operations.

A.H.B./
IIJ50/47/31
HQ. 3rd Ind.
Div. 26 Jun.
'44 Diary of
Op. Holiday

There followed some hard fighting in monsoon conditions, which also made difficult air supply to the force. By all accounts the fighting was grim, casualties were heavy, and battle casualties swollen by the heavy sickness rate. But the final stages of long range penetration in 1944 should be left to the following chapter since they were closely associated with the advance of General Stilwell's forces towards Kamaing, Mogaung and Myitkyina. From 20 May 1944 onwards, the four brigades of Special Force still in the field, were incorporated into the Northern Combat Area Command and on the same day the Air Commando Force ceased to operate and was withdrawn from the front line. Thenceforth, air support for the long range penetration brigades was provided by the American squadrons of Northern Air Sector Force which, from 20 June 1944, became the reconstituted Tenth U.S. Air Force.

Establishment of 16th Brigade's Stronghold (Aberdeen)

While operation Thursday was being launched, 16th Brigade marched south after crossing the Chindwin and on 10 March 1944 had entered Haungpa. By the 19th elements of the Brigade had reached the Meza river valley near the village of Manhton where a site was chosen for a potential Dakota landing ground and also a site for a stronghold. Though the selection of the site had been approved by Wingate it did not fully meet the requirements of a stronghold since it was highly accessible to the enemy. It lay only 14 miles from the Barmauk-Indaw road and Indaw itself was about 30 miles away. For this reason and also because the railway at Mawlu lay only 20 miles to the east, the site was admirably situated for offensive operations. As events were to prove, the location of Aberdeen, (1) as it became known, fully justified the apparent boldness of its selection for the enemy never undertook an expedition against it.

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/50 AHB
Summary of
Special Force
operations

As soon as 16th Brigade troops had occupied the Manhton area of the Meza valley, work was commenced on clearing an area on which gliders were to land. Thus the airborne operation to establish Aberdeen differed in one important respect to the landings at Broadway and Chowringhee in that at Aberdeen the ground had been prepared. The preliminary work at Aberdeen was speedily accomplished for by this time the troops had garnered much experience in preparing light

A.H.B./IIJ
50/47/27
JICA 1834

(1) Position 95° 58' East
24° 35' North

aircraft strips. This usually consisted of removing from paddy fields the banks, or bunds, which during rice growing seasons acted as water retainers. Once sufficient bunds had been removed there was a reasonably flat area of land suitable for the landing of light aircraft or gliders. Early in the morning of 22 March 1944, six gliders, carrying two bulldozers, carryalls, tractors, graders and jeeps, landed at Aberdeen without mishap and American engineers began work at once in preparing a strip for powered aircraft. Thirty-six hours later the airstrip was ready. Flare-path lights were down, a control was set up complete with radio, and Aberdeen became an established airfield. On it something like 700 Dakotas landed from the first on 23 March to the last early in May 1944.

Yet from the air point of view Aberdeen was never a satisfactory airstrip since a hill existed near the north end of the runway which forced pilots to land in one direction and to take off in the other. Moreover, the hill made it difficult for pilots to change their minds and once finally committed to landing no second attempt was possible. The presence of the hill within the airfield circuit resulted in one fatal accident.

During the six weeks of its existence, Aberdeen buzzed with activity. It constituted the base of 16th Brigade. Two brigade headquarters (14th and 3rd West African) and six battalions, complete with animals were landed there, but owing to other commitments and bad flying weather the fly-in of these formations covered a period of three weeks. A dozen or so light aircraft were based at Aberdeen, consequently it became the staging post for the evacuation of the wounded of most of the Force, though Broadway too was also used for casualty evacuation. Each of the units of 16th Brigade spent a period of rest there during the first weeks of April and 16th Brigade Headquarters were there the whole time. By using light aircraft the Brigade Commander could visit all his units at their advanced bases and he could also carry out numerous reconnaissances. All day long light aircraft would fly in and out of Aberdeen carrying reinforcements, liaison officers, stores and so forth on outward trips and returning with wounded men from the widely dispersed long range penetration columns. At night there would normally be a procession of Dakotas flying in troops, supplies and equipment and taking out the casualties brought in overland or deposited at Aberdeen by light aircraft. Occasionally, in moments of stress, Dakotas would fly in by day but there was always an element of risk in this as Japanese aircraft were frequent visitors. Aberdeen averaged two raids a day for a fortnight and on the peak day there were two bombing raids and three visits by single intruders. Only once, however, on 7 April 1944, did they manage to intercept a Dakota but despite severe damage this aircraft was able to land. The air defence of the stronghold and airstrip was in the hands of anti-aircraft gunners who claimed a good many enemy aircraft damaged but never achieved anything spectacular until near the end. Then in two days they shot down seven enemy aircraft taking one Japanese pilot prisoner, a very rare occurrence indeed.

A.H.B./ILJ50
/47/27
JICA. 1834
p. 7

In mid-April Aberdeen was denied to our use for a couple of days by prolonged enemy interference. It was judged unsafe for the lumbering and vulnerable Dakotas until American fighters sought out and attacked the Japanese airfield from which their fighters had been operating. Unfortunately, the closing of Aberdeen occurred during a particularly busy week when the garrison was encumbered with many wounded men.

The light aircraft were flying up to ten sorties a day each to bring in casualties, from 77th Brigade at White City, which was being attacked nightly, and from the 14th and 16th Brigades. The wounded piled up quickly and no Dakotas were landing to evacuate them to India. Each time the Dakotas started out for Aberdeen they were turned back either by thunderstorms or by news of enemy air patrols until at last there were nearly 200 wounded men at Aberdeen, suffering not only from original wounds but from the lack of medical attention and drugs. When at last Dakotas did reach Aberdeen the entire number of wounded were evacuated in a single night. In order not to be caught again by a similar emergency arrangements were made for a medical team to be flown in together with a plentiful supply of drugs and blood plasma.

A.H.B./ILJ50
/84/23 Encl.
94, A.O.C.
No. 221 Group
to Cmdr. 16th
Bde. 14 Apr. '44

Apart from the light aircraft, the only other aircraft to be based on Aberdeen were two Hurricanes which were acquired for the purpose of reconnaissance and offensive action. It would appear that two R.A.F. liaison officers with 16th Brigade were the originators for the request for these Hurricanes. Presumably they wished to carry out some flying during a period of duties on the ground. The A.O.C. No. 221 Group was not very keen on providing the aircraft since he had already seen his Spitfires destroyed on the ground at Broadway owing to an ineffective warning system. However, after some argument he agreed to supply two Hurricanes for one month. But on two consecutive days both these aircraft were forced down, probably because of engine trouble, and though both were located from the air nothing further was heard of the two R.A.F. pilots.

Establishment of the White City Stronghold

The White City road and rail block at Henu was established by 77th Brigade on 16 March 1944 and was kept in being until voluntarily evacuated on 9 May. The perimeter of the stronghold consisted of four or five low hills separated from the main hills on the east by a few yards of pasture and at one point by a stream. On the south side another stream divided the block from a stretch of paddy half a mile wide, beyond which lay the small town of Mawlu. On the west side was a railway embankment and beyond this a wide expanse of open paddy. But White City's greatest advantage, apart from a good water supply, was the natural light aircraft strip lying between the low hills which curved protectingly about it, and the railway embankment, so placed that when an aircraft was on the ground it was defiladed from all sides. This strip and the light aircraft that flew in and out was the life-line of White City. Masses of wire, duly booby trapped, protected it and the hills were honeycombed with dug-outs. From time to time the garrison would change, but there were never less than 1500 troops there, all of whom were, of course, sustained by air supply.

A.H.B./ILJ50
/84/134B Encl.
295B. RAFLIO.
77th Brigade

The first glider operation to White City took place on 27 March when two, carrying anti-tank guns, landed on a strip of cleared paddy 400 yards long and 25 yards wide. The gliders landed just after dusk, the runway being lighted by four small fires on each side. The first glider landed and ended up in a small ditch to the right of the runway and the second glider landed safely but broke its undercarriage. For some reason or other one of the glider tugs also landed and all would have been well had its wing not touched the wing of the first glider. The following morning the wing tip of the damaged C-47 was sawn off and odd holes patched up with medical tape. The runway was extended to 650 yards and at 1000 hours the C-47 successfully took off and returned to base.

A.H.B./IIJ54
/50 and
IIJ50/84/134B

At a conference held at Aberdeen on 2 April 1944 between the Force Commander and the commanders of the 16th, 77th and 3rd W.A. Brigades, it was planned to make the White City block even stronger. To accomplish this gliders were to land engineering equipment and a Dakota strip would be prepared in order to fly in additional equipment. On the night 3/4 April 1944, five gliders landed at White City on a strip which had by this time been lengthened to 800 yards. The gliders carried two bulldozers, a grader and a jeep. The airstrip was completed a few hours later. Transport aircraft were to have flown in after dark on 4 April but bad weather intervened. On the following night, however, 25 Dakotas landed at White City carrying 25-pdrs., Bofors guns and other heavy equipment. The small unloading parties at White City found this equipment difficult to handle. Fortunately, the jeep and bulldozers were pressed into service in this cause and proved of great assistance. The second phase in the night's operations, involving a second sortie by 25 Dakotas, had to be cancelled since the airstrip had been damaged by the first wave of aircraft. Enemy interference - the Dakota strip was more exposed than that used by light aircraft - prevented any further landings by heavy aircraft.

A.H.B./IIJ50
/47/28 and
IIJ50/84/134B
Encl. 295 B.
RAF. L.O. 77th
Brigade

The absence of a usable Dakota airstrip at White City had its disadvantages in that casualties could not be evacuated directly to India. This vital task therefore devolved upon the light aircraft which flew out the sick and wounded to Aberdeen or Broadway but generally to the former. No wounded man remained at White City for more than 36 hours and the vast majority were out in twelve. The light aircraft strip inside the block was never put out of action, aircraft landing there daily, even during periods of continuous battle. It might also be mentioned at this point that north Burma was by this time dotted with light aircraft strips from which casualties were evacuated; some of these strips were little more than 200 yards long. Indeed, 77th Brigade evacuated every single wounded man and all those sick and impossible to cure inside Burma. No column or force was thus more than temporarily immobilized by casualties.

A.H.B./IIJ50/
84/134B and
IIJ50/47/27
JICA. 1834 p.7

As in the case of Aberdeen, light aircraft operating from White City performed tasks other than casualty evacuation. They flew reconnaissances, dropped smoke bombs for target identification and were used for communications purposes. On one occasion an L-5 was used as a bomber when enemy troops were observed in a railway culvert. An R.A.F. officer, flying as a passenger, dropped hand grenades on the enemy, driving them into the open where they were caught by machine-gun fire from our own troops. Light aircraft were also used to supply isolated detachments, but only once were troops actually supplied in battle. This occurred during the fierce fighting between 11-17 April when a striking force of 77th Brigade was operating against enemy troops attacking White City. A strip was made some five miles south of the block where ammunition was deposited by light aircraft subsequently to be ferried forward on mules. This method of supply served a useful purpose since too often had long range penetration troops to break off an engagement with the enemy for want of ammunition.

Operation Holiday April-May 1944

Operation Holiday was the code-name given to the task of evacuating 16th Brigade, closing down the stronghold areas of Aberdeen, Broadway and White City and the establishment of a further stronghold of Blackpool near Hopin. By the end of April 1944 16th Brigade had achieved its allotted task of

A.H.B./ILJ50/
84/134B Encl.
294, HQ. 3rd
Ind. Div. 26
Jun. '44 Op.
Holiday

capturing the airfield of Indaw West, but no military forces were available to take over garrison duties there. As the Brigade could not hold the airfield alone (in any case there was no point in holding it), nothing more could be done other than to destroy all installations in the area, after which the Brigade would withdraw to Aberdeen and Broadway. The Brigade had been operating inside Burma for three months and had marched upwards of 400 miles over difficult country. From Aberdeen and Broadway it would be flown out to India, an operation planned to take place during the last moon period before the break of the monsoon. The initial planning for operation Holiday covered only the evacuation of 16th Brigade but when it became clear that no troops could be made available from Fourteenth Army resources to exploit the initial successes of Special Force, and since no all-weather airfield that could be held by the Allies in central Burma existed, the plan was considerably altered and a decision made to close down the strongholds in Burma.

A.H.B./ILJ50/
47/31 Report on
Airborne
Movement,
Op. Holiday

There were several main factors affecting detailed planning of operation Holiday. Something in the nature of 360 sorties out of Burma and 50 sorties in were judged necessary to complete the task. The movement of 16th Brigade to India could not commence before 29 April, the earliest date by which any troops could be concentrated at Aberdeen. The plan envisaged that the operation would be completed by 13 May, after which date it was appreciated that, without the aid of the moon, and with the possibility of a marked deterioration in the weather, no further large scale use of Dakota strips inside Burma could be expected. To complete the operation within the specified dates involved clearing 40 sorties each night. But the availability of transport aircraft being somewhat limited, and to increase the air effort, use had to be made of returning supply dropping aircraft. These were to be homed into the target airfields, after they had completed their supply dropping missions, to pick up a load for India. Since the order of closing the strongholds was largely dependent upon the local tactical situation, the detailed timing of the operation had to be dictated by the movement of troops on the ground. Only day-to-day planning could therefore deal satisfactorily with the situation.

Evacuation of Aberdeen

A.H.B./ILJ50/
47/31 3rd Ind.
Div. 84/4/g.
6 Jun. '44
Diary of Op.
Holiday

The evacuation of 16th Brigade troops from Aberdeen began on the night 29/30 April 1944 when 22 sorties were flown. Pilots for the most part seemed uncertain of their return destinations and had in some cases been told to enquire for it at Aberdeen. Six aircraft were directed to Comilla and sixteen to Sylhet, three of the latter containing casualties. The uncertainty regarding destination airfields persisted on the following night, but eventually it was made clear that transport aircraft would deliver their loads either to Kangla on the plain of Imphal or to Comilla. Though 29 sorties were cleared from Aberdeen on 30 April/1 May, certain delays occurred - these were avoided on subsequent nights - since many of the aircraft detailed to evacuate mules were not properly modified for the task. The last aircraft to take off on the second night of the operation crashed from unknown causes 1000 yards south of the airstrip and appeared to explode on impact. Two soldiers, four aircrew and two ponies perished in the crash.

Ibid

Three further night's operations, 1-3 April, sufficed to complete the evacuation of 16th Brigade troops from Aberdeen though delay occurred at first by bad weather which

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restricted flying. Once again the evacuation of animals was held up, this time owing to the uncertainty of the scale of animals which should be held by troops remaining in Burma. Some 14, 32 and 30 sorties respectively were flown out of Aberdeen on 1, 2 and 3 May 1944.

The programme for Aberdeen on the next night was endangered by a fairly determined attack by enemy aircraft at 0930 hours on the 4th. Strafing took place and anti-personnel bombs were dropped, setting fire to a damaged Dakota and two empty basha huts. Four of the intruders were shot down by anti-aircraft fire from the Garrison's guns. Three high flying Japanese bombers also took part in the attack and dropped three small bombs, one of which cratered the runway. This, however, was quickly filled in and operations continued without incident, some 28 transport aircraft taking out Bofors guns, four A.A. guns and a quantity of stronghold stores.

A.H.B./ILJ50/
84/134B 3rd
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26 Jun. '44

On the night 5/6 May 1944 operations at Aberdeen were completed when the remaining guns and soldiers were evacuated early in the night. There were also two aircraft loads of 111th Brigade casualties. Presently the ground control staff, save for a ground control party destined for White City, were flown out. When it appeared that further aircraft were unlikely to arrive the one remaining jeep was used to collect the airstrip lighting system for loading on to the last aircraft. While this was in progress a further aircraft arrived overhead and asked for permission to land in order to deliver an important message. On a strip marked only by the lights of the jeep, the pilot executed a successful landing. All loading parties had by this time been dismissed so the pilot and crew loaded the aircraft themselves and took off by the light of two Hurricane lamps. The jeep was loaded on the one remaining Dakota which also then departed. The small ground control party spent the remainder of the night loading stores into light aircraft and then left at dawn for White City in an American UC-64 aircraft. In the course of the operations at Aberdeen from 29 April to 5 May 1944, Dakotas flew 188 sorties and had lifted 1460 men, 68 animals and nearly 200,000 lb. of stores including anti-aircraft guns.

The Evacuation of White City

A.H.B./ILJ50/
47/31 H.Q. 3rd
Ind. Div. 26
Jun. '44 Diary
of Op. Holiday

Although enemy troops were within a few miles of the perimeter of the White City stronghold, the troops there were successfully evacuated during the night 9/10 May 1944. Surprise was regarded as being essential to the success of the evacuation and to achieve it the enemy's ground forces in the vicinity of White City were to be engaged by mobile L.R.P. columns immediately before and during the withdrawal. Also the use of the Dakota strip was to be prohibited to all aircraft for several days before the final evacuation. One UC-64 did, in fact, fly into the strip before the operation started and immediately the strip was shelled. This engendered a fear that tactical surprise, so carefully planned, had been lost. It had been appreciated that at best operations on one night only could be carried out without a major reaction from the enemy. In the event surprise was complete and the operation successfully accomplished.

Ibid.

At 1430 hours on 9 May 1944 it was confirmed that evacuation would take place that night. Three hours later, direct air support against anti-aircraft gun positions near Mawlu achieved a direct hit on some form of dump, causing three major explosions with clouds of black smoke. The air attack also revealed that the enemy had a few A.A. guns sited in the region of Mawlu which could presumably be brought to bear upon the Dakota strip at White City. The general opinion was that the night's operations would be uncomfortable.

At nightfall a steady stream of Africans carrying loads set out for the Dakota strip. The first transport landed at 2016 hours after experiencing some trouble in finding the flare-path of dim lamps. This aircraft was swiftly and smoothly followed by many others. Loading of guns proved a slow and wearisome business, however, and at times the loading of aircraft was delayed by overcrowding in the dispersal areas. But on the whole the operation proceeded as planned. Japanese ground forces made no attempt to interfere and at midnight the last 25-pdr., which had been withheld for possible counter-attacks, was loaded. An hour or so later it seemed that the three remaining aircraft could not be loaded in the time available and they were sent to Broadway to collect a load.

The 37 aircraft which had earlier departed carried out of White City all four 25-pdrs., all six Bofors guns, two smaller guns, a wireless set, several loads of ammunition, two loads of casualties and three of sick mules. It might be mentioned that mules were very valuable animals and a shortage of them existed in India. From all accounts it would appear that nothing of value was abandoned save for one anti-tank gun, which could not be removed from its pit in time, and an R.A.F. V.H.F. set which could not be located at the crucial moment. After the last Dakota had left the White City garrison stole away quietly in the darkness. The Japanese had been carefully induced to think that the Dakotas had brought in reinforcements and this was driven home by the fact that several light aircraft landed and took off from the unguarded light aircraft strip. Elements of 77th Brigade thus broke contact with the enemy and moved northwards to assist the operations of the Chinese-American forces advancing upon Mogaung and Myitkyina.

The Evacuation of Broadway

The evacuation of Broadway began on 1 May 1944 and lasted until the 12th. The operation might have been completed sooner but for the fact that the light aircraft based on the impromptu airfield had to remain there until light aircraft strips had been prepared within range of forward long range penetration brigades to ensure the evacuation of casualties. But the main task at Broadway was to evacuate elements of 16th Brigade.

Although the task was accomplished bad weather hampered operations and certain administrative difficulties arose. During the early stages, few aircraft were modified for mule carrying and on 1/2 May, one pilot of a badly modified Dakota found mules on board, two of which were trying to kick the sides out of his aircraft. The theory that three months marching made a mule fit to travel like a gentleman thus lost supporters. On the second night of the operation, few mules could be evacuated as once again only a small number of aircraft were suitably modified. On 3/4 May, however, sixteen of the twenty-three transport aircraft landing at Broadway were modified for mule carrying. The rate of evacuation of 16th Brigade troops from Broadway quickened on the night 4/5 May and by the 6th/7th all these troops had been flown out.

A.H.B./IIJ50/
84/134B. H.Q.
3rd Ind. Div.
26 Jun. '44
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Op. Holiday

Also on 6/7 May, thirteen aircraft flew out stronghold stores and R.A.F. equipment. Unfortunately a misunderstanding arose and too many aircraft were briefed for Comilla. Some pilots were therefore diverted to Kangla, a procedure which caused endless trouble owing to a number of factors which seemed to militate against sending any aircraft to an airfield on the plain of Imphal. It was a stormy night and pilots were convinced that the worst storms were centred over every airstrip in Assam save their own particular bases. Moreover, many pilots refused to carry petrol owing to the danger of fire if struck by lightning. A plea by the senior R.A.F. officer at Broadway that aircraft should be briefed for carrying petrol to Kangla met with no success since H.Q. Special Force had decreed that carrying petrol was a waste of aircraft space, though it should be noted that petrol was a commodity of great value to the besieged defenders of Imphal.

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31 Diary of Op.
Holiday. HQ.
Spec. Force

From 7 to 13 May the evacuation of stronghold stores continued and plans were laid for equipment to be flown from Broadway to the new stronghold at Blackpool. But there seems to have been a good deal of confusion hereabouts regarding the equipment to be transferred to Blackpool for none of the aircraft which landed at Broadway on 11/12 May had been briefed for the task. On the final night of the evacuation, however, eight aircraft loads of ammunition, anti-aircraft guns and a jeep were despatched to Blackpool though two of these aircraft failed to complete their task and landed at Sylhet. On the same night, 12/13 May, twenty-five other aircraft passed through Broadway to complete the evacuation of a stronghold which had existed since 5 March. In all during the withdrawal, something like 183 sorties were flown in the course of which 2,265 men, 188 animals and 130 tons of stores were lifted.

The Establishment of Blackpool

This stronghold was established on the same lines as Aberdeen, a reconnaissance of a Dakota strip being carried out on the ground. Initial tools and stores were dropped by parachute for ground troops to construct a glider landing area and then the necessary engineering equipment to extend the strip for transport aircraft was landed at first light on 9 May. All the earlier airborne operations for Special Force had been effected in country free from enemy troops but for tactical reasons the Blackpool block was to be established in country where the enemy were known to be. Thus from the start the operation was not without incident.

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Of the five gliders scheduled to take part in the operation of 9 May, one failed to take off owing to engine trouble in the tug aircraft. Four gliders only were therefore released over Blackpool where they were met by small arms fire from Namkwin village, three of the gliders being hit before they had landed. This caused little damage but one glider, approaching the landing area at 50 feet, suddenly stalled and crashed. The crew were killed and the contents of the glider - essential engineering equipment and strip lights - were destroyed. Though this equipment was replaced on the following night, work was handicapped throughout the first day of the operation. Nevertheless, the first transport aircraft arrived over Blackpool at 2100 hours on 10 May. The strip was small and rough and of the first five aircraft attempting to land, one went in at high speed, overshot and burst into flames; one burst a tyre on landing and remained unserviceable at Blackpool; two landed and took off safely; the last damaged its

undercarriage and went off again without landing. After these early incidents all other aircraft then airborne were recalled to base and no further flying took place that night. An experimental landing was made on 11/12 May when the pilot reported that the strip was suitable. This aircraft delivered a grader to replace that lost in a glider crash, and also spare parts for the damaged C-47. Plans were laid for Blackpool to reopen on 12/13 May for a full flow of traffic.

Ibid.

On the morning of 12 May the Blackpool stronghold was held by elements of 111th Brigade. The airstrip had now been lengthened to about 1100 yards. During the day, with the aid of the replacement grader, American engineers worked to complete a strip 1300 yards long and to remove a bad slope 300 yards from the north-east end of the strip. Some trees had to be blown down to the south-west but it seemed unlikely that any landings could be made from that direction for some time to come. The transport aircraft, damaged two days previously, was repaired. There were no signs of enemy interference. At 1815 hours on 12 May, however, an enemy field gun opened fire at extreme range on to the airstrip, damaging the Dakota beyond repair and putting a bulldozer and a carryall out of action. The dispersal areas were pitted with small craters. These incidents did not portend a favourable situation existing that night but after due consideration of the factors involved the risk was accepted.

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The work of filling in shell craters continued apace and by the time the first aircraft arrived three could be accommodated in the dispersal area. Later as many as six were accommodated but this did not make for efficient handling of cargo. From the beginning transport aircraft made poor approaches and landings and several factors were responsible. Pilots had received adverse reports on the state of the strip and some appeared nervous. A small tree, clear of the north-east end of the runway, caught the eye and affected judgment on landing. Pilots were obliged to land with a stiff following breeze. The upward slope near the beginning of the runway caused aircraft to become airborne again and then to land heavily. Moreover, the ground control organization was not very efficient, especially early in the night, and there seems to have been a lack of co-ordination between R/T., Aldis lamp and aircraft marshalling systems. To complicate matters further the R/T. set went out of action at a busy period. On two occasions aircraft nearly met with disaster and eventually an R.A.F. Dakota landed heavily, one wheel collapsed, and the aircraft, after swerving off the strip, burst into flames. The crew escaped unhurt. The Dakota burned for the remainder of the night and provided a good landmark but a discouraging one for pilots of subsequent aircraft. Landings continued on the whole to be poor, though several which were excellent and apparently effortless, gave the impression that the strip was not as bad as might be imagined. Pilots too were not inclined to blame the surface of the airstrip and it must be assumed that the difficulties were largely psychological.

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Considering the cramped conditions in the dispersal area, unloading was effectively carried out and, among other things, three 40-mm. Bofors and six 20-mm. anti-aircraft guns were delivered together with a wireless set, engineers' stores, ammunition and rations. At about 0330 hours, two gliders made perfect landings at Blackpool, delivering

between them a light armoured reconnaissance car complete save for axles and wheels. Soon after the glider landings a second crash occurred when another R.A.F. Dakota made a bad landing. To avoid over-shooting the strip the pilot turned his aircraft into the paddy on the south side of the dispersals where the Dakota collapsed on to its port wing. All occupants were unhurt. But as the unloading parties approached the aircraft, a series of explosions took place and the parties, believing that the long awaited Japanese artillery reaction to the landings had commenced, quickly dispersed. The real cause of the trouble, however, was an enemy patrol of about four men who had slipped through our own patrols and reached the edge of the strip to throw hand grenades at the unloading party and at the crashed Dakota. The latter was destroyed. It so happened that its cargo included the wheels and axles of two armoured cars, the first of which had earlier been landed by gliders. During the disturbance the transports in the air, including the glider containing the second armoured car, had been kept circling above the strip and were eventually sent home. The strip lights had by this time been turned out and the last aircraft on the ground in attempting to take off, swerved off the strip and struck a crashed Dakota. The pilot managed to stop but the aircraft was no longer fit to take off. During this rather eventful night, 28 transport aircraft and two gliders landed at Blackpool, including the two Dakotas which were destroyed before they could be unloaded.

Ibid.

Throughout the day on 13 May work continued with the grader to reduce the slope near the end of the runway. Though reduced by a foot it was by no means removed. At 1745 hours enemy artillery fired 30 or more shells, this time at close range, at several different points of the stronghold area, but none fell on the strip itself. The first five aircraft to arrive, beginning at 2030 hours, did a most accurate supply drop on a flare path 150 yards north of the airstrip. These were followed by a Dakota which took in a trained air control party and an R/T. set. With this party in action transport aircraft, throughout the night, landed smoothly and well. The hump in the airstrip still constituted a hazard but no aircraft showed any tendency to crash. In all, eighteen aircraft landed a 40-mm. Bofors gun, three 25-pdrs., spare parts for the armoured cars, engineer stores, ammunition and rations and also a number of troops. One aircraft evacuated casualties. This completed the establishment of the Blackpool fortified block.

Conclusions on Operation Holiday

The operation, started on 29/30 April 1944, was completed with the establishment of Blackpool on 13/14 May. During the sixteen nights of flying, bad weather had not seriously interfered with any major movement, but conditions were generally unfavourable. The worst weather was fortunately met to the west of the mountain barrier separating the transport bases in India and the target airfields in Burma, but the strain on aircraft and crews was very severe. A total of 408 Dakota sorties was flown to complete the evacuation of strongholds and an additional 50 sorties by transport aircraft and six by gliders were flown to establish Blackpool. During the operation some 3,942 men, 268 animals and over 270 tons of stores were transported. The daily availability of aircraft committed solely to the operation amounted to the twelve C-47's of the Air Commando Force. About 30 aircraft of Troop Carrier Command were also available after completing supply dropping missions.

Our total transport aircraft losses amounted to seven. Of these, one was reported missing on its return flight from Broadway, one crashed in a severe storm at Sylhet, one crashed on taking off from Aberdeen and four were destroyed at Blackpool. In these accidents a total of 14 men and seven animals were lost.

A review of the foregoing pages might well give the impression that operation Holiday was not carried out very efficiently, but a closer examination of the facts might easily result in a reversal of this view. For the operation was of a complex nature and required an extremely flexible plan in both conception and execution. Moreover, planning had to be swiftly completed only a short while before the operation was actually mounted. Although control of the operation was centralized at Advanced Headquarters, Special Force at Sylhet, the aircraft operated from two airfields, Sylhet and Agartala, while arrangements for the reception of the evacuees were made at Mangla and Comilla, in addition to the base airfields. During the course of one sortie, for instance, an aircraft might touch down at five different places before returning to its base. Furthermore, the flexibility of air forces was used to the full in that artillery was withdrawn from one stronghold (Broadway) and flown over to assist in the establishment of another (Blackpool). The very flexible nature of the operation logically led to an extended and complicated network of signals communications. Control proved at times to be difficult and with the periodical failure of line communications in the rear areas and the difficulty of W/T. communication in the field, a great deal had to be left to the initiative of the controller at each airfield. A ground control organization was established at each airstrip in Burma used by Special Force and was adapted to meet local conditions. The control officers were fully conversant with original planning and were thus in a position to make those decisions required by the flexible nature of the operation and the difficulty of communications.

The shortage of air transport lift made necessary the use of returning supply dropping aircraft for the evacuation of men and material for operation Holiday. After dropping supplies, the aircraft would land at one of the strongholds where they would be loaded with men and stores to be withdrawn. The fluctuating number of aircraft calling at target airfields thus resulted, in some instances, of strain on the ground control parties. Plans were, however, laid on the assumption that there would be a 15 per cent loss of effort resulting from mechanical failures in aircraft and from supply dropping aircraft which had failed in their supply missions and had been forced to return fully loaded to their bases in India. Even so it was impossible to guess with any degree of accuracy just how many aircraft would arrive at a given airstrip, nor was it possible to phase in the aircraft at regular intervals.

When 16th Brigade was flown out of Broadway and Aberdeen, the airstrips were still required and the engineering equipment still in use. It has been alleged that very little interest was shown by Troop Carrier Command in moving the engineering equipment from Burma although C-47's of the Air Commando Force withdrew some of the equipment on their own initiative. In fact all such equipment was removed from Aberdeen and an effort made by the Air Commando Force to retrieve that from Broadway. This did not prove possible and some of it was destroyed when the airstrip was abandoned. It seems likely that a decision

was made to transport mules in preference to airborne engineering equipment such as bulldozers and graders. No doubt Special Force felt that mules should be given priority and that the Air Commando Force thought otherwise. For the engineering equipment had been specially designed to be transportable in aircraft, and could not easily be replaced, while mules were highly valued and also in short supply.

Air Supply to the Special Force

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Summary of
operations,
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During initial planning for long range penetration operations in 1944 it was envisaged that the brigades would be maintained in the field from a main base at Agartala, with a subsidiary base at Sylhet. A reconnaissance for an air supply base at Agartala had, in fact, been completed on 12 December 1943 and air supply companies were in position by 11 January 1944. But at this late date Troop Carrier Command insisted on a move of the main supply base to Sylhet in order to shorten the distance transport aircraft would be obliged to fly to their destinations. The move of No. 1 Air Base H.Q. to Sylhet therefore began on 24 January. A hectic and strenuous fortnight then followed for the air supply organization, for Sylhet had to be ready to supply the columns of 16th Brigade from 6 February 1944. The change in location for the main air base resulted in some confusion since roads leading to the new air base were bad, accommodation was rudimentary and supplies had now to be diverted from Agartala to Sylhet from the main supply depots in India.

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The air supply organization set up at Sylhet handled supplies for three of the five brigades of Special Force in Burma - 16th, 77th and 111th Brigades. Owing to the lack of space and facilities at Sylhet, the 14th and 3rd West African Brigades were supplied from Agartala, but on the withdrawal of 16th Brigade from the field early in May, responsibility for the maintenance of 14th Brigade was transferred gradually from Agartala to Sylhet. At this point it seems appropriate to discuss details of the air supply organization set up at Sylhet which was evolved from the experience gained during the first Wingate expedition of 1943 and subsequent experiments during training for the 1944 foray.

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Each brigade of Special Force had a rear headquarters where requests for air supply were tabulated and passed on to the air supply sections. The latter collected supplies from the railhead at Sylhet, packed them and loaded the aircraft. Co-ordination of the supply of all three brigades was affected through No. 1 Air Base H.Q. where a conference was held each morning by the representatives of the brigades concerned and Troop Carrier Command. Sorties were allocated at these conferences. Three air supply sections at Sylhet functioned for the maintenance of 16th, 77th and 111th Brigades while at Agartala two further sections handled supplies for 3rd W.A. and 14th Brigades. An illustration of a days work at an air supply section might well be given. On 1 May, for instance, one section packed 65,000 lb. of supplies and loaded this amount into twelve aircraft, the loads being 5,000 lb. per aircraft landing in Burma and 5,500 lb. for supply dropping. The supply deliveries on this particular day called for ten supply dropping sorties to the White City stronghold and individual landings at Broadway and Aberdeen.

A.H.B./IIJ50/47/27
JICA. 1448

Long range penetration columns in the field were equipped with Army No. 22 sets, while Brigade headquarters

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in the field maintained contact with rear headquarters with R.A.F. 1082 and 1083 equipment. An R.A.F. officer was attached to each column (there were eight columns to each brigade), to help arrange supply dropping sites and to advise on and control direct support. Hence requests for air supply (or air support) originated with an advanced column; they would be transmitted to brigade headquarters in the stronghold area and thence to Special Force H.Q. The amount of wireless traffic flowing between troops in Burma and the base headquarters in India was therefore considerable and had to be kept down to the minimum. Each column therefore carried a small booklet in which, under various headings, was listed every conceivable requirement. The medical section, for instance, included obscure drugs; the Padre's section included portable pyxes and communion wine; other sections included mortar bombs, split-pins, spare parts for rifles, tools, wireless parts - everything was included. Opposite each item was a code number, which was quoted on a signal requesting a supply drop. The supply sections at the air bases did the rest. For food there was a 'standard drop' which never varied. If the recipients numbered say 400 men, this figure was quoted in the signal for a standard drop for that number of men plus any special items which had been quoted from the booklet. All this was embodied in a signal called 'QQ' which told the air base when and where the next drop would take place. The air base then informed the originators of the signal whether or not the requirement could be met. If it could, the air base would send a 'QK' signal.

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Air supply to long range penetration columns was based on a supply drop every five days, since this was believed to be the limit of the amount of supplies that could be carried by mobile units. A drop might be made to an individual column, or a combination of columns, depending upon the tactical situation. Conditions varied from day to day in accordance with the weather, which could prevent or interfere with a supply drop, and the circumstances of the ground troops, the amount of ammunition expended, for instance.

Ibid.

The duty of R.A.F. officers with columns was, among other things, to arrange supply dropping. It was found, however, that the task of running a supply drop was comparatively easy for those with a little experience, and did not in itself require an R.A.F. officer at all. The finding of dropping zones had to be understood by all column commanders and by many of their subordinates. In 1943 it was thought that a supply drop had to take place in open paddy but as experience was gained it was found that other sites would do equally well. A dry river bed, or thin jungle where parachutes, even if they caught in the trees, could be easily retrieved, were often used. By far the most important thing was to ensure that there was no obstacle to the circling aircraft at 300 feet. If the drop took place from a greater height, half the parachutes would float away from the dropping zone and might never be recovered. The aircraft would drop four or five parachutes on each run, and then circle to port, so that while an obstacle to starboard was acceptable, an obstacle to port was not. Nor was it considered desirable to have an obstacle even outside what one considered the range of the aircraft's circuit - calculated at three miles - for it was inclined to disconcert the pilots and would frequently result in a bad drop.

The task of troops on the ground detailed to find a supply dropping zone was not therefore easy, especially in

ill-mapped country. Pilots often blamed those on the ground for choosing a mediocre site when they could see a perfectly good one only a couple of miles away. The fact was that pilots could see a great deal from the air while the ground troops had to struggle painfully through solid jungle to find a dropping zone. It may be wondered why the Japanese did not observe supply dropping and take steps to interfere. In fact they sometimes did and an opposed supply drop was impossible. The parachutes descended all right but they could not be collected nor their contents distributed. All the same, it was not easy from the ground to judge precisely where the drop was taking place. Once a party of ground troops were ordered to rendezvous at a supply dropping zone. They could see the aircraft circling overhead, but it nevertheless took two hours to find exactly where the supplies were dropping. During the operations of the Special Force supply dropping took place by day only to 16th Brigade until they had reached the Chindwin. Thereafter columns were usually supplied by night, though in times of stress an occasional daylight sortie would be flown.

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The basis on a good supply drop lay in foresight, a speedy pick-up and rapid distribution. The site had to be 400 yards long to allow pilots with a good crew of 'kickers out' to drop four or five parachutes on each run over the dropping zone. Fires were usually laid in the shape of a letter L, the bay to the right hand side of the letter being sanctuary and the parachutes and free drops falling on the left of the letter parallel to the long arm. Aircraft would generally be greeted with a recognition signal on an Aldis lamp and would then circle once or twice before beginning to drop supplies. If all was going well the aircraft would be left alone. If not, ground-air communication would be established to put the aircraft right. In daylight dropping it was usual for aircraft to fly round and round after each other, each dropping as it flew past. At night this procedure was apt to be dangerous and it was thought safer for each aircraft to complete its seven or eight circuits and fly home, being then relieved by another. Boots and clothing were dropped free as also was fodder for animals. These were dangerous loads and a number of fatalities occurred. Long range penetration troops made use of practically everything that was dropped, parachute cords, for instance, were used for a variety of purposes and parachute silk was a useful form of currency among the Burmese. One thing that could not be used, however, was the cushion like material used for breaking the fall of the more delicate items such as wireless sets and batteries, petrol for the charging engines and even charging engines themselves. The acid of the batteries was, incidentally, jellified in some way so that they could not spill.

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JICA. 2355

The supply aspect of the airborne expedition as carried out by Wingate's forces in Burma was perhaps the most complex phase of the operation. It follows therefore that the most careful planning was absolutely necessary to avoid disaster in the field since the columns could carry no appreciable reserves of ammunition and food. Throughout the campaign the requirements of columns in the field were met though there were some shortages, notably boots and clothing. Nevertheless, they were never stinted in food and no column was left to the mercy of the enemy. This fact no doubt reflects the planning of the Wingate organization and the degree of co-operation achieved with Troop Carrier Command and the Air Commando Force. At the airfields established

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inside Burma and on the numerous dropping zones, transport aircraft delivered the necessary supplies to sustain something in the nature of 20,000 troops. This required an average of 48 transport sorties daily, delivering an average of 125 tons of supplies to the long range penetration brigades every 24 hours.

Light Aircraft Operations

A.H.B./IIJ50/
47/27
JICA. 1834

The Light Plane Force of the Air Commando was at first divided into four squadrons of 25 aircraft each. In the course of operations, however, these squadrons became hopelessly dispersed and thus all light aircraft were operated as one unit. Their most important function was the evacuation of sick and wounded L.R.P. troops but numerous other uses were found for them. In regard to evacuation, columns sometimes reported that future operations were wholly dependent upon getting rid of their wounded. As for supply, light aircraft performed a variety of tasks. Emergency supply drops were frequently called for by columns which had missed a scheduled delivery by Dakotas or needed supplies of ammunition quickly. In cases of this sort the light aircraft would either land with supplies, or L-5's would release 150 lb. parachute packs from under each wing. It was nearly always the L-5 which performed an ancillary task since this type was more plentiful than the L-1. The latter had been suffered to go out of production and were therefore more valuable particularly since they had the ability to carry stretcher cases which the L-5 could not carry. Hence the L-1 aircraft were reserved primarily for casualty evacuation.

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JICA. 2330

For approximately two months a dozen light aircraft were maintained at Broadway and Aberdeen, making daily flights into neighbouring Japanese territory to evacuate wounded, drop supplies or to maintain liaison services. Despite the heavy attrition of aircraft very few pilots were lost, most aircraft being destroyed as a result of accidents in taking off or landing on tiny and rough jungle strips. By the time the light aircraft of the Air Commando Force were withdrawn towards the end of May 1944 they had suffered the loss of about 40 aircraft, though none was shot down by enemy aircraft or ground fire. Exact figures of light aircraft operations are not available since the Air Commando Force did not worry very much about paper work. Estimates of the sorties flown vary from 5,000 to 8,000, most sorties lasting little more than an hour depending upon the time spent on the ground. The number of casualties believed to have been evacuated is 2,000 (including 700 from the Arakan in February). Five pilots lost their lives.

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JICA. 3137

In addition to the L-1 and L-5 aircraft of the Air Commando Force, they had about ten UC-64's which were used both for transporting passengers and freight in India and for assisting in operations in Burma. Seven of these aircraft were lost, three of them on the night 5/6 March 1944 when the pilots lost their way to Broadway. In all the UC-64's flew over 500 sorties and lifted about 360 tons of freight. In addition this aircraft proved very useful for passenger and freight services at the Hailkandi and Lalaghat bases of the Air Commando Force.

Helicopters

Ibid.

Several helicopters were included in the Air Commando array of aircraft but none of them operated until the latter half of April 1944, when a light aircraft was forced down by

engine failure on a Japanese road. The aircraft contained three British passengers besides the pilot and the absence of a suitable clearing in the vicinity made some other means of rescue obligatory. This is believed to have been the first use of a helicopter in evacuation - certainly from behind enemy lines.

During the operation in question, notes were dropped to the distressed occupants of the light aircraft which directed the pilot to take his passengers up a ridge and away from the Japanese troops in the vicinity. Two of the passengers had gunshot wounds and the third was a malaria case. Despite this the party made their way up the ridge and lived for four nights on supplies of food and water dropped by light aircraft. In the meantime a YR4 Helicopter took off from Lalaghat on 21 April 1944 and flew by stages to Hailakandi, Kumbhigram, Dimapur and Jorhat, crossing a range of mountains 6,000 feet high on the way. The next day the Helicopter flew to Ledo and Taro, where an extra tank was installed for the long flight to Aberdeen. It arrived there on the afternoon of 23 April, crossing the range of mountains from Ledo successfully and was immediately sent on its first operation.

The stranded party of four men were instructed to descend to a small paddy field situated about 25 miles south of Aberdeen. About five miles from the paddy field was a light aircraft strip into which flew the Helicopter and there received a signal from an L-5 that the party was ready to be rescued. The YR4 made two flights to the jungle clearing, returning each time to the light aircraft strip with one wounded man. These men were transferred to Aberdeen in a light aircraft. The helicopter then went unserviceable owing to overheating and had to be left on the advanced strip overnight. But the following day the two remaining men were rescued by the helicopter. On 24 April 1944 the YR4 returned to Aberdeen and thereafter until 4 May flew four more operations including the rescue of two more casualties. In all 23 sorties were flown by the helicopter from the time it left Ledo until it returned there.

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On 4 May 1944 the helicopter was ordered from Aberdeen when a Japanese bombing attack destroyed or damaged all aircraft on the strip save for the helicopter. The latter was then flown back to Lalaghat in five troublesome days. It encountered thunderstorms in the mountains on the Dimapur-Kumbhigram leg of the flight and made two landings in valley clearings, at 1,500 and 2,000 feet above sea level to await a change in the weather. This is believed to have been the highest recorded landings for a helicopter up to that time. Despite the success achieved by the YR4 it was not the answer to the problems of jungle rescue for it had a propensity to overheat which might result in engine failure. Nevertheless, it was proved that in principle helicopters could perform useful service in terrain where the preparation of light aircraft strips was impracticable.

Tactical Air Support in Long Range Penetration 1944

From the very nature of the operations to be carried out by Special Force it was obvious that tactical air support would be of the greatest importance throughout the campaign. For the lightly equipped long range penetration brigades would inevitably lack artillery support and this disadvantage could be compensated to some extent by the employment of tactical aircraft in closer proximity to our

own troops than had previously been the custom in Burma. This was to be achieved by the presence of R.A.F. officers with L.R.P. columns who would co-operate with Army commanders in selecting targets and possibly direct aircraft by wireless. Wingate had foreseen the possibilities of ground-air wireless communication during his 1943 expedition but few opportunities had arisen to carry out experiments.

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H.Q. Special
Force,
Summary of
operations

Two main sources of air support for the operations of Special Force were available, the Air Commando and the R.A.F. The Air Commando Force was an all-American formation formally placed under Third Tactical Air Force but in effect working independently in conjunction with Special Force. (1) The element of the Air Commando available for tactical air support consisted of P-51 fighter-bombers and B-25 medium bombers. The pilots were all hand picked and were correspondingly highly trained. The aircraft were based at Hailakandi and Lalaghat in the Surma Valley. The available R.A.F. support, in theory, came from the Spitfire, Hurricane and Vengeance squadrons of No. 221 Group, based on and around the plain of Imphal, while in planning it had been envisaged that additional support might be provided by other units of the Tactical Air Force and also the Strategic Air Force.

At the commencement of the campaign, Advanced Headquarters, Special Force was located at Imphal and since there was a direct telephone communication with No. 221 Group there was no delay in arranging air support. There was also telephone communication between Advanced H.Q. Special Force and the Air Commando base at Hailakandi but the system was not very efficient. It frequently took over two hours to make a call, even on the highest priority and at first wireless communication was not very satisfactory save in the case of requesting air support against simple targets which could be described in clear language without prejudice to security. The Japanese advance into Manipur had been foreseen by Wingate, however, and Advanced H.Q. Special Force moved to Sylhet on 21 March 1944. Thereafter, communications with No. 221 Group were very poor and became impossible after the Japanese cut the telephone line between Silchar and Imphal. Since the squadrons of No. 221 Group were by this time busily engaged in supporting a major defensive operation, they could do little in the way of air support for Special Force. The exception was No. 84 (Vengeance) Squadron and once communications with No. 221 Group failed, arrangements were made to pass requests for air support direct to No. 84 Squadron at Kumbhigram by telephone. The telephone communications between Special Force H.Q. at Sylhet and the Air Commando Force, save for a few glaring exceptions, worked reasonably well.

Advanced brigade headquarters, or perhaps columns in the field, passed requests for air support direct to Advanced H.Q. Special Force by wireless. Requests were normally sent in clear language, though map references and times were scrambled by means of a simple code. The time taken between the initiation of a request by a brigade or column in the field and its receipt at Advanced H.Q. Special Force varied considerably and was dependent upon wireless conditions at any given time. The best time was slightly over one hour while the average time was between two and three hours.

(1) See Chapter 7.

Operations

A.H.B./IIJ54/50
Summary of
Special force
operations

The first really successful air attack of the campaign took place on 18 March 1944 when twelve Hurricanes of No. 221 Group operated at 0640 hours in support of 77th Brigade. The target given was a wood west of the railway line near Hemu. Pilots were briefed from large scale air photographs. They strafed the whole area but on returning to base reported that no enemy had been seen. Later, ground troops reported that over 40 dead Japanese troops had been counted and that all of them had been killed as a result of the air strike. During this early period of operations the stronghold at Broadway was subjected to a number of enemy air attacks. These were met by the Spitfire flight of No. 81 Squadron which did some good work until caught on the ground following the failure of the early warning system. (1)

The First Air Commando Force had meanwhile carried out a number of successful attacks in support of 16th, 77th and 111th Brigades and on 31 March bombed enemy positions in the vicinity of Broadway with great accuracy. It so happened that the enemy had withdrawn from his positions a few minutes before the arrival of the aircraft, owing to the mortar smoke being put down too soon, which gave the enemy warning of an impending air attack.

Ibid.

During April 1944 the bulk of air support received by the long range penetration columns came from the P-51's and B-25's of the Air Commando Force. Results of air action undoubtedly became increasingly better as both pilots and R.A.F. ground control officers benefited from their experiences. A series of particularly successful attacks took place in support of 77th Brigade at White City during the course of which a high level of co-operation was achieved between ground and air forces, bombs being dropped close to our own troops with fine accuracy. There were also frequent occasions on which aircraft, baulked of their original targets, returned via White City to unload their bombs on any impromptu indicated targets with complete success. Results achieved in support of 16th and 111th Brigades though usually good, were not in the same class as those achieved with 77th Brigade. Apart from the fact that 77th Brigade had had far more practice in the art of controlling air support, White City and its environs became well known to pilots, while targets selected by other Brigades were often in areas over which the supporting aircraft had not flown before.

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JICA. 1834

An example of air support which covered the action of two long range penetration columns from 26-30 March 1944 might be recorded since it conveys a typical picture of close support in jungle country. Approaching the target, the leader of three B-25 medium bombers asked the R.A.F. officer on the ground for instructions. The bomber leader was told to drop half the load of fragmentation clusters on to the original target and then to await results. The target was divided into three parts among the three bombers, smoke was called for and laid on enemy positions, and then each bomber made an individual run. Since the air attack was an adequate one, the R.A.F. officer on the ground gave the bombers a second target but they had some difficulty in finding it. The fighter cover leader therefore interposed

(1) See Chapter 5.

and came down with three P-51's to mark the position for the bombers. The remaining bombs were then dropped on the area machine-gunned by the fighters. Two machine-gun attacks were then made by the B-25's and P-51's on instructions from the ground. The fighters circled and machine-gunned warehouses south of Mawlu while the bombers machine-gunned still another target close by.

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R.A.F. Liaison
Officer H.Q.
77th Brigade

Other examples of close support to the White City garrison included operations during an attack by a battalion of Japanese troops who were driven out of the White City perimeter. They dug-in 200-300 yards away, and there pinned down by mortar and machine-gun fire. When twelve P-51's arrived overhead, mortar smoke went straight on to the target and after the air attack the remaining 200 men out of the original 500 fled from the area in small groups. During the major enemy attacks against White City between 11-17 April 1944, direct air support was frequently used. The Japanese had a good line of approach for a major attack and they invariably attacked at night. But there could only be one area of concentration, which was bombed every evening by P-51's to within 200 yards of our own lines, and by B-25's with parachute bombs along the approaches behind. A captured diagram showed the area to be the right one. In the morning our patrols would push out and, if it was found that the enemy had dug-in close by, he was bombed out of his bunkers. One enemy company dug-in on a ridge 200 yards north of the block. This position was bombed by twelve P-51's and by twelve R.A.F. Vengeances the following morning. Those enemy troops still alive evacuated their positions. A document captured a day or two later, written by the Japanese company commander, said that if he experienced another attack like the last (the P-51's) he would have to disobey orders and leave the position. After the Vengeance attack he did. Air attacks were also made against enemy artillery with good results. The White City block was hardly damaged by artillery and the number of casualties due to this fire was very small. Perhaps the most outstanding air operation was in indirect support of Special Force. It took place on 20 April 1944 when four P-51's, carrying two 1,000 lb. bombs each, knocked out the Shweli suspension bridge which hitherto had withstood many bomber attacks. On this occasion the fighters flew a round distance of 750 miles.

A.H.B./IIJ54/50
Report by
the Cmdr.
Special Force

R.A.F. support for Special Force was largely in the hands of No. 84 (Vengeance) Squadron which, as already mentioned, carried out one very accurate attack for 77th Brigade and at least two for 16th Brigade. The Squadron was, however, hampered by two important factors. They were based in the Surma Valley, which was too far back, having regard to the comparatively short range of the Vengeance, and they required fighter escort which No. 221 Group found very hard to provide during the height of the Imphal battle. Furthermore, the Vengeances had an additional disadvantage in that cloud below 10,000 feet was sometimes encountered, a height regarded as the minimum from which the Vengeance could begin its dive. Other support from the Strategic Air Force was called for during April though few demands were met, owing partly to the fact that targets were not always suitable, and even more to the very long notice required before heavy bomber attacks could be mounted.

A.H.B./IIJ54/50
Summary of
Special Force
operations.
Brigadier
Lentaigne

During May 1944, No. 84 Squadron again had bad luck with both the weather and the failure to obtain fighter escorts. This resulted in a number of abortive sorties. From 15 May onwards, a Japanese build up was in progress

against our troops in and around Blackpool and No. 221 Group provided a number of dawn and dusk patrols. These were usually carried out by Hurricanes and Beaufighters with the object of preventing enemy air interference and also to discourage the Japanese artillery from firing during the two periods of daylight when it was impossible for the Air Commando to operate. This was the result of difficulties of the range at which P-51 aircraft of the Air Commando had to operate and the inability of the P-51 to carry out night landings. In the sphere of direct air support during May the Air Commando Force continued to provide excellent support, mainly in the Blackpool area and also along the Bhamo-Myitkyina road.

By the middle of May the weather was getting steadily worse with the approach of the south-west monsoon and it thus became increasingly difficult for the Air Commando Force to operate effectively. Neither Hailakandi nor Lalaghat were all-weather airfields and the weather was usually bad over the hills between the Surma Valley and the Imphal plain. On 18 and 19 May, however, they provided sorties over Blackpool almost continuously. At 1200 hours on the following day orders were given for the Air Commando Force to cease operations in support of Special Force and they were then withdrawn to Asansol for refitting. On 20 May 1944 air support for the long range penetration brigades was taken over by the Northern Air Sector Force, U.S.A.A.F., which in June, with additional squadrons, became a reconstituted Tenth U.S. Air Force.

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B-25 medium bombers and P-51 fighters of the Air Commando, often operating together in direct and indirect support of Special Force, began operations on 3 February 1944 and flew their last sortie on 19 May. During this period they mounted 382 tactical operations, involving 1904 sorties, with an average of 30 aircraft. About 700 tons of bombs (including rocket projectiles) were aimed at the enemy or his installations and fourteen aircraft were lost. In addition to bombing operations the P-51's maintained an offensive against the enemy air force and claimed to have destroyed something in the nature of 90 enemy aircraft in the air or on the ground.

Tactics and Procedure

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JICA. 2528

As mentioned in earlier chapters of this narrative, the overwhelming problem faced by all tactical air units along the Burma front was the dearth, or entire absence, of visible worthwhile targets. The India-Burma frontier must be flown over to appreciate the lack of anything that would have been regarded as a proper tactical target in any other theatre of war. Rarely was any movement seen on the ground and there were no installations whatever that could really be regarded as permanent. To the natural desolation of the country may be added the proclivity of the Japanese towards camouflage and concealment. Since little could be seen from the air, lines of communication were deduced rather than observed. In general it may be said that the number of real targets in Burma was proportionate to their distance behind the front. For this reason the Air Commando Force, supporting Wingate's Special Force deep inside Burma, found more to attack than other units engaged in close support in the mountainous and jungle clad country of the India-Burma frontier.

Air support in Arakan and Manipur was formally organized under army/air support control units, staffed

jointly by XV Corps/No. 224 Group and IV Corps/No. 221 Group. The nature of the operations carried out by the R.A.F. groups was such that the need for a swift air strike was rare. In fact, it was usual to plan close support tasks the day before the attack was due to take place. The system adopted by the Air Commando and Special Force was more informal. Requests might originate with a column in the field, be passed through brigade to Special Force H.Q. at Sylhet, and thence to the air liaison officer attached to the Air Commando H.Q. at Hailakandi. It was then up to the Air Commando Force to decide whether the operation was feasible and when the attack would take place. The location of the Air Commando H.Q. and base, roughly 250 miles west of the columns it supported, was a severely limiting factor. Moreover, much of the distance from base to operational area lay over the formidable Chin Hills, which required an altitude of at least 7,000 feet for aircraft flying over them and they were not notable for constant weather. The quickest air support possible therefore involved a matter of some hours.

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The most striking difference between the technique of close support employed by the R.A.F. and the Air Commando Force was that of air-ground communication. R.A.F. aircraft, equipped with V.H.F. sets, operated on all but very rare occasions without communication with the troops they were supporting. This meant that the location of targets, always difficult in jungle country, depended entirely upon briefing and the intimate knowledge the pilots came to possess of the country over which they were operating. On the other hand, the Air Commando Force, equipped with H.F. radio, could talk to the ground troops and thereby gained a tremendous advantage. The use of R/T. in close support operations had, in fact, been used during the early months of 1944 in Arakan but only for cancelling air attacks. The indication of a target or transferring aircraft from one target to another by R/T. was considered unduly hazardous for the ground troops. This would appear to be the view held by the planners of the Wingate foray for no plans were laid on the assumption that tactical aircraft would be controlled from the ground. The possibility of so doing soon became apparent, however, and in due course it was to be the rule rather than the exception.

The employment of R/T. in close support only became possible in long range penetration because R.A.F. officers were attached to the ground forces. The R.A.F. officer knew the ground situation and the problems peculiar to the air. He was thus the ideal person to communicate with aircraft overhead and direct them on to targets. In view of the remoteness of the aircraft bases from targets in the field, R/T. communication assumed particular importance since conditions might easily change between the time the request for air support had been made and the arrival of the aircraft overhead. Moreover, unlike an orthodox campaign in which a battle line was known to air and army commanders, close support to L.R.P. columns was complicated by the fact that these forces often wandered from place to place and occupied few static positions.

Other methods of target identification other than R/T. were, of course, used. Mortar smoke was commonly used all along the Burma front but in conjunction with R/T. communication, aircraft could call for mortar smoke at the exact instance they were ready to attack. This also gave the enemy less chance to confuse the target by smoking other areas, including friendly positions. Coloured smoke would

have been foolproof; it had long been promised but no supplies were made available during the campaign under review. Finally, the L.R.P. operations were notable in that the Air Commando Force used large scale photographs which were invaluable for pilots operating over unfamiliar terrain. From the foregoing it will be seen that the Air Commando Force required three conditions for effective air support in jungle country. They needed ground-to-air communication, preferably with an air force officer on the ground directing aircraft overhead; they needed mortar smoke for precise target identification; they needed complete photographic coverage in advance, with enlarged pictures for briefing purposes. A combination of these three virtually ensured that direct air support for the brigades of Special Force would be effectively carried out.

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Although the Air Commando Force achieved conspicuous results in the realm of close support, they were handicapped by the lack of photographic reconnaissance aircraft. As a make-shift a B-25 was employed, with the cameraman taking vertical photographs through the belly window and obliques by standing in the side hatch. Until near the end of operations the Air Commando lacked any facilities for photographic interpretation. Two P.I. officers were sent to the Force after operations were well under way but would have been valuable had they been available from the beginning. Nevertheless, despite these shortcomings, the Air Commando Force was able to obtain extensive coverage of the most important areas in which the long range penetration brigades were operating. These pictures, while poor for photographic interpretation in that they seldom made stereoscopic pairs, were invaluable for air operations and served as a guide for ground operations as well. These experiences of the Air Commando Force would appear to illustrate the need, in a similar campaign, for specially established P.R. aircraft and a photographic interpretation unit for the immediate interpretation of photographs.

A.H.B./IIJ50/
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R.A.P. Liaison
Officer, HQ.
77th Brigade

Direct air support during the operations of Special Force assumed particular importance owing to the absence on the ground of substantial artillery support. Long range penetration brigades were in fact criticised as being too lightly equipped for real infantry work but it must be remembered that the L.R.P. columns possessed a form of artillery capable of firing 500 lb. missiles 100 yards from their forward troops. The air forces provided this weapon in its most mobile form.

Ibid.

Air support during the operations of 77th Brigade was used for three different purposes; the defence of the White City stronghold, in attacking enemy forces and for the bombing of observed targets beyond the range of forward troops. Procedure for direct air support was worked out beforehand with the Air Commando Force but it was greatly improved upon by experience. The important basis was the personal touch and Christian names were invariably used on the R/T. In defence, No. 22 sets were set up in positions with good visibility and there were good telephonic communications between all sectors of the stronghold. The sequence of events during times of defence would usually be as follows; a patrol would perhaps find a Japanese company dug-in for 100 yards or so, some 200 yards from our positions. A message would be sent in clear, save for the map reference and time in code. The estimated time of arrival of the supporting aircraft would subsequently be received. Mortars probably already had the range and would quite likely be firing high explosives in any case. One mortar would be

detailed for smoke, though on occasion 25-pdr. smoke was also used. The No. 22 set would open up and listen for the aircraft calling. When they arrived overhead the R/T. communication then established would be as good as a telephone conversation. The R.A.F. officer on the ground would give the leading aircraft the exact target in relation to some landmark and would tell the pilot precisely when the smoke was put down. The Japanese never imitated the smoke and even if he had R/T. would have put the aircraft right. In any case they would never have bombed our own troops whose positions were clearly marked on large scale gridded photographs carried by all pilots.

Ibid.

The principle of direct air support in attack was much the same as in defence. If by observation and patrol it was found that enemy troops were opposing an advance, targets would be systematically bombed. Then the final assault against the enemy would take place, generally with light casualties to our own troops. The bombing of observed targets also had its place in the operations of Special Force for it was the only method by which targets, other than fixed installations, could be bombed with certainty and accuracy and the results observed. It was in Burma more than elsewhere that troops on the ground could assist the bombers in attacks against enemy lines of communication, supply dumps and so forth.

Experience during the Wingate foray of 1944 would indicate that the best bomb in defence was the depth charge and in attack a 250 or 500 lb. bomb. The reason for this lay in the fact that in defence the attacking enemy was in the open and if caught thus, had seldom a chance to dig-in. A depth charge with little penetration but terrific lateral blast was found to be effective for about 50 yards against men lying flat. In attack where the defending enemy was probably well dug-in, a direct hit from a bomb with good penetration was the only answer. Machine-gun fire in both cases was effective. Indeed many Japanese diaries showed that the owners disliked machine-gunning more than bombing. This was certainly most effective when aircraft after aircraft flew down the same line one after the other for about 15 minutes, finally to continue with dummy runs so that ground troops could take full advantage in assault. The question of a bomb-line was simple. In static defence pilots knew the exact positions of our troops through gridded photographs. In attack the bomb-line and the line of attack would be given over the R/T.

Army Views on Close Support

A.H.B./IIJ54/50
Summary of the
activities of
Special Force
Feb-Aug. '44.
Brigadier
Lentaigne

During the operations of Special Force the R.A.F. insisted upon detailed indication of targets sufficiently in advance to permit the careful briefing of aircrews. They did not favour the indication or change of target by R/T. communication between ground troops and pilots of aircraft while the latter were over the target area. The Air Commando Force, on the other hand, preferred to have their targets indicated by ground observers by R/T. in combination with smoke or other means and they did not insist on the target being exactly indicated before the aircraft took off. Experience showed that the American method was infinitely the more effective for several reasons. In the first place there was less delay between the receipt of a request for direct air support and the take off of the aircraft. In Burma it was not always possible to describe targets by R/T. since they were often situated in nondescript jungle country. The American method was also more flexible in that the period

between the call for and the provision of air support, developments would frequently take place in the battle area which necessitated a change of target. Moreover, in the case of air action in support of a ground attack, fresh targets often appeared while the aircraft were overhead. There were advantages to be gained by voice contact between ground and air and this personal touch had the effect of increasing mutual confidence between the ground troops and the pilots concerned. Finally, on several occasions aircraft returning from other sorties contacted our troops and were given opportunity targets to be attacked, either with unexpended ammunition or after returning to base for re-arming. On other occasions urgent verbal messages for Special Force H.Q. were sent in this way.

Ibid.

Although some R.A.F. officers thought that bombing was more accurate than artillery the army felt that neither the accuracy nor the effect of bombing should be overestimated. While applying a far greater weight of metal, bombing could not hope to attain the accuracy of artillery. The effect of bombing was greatly decreased when the ground was soft and in the later stages of operations it was found that weapon pits, only a few yards from bomb craters, were quite untouched. The moral effect of bombing, however, was considerable and for about half an hour after a heavy bombardment enemy troops were usually in a dazed, semi-stunned condition.

In cases where air support was a prelude to a ground assault, it was essential that the attack took place immediately on conclusion of the air strike, so as to give the enemy no time to recover. This principle was proved on many occasions. Dummy attacks following the real thing proved effective in keeping the enemy down while our ground attack was actually in progress. In good weather, supporting aircraft could arrive over the target with a high degree of punctuality, thus facilitating the synchronization of the ground with the air attack. In bad weather, however, this was by no means the case and all plans by the ground forces had to take into consideration the prospect of a take-off being delayed by several hours.

A.H.B./IIJ54/50
Summary of
Special Force
operations
Brigadier
Lentaigne

The army deemed it essential that direct air support should be controlled from the ground by an experienced officer with direct R/T. communication to the leading aircraft. In addition the air controller needed communications facilities with the mortars for smoke indication, with troops in close proximity to the target and in the case of an immediate attack, the controller needed contact with the assaulting forces. While it was felt in some quarters that army officers could do the job, other found it hard to exaggerate the value of R.A.F. officers on the ground. Indeed, Brigadier Calvert, the Commander of 77th Brigade, declared that it was preferable to have three pilots on the ground and nine aircraft in the air, than to have twelve aircraft overhead. Pilots on the ground knew exactly what it was reasonable to ask pilots in the air to do and the latter had confidence in pilots on the ground. No non-pilot or army officer, however good, could constitute an adequate substitute.

Conclusions on the Air Commando Force

During all the operations undertaken by Special Force in 1944, particularly in the initial fly-in, a remarkable degree of co-operation was achieved between the land and the air forces. The friendly teamwork of Wingate and

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Summary of
Special force
operations,
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Cochrane typified this spirit and soon became legendary. The results of this partnership between Special Force and the Air Commando led the army to advocate the provision of separate air units to train with and give support to the land forces in similar operations. This desire is understandable once they had enjoyed the fruits of what might be termed a 'private air force', pledged to provide specific land units with exclusive fighter, bomber and transport support. There is no doubt that some remarkable results were achieved, particularly in the sphere of close support and especially with 77th Brigade which had trained more closely with the air forces than the others. It has been said that the Air Commando were prepared to try anything and they took the view that the place for experiment was in the field. Indeed, the methods employed by the Air Commando in close support were in use several months before they were sanctioned elsewhere and it has reasonably been said that had the Air Commando not been an independent formation, half their tricks would have been disallowed.

A.H.B./IIJ50/
98/1(M)
Encl. 55,
Air C.-in-C.
to C.A.S.
1 Apr. '44

The idea of a separate air unit to support specific land formations was strongly opposed by the R.A.F. as being unnecessary and fundamentally unsound, for there were no tasks in support of L.R.P. operations which could not be undertaken by a tactical air force and transport units, provided suitable aircraft and equipment were available. Hence the desire of the Air Commander-in-Chief to disband the Air Commando Force on the completion of its operations in May 1944. While the record of the small force of selected personnel with first class equipment, which constituted the Air Commando, was naturally good, that record could not be advanced in support of extending the principle of air commando units. This view was upheld by the Air Ministry, it being agreed that the principle of air commando units gave rise to the danger of tying down air forces permanently and exclusively to one particular army formation with the consequent risks of duplication and lack of flexibility.

A.H.B./IIJ50/
98/1(M)
Encl. 60 C.A.S.
to Air C.-in-C.
12 Apr. '44

CHAPTER 9

OPERATIONS IN NORTH BURMA
TO AUGUST 1944The Military Background

The Army Air
Forces in
World War II
Vol. IV, Ch. 15

Following the loss of Burma in the spring of 1942, Lieutenant-General Joseph W. Stilwell had endeavoured to increase the effectiveness of Chinese troops and to perfect plans for the re-conquest of north Burma. The successful completion of a campaign in north Burma would ultimately enable land communications with China to be reopened by way of a new road to be built from Ledo in Assam to the old Burma road at some point east of Myitkyina. In May 1943, however, the Combined Chiefs of Staff had given first priority to the development of the India-China air route in order to sustain an air offensive against the Japanese from China bases by the Fourteenth United States Air Force. Nevertheless, Stilwell had been promised support for his campaign to clear the trace of the Ledo Road. This promise to Stilwell included an assurance that British offensives would take place on the central and southern sectors of the Burma front in support of the co-ordinated advances of the Chinese-American forces from Assam and the Chinese Expeditionary Force from Yunnan. In August 1943 at the Quadrant conference, the Combined Chiefs of Staff had confirmed these commitments and had given the newly created South East Asia Command orders to occupy northern Burma, as the first priority, and to increase the flow of airborne supplies to China.

Though details of the plans for operations in north Burma have already been outlined in an earlier chapter, (1) a brief recapitulation is perhaps desirable. While the larger plans were being completed, the offensive from Ledo began on 31 October 1943 south from bases in the Brahmaputra valley with the object of capturing the Mogaung-Myitkyina area. Two Chinese divisions were engaged in combat with the 18th Japanese Division when the Cairo conference took place towards the end of November. At that conference plans for the re-conquest of north Burma were confirmed and it seemed that there was every likelihood of a major success in Burma during 1944. But the participation of the Yunnan force for operations in north Burma was dependent, strangely perhaps, upon South East Asia Command mounting an amphibious operation. Following the conference between the war leaders at Teheran, the earlier decision to mount an amphibious operation was reversed and since no such operation could now take place, Generalissimo Chiang Kai-Shek refused to commit his Yunnan force.

In December 1943 there were four areas where the Allies were in contact with the enemy in Burma; in Arakan, in Manipur, in the Hukawng Valley and in the region of Fort Hertz where a small garrison of Kachins under British officers was located. On 1 February 1944 they were incorporated into Stilwell's Northern Combat Area Command. Although Stilwell, after his return from Cairo, had failed to persuade the Generalissimo to commit the Yunnan force, Stilwell was still convinced that he could capture Myitkyina. In April 1944,

COS(43) 791
(O) Pt II
25 Feb. '44
Sext-ant Plenary
meetings.

Cab. Hist. Sect.
SACSEA 1024
File SC/236
Encl. 36. PAO
to SAC 5 Dec. '44

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(1) See Chapter 2.

however, the Generalissimo changed his mind and sanctioned an advance across the Salween. In the meantime the Allied forces from Ledo, supported by a right flank column, had advanced along the Hukawng Valley. They had then to cross the rugged Patkai mountains at their lowest pass and debouch into the Mogaung valley whose river flowed south-east to join the Irrawaddy below Myitkyina. The distance was 170 miles from Ledo but was more than twice that distance by the devious jungle tracks which would have to be followed by the advancing troops. Moreover the Hukawng Valley was notorious for its unhealthy climate and dense jungle undergrowth. The whole area was defended by a wily enemy ensconced in strong defensive positions.

Plans evolved about this time envisaged the use of long range penetration columns, whose activities have been traced in the two previous chapters. What has not yet been recorded is the fact that whilst training for his 1944 campaign Wingate had been joined by 3,000 American ground troops destined for long range penetration in support of the proposed Allied offensives from Imphal, Ledo and Yunnan. The American force, the first U.S. ground troops to appear in battle in the theatre, were embodied into a unit under the name 5307th Composite Unit and became known by the code name Galahad Force. It reached India in the autumn of 1943 and carried out training under Wingate. It was assumed that these troops would operate under Wingate's command, but in the end they were allotted to Stilwell for use in north Burma. From the end of February 1944 they played a vital part in the development of the north Burma campaign.

After some months of difficult operations in the tangled Hukawng Valley, Stilwell's Chinese-American forces had made but slow progress and it seemed unlikely that an orthodox frontal advance would take our troops to Myitkyina before the break of the monsoon. It thus fell to the Galahad Force to hasten the pace and, aided by air supply and air transport, outflanking movements were effected, culminating in the surprise capture of Myitkyina airfield on 17 May 1944. In the meantime the advance of the main force down the Hukawng Valley continued, while long range penetration columns cut enemy communications leading to north Burma. Later the brigades of Special Force co-operated more closely with the north Burma campaign and eventually captured Mogaung on 26 June. Although the capture of Myitkyina airfield had been a brilliant feat of arms and that reinforcements had been flown into the area soon after its capture, the Japanese resisted in Myitkyina town strongly and not until a siege had been in operation for 79 days did the town fall to the Allies. With the reduction of Myitkyina town, north Burma was firmly in Allied hands to provide an invaluable base for air operations over the Hump to China, as a staging point on the projected Ledo Road and as a base for further land operations to the south. Similarly, it provided an air base for the protection of the transport aircraft plying between India and China and also an air base for tactical air squadrons.

Air Transport Operations in the Hukawng Valley

As already mentioned the advance in north Burma began on 31 October 1943 and for the first three months progress was somewhat slow. For the Chinese troops were opposed by a tenacious enemy ensconced in difficult country. By the end of January 1944 the Chinese troops of the Northern Combat Area Command were less than 20 miles from their positions of 21 December 1943. The offensive remained unimpressive save

for the fact that Chinese troops, well fed, clothed and equipped, had taken the initiative for the first time and had pushed back the Japanese army. But before any important developments occurred, operations to the south directed attention away from the Ledo front.

A.H.B./ILJ50/
47/70
HQ. ACSEA
Air Staff,
Air Transpt.
Operations
July 1944

While the momentous events in Arakan and later at Imphal and Kohima were taking place, another landmark in the history of air transport support operations in Burma was reached. Each advance by the Northern Combat Area Command took the troops farther from their bases. Consequently, their calls for air supply increased, necessitating as many as a hundred sorties a day. As the Ledo road took shape behind the advancing forces, landing grounds were constructed by American engineers whenever possible. By this means, fresh troops were landed who in turn advanced, consolidated their positions and built further landing grounds. The process reached its consummation in May when the all-weather airfield at Myitkyina was seized by American long range penetration columns accompanied by some Chinese troops.

Cab. Hist. Sect.
SACSEA 1170
War Diary of
Galahad.

These operations over difficult, and in some cases almost impassable terrain, were only made possible by the support given throughout by the 1st and 2nd Troop Carrier Squadrons, the latter being a squadron whose experience and versatility rivalled that of the R.A.F.'s No. 31 Squadron. Aided by air supply and air transport, Stilwell's advance gathered momentum. The Chinese soldiers fighting their way through the Hukawng Valley were aided by Wingate's raids and blocks to the south and by the outflanking movements of the Galahad Force to the north. The latter received their first supply drop on 22 February 1944. On 19 March, Jumla Bum was taken and the Chinese-American forces broke into the Mogaung valley. Myitkyina then seemed within reach, but with the approaching monsoon rains, Stilwell felt that something drastic had to be done to hasten the advance. He therefore decided that while the main force continued their advance down the Hukawng and Mogaung valleys, a force would be sent across the Kumon range into the Irrawaddy Valley for a surprise descent upon Myitkyina. To accomplish this, additional troops were necessary and Chiang Kai-Shek agreed to release the 50th Chinese Division, then in China, for operations with N.C.A.C.

A.H.B./ILJ50/
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JICA. 469

Since no land communications between India and China existed it became the responsibility of the American Air Transport Command, India-China Wing, to fly the 50th Chinese Division from Yunnanyi in China to Sookerating in Assam on return flights from their Hump operations. It might be mentioned that the A.T.C. had some 350 aircraft engaged on the India-China run at this time. On arrival in Assam the Chinese troops were to be equipped and concentrated at Sookerating and then flown to Maingkwan in Burma by the 1st T.C. Squadron.

Ibid.

The movement from Sookerating commenced on 5 April 1944 and by the 12th the entire Division, numbering 7842 officers and men, had been flown into Maingkwan. The first contingent of Chinese troops arrived at Sookerating by A.T.C. aircraft at noon on 5 April and by 1500 hours they had been equipped and accepted by the 1st T.C. Squadron. By the end of the day seven sorties had been flown carrying 243 troops to Maingkwan. In addition on this day, 34 supply sorties were accomplished. Subsequent operations during the move of the 50th Chinese Division followed similar lines. The

average weight per soldier and his equipment was 165 lb. Thirty-six soldiers were carried on each sortie, making a pay-load of approximately 6000 lb. On 6 April the transport aircraft were given priority commitments in the realm of air supply to forward troops in the Hukawng Valley so that it became necessary to divert aircraft from troop carrying. Nevertheless, 648 troops were carried in the course of 18 sorties while on the same day 20 supply sorties were completed.

About 2,500 men could be accommodated in the camp at Sookerating and the U.S. Air Transport Command were flying into Assam something like 1500 troops each day from China. In order to keep the camp clear it was planned that the 1st T.C. Squadron would lift 1200 troops a day into Maingkwan. But this did not prove possible owing to the continuing demands for air supply so that on 7 April some 39 supply sorties were flown against 26 sorties on troop carrying in which 936 men were lifted. In order to deal with the increasing number of troops at Maingkwan night flying was resorted to on 8 April and flying was continued each day from 0630 to 0200 hours the following morning.

Since the beginning of the operation the 1st Troop Carrier Squadron had possessed twelve aircraft of their own, three aircraft and crews attached from another U.S. squadron and two aircraft and crews from No. 62 Squadron, R.A.F. With an average of sixteen aircraft operating each day there were only six more first pilots than aircraft, including the squadron commander, operations officer and attached crews. By the afternoon of 10 April the strain was being felt by the pilots but another U.S. squadron responded to a request for relief by loaning three crews and furnishing an additional aircraft for night operations on the 10th. On this date the movement of troops and supplies reached its peak when 83 sorties were completed by the 1st T.C. Squadron and two further sorties by an attached C-47. On 11 April the two R.A.F. Dakotas returned to their home base in the morning and three C-47's on attachment from other American squadrons returned to their units at midday. To replace these the 18th T.C. Squadron arrived and commenced operations in the afternoon by moving 299 soldiers in nine sorties. On the following day the movement of the entire division was completed with six sorties by the 1st Squadron and eight by the 18th Squadron.

Cab. Hist. Sect.
ALFSEA 401/8
AAF. Evaluation Report 2.

It has been said that the movement of the 50th Chinese Division was carried out very efficiently and reflected great credit on the administrative staffs who were responsible for assembling the aircraft loads at the right place at the right time. Statistics show that the transport aircraft engaged in moving the Division from Sookerating to Maingkwan flew 222 sorties carrying 7842 men and their equipment, 15 U.S. troops and 12,440 lb. of stores. While performing this task the same aircraft flew 280 sorties on supply operations during the course of which they lifted about 900 tons of supplies.

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The chief difficulty during the operation arose from not knowing what demands might be made upon the squadron from day to day since no information was given concerning the required level of supply operations. It was thus impossible to plan any single day's work. With the time of operations extending up to 20 hours daily and with the shortage of first pilots, operational planning was made extremely difficult. The original plan for the squadron to move

1200 troops a day had to be abandoned because of the demands of troops in the field for food and supplies which varied from day to day and even hour to hour.

Ibid.

This situation also resulted in unduly long periods during which troops were waiting to be emplaned. For instance, at 1120 hours on 9 April, an air supply company telephoned to the 1st T.C. Squadron that they had no orders for supplies outstanding. Accordingly, the squadron concentrated on troop carrying and planned the first take off for 1300 hours. Before that hour, lorries carrying Chinese troops had arrived for loading but before they could be put on board, the air supply company had received and was fulfilling orders for supplies and they continued to receive such orders throughout the afternoon. As a result, thirteen lorry loads of troops waited alongside the airstrip from 1300 to 1800 hours. These troops had been fed at 1000 hours and after emplaning at 1800 they faced the prospect of an hour's flight and a five miles march to camp at the end of their air journey. Small delays also occurred in the turn round of aircraft owing to the shortage of refuelling equipment.

The Assault on Myitkyina Airfield

The assault upon Myitkyina airfield was undoubtedly the culmination of the 1943-44 campaigning season. It was a daring and difficult achievement which provoked protracted and intense fighting after the rains had already begun. Myitkyina was the railhead and focal point of enemy communications by both water and land for north Burma, but its capture did more than deprive the Japanese of their chief base north of Mandalay. It possessed an all-weather airfield of great potential value in the development of the Hump air route and was also a main staging point on the projected highway and pipe-line from Assam to Yunnan. The airfield, of greater immediate importance than the town, had facilities for the landing of transport aircraft. Once it had been captured, supplies could be flown in across the entire length of the advance from Shingbwiyang to the Irrawaddy. Without the airstrip the Allies would lack an efficient line of communication since the monsoon rains would soon make supply dropping less dependable.

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On 28 April 1944, the Galahad Force, accompanied by a Chinese regiment, began to cross the Kumon range of hills and struck out for Myitkyina. The swift movement through difficult country was executed with considerable secrecy and before the Japanese knew that Myitkyina was imperilled the Galahad Force was within four miles of their objective. The attack upon the airfield was scheduled for 1000 hours on 17 May, since it was known that the Japanese took cover in scrub country some distance from the airfield in daylight to avoid the machine-gun attacks which the Northern Air Sector Force was apt to carry out. The assault upon the airstrip was made by Chinese troops. The Japanese were completely surprised and their defence so weak that at 1530 hours the airfield was ready to receive transport aircraft. The prearranged reinforcements were immediately ordered to be flown in from India and the first C-47 glider tugs were airborne at 1600 hours. It looked as if Stilwell had achieved a magnificent victory for with the enemy's chief base in north Burma about to be occupied, the Japanese were already withdrawing rapidly from the Fort Hertz area. But at this point plans began to go awry.

Ibid.

First of all the Galahad force, which had established its headquarters on the airstrip at Myitkyina as soon as it was occupied, wanted a Chinese regiment flown in as planned to provide sufficient infantry to assault the town before the Japanese could dig in and gather reinforcements. Meanwhile, the air forces had concluded that anti-aircraft guns were needed to ward off Japanese air attacks upon the newly acquired positions. Eastern Air Command had therefore prepared to fly in certain British A.A. units - these had not been asked for by Stilwell - and then to fly in the Chinese infantry regiment. The result was confusion on the Myitkyina airstrip and the absence of much needed infantry. Trouble then developed in the Galahad force, whose numbers had shrunk during the campaign, owing to casualties and sickness, from 3000 to approximately 1000 men by the time Myitkyina had been reached. As with the British long range penetration brigades, the Galahad force believed that they would not be asked to operate for more than three months, and the sudden realization that they would be required for further service after the fall of the airstrip broke their morale. The Chinese regiment, which accompanied Galahad in the surprise move against the airfield had not been blooded in battle prior to the attack. It was hoped that Myitkyina town would be captured by 20 May but the Chinese troops became confused, fired on their own men and ran away in a panic. Thereafter there was little chance of an early occupation of Myitkyina town. The enemy's strength was consistently increasing and he held strong defensive positions. Stilwell was therefore faced with the responsibility of conducting a long siege of Myitkyina while his own troops had no lines of communication other than the air, the efficiency of which was threatened by the monsoon rains.

A.H.B./ILJ50/84A
Despatch by
Viscount
Mountbatten.

After the initial fly-in of gliders to Myitkyina airfield, in which presumably American airfield engineers were landed, transport aircraft followed. Within thirty-six hours of intensive operations there were landed at Myitkyina six light A.A. batteries, twelve Bofors guns and crews, a U.S. Airborne Engineer Company, American and British anti-aircraft gunners and a Chinese regiment. It is assumed that the latter arrived too late to make any contribution to the rapid reduction of Myitkyina town. In the airborne operation, which was carried out by day and night under enemy ground fire and air attacks, only one transport aircraft was shot down, though several others were destroyed on the ground. Two days after its capture the airfield was in full operation but it was overworked even after its reconstruction and expansion. To relieve the pressure, three American airborne engineer companies were flown in on 28 May. It has been said that nearly 30,000 troops had also been flown in by the end of May 1944. The siege of Myitkyina, which was to last 79 days, had now fairly begun.

The Advance from Yunnan of the Chinese Expeditionary Force

In the third week of April 1944 the Chinese force in Yunnan was ordered by Generalissimo Chiang Kai-Shek to advance into Burma. This force consisted of some 200,000 men divided into several groups of armies. It was planned that the Yunnan force should cross the Salween and after clearing the Japanese out of Yunnan, should link up with Stilwell's forces and so establish land contact with India. The crossing of the Salween began on the night 10/11 May 1944 when 40,000 Chinese troops crossed the river on 400 boats. Thousands more crossed on 11/12 May and this process continued until the Chinese were across the river in

sufficient numbers to exert considerable pressure on the Salween front from Hpimaw in the north to Kunlong in the south.

As a condition of the advance, Chiang Kai-Shek stipulated that South East Asia Command should provide air supply to the Yunnan force. It was subsequently arranged that sufficient aircraft would be made available for the limited day to day supply of four Chinese divisions; it is worth mentioning that a Chinese division was a much smaller unit than its British counterpart. Orders were given on 17 May 1944 for a United States squadron of thirteen C-47's to be diverted from Troop Carrier Command, S.E.A. to the Fourteenth U.S. Army Air Force in China for the supply of the Yunnan armies. This decision was taken at a moment when the resources of Troop Carrier Command were strained to the utmost for the commitments of transport squadrons, which included the maintenance by air of the large besieged garrison at Imphal, were exacting. To fill the gap caused by the withdrawal of the American C-47 squadron, bombers of the Strategic Air Force were diverted to supply operations. Moreover, the transport aircraft on loan from the Mediterranean theatre had been retained for a further period and this constituted another factor in the acceptance of the temporary transfer of a transport squadron to China.

A.H.B./ILJ50/
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Despatch by
Viscount
Mountbatten

ACSEA File
Cin C/4 E.32A
SEACOS 162
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ACC. 924
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541.

Other air support for the Yunnan advance came from elements of the Fourteenth Air Force under the control of the 69th Wing. The task of the tactical force was to give close support to the Chinese, isolate the battlefield and, as already mentioned, to provide some measure of air supply. A forward headquarters of the 69th Wing was set up on 2 May 1944 at a new airfield near Yunnanyi. Air support was to be provided largely by the 25th Fighter Squadron and the 22nd Bombardment Squadron.

The Japanese forces opposing the advance of the Chinese forces had been in possession of some of the area for more than two years and had skilfully taken advantage of the terrain to develop strong defensive positions dominating every avenue of approach. Although they were numerically inferior to the Chinese and were completely without air support, they were deployed so as to exact the heaviest possible casualties among the attackers. Moreover, they possessed superior lines of supply. On the other hand the Chinese lacked artillery support and, with an unbridged river at their backs, had to depend upon mules and coolies to bring up supplies after they had been brought across the river.

The reduction of each strong point was dependent upon heavy air attack and by the end of May none of the major objectives had been captured. The recently arrived 27th Troop Carrier Squadron, attached to the 69th Wing, carried out supply dropping but advanced Chinese army units continued to run short of food and ammunition. Numerous bombing and machine-gun attacks against staging posts and supply dumps were successfully carried out while heavy bombers were called upon to add weight to the bombing of rear areas. Despite air attacks the Japanese held on tenaciously and the campaign continued throughout the summer of 1944. When Myitkyina town at last fell to the Allies in August, the Chinese Yunnan armies had still made no appreciable progress. One senior Japanese officer after the war gave the opinion that if the Japanese had possessed the strength of one division and had the Chinese not had the overwhelming

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advantage of air support, the Japanese 56th Division could have prevented the crossing of the Salween. According to the Japanese the advance from Yunnan had little influence on the course of operations around Myitkyina.

Operations of Special Force - 20 May-27 August 1944

On 20 May 1944 the four remaining brigades of Special Force were incorporated into Stilwell's Northern Combat Area Command and thereafter operated mainly in support of operations against Mogaung and Myitkyina. A tactical headquarters was set up by Special Force at Shaduzap, near N.C.A.C., in order to maintain close liaison. Also on 20 May, air support for Special Force was taken over by the American squadrons of the Northern Air Sector Force. On 20 June the N.A.S.F. became a reconstituted Tenth U.S. Air Force.

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HQ.3 Ind. Div.
Summary of
Special Force
operations.

Just prior to the transfer of the long range penetration brigades to Stilwell's command, the fortified road and rail block near Hopin (Blackpool) was quiet but on 22 May the lull was broken when the garrison had to beat off an enemy attack. It was indeed unfortunate that the renewed enemy attempt to remove the block on his communications leading to north Burma should have coincided with a severe deterioration in the weather conditions. In mid-May the meteorological staffs had stated that the monsoon would not break until early June. From 20 May onwards, however, the bad weather had far reaching results, for up to the time of the withdrawal from Blackpool, not one close support sortie could be flown. This allowed the enemy to establish numerous anti-aircraft and artillery positions in close proximity to the block and made it possible for him to infiltrate on to the airstrip which, owing to the smallness of the garrison, could not be adequately defended. The establishment of these anti-aircraft positions made daylight supply dropping virtually impossible while monsoon rain and clouds prevented night air supply operations. Several very gallant attempts were nevertheless made by both R.A.F. and U.S.A.A.F. transport crews in the face of heavy fire; on one occasion eleven out of twelve aircraft being hit. But even the most determined flying could not replenish the fast dwindling supplies of food and ammunition at Blackpool. The activities of the other brigades too were hampered by floods and the shortage of supplies.

Ibid. The Blackpool garrison was thus placed in a position of facing a full scale attack upon their stronghold with inadequate supplies and without the air support so essential to protracted defence by lightly equipped L.R.P. troops. On 22 May the enemy attack against Blackpool was repulsed but all troops had to be withdrawn into the perimeter of the stronghold. This meant that the airstrip fell into enemy hands. A large amount of ammunition had been expended in beating off this attack and all supply dropping sorties on the night 23/24 May were abortive owing to heavy anti-aircraft fire. By 24 May the enemy had established themselves in a semi-circle round the block but the only time they gained a footing in the stronghold itself they were evicted. The Japanese continued to press home their attacks throughout the night and at 0500 hours they broke into the perimeter of the block. Counter-attacks failed and at 0800 hours the garrison was without food and short of ammunition. They therefore decided to evacuate the

stronghold since it seemed unlikely that supplies would be forthcoming. The evacuation was carried out in appalling conditions of rain and mud and involved carrying over 100 casualties along eighteen miles of hill tracks. Nevertheless, the garrison succeeded in reaching Mokso Sakan, east of Indawgyi lake.

Operations by the long range penetration columns following the evacuation of Blackpool centred around the area of Indawgyi Lake which was now required as a flying boat alighting area for the evacuation of casualties. In June over 500 such were evacuated by Sunderlands of No. 230 Squadron based on the upper reaches of the Brahmaputra. On 23 June 1944, 77th Brigade began their attack upon Mogaung and by the 26th the town was in their hands. The whole operation was assisted by direct air support given by the Tenth U.S. Air Force. On 27 June the Brigade was ordered to hand over its positions to the 38th Chinese Division and to move into the hill country to await evacuation from the field.

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24 Jun. '44.

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Spec. Force
Operations.

The evacuation of the remaining brigades of Special Force from the operational area was dependent upon the speedy arrival of the British 36th Division, which had been ordered to relieve the long range penetration columns as the advanced troops of N.C.A.C. 77th Brigade, however, were given the choice of either marching out at once to Warazup or waiting the arrival of 36th Division and then to be flown out to India from Myitkyina. They accepted the first alternative and began their march on 7 July 1944. The remaining brigades during this month carried out a number of minor actions in support of the N.C.A.C. campaign. About 23 July, 111th Brigade was withdrawn from the battle and left for Mogaung on the 27th. The detachment of Special Force which had throughout operated on the Bhamo-Myitkyina road and subsequently against Myitkyina itself, was ordered to hand over its positions to the Kachin levies and to commence evacuation on 27 July. By the 29th this force had been flown out and the evacuation of 111th Brigade from Myitkyina was completed by 1 August. By this time also, the survivors of 77th Brigade had been flown out from Warazup. The only units of Special Force now left in the field were 3rd W.A. and 14th Brigades. The former co-operated with 36th Division in further operations while the latter operated independently. These last minor operations were successfully completed on 12 August and the task of Special Force was at last finished. It had possessed no land lines of communication throughout. The British 36th Division had now completed its concentration and was ready to continue the advance south into country which had long before been dominated by Special Force. On 17/18 August, 3rd West African Brigade troops were flown out from Myitkyina and the troops of 14th Brigade followed on 21/26 August 1944. Only two small detachments of Special Force now remained in Burma and these were evacuated by air on the 27th.

Air Supply to Special Force

As already mentioned in the previous chapter, all supply dropping to the columns of Special Force from the beginning of March until 24 May 1944 was carried out at night, save on the rare occasions when the tactical situation demanded daylight operations. But with the approach of the monsoon rains and the associated cloud banks, and also to the strain on aircrews, daylight supply

dropping became the vogue and was continued for the remainder of the long range penetration campaign.

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3rd TAF to EAC.
19 Jun. '44.

In May 1944 the focus of operations had moved northwards and with the main supply base still at Sylhet the air haul became more and more uneconomical. Moreover, better flying conditions generally prevailed in the Assam valley than at Sylhet while aircraft based in the former region could fly into Burma without fighter escort. The provision of fighter cover was at this time particularly difficult in view of the many commitments facing the limited defensive fighter force. The army were therefore asked to move the supply depot from Sylhet to Din Jan, thereby shortening the haul and taking advantage of the certain other factors already mentioned.

After many objections had been raised on the part of the army, they eventually agreed to establish a small subsidiary base at Din Jan to hold 15 days' supplies of mortar ammunition, hand grenades and medical stores for three brigades. This air base, which had to be manned by an improvised staff, was able to function from 27 May 1944. But considerable difficulties were met during its establishment. No accommodation of any kind was available, the only camp site was liable to flooding and all the requirements of storage and labour for the improvement of the area had to be obtained from the Americans. Despite their preoccupation with other matters they proved most helpful. Air base parties were at first accommodated on a temporary site, which they were forced to evacuate on 6 June. A new site was gradually developed and drained and storage bashes were erected. The supply of special items of equipment to the L.R.P. columns was not effected from Din Jan since the army refused to immobilise such equipment during transit from Sylhet to Din Jan. The shortage of accommodation at Din Jan precluded the move of the headquarters of the four brigades there. As the transfer of maintenance progressed, requests for supply from columns in the field had still to be received at Sylhet where priorities were decided at a daily meeting at Special Force Headquarters. The passing of requirements by R/T. from Sylhet to Din Jan was, however, a serious disadvantage.

The 27th and 315th U.S. Squadrons, which had been providing air supply to Special Force, were moved from Sylhet towards the end of May 1944 though a detachment of the latter squadron remained to continue the task. The brunt of air supply during June thus fell to the Dakotas of No. 117 Squadron, R.A.F. which was assisted on occasion by additional sorties by other R.A.F. squadrons based at Agartala.

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3rd TAF Tels.

In May the total lift for Special Force was assessed at an average of 70 tons per day and this was increased to 84 tons daily during June. Third Tactical Air Force, in conjunction with Troop Carrier Command, decided that by sending one squadron to the Assam valley and basing it at Din Jan, an average of 60 tons daily could be achieved provided each aircraft flew two sorties. The balance would be made up from Sylhet by the squadron detailed to provide aircraft for the delivery of special equipment. It was assumed that the majority of the lift over 60 tons would be stores of special nature. To implement this plan the 315th U.S. Squadron was transferred from Sylhet to Din Jan. It would appear, however, that N.C.A.C. regarded the squadron as an additional one for general supply duties and

not for the specific purpose of maintaining Special Force. Only ten sorties daily were consequently provided by the Northern Air Sector Force for Special Force whereas the requirements were 24 sorties of 6000 lb. each. By 20 June the air base at Din Jan could handle 16 sorties each day rising to 26 sorties by 25 June. The restriction of ten sorties must therefore have been the result of a misunderstanding as to the reason for the transfer of the 315th Squadron to Assam. In order to keep Special Force supplied, Third T.A.F. had to provide eight sorties from Sylhet until 25 June and three sorties daily thereafter. All these sorties from Sylhet were to be flown via Jorhat to avoid the need for fighter escorts. But since N.A.S.F. were only flying ten transport sorties daily, Third T.A.F. agreed that 117 Squadron R.A.F. would fly 18 sorties from Sylhet until 20 June in order to keep Special Force supplied during the transition period of the change over of control in Assam from the N.A.S.F. to the Tenth U.S. Air Force.

The misunderstanding as to which formation was responsible for the supply of Special Force persisted for some time and it appears that the L.R.P. columns in Burma received an average of only 63 tons per day against the requirement of 84 tons for the period 7-22 June. From 20 June the Tenth U.S. Air Force became responsible for the delivery of 78 tons and Third T.A.F. the other six tons. At a conference held at Stilwell's headquarters on 30 June the shortfall of supplies dropped to Special Force was discussed. It was stated that the minimum requirements were 26 sorties per day, three of which would be flown from Sylhet. This plan could no doubt have been accomplished had all aircraft made two sorties each day, but owing to bad weather, this had not proved possible. An additional transport squadron was therefore deemed essential and steps were taken to provide one.

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Operations.

The maximum output from the Din Jan air base was reached on 12 July 1944 when 28 sorties were flown in delivering a gross load of 187,000 lb. The last supply drop to elements of Special Force took place on 23 August. Between 27 May and this date a total of 2797 tons of stores was dropped by aircraft operating from Din Jan. The air base at Sylhet continued to maintain the long range penetration brigades in specialist stores until 4 August and in addition the three aircraft allotted for the task were also used to ferry stores and personnel from Sylhet to Din Jan and for occasional visits to base supply depots in India to collect urgently required special items of equipment.

Air Support to Special Force

Following the withdrawal of the Air Commando Force on 20 May 1944, air support for the British long range penetration brigades was provided by the American squadrons of the Northern Air Sector Force, which on 20 June became the Tenth U.S. Air Force. From 21 to 26 May air support was demanded solely for the hard pressed Blackpool garrison but bad weather intervened and only one sortie, on the 25th, could be flown. Between 27 May and 5 June, however, aircraft of N.A.S.F. attacked the railway south of Mogaung and succeeded in cutting it temporarily in two places. Thereafter, until 26 June, the bulk of air support given to Special Force was concentrated in the Mogaung area in support of the operations of 77th Brigade.

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Summary of
Spec. Force
Operations.

In June 1944, elements of 77th Brigade in north Burma reached the outskirts of Mogaung in a skilfully executed pincer movement. Columns of L.R.P. troops moving north from the Indaw-Mawlu region, swung to the east of Mogaung, penetrated the Japanese defences and took up positions east and south-east of the town. Simultaneously, Chinese forces moving south from the recently captured village of Kamaing, approached Mogaung from the north and west. Mogaung, which guarded both the railway leading to Myitkyina and the road north to the Hukawng and Mogaung valleys, was desperately defended by the enemy who, employing his usual tactics, dug himself into positions surrounding the town and within the town itself.

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RAFLO. 77th
Brigade.

Targets for tactical aircraft at Mogaung thus tended chiefly to consist of defended Japanese positions and weapon pits. In their attacks the air forces maintained a high degree of accuracy. The peak days for air support during the battle for Mogaung were 11, 12 and 23 June when 35, 52 and 50 sorties respectively were flown despite monsoon weather. Brigadier Calvert, Commander of 77th Brigade, stated categorically that without air support, Mogaung could not have been captured. It was therefore fortunate that the P-40 and P-51 squadrons of N.A.S.F. were at the time supporting the battle for these units were based east of the mountains which separate India from Burma and they had only 70 miles to fly to the target area. Aircraft based in Assam were generally unable to penetrate the barrier of mountain and cloud which lay between the air bases and the targets in north Burma.

Ibid.

The tactical squadrons which supported 77th Brigade's attack upon Mogaung used the same principles as had been proved by the Air Commando Force during the earlier months of the campaign. R/T. communication, smoke indication of targets and enlarged photographs were invariably used. Each target was found by observation and patrol and then systematically bombed until it had at least one direct hit. The result was that in the final assault on the main defence line, only one strongpoint remained undetected and undamaged to cause serious casualties. At other points casualties were light although all the positions attacked were of the bunker type with a well worked out system of cross fire. Many Japanese soldiers were caught in their holes and dug-outs with their hands still over their heads.

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Operations
Spec. Force.

On 19 June an interesting example of indirect air support occurred when in the course of the morning a railway train was reported to be moving south from Pinbaw. Air support was called for and a formation of P-51's diverted from another target. Our ground forces in the vicinity, which had observed the target, contacted the P-51 formation by R/T. and indicated the position of the train. The latter was then attacked by successive waves of aircraft and derailed. It was later reported to have been full of Japanese soldiers, large numbers of whom were killed or wounded. R.A.F. aircraft too participated in this stage of the campaign in the form of attacks by Vengeances of No. 84 Squadron which attacked enemy troop concentrations and supply dumps in the Onsan and Kadu areas on 5 and 7 June. This was, in fact, the last occasion in the L.R.P. campaign in which R.A.F. aircraft provided air support. The Vengeances had throughout been used sparingly since the methods developed by the Americans proved far superior to the more orthodox R.A.F. tactics.

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ACOS, A-2
10th U.S.A.F.
5 Sep, '44

During the battle for Mogaung, column commanders of 77th Brigade sent requests for air support to H.Q. Special Force at Shaduzup by wireless. At Shaduzup priorities were decided between operations at Mogaung and at Myitkyina, where a battle was raging at the same time. As in the case of close support operations in other parts of north Burma, a photographic mosaic of Mogaung was prepared and gridded. Copies of this key mosaic were distributed to all company commanders and to pilots. Targets were pinpointed on the mosaic simply by quoting the correct photographic coordinates. Whenever a request was sent to Shaduzup, it was accompanied by the grid reference so that pilots, before taking off, had an opportunity to study the position of the target. Other aids to target identification were, however, employed.

Troops which pinpointed a target invariably gave the position of their own R.A.F. liaison section so that the formation of supporting fighters could fly over the position of the ground R/T. set and establish voice contact. It was the normal practice for the liaison team to 'talk the pilots on to the targets'. This was done despite the fact that pilots had been briefed in advance and had a clear conception of the target's location. But so close was the liaison between air and ground that correction could be made during an attack itself. When the bombs of the first aircraft were off the target, the man on the ground could tell following pilots to drop their bombs a specified number of feet to the right or left. It was also the practice to receive alternative targets from ground observers in cases where attacks on original targets were no longer desirable. Smoke shells too were not uncommon at Mogaung but they were used as an additional and not a primary aid to target identification. Thus a flight of aircraft might be instructed to stand by while a smoke shell was fired. As soon as the smoke rose, the ground observer would inform pilots of the position of the target in relation to the smoke.

In brief, it might be said that no effort was spared to make each close support sortie count. The aids used in pinpointing the targets plus the aids used to correct any error in location or bombing, made close support operations at Mogaung highly successful despite the fact that pilots had none of the briefing facilities available to pilots at Myitkyina. During the period of operations around Mogaung, over 400 sorties were flown and rarely did it prove necessary to attack the same target twice.

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Summary of
Operations
H.Q. Spec.
Force

After the fall of Mogaung to 77th Brigade on 26 June 1944, close support operations for Special Force became less frequent, though the Tenth U.S. Air Force continued to mount softening up attacks in areas where battle was joined with the enemy. Finally, on 4 and 5 August 1944, intensive air support was provided as a preliminary and in direct support of a successful ground attack, 44 and 54 sorties respectively being flown. With the removal of Japanese troops from this target area, near Sahmaw, and with the capture of another position by 14th Brigade, the necessity for air support to Special Force ceased.

Evacuation of Casualties by Flying Boat

A unique and valuable contribution to the long range penetration campaign was made between 2 June and 3 July 1944 when casualties were evacuated by flying boats which landed behind enemy lines in Burma. During May 1944, elements of Special Force were moving northwards towards the swampy country west of Hopin and were encumbered by the many casualties sustained during the fierce battles around the stronghold of Blackpool. These men could not now be brought out by land based aircraft since all landing strips inside Burma, other than Myitkyina which was inaccessible, were waterlogged by monsoon rains. Plans were therefore made to mount operation River in which a Sunderland aircraft of No. 222 Group, Ceylon, would attempt a landing on Indawgyi Lake using Dibrugarh on the upper reaches of the Brahmaputra as an advanced base. Indawgyi Lake was surrounded on three sides by hills but otherwise seemed quite suitable as a flying boat anchorage. It lay near the battlefront for on the eastern side the Japanese were in possession of a second range of hills and were close enough to bring fire to bear upon the Lake.

Cab. Hist. Sect.
SACSEA 1179
File SC/45
Air C.-in-C.
to No. 222
Group
27 May '44

On 28 May 1944 a Sunderland flying boat of No. 230 Squadron left Koggala, Ceylon, to operate under the direction of Third T.A.F. The aircraft flew direct to Calcutta and then on to Comilla for briefing. A flying boat anchorage already existed at Calcutta but its distance from Lake Indawgyi prevented its use as a base for operation River. Dibrugarh, however, held possibilities as an advanced base, particularly since adequate ambulance facilities existed there. A reconnaissance was carried out on 29 May of the anchorage at Dibrugarh by a Mitchell in which the pilot and navigator of the Sunderland flew as passengers. Apart from a strong current which averaged about twelve knots, the danger of floating timber and the odd river boats which might get in the way, Dibrugarh was considered to be fairly suitable. The depth of water was about 20 feet and the river pilot promised to do all he could to ensure the minimum difficulties.

Cab. Hist. Sect.
SACSEA 1179
File SC/45
3rd T.A.F. Tels.

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The Sunderland flying boat flew to Dibrugarh on 31 May and it was planned that operations would commence the following day. A successful landing was made at Dibrugarh though the strong current proved troublesome and it took 45 minutes to moor the Sunderland to a buoy. Disaster nearly occurred when the amphibious Dukw, used to manoeuvre the Sunderland, nearly collided with the port float of the aircraft.

Cab. Hist. Sect.
SACSEA 1179
File SC/45
3rd T.A.F. Tels.

On 1 June 1944 the Sunderland of No. 230 Squadron took off for its first trip to Indawgyi Lake. Most unfavourable weather was, however, encountered with 10/10 cloud from 500-2000 feet, and after a flight of four and a half hours the aircraft returned to Dibrugarh without accomplishing its mission. There was no doubt that the operation would be a difficult one for the area had never been properly surveyed. Indeed, the map indicated that the highest peak to be crossed rose to 6000 feet but one mountain was discovered over 9000 feet high. Thereafter all sorties were flown at about 11,000 feet, this being virtually the aircraft's ceiling, and the route followed the Ledo pass and down the Hukawng and Mogaung valleys. Flying was nearly always to be blind through the pass and the turbulent conditions there made instrument flying near the aircraft's ceiling somewhat hazardous. Nevertheless, the second flight on 2 June was

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successful despite extremely bad weather conditions. Thirty-one casualties were paddled out to the Sunderland on the lake by the use of rubber dinghies. Since forty minutes elapsed between landing and take off it became evident improvements in the ground organization were needed to hasten the speed of evacuation. Rafts for carrying men from shore to aircraft were therefore built on the spot and fitted with outboard motors. These carried about six men, but soon more sections were added, more motors fitted, and towards the end of the operation as many as 40 men were accommodated on one raft.

Bad weather persisted but on 3 June stores were flown into Lake Indawgyi and 35 casualties brought out. The turn round time for the Sunderland on this occasion was reduced to 30 minutes. On the way back to Dibrugarh enemy fighters were sighted below the flying boat but the Sunderland reached base without being intercepted. Fighter escort had, in fact, been planned for all flights but in most cases the weather conditions in the Ledo pass greatly complicated matters for the escorting aircraft. Attempts also made to provide fighter cover from Tingawak Sakan, situated to the east of the mountains, were similarly frustrated so that the Sunderland was nearly always without fighter protection at the lake where better weather conditions usually prevailed. It should be mentioned at this point that one of the passengers on 3 June was heard to remark that he had been evacuated from Crete in a Sunderland. It is unlikely that he realized that the same squadron was doing the job. Slightly improved weather conditions enabled one sortie to be flown on 4 June and two on the 5th. Stores were flown in to the lake and a total of 120 casualties evacuated. No enemy interference was experienced though on one occasion enemy fighters were again seen. Cloud cover enabled the Sunderland to keep out of trouble.

Cab. Hist. Sect.
SACSEA 1179
File SC/45
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When the operation started it appeared that about 200 casualties would have to be evacuated but this number subsequently increased to over 400. A second Sunderland was therefore called for, additional moorings were provided at Dibrugarh where the second aircraft arrived on 4 June. Unfortunately its port float was damaged by a Dukw and the aircraft was obliged to return at once to Calcutta for repairs. Night work by the crew and B.O.A.C. employees to fit a new float enabled the Sunderland to return to Dibrugarh on the 6th. The flying boats were scheduled to return to Ceylon on 10 and 12 June but since many casualties had still to be brought out it was decided that one aircraft would return to Ceylon on 10 June while the other continued operations. From 6 to 9 June both aircraft were operational and flew four sorties between them carrying about 40 casualties on each flight. On the 10th one aircraft returned to Ceylon.

By this time the monsoon had increased in intensity and it became a question of whether the Sunderland that remained could penetrate the barrier of storms and cloud that separated the base at Dibrugarh and the Lake in Burma. From 10 to 20 June the weather was particularly bad and on the three occasions when the Sunderland took off from Dibrugarh it was forced to return without completing its task. Then on 20 June a Dukw collided with the flying boat damaging the float assembly, mainspar and all struts. Since this aircraft could not be made serviceable the other Sunderland was recalled to Dibrugarh where it arrived on 26 June. In the intervening period some of the casualties

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had been evacuated by river, which a temporary improvement in the tactical situation had permitted, but there were still about 100 serious cases to be brought out by air. It so happened that technical trouble developed in the replacement Sunderland and the next sortie did not take place until 30 June. On that date, despite bad weather, the aircraft managed to reach Indawgyi lake and to evacuate 40 casualties. Another successful sortie was flown on the following day. Finally, on 3 July, the last sortie was accomplished in the most favourable weather experienced during the entire operation. Later that day Japanese aircraft machine-gunned Lake Indawgyi and sank one of the rubber rafts which had been used for ferrying casualties.

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Since the engines of the Sunderland were showing signs of strain it was decided to end the operation though Special Force wished it to continue. The serviceable Sunderland therefore left Dibrugarh for Ceylon on 4 July but the other and unserviceable aircraft foundered at her moorings after being struck by a whirlwind. In all during operation River, thirteen sorties were flown in evacuating 506 casualties, one R.A.F. officer and one prisoner of war from under the noses of the Japanese. On each sortie, save the first, 2000 lb. of freight were carried in. This consisted chiefly of medical stores, rations and combat personnel.

Whether the operation was a creditable one or not is uncertain. It took a month to fly thirteen sorties and the casualties were not delivered from the jungle wilderness with the same speed that had been characteristic of earlier casualty air evacuation by land based aircraft. On the credit side, however, lies the fact that the monsoon had rendered our fair-weather airstrips in Burma unserviceable. Without the aid of flying boats our troops in Burma would no doubt have attempted to get their casualties to the all-weather airfield at Myitkyina, a hazardous venture in difficult country waterlogged by the monsoon rains and in an area where the Japanese were plentiful. It is reasonable to assume therefore, that had the flying boats not operated, the chances of survival of the 506 men would have been slender. Sunderland aircraft had been designed to operate at low and medium altitudes over the sea, whereas in Burma they had to fly at a height of about 11,000 feet over the jungle clad mountains which separate India from Burma. Moreover, the advanced base at Dibrugarh could not be regarded as satisfactory for several reasons. The fast flowing river, swollen by monsoon rains, presented undue hazards as evidenced by the several narrow escapes from damage and the actual damage sustained on two occasions. But the fundamental difficulty of the operation was the monsoon weather, and although a radio station was set up at Lake Indawgyi to give two hourly weather reports, there still remained the problem of negotiating the barrier of storm clouds which invariably covered the route.

Operations Against Myitkyina - June-August 1944

The capture of Myitkyina airfield has already been described and although this event took place on 17 May 1944 the main line of advance from Ledo was still a good deal farther west. Kamaing, for instance, was captured by the 22nd Chinese Division on 16 June while Mogaung fell to 77th Brigade of Special Force on the 26th. The Chinese-American task force investing Myitkyina town had continued to make slow progress against the defenders during June and July and mopping up operations continued around Mogaung. The

capture of the latter had effectively closed the way to supplies for the Japanese garrison at Myitkyina by rail, and they had been forced to rely on what little they could infiltrate through our own lines. They could also obtain limited supplies from detached Japanese forces to the north and north-east of the town whence stores were floated down the river on rafts.

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ation Report.

When Myitkyina airfield was first captured the Japanese garrison in the town numbered about 400 men. By the end of May 1944 the number had risen to about 2500. With 1000 patients of the Japanese 18th Division hospital also in the town, there were never more than 3500 men defending Myitkyina. The hospital patients were discharged as rapidly as possible and attached to various units of the besieged force, and by the end of the siege, there were very few of the original 1000 who had not seen action in or around Myitkyina. From Japanese sources we are led to believe that the following factors led to a prolonged resistance. The Allies were unable to use armour. The Allies did not attack the town from the east for had this been done the Japanese garrison, on their own admission, could not have held out for long. Owing to the slow process of landing reinforcement troops at Myitkyina airfield, the Japanese were given sufficient time to bring up reinforcements. Although inferior in numbers the Japanese troops at Myitkyina were well seasoned warriors and were ably led.

A.H.B./ILJ50/47/
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Report by
Maj-Gen. G.
Stratemeyer
H.Q. E.A.C.

The air supply to Myitkyina during monsoon weather proved an impressive incident. Something like 14,000 aircraft landed there carrying 30,000 tons, including the weight of supplies and troops, the former comprising artillery, food, ammunition and heavy construction equipment that had to be broken down for air transport. The extent to which air supply made possible the capture of Myitkyina airfield on 17 May and that of the town on 3 August is not without a degree of irony. In theory, Stilwell's Ledo Road was to have become an artery for the supply of the Chinese-American forces as they advanced towards Myitkyina. In practice, however, even the builders of the road had frequently to rely entirely upon air supply and, once the monsoon had broken, the rain closed the road behind them. For six months after the capture of Myitkyina airfield in May till the first ground convoy reached the town in November 1944, the Ledo road made no contribution to the supply of forward troops in north Burma.

O.R.B. H.Q.
R.A.F. Burma
May 1945

Equally significant was the report of Brigadier-General Godfrey, U.S., Chief Engineer of the American Air Service Command. This report indicated that during the fly-in to Myitkyina, Dakotas did the work of 1200 two and a half ton trucks, that the number of men required for air transport of supplies was less than half that which ground transport would have required had the road been open. The report also showed that in the subsequent construction of new airstrips in north Burma, the manpower required and flown in for the task was one fifth of that which would have been needed for the building and maintenance of the road. Of the subsequent value of the Ledo Road there has been much controversy which is outside the scope of this narrative. It would thus be prudent to mention that the nice calculations made by the air forces in boosting air power must be related to the overall picture. For instance, the Ledo Road was conceived and constructed for supply to China and had the war taken its anticipated course, it might

well have played an important part in the ultimate victory. For the road was not only to carry hurried supplies to the Chinese army and American air forces in China, but also a pipe line or two. This pipe line undoubtedly gives the advocates of over-land supply an important point for all through the war in the Far East, air operations from China had been limited not by the number of aircraft but by the petrol and oil to fly them. It can fairly be said that the transport by air of large quantities of fuel is uneconomical. What is certain, however, is that by 1944 it had been proved that in certain circumstances supply by air was a practical substitute for supply by land.

Myitkyina was captured on 3 August 1944 after a siege lasting 79 days. The greater part of the garrison of 3-4000 was annihilated, though some troops contrived to escape down the Irrawaddy on rafts. Chinese forces crossed the Irrawaddy east of Myitkyina and moved down the road in the direction of Bhamo to Kazu where, at the end of August, they were consolidating their position. The newly arrived British 36th Division, which replaced the long range penetration brigades of Special Force, advanced down the railway south-west of Mogaung. The Myitkyina area was now firmly in Allied hands. Not only was the trace of the Ledo Road now clear as far as Myitkyina but the airfield in the vicinity was of inestimable value in increasing the payload and safety of aircraft flying the Hump route to China.

Tactical Air Operations during the North Burma Campaign

Until the opening of the land offensive in North Burma in October 1943, the American squadrons in Assam were engaged in defensive air operations designed to protect U.S. Air Transport Command bases, and the transport aircraft using them, and offensive air operations against enemy lines of communication north of a line Katha-Bhamo. With the commencement of the land advance down the Hukawng Valley, it became necessary for the air forces to add tactical air support to their other roles. There had, however, been no previous close support experience to guide the air commanders and so at first, tactics and methods had about them an air of experiment and improvisation.

In anticipation of intensive close support operations during the north Burma campaign, a series of conferences took place between American air and ground commanders, for the purpose of evolving a suitable organization to deal with the allotted tasks. It was necessary to set up a system of tactical air control through which all requests for close support could pass. The accepted requests had to be conveyed to the air headquarters with all the relevant information necessary for the fulfilment of the tasks. Liaison had to be established with the ground forces so that the air headquarters would be kept fully informed about the progress of the land campaign. The necessary liaison to accomplish these ends was, in the event, achieved by setting up an air liaison and staff at the Headquarters of the land forces.

During the early months of the north Burma campaign a 'Panel System' was employed to indicate targets in close proximity to the front line troops. This visual method, whereby a panel was laid out on the ground pointing to the target, was not always satisfactory. Where the panels could be properly laid, pilots received a fair indication of the target's position. But the Hukawng Valley is almost solid jungle with trees rising to 150 feet, and was thus

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unsuitable country for a visual signal of the panel type. The panels could certainly be laid but they were often difficult to see from the air owing to the dense undergrowth. Some other and more effective method of target identification had therefore to be evolved.

The panel system soon gave way to the use of smoke shells which enabled supporting aircraft to locate the target from the rising smoke and to bomb and machine-gun the indicated position. A smoke code was devised in connection with this procedure so that pilots could differentiate between smoke shells and the smoke of battle. As on other sectors of the Burma front, coloured smoke was not available. A variety of smoke patterns had therefore to be used. For instance, a triangle of smoke shells with the target in the middle might be used, or three smoke shells in a line with the centre shell indicating the target. The pattern adopted was, of course, prearranged and formed part of the briefing procedure. While smoke shells on occasion gave excellent results, shortcomings soon became evident. The thickness of the jungle often diffused the smoke and in the difficult terrain, ground troops could do no more than place smoke shells in an approximate position. There also remained the possibility of the enemy confusing pilots by smoking other areas. The ideal situation in close support was naturally to indicate for pilots the exact and not the approximate position of jungle targets, while at the same time to eliminate the danger to friendly troops during operations close to our own lines. An attempt was therefore made to overcome the disadvantages of smoke indication by the use of gridded photographs.

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In order to make use of photography as a means of indicating the exact position of targets, several factors had to be considered. It was necessary to anticipate the area of ground operations and to photograph it in advance. This entailed close liaison with H.Q. Northern Combat Area Command on future strategy and a close study of enemy dispositions and movements. It was necessary to establish a standard distribution of photographs to ensure their availability in the right place at the right time. Finally, a standard method of reference to pinpoints on the photographs had to be evolved. The method of reference used was extremely simple and yet enabled the land forces to pinpoint a position on any photograph even down to a single tree. By adding a description of the character of the target, so that the air forces could determine the number of aircraft and ordnance necessary, and adding also the location of the nearest friendly troops and time of attack, all information essential to the planning of close support operations was available. To ensure adequate photographic cover in advance, a detachment of the 9th P.R. Squadron was sent to Assam for operations under the Northern Air Sector Force. A photographic intelligence detachment was also placed at the disposal of N.A.S.F. It screened all requests for photographic reconnaissance, maintained a photographic library, placed all orders for sorties and briefed P.R. pilots. Briefing was important in jungle photography since it was even necessary to decide the hour of the day when photographic cover was required, because of the shadow factor.

Army commanders were delighted with the photographs produced which illustrated visually, enemy strongpoints holding up a land advance. Pilots of tactical support aircraft too were enthusiastic over the use of photographs for

briefing purposes on operations where a few hundred yards marked the difference between friendly and enemy troops. Photographs enabled pilots to study in advance the jungle features which had to be identified in order to pinpoint a target. With experience, pilots of tactical aircraft operating over dense jungle country, became adept at picking out the various jungle features. Bends in rivers and tracks, varying shapes of valleys, distinctions in the outline of paddy fields or clearings, contours of small hills and even the differences in foliage, all details invisible to inexperienced eyes, were used as landmarks in the sea of jungle. Intelligence officers, when briefing pilots for attacks close to friendly troops, stressed these features until the pilots had no doubt as to the position of the target. Thus, in addition to photographic grid references, troops would describe a target as a 'basha in the north-west corner of the clearing at,', or a 'row of slit trenches along the east fringe of the paddy field at,', or even a 'mortar under the Banyan tree at,',

So far the methods of tactical air support in the north Burma campaign had not included the use of R/T. In February 1944 the Galahad Force joined the Northern Combat Area Command for operations and with their entry into the field the battle soon became fluid. Galahad, using quick thrusts and encircling movements, repeatedly trapped bodies of Japanese troops in the Hukawng Valley while the Chinese divisions continued the orthodox advance to close the gap. The Galahad Force, as in the case of Wingate's columns, went into battle with their own air liaison teams. When fighting became intense, flights of fighters were sent over the battleground with instructions to contact the ground troops by R/T. The enemy position causing the most trouble would usually be pointed out in relation to the nearest landmark or other significant feature. Pilots would then make a dummy run over the target to make certain that they had located it. This type of operation was usually mounted during fierce fighting or when the ground situation was so fluid that targets could only be selected on the spur of the moment and when aircraft were actually overhead. This type of close support had certain limitations, however. It required that the liaison teams be in a position to see both aircraft and the target. It called upon pilots to identify targets in the jungle without previous briefing. Nevertheless, it proved a highly effective type of close support for it brought air power to bear against the enemy at a time and place when most needed by the ground troops.

It appeared, however, that a combination of R/T. control and gridded photographs might provide the right answer to close support on jungle country and was subsequently adopted. By this method, troops reported the target by means of a reference to a gridded photograph. The target was then pinpointed on the photograph, as was the position of friendly troops. Pilots were therefore thoroughly briefed, they arrived over the target at a prearranged time and established air to ground communication by R/T. A dummy run was then made over the target position as detailed during briefing and any error was corrected by the men on the ground. It is worth stressing at this point that targets were rarely visible from the air and so something extraordinary was needed to ensure that pilots attacked the correct position.

Air Support during the Myitkyina Campaign

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As the Chinese-American forces advanced down the Hukawng and Mogaung valleys, new airfields were quickly laid out, suitable for both fighters and transport aircraft. The 88th Fighter Squadron with P-40 aircraft was based at Shingbuiyang while the 528th Squadron, with P-51's, moved in to Tingaw Sakan just before the assault on Myitkyina airfield early in May 1944. Also there was a flight of P-40 aircraft of the 20th Tactical Reconnaissance Squadron. When the airfield at Myitkyina had been captured, eight P-40 fighters, later increasing to twelve, were moved into the newly acquired airfield. Neither at Myitkyina nor Tingaw Sakan were the early arrangements satisfactory and practically no warning of the approach of enemy aircraft was possible. Further back in Assam there were four more squadrons but their use in the north Burma campaign around Myitkyina was largely dependent upon the weather factor.

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Two methods of tactical air support were adopted during the Myitkyina campaign, one for aircraft based at Myitkyina airfield itself and one for aircraft based elsewhere. Fighters based at Myitkyina were probably located closer to their targets than any other air unit in the history of air warfare. When the first fighters reached Myitkyina, the nearest Japanese installation was a machine-gun post about 1000 yards away that kept firing at the aircraft as they took off until it was wiped out in a dive-bomber attack. Other enemy positions were close behind. During this stage of the battle, aircraft were barely off the ground before they were over the target. Some sorties were flown in the record time of six minutes from take-off to landing, while one pilot flew two sorties in the space of 20 minutes. It might be mentioned at this point that the Japanese were more heavily dug-in during the siege of Myitkyina than in any other campaign in Burma. Allied ground troops had little artillery and the air forces had perforce to fill the breach. Owing to the close proximity of friendly troops the majority of close support attacks were mounted by aircraft based on Myitkyina airfield. The reason for this lay in the fact that the pilots became thoroughly familiar with the front line and were located in a position where thorough briefing could be given. It is worth stressing that briefing was the key to success for there was no room for careless or inadequate briefing since the slightest error could mean casualties among Allied troops. At Myitkyina, excellent briefing facilities existed. It was possible to describe the target and the position of friendly and enemy troops in great detail. The significance of the target and the proposed action of our own troops during and after the air attack could be given to pilots. Often a description of the targets and the problems they presented were outlined by land commanders or their liaison officers. There was, in addition, excellent and up to date photographic cover. Moreover, even after take-off, last minute changes could be communicated to the pilots by R/T.

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A somewhat different system of close support was adopted for aircraft based elsewhere than Myitkyina. Since the twelve aircraft there were not at all times adequate to accomplish the numerous sorties requested, it was necessary to use aircraft based at Tingaw Sakan, Shingbuiyang and even, on occasion, from bases in Assam. This involved the extensive use of R/T, which proved highly efficient. Fighters from other bases did not land at Myitkyina but flew

over the airfield at a prearranged time to establish ground-air communication. Each pilot carried with him a photographic mosaic of the battlefield. As much information as possible was then given to pilots over the R/T. for the accomplishment of their tasks. Aircraft would usually be given a photographic coordinate of the target and any other descriptive matter that would eliminate any ambiguity. Machine-gun attacks were not normally carried out, since the object of air attack was the destruction of pinpoint targets either by direct hits or near misses. But aircraft controlled solely by R/T. were not given the closest targets, though many of them were 300-750 yards from our own troops. Aircraft based at Myitkyina were sometimes given targets within 35 yards of friendly troops yet they never inflicted a single casualty upon them.

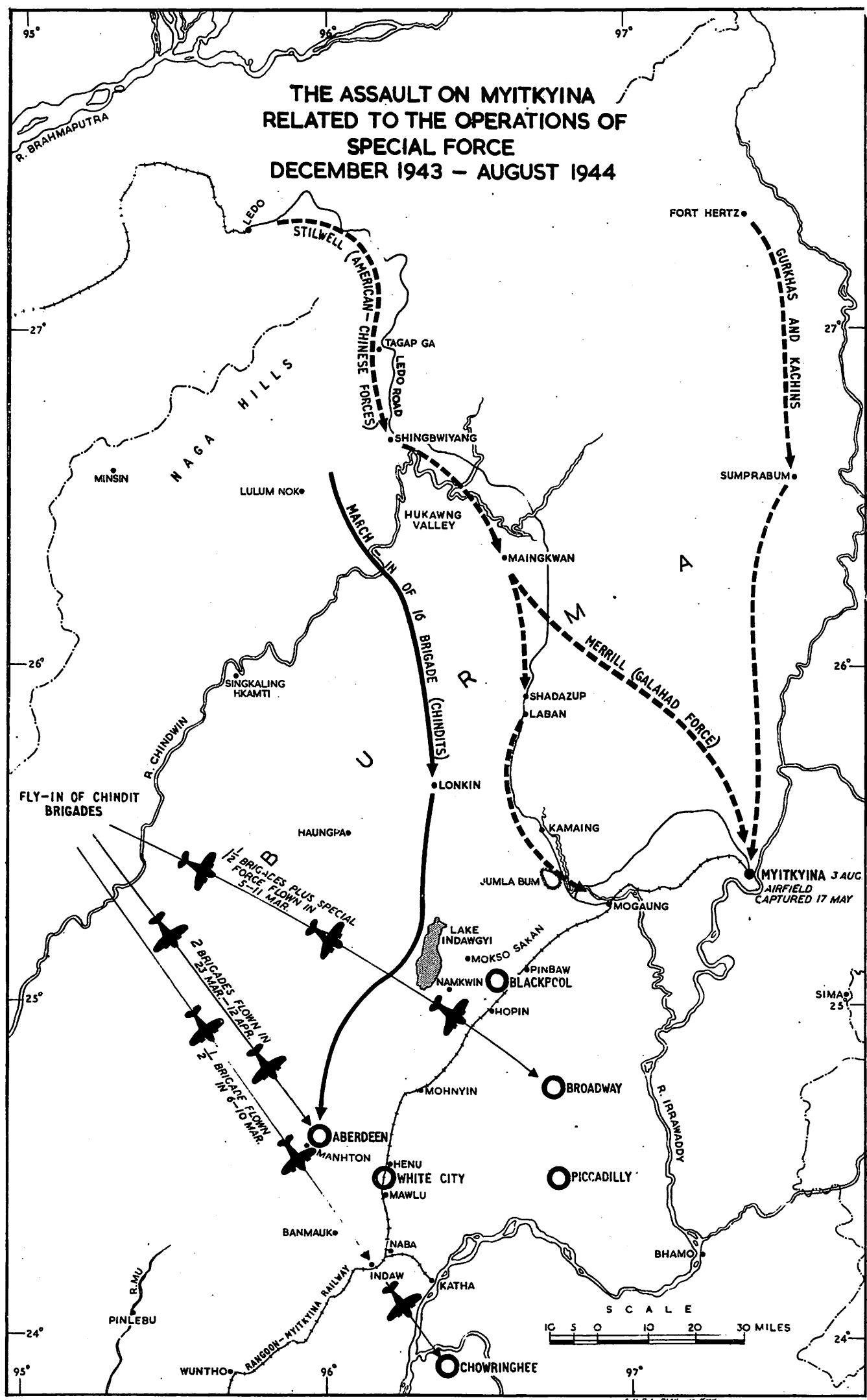
The basing of aircraft at Myitkyina airfield, while being risky in view of the lack of an effective warning system, proved in the event to have been well worthwhile. To protect the airfield against surprise air attacks, defensive patrols were maintained in the area. Whenever weather permitted, aircraft based elsewhere flew these patrols. On occasions when it became necessary for aircraft at Myitkyina to be used defensively, they usually carried out a bombing sortie before commencing their patrol. The essence of close support at Myitkyina was speed. The organization was so closely woven that a company commander could ask for an attack and see it executed within 30 minutes. A good observation could lead to the destruction of an enemy installation or troop concentration before any alteration in disposition could be made by the enemy.

ibid.

During fair-weather periods it was not unusual for a flight of four aircraft at Myitkyina to accomplish a total of 20 sorties in a day. Several pilots mounted as many as six sorties in a single day. Aircraft at Myitkyina were also able to operate when other airfields were closed by bad weather, for they could take advantage of any local improvement in weather conditions. Generally speaking, the weather was clear at dawn and aircraft took off very early for offensive reconnaissances of the roads leading to the battlefield. The Irrawaddy River was also covered in the immediate vicinity of Myitkyina town. During the morning it usually clouded over and these conditions remained until about noon. In the early afternoon it tended to clear and consequently most close support sorties were then flown. There were, of course, days when no flying at all was possible. But this was unusual for there were often short breaks in the weather during which aircraft could operate. This resulted in a far greater proportion of sorties being flown from Myitkyina airfield than from others. Tingawak Sakan, for instance, was only 20 minutes flying time from Myitkyina, yet aircraft were often grounded by heavy cloud even though the target areas might be temporarily clear.

From 17 May 1944, when Myitkyina airfield was captured, until 8 August 1944, the Tenth U.S. Air Force flew a total of 2515 sorties over the Myitkyina battle area. This was accomplished during monsoon weather when conditions were generally unfavourable for flying. The average of 33 sorties a day does not therefore represent the intensity of air attacks on the days when operations were possible. To accomplish the number of sorties mentioned above there was a continuous procession of aircraft over the front whenever weather conditions permitted.

THE ASSAULT ON MYITKYINA RELATED TO THE OPERATIONS OF SPECIAL FORCE DECEMBER 1943 - AUGUST 1944



Summary of the North Burma Campaign

Two factors in the operations conducted in north Burma during 1944 stand out. They were air supply and tactical air support. But once again it must be emphasised that neither of these two factors could have affected the campaign had not the Allied air forces first won control of the skies over both India and Burma. In the sphere of air supply and air transport, further experience was gained and the operations provided much food for thought, particularly in relation to the administrative machine behind the transport aircraft. In tactical air support a new method was evolved which was profoundly to affect subsequent tactics in jungle warfare.

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It is significant that in March 1943, a year before the second Wingate expedition, serious thought was given to an effective organization and to the development of procedure for the assembly, storing and packing of supplies to be delivered by air. These functions eventually became one of the keys to American success in air supply and their growth and evaluation are historically important. It so happened that the air forces were not responsible for the air supply organization, but the latter was such an integral part of air supply that it cannot be overlooked. The Americans set up a new organization under the Services of Supply consisting of a detachment to pack and drop the supplies, and seven detachments, composed of one officer and nine enlisted men each, located in forward areas to receive and issue supplies. The organization was functioning by 14 April 1943 and by 1 July of that year its centre of operations lay at Din Jan. There was of course a parallel growth in the air supply organization within the Indian Army Service Corps but from all accounts it was less efficient than its American counterpart, principally owing to inferior communications facilities and stringencies in both men and equipment. The comparison between American and British air transport organizations is worthy of detailed study but since the difference in efficiency persisted throughout 1944 and 1945, the place for the final assessment obviously lies in a subsequent volume of this narrative.

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Air transport operations in 1944 certainly demonstrated the need for the closest coordination of air and ground movements, together with swift and dependable communications network. In addition the most thorough planning was needed to lessen the time transport aircraft would have to remain on the ground for refuelling, loading and unloading. Considerable progress was made and the time for turning round transport aircraft at some airfields was as low as 15 minutes. But traffic jams and confusion occurred in many operations, particularly at the receiving end. A conference on the whole problem was, in fact, held at Comilla early in June when it was recommended that some form of air transport organization within the Indian Army should be formed. The fact that most time on the ground could be time in the air was of even greater importance during the monsoon when weather restricted operations to such an extent that sorties had to be crowded into the few fair weather periods. The effect of the monsoon upon air supply was assessed as being two days flying out of every three, or one-third reduction from normal.

The standards of supply dropping during the second Wingate expedition were, as already mentioned, very high. The same might be said of supply dropping operations in north Burma. From 15 December 1943 to 3 August 1944, transport aircraft supporting the operations of the Northern Combat Area Command delivered nearly 50,000 tons, moved over 50,000 men and evacuated about 14,000 casualties. From February to August 1944, the Allied air forces delivered well over 8000 tons of supplies to the long range penetration brigades.

A.H.B./ILW50/84
Desp. by
Viscount
Mountbatten

Major-General Wingate's technique for jungle fighting, with air support and air supply, suffered from certain limitations. The lightly armed troops of Special Force, divided as they were into small columns of about 400 men, were not suitably equipped to undertake large-scale operations against fully organized troops. Consequently, their basic philosophy had, of necessity, to be that of hit-and-run. Their contribution could have been greater if it could have been made in conjunction with normal formations. It should be noted that this is what was originally intended during both first and second expeditions, but in each case last minute developments resulted in the operations taking place without the backing of a main advance. When the Special Force was diverted to the task of supporting solely the north Burma campaign they did, in fact, fulfil the accepted role - that of supporting main forces. But by then the columns had been in action for a longer period of time than was desirable. Nevertheless, they made an important contribution to the north Burma campaign in capturing Mogaung. Just how much effect Wingate's brigades had upon Stilwell's campaign must, however, remain a problem for military analysts. On the air side of the campaign the lessons learned in the realm of air support and air supply were important and were put to good use when the re-conquest of Burma took place in 1944-45. It is sad to reflect, however, that the British 36th Division started off in August 1944 from milestone 0 at Myitkyina and began to toil slowly and grimly southwards over country which long before had been dominated by the L.R.P. brigades.

Most of the factors underlying tactical air support have already been described and there is little to add. The battles which raged around Myitkyina during the summer of 1944 were said to have provided a clear case of the effective use of air power actually moving obstacles that were holding up the ground forces. There is no doubt that in north Burma there was an early realization of the potentialities of joint air-land action. Photographic cover of hidden enemy installations was made; responsibilities were clearly defined and understood by all concerned; air attacks were executed after careful planning by both ground and air forces. If testimonials from ground troops are a reasonable measure of the efficacy of air action, the close support operations around Myitkyina were highly successful. Yet despite overwhelming air superiority and numerical ground superiority enjoyed by the Allies at Myitkyina, the fact remains that the enemy was able to resist for nearly three months. Certainly this may have been no fault of the air forces for we now know that the Japanese thought our ground tactics inappropriate. Nevertheless, the delayed success of operations at Myitkyina needs some logical explanation which at the moment is not apparent. It may well be that air operations were not immediately decisive owing to the monsoon which restricted flying to the fair weather periods. It is therefore

possible that air support was not always provided at the right moment or that it was sufficiently sustained to ensure ground troops an easy victory. Thus while the reason for the lengthy siege of Myitkyina may be attributable to agents other than the air, it is prudent to treat with reservation the eulogistic reports that have been written on the effectiveness of close support at Myitkyina. All this is, of course, largely speculative but when further information emerges regarding this phase of the war in Burma, it may be possible to resolve these imponderables.

CHAPTER 10

OPERATIONS DURING THE MONSOON
JULY-OCTOBER 1944

In the course of June 1944, events on the India-Burma frontier moved decisively in our favour. The siege of Imphal had been raised while further to the north, control of the Mogaung valley passed into Allied hands and the Chinese-American grip upon Myitkyina airfield was strengthened. The battle, however, still raged although the monsoon was now well established. Though the road from Dimapur through Kohima to the plain of Imphal was now open to Allied convoys, the Japanese still hung tenaciously to their positions on the perimeter of the plain and much hard fighting had still to take place before the enemy was finally expelled from the hill country of Manipur and driven across the Chindwin. The monsoon of 1944 therefore differed somewhat from those of previous years in that on two sectors of the front, large scale operations continued throughout the rains. In Arakan, however, the monsoon brought fighting to an end for the time being, save for patrol activity and minor skirmishing.

Although this chapter has been designed to cover a period from July to October 1944, it will be observed that the previous chapter, for the sake of continuity, embraces operations on the northern sector of the front up to 3 August, the date on which Myitkyina town fell to the Allies. The account of operations in the central and southern sectors will, however, commence in July since the end of June 1944 provided a suitable landmark in operations in both Manipur and Arakan.

A.H.B./
IIJ50/85c
SEAC. Optl.
Dir. No.52
9 Jun. '44

On 20 June 1944, certain changes in the chain of operational control took place. This re-adjustment of the existing air force organization was necessary to ensure that the units of Eastern Air Command were best disposed to co-operate effectively with two separate army commands. Hitherto, Lieutenant-General Stilwell's Northern Combat Area Command had been nominally controlled by the Fourteenth Army, which was also responsible for operations on the central and southern fronts. All tactical air units opposing the enemy in Burma had been assembled under Headquarters Third Tactical Air Force, which worked alongside the headquarters of Fourteenth Army at Comilla. But instead of one army command there now existed two, for Northern Combat Area Command was placed directly under the Supreme Allied Commander. On the assumption that each major land formation needed a separate tactical air force in support, Third T.A.F. relinquished responsibility for operations in north Burma and concentrated upon the Manipur and Arakan fronts, while the reconstituted Tenth United States Air Force worked alongside N.C.A.C. in north Burma. At the same time the air transport resources were divided between Third T.A.F. and N.C.A.C.

Under H.Q. Eastern Air Command, from 20 June 1944, were the two major tactical formations of Third T.A.F. and the Tenth U.S. Air Force. The latter was now commanded by Brigadier-General Howard C. Davidson and the former by Air Marshal Sir John Baldwin. The two subordinate headquarters under Third T.A.F. were No.221 Group (Air Commodore S. F. Vincent) at Imphal and No.224 Group (Air Commodore A. Gray) at Chittagong. On 19 July, Air Commodore the Earl of Bandon assumed command of

A.H.B./IIJ50/47/
12. Despatch by
Air Marshal
W. A. Coryton

No.224 Group and on 15 August Air Marshal W. A. Coryton became Air Commander, Third Tactical Air Force. On the northern sector of the front the Tenth U.S. Air Force operated in support of Northern Combat Area Command; No.221 Group in Manipur worked with both IV and XXXIII Corps until the former was withdrawn from the line on 1 August; in Arakan, No.224 Group continued to support the operations of XV Corps.

The Maintenance of Air Superiority

During the monsoon periods of 1942 and 1943 the Japanese air force largely ceased operations, using the wet season to reorganize their units, carry out training and replenish the losses sustained during dry weather operations. In 1943, for instance, the Japanese had withdrawn nearly all their squadrons from Burma, save for a few fighters retained in the Rangoon area to defend the port against Allied air attacks. Now, however, the enemy made a determined attempt to defend both Upper and Lower Burma during the earlier months of the 1944 monsoon but by October their fighters were mainly deployed in defence of Rangoon and Moulmein. Their fighters suffered a few defeats in air combat and a lack of aggressiveness and will to fight, even over their own airfields, became evident.

A.H.B./ILJ50/75
SEATIC 248
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& Interrogation
Rep.

The Japanese had, of course, few aircraft available after the severe casualties suffered at the hands of Allied fighters during the dry season 1943-44. At the end of June 1944 it seems that the Japanese had in Burma, or available to Burma, some 125 operational aircraft made up of 60 fighters, 50 bombers and 15 reconnaissance aircraft. There were, however, about 400 aircraft of miscellaneous provenance in the Malaya-Sumatra area which remained a potential though never actual threat to Allied operations in Burma. During the monsoon of 1944, the Japanese air force units under the 5th Air Division remained fairly constant in strength, though the Japanese hope that they would be able to replace earlier losses was never fulfilled. The backbone of enemy fighter strength in Burma remained, as hitherto, the Type O1 (Oscar). But now a few fighters of later types were available and if we are to believe our own Intelligence service there would appear to have been a number of Tojos in Burma. No confirmation of this has so far emerged. The Japanese air forces in South East Asia were not called upon to send any air units to other theatres during the summer of 1944 but in October a fighter regiment moved eastwards to the Philippines following the Allied invasion of the islands.

Offensive fighter sweeps were mounted by the Japanese 5th Air Division from time to time and also a few raids were made by fighter-bombers. These operations usually took place on three or four consecutive days followed by two or more weeks inactivity. Bomber operations did not begin until October. During late July and August, enemy bombers were used to drop supplies to their forward troops in north Burma but it was all on a very small scale and soon petered out. Regular reconnaissances were performed over the Burma coast as far north as Ramree Island by Sally medium bombers but later Dinahs fulfilled the role. At the end of September Dinah aircraft attempted to establish a photographic reconnaissance patrol over our forward positions in Arakan and Manipur,

but they were so consistently shot down that they abandoned the task.

In view of the number of aircraft available to the enemy for operations in Burma, it was not to be expected that they would mount anything more than occasional attacks upon our aircraft flying the Hump route to China and strikes against targets of opportunity such as occurred on 7 July. On that day at 1330 hours, five Oscars attacked Myitkyina airfield and damaged four Allied aircraft on the ground. On the 9th the enemy mounted a large scale attack on the same target and lost perhaps seven aircraft in the attempt. Part of the same formation contacted twelve B-25 medium bombers south-west of Myitkyina, the latter being attacked for about fifteen minutes. The B-25's claimed two enemy aircraft destroyed; two B-25's were damaged. At 1300 hours the same force of enemy fighters was intercepted by P-51's near Bhamo who probably destroyed five Oscars for the loss of one Allied fighter. Since the enemy did not mount another attack on this scale it is reasonable to suppose that the losses he sustained on 9 July discouraged him.

There is no evidence that the enemy air activity over Myitkyina in July was in support of the hard pressed garrison there. They were probably made upon targets of opportunity readily accessible and likely to yield good results. Doubtless the propaganda value of these attacks was not overlooked for Tokyo Radio on 10 July announced that 54 Allied aircraft had been destroyed at Myitkyina. On 11 July at 1300 hours enemy fighters were again seen near Myitkyina and of nine P-51's which intercepted, one was lost; five enemy fighters were, however, probably destroyed. The enemy also made one of his rare appearances over Manipur on 12 July at 1435 hours when Spitfires destroyed one of two enemy aircraft.

O.R.B.
ACSEA.
Int. App. 'S'.
Jul. '44

Following the enemy attacks against Myitkyina, there was a marked decrease in enemy activity by the Japanese 5th Air Division after 11 July, though one or two encounters took place. On 14 and 15 July, enemy fighters carried out ground attacks on the Salween front but their appearance seems to have been primarily to escort supply dropping aircraft. On 29 July 1944, twelve enemy fighters intercepted four American P-47's twenty miles south of Myitkyina when one Japanese aircraft was destroyed without loss to ourselves. On the 30th, two R.A.F. Dakotas returning from a supply dropping mission were shot down by enemy fighters near Mohnyin.

O.R.B. ACSEA.
Int. App's 'L'
and 'M'.
Aug. '44

Whenever possible, Allied fighters visited enemy airfields in central Burma but the results were generally disappointing since few enemy aircraft were found. The Japanese had many airfields in Burma and very few aircraft so that seeking them out constituted something of a problem. Nevertheless, the Allied air forces were not entirely without success for on 15 August, for instance, P-51's saw eight or more fighters on the ground at Lashio, six of which were claimed as damaged. On the following day the six damaged aircraft at Lashio were again machine-gunned.

When aircraft of the Tenth United States Air Force were engaged on offensive sweeps in the Lungling-Lashio area on 18 August 1944, they encountered twelve Japanese fighters in the morning and ten more in the afternoon.

During the air fighting which took place, perhaps six enemy aircraft were shot down for the loss of one P-40. In view of the fact that C-47's were supply dropping to Chinese troops in the Lungling area, and in view of the fact that some army support work had been carried out by the Japanese fighters, it seems likely that these aircraft had been specially brought up to take part in the Salween operations. One of our C-47's was, in fact, shot down. On 1 September too, enemy fighters were active over the Lungling area when low-level attacks were made along the old Burma Road. A week later, on the 8th, twelve enemy fighters were over Paoshan at 1500 hours when two C-47's were damaged while on the ground and another was shot down. P-38 fighters of the Fourteenth Air Force intercepted and claimed three enemy aircraft as probably destroyed. Another encounter took place on 10 September when at 1345 hours ten Oscars and two Lilys were met by seven Allied fighters; they probably destroyed seven aircraft, including the two Lilys. After these operations, enemy air activity lapsed for a while.

O.R.B. ACSEA.
Int. Apps. 18
and 19.
Oct. '44

Towards the end of September and during the early part of October 1944, R.A.F. Spitfires achieved several excellent interceptions of the fast and efficient Japanese Dinah reconnaissance aircraft. On 24 and 25 September, two Dinahs which ventured over the Chindwin, and evidently attempting to photograph our positions in the central sector of the front, were shot down by Spitfires. The enemy continued to show considerable curiosity concerning Allied plans and concentrations along the Burma frontier and was apparently prepared to pay a high price in aircraft to obtain satisfactory reconnaissance. On 2 October 1944, a Dinah was caught off Chittagong at 100 feet and shot down by Spitfires at 1525 hours. No doubt the enemy's intention was to find out what shipping concentrations there were at Chittagong. Another Dinah was destroyed by Spitfires during the afternoon of 7 October some 60 miles south-west of Tamu. It is also worth noting that a Dinah was destroyed on 6 October while taxiing at Heho airfield; this success was achieved by an R.A.F. Mosquito. After these reverses the Japanese gave up their attempts at reconnaissance over Allied territory.

O.R.B. ACSEA.
Int. App's 20
and 21.
Oct. '44

During the third week of October 1944, Allied forces landed on the Philippine Islands and in order to immobilize the Japanese air units in South East Asia, a series of attacks were planned against enemy airfields. At the same time the Fleet Air Arm, on 17 and 19 October, attacked Car Nicobar and Nancowry Harbour. Eastern Air Command launched their attack on 18 October when Hmawbi, Zayatkwint and Mingaladon airfields in the Rangoon group were raided in force. In the first attack 93 long range fighters, predominantly American, took part while on the 20th the attack was repeated by 80 Allied aircraft. On both occasions enemy fighters were found to be in the air, but this was probably because they were on training patrols rather than as a result of efficient early warning. In the course of these raids it is thought that six enemy aircraft were shot down for the loss of one. Hangars, gun-sites, aircraft pens and other airfield installations were shot up and a total of twelve enemy aircraft destroyed on the ground with many more damaged. In all, about 70 enemy sorties were flown against the raiders by perhaps 35-40 aircraft. Some idea of the enemy's lack of offensive spirit may be gained from the sighting by

O.R.B. ACSEA
Int. App.
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Nov. '44

P-38's of twenty or more Oscars above Mingaladon and not one of these aircraft attempted to intercept our fighters.

Offensive enemy air activity began again towards the end of October and coincided with the full moon period. On the 27th, one enemy aircraft raided Myitkyina airfield at night, dropping a few bombs at 1845 hours which slightly damaged three C-47 transport aircraft. Cox's Bazar airfield was attacked by three aircraft on 28 October when a Spitfire was damaged. On the 29th, bombs were dropped 30 miles north-east of Chittagong but no interception by Beaufighters took place. This completed enemy activity during the period under review though in fact these small scale attacks really marked the beginning of the dry season's operations.

It is thus unnecessary here to analyse the effects of Allied attempts to maintain air superiority during the monsoon of 1944. The enemy raids upon our bases and airfields were of little consequence and the land battles continued unimpeded by the Japanese 5th Air Division. The enemy, however, reaped some reward against transport aircraft in north Burma but their effort was not sufficiently sustained to cause concern to the Allies. It only remains to emphasise that air superiority was maintained throughout the monsoon; land operations were in no way hampered by enemy air activity and our air attacks, reaching far into Burma and Siam, were not seriously challenged by the Japanese. Thus the Allies, unlike the enemy, could derive full benefit from tactical air support and air supply.

Operations In Arakan

In Arakan from June to September 1944, no large scale activity was seen owing to the difficulties of movement during the monsoon. On this front only, the Supreme Allied Commander had agreed that fighting should stop and our troops took up positions on the general line Godusara-Tunnels area - Taung Bazar. These positions, situated on higher ground and away from the more malarious regions, were chosen partly for tactical reasons. By withdrawing from Buthidaung, for instance, it had been possible to take two brigades from the line for rest and refit. Buthidaung was of little value during the monsoon and it would have been difficult to retain. In the Supreme Allied Commander's directive of 9 June 1944, he had ordered that troops in Arakan should maintain an active defence on the monsoon line and to prepare for operations for the capture of Akyab as soon as possible after the rains had passed.

A.H.B./
IIJ50/85c
SEAC. Optl.
Directive
No. 12.

The major formations engaged in Arakan during the monsoon remained as hitherto, namely XV Corps and No.224 Group, R.A.F. The latter had available in June 1944 but eight squadrons, in July six, in August and September seven, rising to eight by the end of October. There were generally two Hurricane squadrons, two Spitfire squadrons, one or two Beaufighter units and an American squadron equipped with P-38 aircraft. In October there were three Beaufighter squadrons and two of Thunderbolts, the first of which arrived in Arakan during September.(1)

(1) For details of squadrons see Appendix No.8.

A.H.B./
 ILJ50/47/34
 Staff Study
 of tactical
 operations,
 p. 306

As yet there was no combined army/air headquarters for the conduct of operations on this front. In July 1944, No.224 Group had its headquarters at Chittagong while those of XV Corps were about fifteen miles south of Cox's Bazar. The two headquarters were therefore separated by a distance of over 100 miles, with communication only by telephone or by air. The Group was represented at Corps Headquarters by an R.A.F. Liaison Officer, but the system did not work satisfactorily since the squadrons allotted to close support tasks were, to all intents and purposes, operated by the army. Moreover, No.224 Group Headquarters was not sufficiently informed on the ground situation to enable them to decide priorities for the use of aircraft against close support targets and those further afield. The essential drawbacks inherent upon divided army and air force headquarters was, however, realized and during the monsoon plans were laid for the creation of a combined headquarters to control operations through the coming dry season.

Little occurred on the ground in Arakan during June and July 1944, save for some patrolling. Direct support operations were therefore on a minor scale and the major effort of the air forces was devoted to attacks on enemy lines of communication leading into Arakan, on Japanese rivercraft and rolling stock and upon motor transport. In August, the Japanese mounted a minor offensive in the Upper Sangu valley and reached as far as Mowdok. Here their positions were attacked by Spitfires and Hurricanes, some of the latter carrying bombs. On the Mayu front, enemy watercraft were attacked as often as the weather would allow and a particularly heavy attack was carried out by P-38's of the 459th U.S. Squadron on 11 August against a supply base at Hparabyin. In September, there was some fighting between larger forces and a few strategic heights overlooking the Maungdaw-Buthidaung road were taken. In these operations Hurricanes, Spitfires and P-38's participated. The enemy's positions threatening the upper Sangu valley were again attacked but the main weight of Allied air operations was directed further south against supply and ammunition dumps, buildings and bashes near Buthidaung and Kwazon and further south still at Indin, Rathedaung and Alechaung. The Hurricanes which visited the supply dumps at Rathedaung on 15 September found the target already destroyed by the Hurricane bomber and P-38 attacks carried out earlier in the day. Enemy positions and slit trenches also received attention near Buthidaung, Kwazon and Alethangyaw. A Spitfire strike on 6 September against positions north-east of Buthidaung not only caused sixteen casualties but persuaded the enemy to move elsewhere. On the 23rd, eight P-38's scored hits with bombs on a rest camp at Donbaik.

O.R.B. ACSEA
 Int. App. 19
 Oct. '44

O.R.B. ACSEA.
 Int. App.
 WIS/4/44
 Nov. '44

During October 1944, the advanced elements of the Japanese cavalry regiment which had been threatening the upper Sangu Valley from positions at Mowdok and Lebawa, were ejected by the 81st West African Division with the assistance of air support. Fighter-bombers flew 140 sorties in attacks upon fortified points in this area. The advance of the 81st W.A. Division into the upper valley of the Kaladan, which began in September, was facilitated by the attacks of Hurricanes and Spitfires upon enemy lines of communication both south and north of Paletwa.

Operations on the Central Sector of the Front

A. H. B./
IIJ50/85c
SEAC Optl.
Dir. No. 10

On 9 June 1944 the Supreme Allied Commander gave the land forces on the Manipur front the following tasks in order of priority:-

Re-establish communications on the road
Dimapur-Kohima-Imphal not later than mid-July.

Clear Japanese forces from the area
Dimapur-Kohima-Imphal Plain-Yuwa-Tamanthi.

Prepare to exploit across the Chindwin in
the Yuwa-Tamanthi area after the monsoon.

As explained in Chapter 6, the first of these tasks was accomplished on 22 June 1944 when elements of XXXIII Corps and IV Corps met on the road between Kohima and Imphal. This meeting resulted in the Japanese 31st Division having to attempt a monsoon retreat through the hills west of the Chindwin, a retreat which led to heavy casualties in the Division. Two other Japanese divisions were, however, still able to menace the plain of Imphal and in June the enemy still hoped to capture Imphal. Their plan to do so never developed into a co-ordinated assault, but strong local attacks were made in the areas of Bishenpur and east and south-east of Palel. With the defeat of these attacks, the enemy offensive finally collapsed and he commenced a general withdrawal towards the Chindwin. Our troops, supplied by air, occupied Ukhrul early in July and the advance throughout the monsoon culminated in the capture of Fort White and Yazagyo towards the end of October and early November.

To support the land offensive during the monsoon, there were available under No. 221 Group between eight and eleven squadrons. There were usually five Hurricane offensive fighter squadrons, some carrying bombs and one equipped with 40-mm. cannon aircraft; another Hurricane squadron also operated, in the tactical reconnaissance role. Two or three Spitfire squadrons were available for the defence of the area though as time progressed they were used more and more for offensive operations. By early July 1944, the solitary Vengeance dive-bomber squadron was withdrawn from the line. During September the number of squadrons under No. 221 Group began to increase for three Thunderbolt squadrons and one Mosquito unit made their appearance.

Cab. Hist. Sect.
ALFSEA 431/4
Campaign of
14th Army
1943-44

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Int. App.T
July 1944

Only gradually did the enemy defeat in Manipur become a rout and during July much hard fighting took place around the plain of Imphal. Ukhrul was captured on 3 July and by the 10th all enemy resistance in the area had ceased. IV Corps had also cleared the Silchar-Bishenpur track, while Hurricanes attacked vehicles trying to escape down the Tiddim road. A third area of fighting lay in the Palel-Tamu area. While frequent and concentrated attacks were made upon enemy troops and positions, the most notable feature of tactical air operations was the series of attacks successfully made against bridges and lines of communication leading to the Manipur front. Hurricane fighters and fighter-bombers, Vengeances, Spitfires and Beaufighters attacked targets both in the battle area and beyond, giving indirect support to IV and XXXIII Corps. One particularly effective attack was carried out by Vengeance dive-bombers

on 10 July when they knocked down the Lokchao bridge, north of Tamu, and damaged two other bridges nearby. On the Tiddim road too, bridges were attacked and landslides were caused by bombing.

In close support it was the Hurricane fighter-bomber that bore the brunt of operations day by day. They developed great accuracy in pin point bombing, sometimes against targets close to our own troops. The close support attacks proved of great assistance to the land advance since many land formations were supplied entirely by air and were on occasion short of artillery ammunition. Along the Tiddim road the Japanese 33rd Division, which had always shown fine fighting qualities, continued to resist strongly and effectively until the middle of July. But the combined pressure of the Allied land and air forces gradually turned the scale. Many places were evacuated by the enemy in the face of continual frontal and flank attacks, and sometimes as a result of air attack alone. By the end of July the enemy was in full retreat along the Tiddim road, leaving much equipment behind him.

Close support also continued along the Tamu road and to the south of Ukhru, where a number of Japanese troops had been cut off. On 24 July 1944 an offensive was launched along the Tamu road from Palel and Tengnoupal was taken the same day. This drive was preceded by heavy Hurricane attacks and on 22 July, for instance, as many as 84 sorties were directed against enemy positions south-east of Palel. The army reported that the bombing had been excellent. On 4 August, Tamu itself was captured. Tamu was important to the Allies since it gave them command of the entrance to the Kabaw valley as well as access to tracks leading to Sittaung and Kalembo. By early August, therefore, we dominated all important lines of access to the Chindwin. Tamu, when captured, was found to be in an indescribable state of confusion for the enemy had left behind the wounded, sick and dying, while unburied corpses lay among the abandoned guns, tanks and vehicles. But just how much of the chaos was due to air power is difficult to assess.

During August 1944 the clearing of the Ukhru area was completed and columns pushed on towards Homalin and Humine, with orders to destroy what was left of the Japanese forces between Ukhru and the Chindwin. Other Japanese troops were driven back along the Tiddim and Tamu roads. The 11th East African Division in the Tamu area began a two-pronged drive, one southwards down the Kabaw valley towards Kalembo and the other eastwards along the track to Sittaung. The Division was entirely supplied by air. The air strip at Tamu had by this time been reconditioned and from it operated two fighter squadrons in close support and also other aircraft for the evacuation, whenever possible, of the sick and wounded. The tactical squadrons of No. 221 Group assisted the advance of the 11th E.A. Division by attacking enemy vehicles in the Kabaw valley as well as rivercraft on the Chindwin. The latter were now of great value to the enemy for the capacity of the Sagaing-Ye-U railway had been much reduced by air attacks. The use of other lines of communication were necessarily restricted by the monsoon. Attacks upon rivercraft were carried out mainly by Spitfires, Hurricanes and Beaufighters, later

to be joined by B-25 and Wellington medium bombers. The former also laid ordinary and magnetic mines in the river in order to catch traffic attempting to move under cover of darkness or cloud.

O.R.B. ACSEA.
Int. App. 'H'
Sept. '44

Although monsoon conditions were normally considered unpropitious for the prosecution of a campaign by land or air, and although many squadrons had been withdrawn from the line for training and re-equipment, the air war continued apace. The ground forces paid generous tribute to the effectiveness of air support given but only an enemy could bear witness to the damage done behind his lines. These attacks were directed against key points in the Burmese railway system, the destruction of bridges and the sinking of rivercraft, the means by which most of the enemy's supplies would be carried during the monsoon.

During the early stages of the advance of the 11th East African Division in the Kabaw valley, the enemy attempted a delaying action. Air attacks against the enemy positions set up to delay the advance were constantly attacked by Hurricane fighter-bombers before a ground assault was launched against them. Later in August, when the battle became more fluid and our forces were pursuing the enemy, fighter-bombers ranged further afield attacking bridges, encampments, dumps and transport, penetrating as far as the Kalembo gap connecting the Kabaw valley with that of the Chindwin. This was an area of vital importance wherein the enemy had concentrated his reinforcements and stores. Also the Headquarters of the Japanese Fifteenth Army were located in the area. The Chindwin river thus for some days assumed an enhanced importance. It had long been used by the enemy as a supply route and the riverine ports, particularly Monywa and Kalewa, had been important links in their communications. With the development of our air attacks, however, the enemy moved cautiously and mainly at night. But the plight of their forward troops retreating from the perimeter of the Imphal plain in July spurred the Japanese to unusual efforts of both evacuation and reinforcement and supply. For once they were careless of discovery and early in August the toll of rivercraft successfully attacked began to increase.

The other main line of Allied advance down the Tiddim road also engaged the attention of tactical aircraft, but here it was mainly motor transport which suffered at the hands of the air forces. As the 5th Division advanced towards Tiddim, the continual landslides and the shortage of engineering equipment, it was no longer considered feasible to maintain the Tiddim road and the 5th Division had therefore to be supplied by air, even to 25-pdr. guns and jeep engines. Since there were no landing grounds available all supplies were dropped by parachute.

Throughout September and October 1944, the 11th East African Division made steady progress despite appalling weather and the very difficult terrain of the Kabaw valley. This heat struck enclave is low lying and swampy and is said to be one of the most malarious areas in the world. The typhus mite, also a potential source of heavy casualties, also abounds. Good hygiene discipline among the troops and the fact that during the whole length of the advance the road was sprayed with D.D.T. from the air, kept our casualties from typhus and malaria surprisingly low. The Japanese, on the other hand, perished in their

hundreds from these two diseases. On 4 September the 11th E.A. Division occupied Sittaung and on 4 October Yazagyo, about half way down the Kabaw valley, was captured. Though the monsoon was at its worst, overall air support again played its part in the success achieved on the ground.

O.R.B. ACSEA.
Int. App. 19
Oct. '44

In September the emphasis of air attacks lay in the Tiddim sector of the front. Whenever our troops made contact with the retreating enemy, or the enemy themselves chose to stand and fight a delaying action, Hurricanes attacked enemy positions. A successful demonstration of what army/air co-operation could achieve was given on 7 September 1944 when, after an accurate Hurricane bomber strike by eighteen aircraft followed by an artillery barrage, an army company was able to put in a bayonet charge to take a position 22 miles north-west of Tiddim. As usual, however, the greater part of the air effort was against targets beyond the immediate battleground; bridges, ammunition dumps and other stores, enemy troops and transport in the van of retreat, and camps and buildings near Tiddim and Fort White. By 10 September the 5th Division had reached milestone 120 from Imphal. Hurricane fighter-bombers dropped delayed action bombs astride the river crossing at milestone 126 with the object of blocking the enemy's retreat and so to force an engagement. Two days later, Hurricanes bombed a suspension bridge at Falam which was destroyed. In attacks against the enemy's lines of communication and means of transport, particularly upon rivercraft and riverine ports where the enemy might cross the Chindwin, the Allied air assault was augmented on 16 September by R.A.F. Thunderbolt aircraft.

O.R.B. ACSEA.
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WIS/4/44
Nov. '44

Early in October 1944 the battle for Tiddim began. Tiddim itself lies 162 miles from Imphal and is 5,600 feet above sea level. The Allied advance in this sector was at first delayed by a series of bunker positions and gun posts in the hills astride the road. The 5th Division pressed their attack with great vigour against the Japanese positions and the final assaults were invariably supported by Hurricane fighter-bombers and tanks. By 18 October Tiddim had been occupied and the enemy positions in the surrounding hills overcome. The Division then undertook the destruction of the remaining Japanese strong points south of the village, which were Kennedy Peak (8871 feet) and Fort White (5400 feet). The most strongly held of these positions was 'Vital Corner' which was blasted out of the solid rock of a precipice. This was captured on 2 November 1944 after bombardment by artillery and mortars and four squadrons of Hurricanes. Every step of the army's advance was accompanied by air support. To the accuracy of the fighter-bomber attacks on positions well concealed among the jungle and hills, Allied ground troops bore witness on occasions too numerous to mention, though one or two instances might be recorded. On 11 October, attacks by fighter-bombers on positions two and a half miles north of Tiddim were considered by XXXIII Corps to have been responsible for their evacuation without a fight. After a heavy attack by medium and fighter-bombers against a number of enemy positions in the Kennedy Peak area on 21 October, the commander of the ground units informed the participating squadrons that three bunkers had definitely been destroyed. Direct hits on bunkers with 250 or 500 lb. bombs at numerous times were verified after Allied troops had moved forward to occupy the site.

It might also be mentioned that after effective air attacks, our troops occupied Fort White on 8 November unopposed. By this time the areas of Tiddim, Kennedy Peak and Fort White were firmly in Allied hands.

O.R.B. ACSEA.
Int. App. 19
Nov. '44

Farther to the east where the 11th East African Division was advancing south along the Kabaw valley, similar support was given by fighter-bombers. Here the terrain was more favourable to extensive operations than the mountain and jungle of the Chin Hills. With the progress of the Allied forces from Tamu to Yazagyo, landing strips to take light aircraft were constructed in the valley, including one at Yazagyo itself. In the Chindwin valley the Japanese outposts of Mawlaik, Kindat and Pyingaing were attacked by fighter-bombers and medium bombers and the former gave direct support on several occasions to the Allied forces in their attacks upon the Japanese defensive works covering the approaches to Mawlaik from the west.

Air Transport Support in the Third Tactical Air Force

It might be as well to mention once again that on 20 June 1944 the control of transport squadrons on the Burma front was divided between Third Tactical Air Force and the Tenth United States Air Force. The former became responsible for transport support operations for the formations under Fourteenth Army and the latter for the troops of Stilwell's Northern Combat Area Command. At the beginning of July 1944 there were under Third T.A.F. four R.A.F. Dakota squadrons and two American transport units. On 7 July, one R.A.F. squadron was withdrawn. One American squadron ceased operations on the 20th and the other on 4 August. On the following day another R.A.F. Dakota squadron left the Burma front leaving two squadrons to fulfil the air supply commitments to our troops in Manipur and Arakan.

O.R.B. ACSEA.
Int. App. T
Jul. '44

In July 1944, for the first time since the momentous intervention of transport aircraft in the land campaign in February, it was possible to stand down a few R.A.F. transport aircraft on most days, thus affording a well earned rest for the hard worked crews. Now that the pressure on Imphal had been relieved, more aircraft could be made available to supply those Allied forces investing Myitkyina. Nevertheless, the delivery of supplies to Imphal still remained the largest commitment for R.A.F. transport aircraft though whenever possible, supplies were dropped to our forces guarding the entrance to the Kaladan Valley in Arakan as well as our outposts in the Lushai, Naga and Chin hills. Supply dropping in the hill country of the central sector of the front was particularly difficult since the dropping zones were normally and for long periods shrouded in cloud, while the atmospheric turbulence resulting from the sharp hill contours was accentuated by the onset of the monsoon.

O.R.B. ACSEA
Int. App. 'J'
Aug. '44

From the end of July onwards our advances along the Tiddim and Tamu roads were sustained almost entirely by air, while the guerilla forces harassing the enemy in the Tiddim sector from positions in the Lushai Hills could not have operated without the supplies dropped from transport aircraft. A portion of supplies for the forces in Manipur were, however, landed at airfields on the plain of Imphal. In October 1944, new landing grounds were opened in the Kabaw Valley to enable light aircraft to take in small quantities of supplies close to the front line troops and in return to

evacuate casualties, generally to Imphal, whence they were conveyed westwards by Dakota aircraft. In Arakan, the West African troops operating in the Kaladan Valley were sustained by air supply and their casualties too were brought out by light aircraft.

During the worst months of the monsoon the evacuation of casualties had been impracticable owing to the sodden nature of the ground, though in August/September the Third T.A.F. Communications Squadron evacuated two casualties from Arakan, using Tiger Moths for the task. The Moths, in October, brought out sixteen casualties from Arakan and 233 from the forward areas of the central sector. American L-5's, operating on the Chindwin front, evacuated a further 665 casualties during the month.

A.H.B./
IIJ50/101/6
ACSEA File
ORS/2211
Encl. 9A

Few lessons emerged from the transport operations carried out during the monsoon of 1944 and the main problems were principally related to flying in bad weather. A word or two about the conditions under which transport aircraft operated might therefore be appropriate. In the monsoon period on the India-Burma frontier, the weather is of the inter-tropical summer rain type with heavy precipitation from May until September. Thunderstorms are prevalent at the beginning of the period and, though they are less frequent during the heaviest rainfall, it is at this time that the cloud base is predominantly low. For a variety of reasons therefore, bad flying conditions were encountered during the whole monsoon period.

One of the major difficulties attendant upon flying in the monsoon was the inability of the meteorological services to provide accurate forecasts of weather conditions. It was frequently impossible to provide aircrews with accurate forecasts even over a comparatively small area. Individual squadrons attempted to improve weather reporting by passing back forecasts while engaged on supply operations. Yet despite monsoon weather, there was no great proportionate diminution of transport flying in 1944, though it must be admitted that the monsoon also restricted ground operations and thereby reduced the overall commitments of the transport aircraft supplying them.

Although the intensity of operations was not entirely dependent upon the weather, the effect of the monsoon on the number of aircrews available was remarkable. From an average of 90.5 per cent in April 1944 it dropped to 70 per cent in June and 68 per cent in July. It would therefore appear that the necessity of supplying troops engaged in fierce battles with the enemy, which spurred the aircrews to greater efforts, could not overcome the sickness rate during the monsoon. From these facts it is possible to deduce that in monsoon flying, allowance had to be made for the number of aircrews suffering from sickness and strain and to avoid the possibility of further casualties resulting from the increased flying hours demanded from fit crews. Many of the accidents which occurred during the monsoon may have been owing to the weather, but those due to mechanical failure and error of judgement during the period might well have been the result of inefficiency engendered by a high sickness rate and the lethargy of air and ground crews induced by the humid heat. It is also necessary to consider that inadequate maintenance facilities may have caused physical

inability and psychological disinclination to service the aircraft as thoroughly as might be desirable.

During the monsoon of 1944, from July to October, transport aircraft supplying our forces in the central and southern sectors of the front delivered about 20,000 tons of supplies, lifted something like 25,000 men and evacuated about 20,000 casualties. The majority of this effort was accomplished in October when the weather began to improve and when more aircraft were available. From July to September only about 40 aircraft were available for operations, 84 per cent of which were on an average serviceable, and about 10,000 tons of supplies were delivered. Over 25 per cent of the sorties flown during the height of the monsoon were unsuccessful, largely owing to bad weather.

Operations in North Burma - August to October 1944

USSBS 67

The activities of the Allied land and air forces in north Burma prior to August 1944 have been described in Chapter 9. After the capture of Myitkyina town on 3 August there was a period of several weeks when little of importance happened on the ground. During this period army units were regrouped, supplies accumulated and plans laid for a drive southwards towards Lashio and Mandalay.

O.R.B. ACSEA.
Int. App. 'H'
Sept. '44
Int. App.
WIS/2/44
Nov. '44

The difficulty during the monsoon of overland communications in north Burma made air supply a prerequisite to ground operations, for the road from Ledo to Myitkyina was not yet open to wheeled traffic. Air transport not only sustained the ground forces but performed numerous other services. The remainder of the British 36th Division, for instance, was flown into north Burma during August; a unit of the Royal Artillery was conveyed by air from Myitkyina in October to its position at the front in the railway corridor. Light aircraft evacuated casualties to Myitkyina, subsequently to be flown to India in C-47 transport aircraft. The garrison at Fort Hertz was also supplied by air and it may be recalled that the Chinese forces operating on the Salween front also derived some measure of air supply from the American transport squadron operating from Yunnan.

USSBS 67

In north Burma the air units engaged, under the Tenth U.S. Air Force comprised about 150 transport aircraft, 75 P-38 (Lightnings), 75 P-47 (Thunderbolts), 100 L-5 (Sentinels) and about 25 B-25 (Mitchells). The land forces under the Northern Combat Area Command included five divisions of Chinese troops, one British division, an American regiment and ancillary troops. In all there were approximately 80,000 combat and 25,000 administrative troops, all of whom were supplied by air.

The Tenth Air Force continued its softening up process for the ground forces from August to October 1944. Lines of communication were systematically attacked as were scores of Japanese positions along the front lines. On 15 October, the ground campaign was resumed and the air effort correspondingly increased. The British 36th Division moved down the railway on the right flank while Chinese forces started a two-pronged drive down the Irrawaddy Valley towards the central plains of Burma.

The air forces acted as the spearhead of every land advance. Attacks were made upon enemy airfields to keep Japanese air activity down to a minimum. Day and night attacks were maintained against lines of communication and supply areas. Air operations in support of the land forces were planned in the light of past experience and the system of observer posts, R/T. control and smoke indication of targets became normal practice. Light aircraft played their essential roles of casualty evacuation, communication and reconnaissance from small jungle airstrips which were built in abundance in north Burma. From August to October 1944 in north Burma, some 3,800 casualties were evacuated from the battle areas by light aircraft, transport aircraft flew 20,000 sorties in delivering over 50,000 tons of supplies while well over 70,000 men were lifted by air. On the tactical side, fighters flew 6,600 sorties and medium bombers 470, dropping an aggregate of 1,600 tons of bombs on targets in north Burma.

Summary of Monsoon Operations

The monsoon of 1944 did not do more than reduce the scale of air effort, as will be seen from the number of sorties flown by Third T.A.F. There were about 6,000 sorties in July, 5,000 in August, 4,300 in September and 7,000 in October. For comparison it might be mentioned that 6,000 sorties were flown in June and nearly 8,000 in November 1944. The number of sorties flown during the monsoon period might have been even greater but for the fact that from September onwards the operations of Thunderbolt aircraft was restricted by a shortage of drop tanks. Similarly the long range operations of Spitfire VIII's was curtailed by the lack of a simple non-return valve for the leading edge tank in the wings.

Following the sharp lessons the Japanese received between March and May 1944, the enemy's early warning system became less embryonic so that it became difficult for the Allied air forces to achieve complete surprise in attacks upon enemy airfields. By listening to Allied W/T. and R/T. and by supplementing a skimpy radar system with observation posts and sound detectors, a comprehensive though thin warning system had been established around the whole of the enemy's western perimeter. It was thus only a matter of time before growing technical efficiency rendered the task of Allied aircraft in search of all too few targets even more difficult. Hence, the air offensive during the rains against the enemy air force did not reap many dividends. Nevertheless, some success was achieved, particularly in October when better weather prevailed.

In the sphere of tactical air support it cannot be said that anything new emerged during the monsoon period, though much thought and experiment continued. The enormous area over which the squadrons of No.221 Group operated, for instance, together with the meagreness of communications by land and telephone, precluded the wholesale adoption, for the operational control of aircraft in close support, of the organization which had been evolved in the European theatre of war. In Burma, save for the north Burma campaign, the system of army/air support control units, located alongside the corps headquarters concerned, had continued to function as hitherto. The system had not been unsuccessful in the battle limited

to the confines of the Manipur front, but the success achieved by the Air Commando and Northern Air Sector Force had been such that the old system practised by Nos. 221 and 224 Groups had obviously to be superseded by something more efficient. Thus in the closing months of 1944, army support signals units (A.S.S.U's) with visual control posts (V.C.P's) were established, air advisers being provided for both corps and divisional headquarters. A Combined Army/Air School was set up at Ranchi (Bihar) for the training of V.C.P. personnel, and it was soon found that the greatest difficulty would be the provision of suitable officers, particularly controllers who, it was agreed, must be chosen from experienced junior officers of the General Duties branch of the R.A.F. Ten V.C.P. teams were, however, operating by the end of 1944. The special value in the visual control post lay in the extra flexibility and accuracy they lent to air operations planned in conjunction with the ground attack. The former device of indicating targets by smoke shells alone, always liable to inaccuracies in both time and place as well as to counterfeiting by the enemy, was now needed only when the target lay in flat jungle country, invisible from the air and not evident in relation to any obvious feature of the landscape.

It has already been recalled in Chapter 6 how the transport squadrons worked to sustain the Imphal garrison and to build up a stockpile to support the exploitation of the anticipated Japanese retreat. As much as 700 tons in a single day had been flown into the Plain under monsoon conditions. When the road was at length reopened on 22 June 1944, effort was not allowed to drop and for the remaining days of June the transport squadrons flew at maximum effort in order to build up stocks and to ascertain the peak air lift that could be achieved. The wisdom of this is doubtful. All concerned were already exhausted and experience had illustrated the value of retaining a margin of effort in reserve and of not overstraining a complicated machine without urgent necessity. However, by the end of June the enemy was on the defensive and food and ammunition was available to the Allies to speed the Japanese retreat. The threat to India and the China lifeline had been removed and the grim defence, sustained solely by air supply, was becoming a vigorous offensive, whose progress was also fed from the air. From July until November 1944, XXXIII Corps fought its way eastwards to the Chindwin, southwards along the Kabaw valley and down the Tiddim road, provided entirely with ammunition and food by the transport squadrons. Until the end of the monsoon, air supply was carried under conditions of almost unbelievable difficulty. Yet despite torrential rain, strong winds and 10/10 cloud often down to 200 feet, and the many abortive sorties that the weather entailed, the job was done.

The re-establishment of communications by land with Imphal opened a new phase in the campaign. The Japanese offensive had been defeated and it remained to throw back the enemy whence he had come. In the words of the Prime Minister, the defence of the Imphal plain and our subsequent successful offensive 'constituted the greatest collision which had yet taken place on land with Japan and has resulted in the slaughter of between 50,000 and 60,000 Japanese. The climax was the final eviction of the Japanese from India with the almost total loss of five of

his best divisions'. The subsequent successful offensive which drove the enemy back, not merely across the India-Burma border but also across the Chindwin river, opened the way for the re-conquest of the central plains of Burma.

The Japanese retreat from India began as a well planned and orderly withdrawal. Gradually, as Allied pressure grew, the pace of the withdrawal increased until the enemy forces were split up into small disorganized parties. Hungry, harassed on the ground, bombed and machine-gunned from the air, they abandoned their wounded and guns, died of starvation and disease and were driven back over India's eastern frontier, down the far side of the mountain wall and back over the Chindwin. When the campaigning season of 1944-45 opened the Allies were in a favourable position to exploit the losses inflicted upon the enemy during the earlier months of 1944. In the air, the Japanese 5th Air Division was no longer a potent factor and, in view of Japanese commitments elsewhere, it was not likely seriously to interfere with future operations. New types of aircraft were becoming operational on the Burma front, notably the long range Thunderbolt and Mosquito light bomber. The principle of visual control posts for tactical air control had been established and army and air headquarters had become combined formations rather than co-operative ones. The air transport support organization had been overhauled and the air forces could look forward to the role of universal providers of a victorious army and the spearhead of subsequent land campaigns.

CHAPTER 11

INDEPENDENT AIR OPERATIONS
DECEMBER 1943 - OCTOBER 1944

Strategic Air Operations

The pattern of strategic air operations in South East Asia was designed to fit the general strategic situation in Burma as dictated by geography, by the enemy's interior and exterior lines of communication and the location and importance of permanent installations such as factories and oil plants. But the pattern was sufficiently elastic to allow whatever deviations might be required to strike the more or less temporary targets such as stores, dumps, railway rolling stock and shipping within ports or on the sea. For in South East Asia there were few orthodox strategic targets whose destruction would strike a decisive blow against the enemy's will to fight in Burma. Instead there existed a multitude of tiny targets of small importance individually, but collectively of considerable account in isolating the Japanese forces facing the Allies on the western perimeter and their main source of supply in the Japanese homelands. The genuine targets for strategic bombers lay in Japan itself and in Manchuria and thus in effect the heavy bombers based in India had perforce to be used in what was virtually a long range tactical role. It is therefore worth studying in some detail the backcloth upon which the pattern of so-called strategic air operations in Burma was unfolded.

Since their conquest of the country in 1942, the Japanese had held very strong defensive positions in Burma. Along the India frontier they were protected by a wall of jungle-clad mountains varying in height from 2,000 to 10,000 feet and in most places no less than a hundred miles in depth. Until the end of 1944 there were no lateral surface communications across the mountain barrier. To the north and east lay China, too enervated by the long years of war to begin an offensive without foreign aid already made difficult by the loss of Burma. To the east lay Siam and French Indo-China, long in Japanese hands, and to the south was the sea. Moreover, the Japanese grip on Burma was further strengthened by the south-west monsoon winds, which brought in their train torrential rains lasting from May or June well into October. Rivers and streams became torrents, the mountains were subject to frequent landslides and were covered with disease ridden jungle. Existing roads became bottomless mires and remained unusable for wheeled traffic for about two months after the rains had passed.

Yet the Japanese hold on Burma was not impossibly tight for there were inherent weaknesses in the enemy's strategic position. Her natural strength was manpower, both service and civilian. Her weakness lay in the poverty of natural resources in her homelands and dependence upon sea communications. Almost everything upon which her industries thrived had to be extracted from newly acquired territories, processed in Japan and then transported across the sea again to feed her greatly dispersed forces. Thus the Japanese lines of communication leading to South East Asia extended some 4,000 miles over land and sea. They were dangerously long and tenuous unless protected by unqualified naval and air supremacy. At this point it might be mentioned that Japan had the natural resources and industries of Manchuria at her disposal, but lacking railway communications from Manchuria to French Indo-China, they necessarily depended

upon their sea lanes to bring the materials of war to Burma. The Japanese naturally realized the adverse implications of extended communications. With a string of islands from Kyushu to Formosa, and with the occupation of the Philippines, the East Indies, Malaya, the Nicobars and Andamans, the Japanese believed that they had turned the seas into an inland waterway which their ships might ply with security. In theory it was quite simple for Japanese shipping to follow the channels of commerce from Japan and Manchuria to the ports of South East Asia - Saigon, Bangkok, Singapore, Mergui, Tavoy, Ye, Moulmein and Rangoon. These communications by sea were secure enough during 1942 and 1943, but with the growth of Allied naval and air power, became more and more precarious as the year 1944 ran its course.

Even when such equipment and reinforcements as could be shipped from Japan and Manchuria had reached the ports of South East Asia, the enemy's problems of surface movement were by no means resolved for the main battle areas in Burma lay many hundreds of miles from the sea. The railways of Siam and Burma therefore constituted a system of strategically connected lines with a total length of about 5,000 miles. It is true, however, that the easternmost port of Saigon was one hundred miles or more from the railhead at Phnom Penh, but the two towns were connected by a good road over which the materials of war and reinforcement troops could be moved by motor transport. The main railway line ran from Phnom Penh in French Indo-China west and north-west through Bangkok, Pegu and Mandalay, terminating in north Burma at Lashio and Myitkyina. Bangkok constituted a main railway centre with the chief branch lines running north to Chiang Mai and south for over one thousand miles to Singapore. The second important railway centre was at Pegu in Burma through which the main line ran northwards to Upper Burma with a southern branch to Rangoon and elsewhere. From the various railheads in Burma, supplies were carried forward sometimes by rivercraft and sometimes by motor or animal transport to points within the battle areas.

Although the sea and land communications to and within South East Asia were of considerable importance to the Japanese, it must be said that the natural resources of Siam and Burma were of great value to the enemy. Both these countries produced large quantities of rice which provided the staple diet of the Japanese armies. Siam gave the enemy much tin and some rubber, while Burma contributed tungsten and oil. Burma also possessed oil plants at Chauk and Yenangyaung which probably met Japanese requirements for motor fuel though it is likely that aviation spirit was imported from the Netherland East Indies. Moreover, there were in Burma a few industrial plants of value to the enemy. Burma and Siam, therefore, not only exported raw materials to Japan but supplied perhaps as much as fifty per cent of the food and supplies required by the Japanese forces defending Burma.

It will thus be seen that naval and strategic air action could not, however efficiently carried out, isolate completely the enemy in the field. Strategic bombing itself could not in South East Asia be a means to an end but could only contribute to the reduction of military Japanese power in Burma. For the problem lay not only in cutting the enemy's lines of communication to and within South East Asia but also in destroying his installations, dumps and so forth in Burma. All these things needed to be achieved in

various ways. His shipping on the China seas could be attacked by aircraft of the Fourteenth U.S. Air Force in China and by naval action. His lines of communication on land could be attacked by long range aircraft operating over Siam, Lower Burma and the Andaman Sea while tactical aircraft continued the process nearer to home bases. In short, the enemy forces in the field could only be isolated by the combined efforts of the Allied navies and the strategic and tactical aircraft based in both China and India.

Target Priorities of the Strategic Air Force

Within the circle of the overall strategic plans of the South East Asia theatre of war, H.Q. Air Command, S.E.A. laid down the broad principles of operations and the areas of activity for its subordinate formations. Then from time to time, as required by the progress of war, specific tasks were given to the subordinate commands. From Air Command, S.E.A. orders were passed through H.Q. Eastern Air Command to H.Q. Strategic Air Force, which in turn passed directions to the various American groups and R.A.F. wings. The main purpose of the Strategic Air Force, despite the higher priorities laid down in operational directives, was undoubtedly the interdiction of the enemy's entire transport system in South East Asia in order to reduce his military power in Burma. This basic obligation remained in force throughout the war in the Far East. But though the fundamental task of the Strategic Air Force did not alter, the function of strategic bombing seemed to be more clearly conceived as experience revealed its full potentialities.

H.Q. ACSEA
Operational
Directive 2
12 Dec. '43

H.Q. ACSEA
Operational
Directive 7
21 Jan. '44

In the first directive given to the Strategic Air Force after the formation of South East Asia Command, first priority was the destruction of enemy air forces and their installations; second priority was attacks against selected rail, river and road communications while third priority was given to the bombing of depots and other maintenance facilities. This directive was adjusted on 21 January 1944. Although the first priority for strategic bombers remained attacks against the Japanese air force, it was not long followed in practice. For strikes upon enemy airfields became largely the work of the tactical air forces and, though such attacks were by no means abandoned by the Strategic Air Force, they became less frequent. The secondary task of the Strategic Air Force was to bomb shipping (as disclosed by photographic reconnaissance) in the harbours of Bangkok, Moulmein, Port Blair and Rangoon. Next in importance came attacks upon railway communications with strikes ordered principally against the Moulmein-Martaban railway centres and traffic, the Sittang bridge, the Bangkok railway centre, the Insein locomotive workshops, the Myitnge and Mu bridges. Attacks were also to be made upon locomotives, locomotive sheds and rolling stock wherever found, but especially against locomotives located between breaks in the line at the Salween and Sittang rivers. Economic targets were also to receive attention. These included the Burma oilfields, the topping plants at Yenangaung, Lanywa and Chauk, pumping stations and the Thilawa refinery, the Bangkok rice mills and other factories. Mining operations too were declared to be part of the air offensive. These priorities remained unchanged until June 1944.

The Chain of Control

From 15 November 1943, the date on which South East Asia Command was formed, until 16 December of the same year, strategic air operations were controlled from both the headquarters of the Tenth U.S. Air Force and No. 221 Group, R.A.F. On 16 December 1943 the Allied air forces in South East Asia were integrated and H.Q. Eastern Air Command arose. Four days prior to this event, No. 221 Group became a tactical formation and a new H.Q. No. 231 Group, R.A.F. assumed control of all R.A.F. strategic bomber squadrons in north-east India. Under Eastern Air Command there emerged a H.Q. Strategic Air Force, South East Asia, commanded by Brigadier-General Howard C. Davidson, and No. 231 Group became a component of the Force. Until 10 January 1944, No. 231 Group was commanded by Group Captain N. C. Singer, after which Air Commodore F. J. W. Mellersh became Air Officer Commanding. On 12 January 1944, Air Commodore Mellersh also became Deputy Commander, Strategic Air Force.

O.R.B. H.Q.
No. 221 Group
Dec. 1943

O.R.B. H.Q.
No. 221 Group
App. 'B'
Jan. '44
Special
Order No. 1
EAC. Jan. '44

When the Strategic Air Force came into being it had under its control an American heavy bomber group of four B-24 squadrons and a medium bomber group of three B-25 squadrons. The R.A.F. provided for night operations (the Americans usually operated by day) two squadrons of Wellington X's and two of Liberator Mark III's, which were located at Jessore, Salbani and Digri. In mid-January 1944 a change in this order of battle took place when the American medium bomber group, save for its 490th Squadron, was transferred to the China theatre. The 490th Squadron continued operations with the Strategic Air Force. After this move the S.A.F. had available something like 80 heavy and 50 medium bombers, composed roughly of fifty B-24's, thirty Liberators, thirty-three Wellingtons and about seventeen B-25's. No further changes took place until 16 April 1944 when an American B-25 group of four squadrons first began to operate. This raised the number of B-25's in the Strategic Air Force to nearly seventy.

Strategic Air Operations - December 1943 - May 1944

As already mentioned the purpose of strategic bombing in South East Asia was to harm the enemy by severing his long distance water communications and so blockade his forces in Burma and secondly, to destroy his power of resistance to the Allied armies within Burma by disorganizing road and rail communications and by razing his dumps and industrial areas. Attacks upon Japanese sea communications were in fact begun by the Fourteenth U.S. Air Force before the advent of the Strategic Air Force in South East Asia. Even after the formation of the latter the Fourteenth Air Force, owing to its geographical location, was granted first opportunity to attack enemy shipping plying between Japan and South East Asia. From their bases in China, aircraft of the Fourteenth Air Force frequently intercepted Japanese vessels before the ships reached the ports of entry into South East Asia. We are not here concerned with the activities of the Fourteenth Air Force since it did not form part of S.E.A.C., but some mention must be made of their operations since they affected to some extent the flow of enemy supplies into Burma. Although the Fourteenth Air Force mounted some very successful attacks against enemy shipping in the China Sea, their operations as a whole were greatly affected by the supply situation, for all the petrol and bombs used by aircraft operating from China had to be flown over the Hump.

The Fourteenth Air Force never amassed sufficient stocks of petrol to mount a sustained offensive against Japanese communications.

O.R.B. H.Q.
No. 231 Group
Dec. '43 -
May '44

Within Burma the enemy could live largely off the country, provided of course that his internal communications could be kept open, but such things as guns and bombs had to be brought into Burma by ship from Japan. The lines of communication over the sea from Japan grew thin as they spread south and merchant vessels in the China seas were thus more numerous than they were west of Singapore. Nevertheless, the Strategic Air Force was always on the alert for possible shipping targets at sea. The actual tonnage of enemy shipping sunk by heavy bomber attack at sea was small and the most telling blows against shipping were made by attacking harbours, docks and port facilities and by mine-laying of limited but essential waters. The principal ports visited by heavy aircraft were those of Bangkok, Mergui, Tavoy, Moulmein and Rangoon and also the anchorages at Sattahib and Goh Sichang. Singapore and Saigon, both major ports used by the Japanese, were beyond the range of aircraft based in India. Between the autumn of 1943 and the end of May 1944, aircraft of the Strategic Air Force mounted nineteen attacks upon shipping targets and shipping facilities at Bassein, Bangkok, Mergui, Rangoon and Taungup. Nine of these raids were aimed at Rangoon, the main port of entry into Burma. During the same period, Akyab received 43 raids - Akyab was however the main secondary target - four visits were made to the Andaman Islands and one each to the Nicobars and Flat Island.

From all accounts, the Japanese forces in Burma needed, in addition to supplies acquired locally, to transport over the railways of the country some 600 tons daily. This was well below the estimated railway capacity of 900 tons per day. In view of this it was logical to assume that a reduction of at least fifty per cent in the capacity of the railways would have to be achieved in order seriously to interfere with Japanese military operations. There are two evident deductions to be made from these facts. The railways of Burma and Siam were necessary for the maintenance of the Japanese forces in Burma and the air forces could strike a powerful blow by wrecking railway communications. Despite the range at which strategic aircraft were obliged to operate and the smallness of targets presented, there were several factors in favour of the Allies. There were few alternative routes over which traffic might be run if the railway centres of Bangkok, Pegu, Letpadan, Pyinmana and Mandalay were damaged. Moreover, there was a long stretch of line over 400 miles long between Bangkok and Pegu which, if broken, could effectively sever the Burma and Siam railway systems, an increasingly important possibility in view of the exclusion of Japanese shipping from the ports of Burma. In passing it might be mentioned that the Burma-Siam railway was constructed largely by Allied prisoners of war and other forced labour gangs who worked under appalling conditions. Just how many men died from malnutrition and disease during the building of this railway may never be known.

A.H.B./ILJ50/
47/56
H.Q., E.A.C.
Hist. Sect.
Report.

In the Burma railway system there were 126 bridges over one hundred feet in length and 176 other bridges over 40 feet long. Thus the destruction of any two successive bridges would isolate the track in between, would expose the trapped locomotives and rolling stock to air attack and would necessitate a slow trans-shipment of supplies by road

or rivercraft, thereby delaying considerably the delivery of supplies to the battlefronts. There were also other vulnerable points in the railway system, but they were regarded as being less important. Loop lines, for instance, or engine shelters were obvious targets as were water towers, warehouses, stations and repair facilities. But the destruction of any one of these could delay traffic only for a short period.

The destruction of the larger railway centres was the task of R.A.F. Liberators and American B-24's which bombed marshalling yards, repair depots and other rail installations. In these operations the emphasis of attacks centred around Bangkok, Rangoon and Mandalay. Night operations against railway stations and yards at medium range were performed by R.A.F. Wellingtons, while American B-25's were employed on sweeps over railways and attacks upon bridges. Attacks on the latter were constant in which the U.S. 490th Squadron featured prominently. The Japanese, however, proved themselves adept at repairing bridges and many of those damaged during the day were made serviceable again overnight. Such repairs were of course only temporary, sand-bags, bags of cement and newly felled trees used to effect the repair. The structures were likely to be washed away by the monsoon but they nevertheless sufficed for the time being. Constant reconnaissance revealed the progress of repair work, especially on the more important bridges, and the completion of the work called for further air attacks. In the end it proved to be a vicious circle as far as the Japanese were concerned.

The general strategy was to destroy the effectiveness of each sector of the railways. Bridges were always unserviceable somewhere along the line between Rangoon and Myitkyina, which was under constant attack. The Moulmein-Pegu line was interrupted time and time again and in the case of the Burma-Siam railway from Bangkok to Moulmein, low-level attacks tore up long sections of the track. The marshalling yards and repair workshops at Rangoon, Mandalay and Lashio were also frequently attacked. On 1 January 1944, B-25 medium bombers bombed the Mu River bridge on the railway line from Mandalay to Ye-U; the bridge was 480 feet long and over it moved most of the supplies and reinforcements destined for the Chindwin sector of the front. A 100 foot span and another 40 feet long were blown into the river. There were, in January 1944, periods of unusually bad weather and more than fifty per cent of heavy bomber raids were cancelled.

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In February the U.S. 7th Bombardment Group (B-24 aircraft) were withdrawn from operations for a time to carry out special training. This threw an additional burden on the R.A.F. units. Yet despite the decrease in effective strength, the offensive was maintained in central and southern Burma throughout March, April and May 1944. The air effort increased proportionately with the return of the 7th Bombardment Group and the arrival in April of the 12th Bombardment Group equipped with B-25 aircraft. Perhaps the most effective attack took place on 8 April against what was regarded as the most important bridge in Burma. This crossed the Sittang River on the railway between Moulmein and Pegu and all rail traffic entering Burma from Siam had to use it. The bridge was 1,650 feet long and consisted of eleven steel spans. Two of these spans had been destroyed during the evacuation of Burma in 1942 and the enemy had devoted much time and material in

repairing it. Through aerial reconnaissance the progress of repair work had been followed and as soon as it had been completed attacks against it were launched. The raid on 8 April 1944 was performed at night by B-24's flying at a low altitude and using delayed action 1,000 lb. bombs. Two spans were knocked down and this meant that the Japanese would still have to tranship supplies in boats across the river thereby delaying considerably the movement of men and material.

The intensity of the campaign against bridges may be illustrated by the number destroyed, or at least made temporarily unserviceable. Among the more important bridges, in addition to the Mu River and Sittang bridges already mentioned, were those at Meza, Myittha and Daga. The Meza bridge, 700 feet long, crossed the river north of Mandalay on the railway line to Myitkyina. The bridge at Myittha crossed the Panlaung river just south of Mandalay and was an important link in the line connecting Rangoon with the Burma road. The Daga bridge lay farther south on the railway line to Bassein and connected the south-western tip of Burma with the supply lines from Siam. Among the less important bridges rendered unserviceable were those at Kyungon, Zawchaung, Baudalin, Songon, Natmauk, Tantabin, Swa, Tangon, Ye-U, Sinthe, Pyu, Bawgyo, Pyawbwe, Myingatha, Natkyigon and Myothit. It is therefore obvious that from bridge attacks alone the strategic air offensive had emerged as a serious threat to the security of the Japanese armies in north Burma. Between February and May 1944 the movement of military supplies on the Mandalay-Myitkyina railway must have been almost halted, particularly since the long range penetration brigades also raided enemy stores dumps and railway lines. There were of course alternative routes but these could only accommodate a small percentage of the traffic normally carried by rail.

Attacks upon the enemy's lines of communication included strikes against roads as well as railways. In April 1944, for instance, the Japanese threat to Imphal had become so serious that the Strategic Air Force directed its energies in co-operation with the land forces. One of the main roads used by the Japanese was that leading from Ye-U and another was that from Wuntho. Attacks against these roads began on 18 April and continued almost daily for some time thereafter. Bridges were destroyed and medium bombers strafed motor and animal traffic. Wellingtons also participated by dropping bombs, some of 4,000 lb., on road convoys. Dumps and encampments also suffered at the hands of strategic aircraft. On the Tiddim road, which in places was precipitous, bombs caused landslides which, according to the Japanese, greatly impeded supply.

Industrial targets received some attention from strategic bombers, particularly in January, April and May 1944. Early in January the oil field installations at Yenangyaung were virtually destroyed and in April the oil plant at Chauk was severely damaged. The plant at Lanywa was also damaged though to a lesser extent than that at Chauk. The Thilawa refinery was bombed and its installations damaged. Many thousands of gallons of oil were destroyed during attacks upon storage tanks. While the raids upon oil targets probably resulted in a shortage of petrol for Japanese military operations, the enemy always succeeded in meeting his minimum requirements.

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On 23 May 1944 the air effort of the Strategic Air Force was reduced when forty R.A.F. Wellington crews and certain maintenance personnel were loaned to Troop Carrier Command for transport operations. After a brief period of training the aircrews commenced operations on Dakota aircraft. For at this time the supply situation on the plain of Imphal had deteriorated and urgent action was necessary to remedy the critical position. In addition to the loan of aircrews, five Wellington aircraft were diverted from strategic bombing to the ferrying of 250 lb. bombs into the Imphal plain; these bombs were subsequently used by the Hurricane fighter-bomber squadrons in support of the army in Manipur. These two commitments absorbed the entire effort of the two Wellington squadrons. At the same time the 490th U.S. Squadron was similarly diverted to supply tasks in the form of conveying ammunition to the plain of Imphal.

Strategic Air Operations - June to October 1944

O.R.B. H.Q.
No. 231 Group
Jun. '44

Up to the middle of 1944 the strength and organization of the Strategic Air Force remained substantially unchanged but on 20 June, with the reconstitution of the Tenth U.S. Air Force as an operational formation at Kanjikoah in Assam, various changes took place. Brigadier-General Howard C. Davidson assumed command of the Tenth Air Force and his post as Air Commander, Strategic Air Force was taken by Air Commodore F. J. W. Mellersh. Since it was believed that a large force of heavy bombers could not be used effectively during the monsoon, and since the Fourteenth U.S. Air Force in China was very short of petrol, the 7th Bombardment Group (B-24 aircraft) was transferred temporarily to the Tenth Air Force to haul petrol over the Hump to China. At the same time, the 12th Bombardment Group (B-25's) was transferred to Third Tactical Air Force. As already mentioned, the 490th Squadron and Nos. 99 and 215 (Wellington) Squadrons were non-effective in so far as the Strategic Air Force was concerned. Thus during the monsoon period of 1944, only two R.A.F. Liberator squadrons were available for strategic bombing.

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Optl. Dir.
No. 12 of
16 Jun. '44
Optl. Dir.
No. 12 Amd.
No. 1 of
20 Sep. '44

Since the formation of the Strategic Air Force in December 1943, the first priority for strategic bombers had been enemy airfields and installations, though in effect shipping targets and lines of communication had received more attention. On 16 June this anomaly was corrected in a fresh directive to the Strategic Air Force which listed the following priorities:-

Naval and merchant vessels as opportunity targets.

Enemy airfields and installations in Burma.

Communications into and within Burma.

Ports and shipping facilities.

Maintenance facilities, depots, dumps and other administrative military facilities.

Objectives of importance to Japan's economy.

On 20 September 1944 an amendment to the above directive was issued which placed attacks upon enemy lines of communication above the task of striking enemy airfields and installations. Mining of course remained a responsibility of the Strategic Air Force. But since the air effort by

heavy aircraft during the monsoon would be temporarily reduced, the directive of 16 June stated that objectives should in the main be tactical targets best calculated to assist land operations by the Fourteenth Army and Northern Combat Area Command, and that in attacks upon communications targets, particular attention should be paid to the railway lines Martaban-Pegu, Pegu-Mandalay and Bangkok-Nampang.

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In July a decision was made to convert the R.A.F. Liberator squadrons to day bomber units, save for No. 159 Squadron which was to continue night bombing, mine-laying and pathfinding. In regard to the latter, it may seem paradoxical that pathfinders were necessary when all squadrons were to operate in daylight. In actual fact, experiments with pathfinders were initiated in April 1944 so that a pathfinder force could be formed and trained for operations in the autumn of 1944. But when the policy of operating in daylight was adopted, the need for a pathfinder force while diminishing did not entirely disappear. For it was planned that R.A.F. squadrons would operate at night in the moon periods and at other times in daylight. On night operations No. 159 Squadron usually formed the spearhead of attack and identified the target for the following formations of aircraft. There is no doubt that a policy of daylight operations was a right one for in South East Asia the pin-pointing of small targets at long range was difficult, save on moonlit nights. Moreover, enemy air opposition to our bomber raids was so slight that daylight operations were a practical proposition.

During June, July and August 1944 the south-west monsoon affected the whole operational area, making conditions generally unfavourable for bombing. There were, however, a few spells of fair weather, especially in July and August, when operations were flown without hindrance, and on a number of other occasions the weather conditions, though not good, did not prohibit flying. In October the weather improved, particularly over the base areas and over north and central Burma. Farther south, breaks in the weather were only transitory and so conditions did not allow sustained attacks upon targets in that area.

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Although not controlled by South East Asia Command, it might be mentioned that the 20th U.S. Bomber Command, equipped with B-29's, made their first appearance in the theatre. These aircraft, about one hundred of them, were based in the Bengal area and were designed to strike primarily at the Japanese homelands. For this purpose they had to stage forward to bases in China. But from time to time these very heavy bombers attacked targets in South East Asia and mounted their first raid on 5/6 June 1944. Bangkok was the target and received the full impact of about a hundred aircraft each of which presumably carried something like ten tons of bombs. A raid of this size was a phenomenal one for South East Asia and though Bangkok lay 1,000 miles from the air bases, it must be regarded as a short range attack for B-29 aircraft. As a point of interest, the 20th Bomber Command made their first full scale attack upon Japan itself from China bases on 15/16 June 1944.

O.R.B. H.Q.
No. 231 Group
Jun.-Aug. '44

From 1 June until 6 July 1944, all R.A.F. strategic bomber attacks were carried out by Liberators of Nos. 159 and 355 Squadrons. On 7 July Wellingtons again appeared in the medium bomber role and operated spasmodically until 15 August, when Pinlebu was bombed. No. 355 (Liberator) Squadron was non-operational from 11 July until 21 August

while undergoing training for daylight operations. The new No. 356 (Liberator) Squadron flew its first operational bombing sortie on 27 July. The emphasis of bomber operations during June and July 1944 lay in the battle areas of the Manipur front in support of our advancing land forces, but from August onwards railway communications constituted the main targets for strategic bombers.

O.R.B. H.Q.
No. 231 Group
Oct. '44

On 1 October 1944, the 7th Bombardment Group of four B-24 squadrons returned to the Strategic Air Force after fulfilling ferrying duties over the Hump during the monsoon. There were thus six British and American Liberator (B24) Squadrons available during October while another British unit operated during the first and final week of the month. Perhaps the most important attack by heavy bombers in the new campaigning season took place on 6 October when sixteen heavy bombers, followed later in the day by a second formation of similar strength, attacked the Bangkok-Chiang Mai railway. The enemy had recently begun to send supplies to the western perimeter over this route. The Japanese were evidently taken by surprise. Bridges were wrecked and sections of the track torn up, while locomotives and rolling stock heavily machine-gunned. This attack really inaugurated the 1944-45 long range offensive which was to continue throughout the campaigning season. Also in October, the solitary medium bomber squadron in the Strategic Air Force (the 490th) in thirteen days destroyed as many bridges in Burma and on the 28th succeeded in blocking the tunnel at Sedaw on the Mandalay-Lashio railway line.

Mining Operations of the Strategic Air Force

Mining operations by the Strategic Air Force were carried out by both American and R.A.F. elements in accordance with the planned programme. Approved target areas were listed and permission was granted for opportunity mine laying as well, and even the approved list was subject to revision in the light of intelligence reports. Approved targets could be mined at any time and mine fields could be renewed without the specific approval of higher commands. The mining of new areas, however, required the sanction of the Supreme Allied Commander of South East Asia Command. The programme laid down four principles which were followed in the course of operations. Persistent visits were to be made on enemy ports in regular use, the effort being dependent upon current intelligence reports on shipping. The enemy's mine sweeping problems were to be complicated by using an assortment of mines. Sterilizers were not to be used save for opportunity mining in a new locality unless prescribed by higher command. Lastly, delay arming mechanisms might be used at the discretion of the Air Commander, Strategic Air Force, where weather or extreme range prevented regular mining.

Mining operations were important in that they pointed the way towards results far greater than had at first seemed likely. The enemy reaction to the mining of Rangoon, for instance, was that heavy shipping traffic in the port fell off to a negligible amount. For some months thereafter occasional attempts were made by the Japanese to use this vital harbour but the loss of a number of vessels convinced the enemy that it was not a profitable undertaking. Consequently, subsequent shipping into Rangoon consisted largely of coasters and small boats. The mining of Rangoon began early in 1943 and probably led the Japanese swiftly to complete the Burma-Siam railway so that ships

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could be unloaded at Bangkok and the supplies transported forward by rail. This new supply route was soon handicapped in January 1944, when mining sorties were first flown to Bangkok. In addition, mines were dropped at two ferry crossings in Burma where it was known that supplies must be transferred. The cumulative effect of this mining was serious interference with the Japanese supply system in Burma. Much of the enemy shipping had now to use Saigon and Singapore, especially the latter, and this greatly increased the land journeys of supplies and made the Japanese more dependent upon their already overloaded railway system in Malaya.

Ibid.

Meanwhile, the Japanese attempted to find another solution which would permit the use of more efficient water transport. Rangoon itself had become generally unsafe for shipping but in order to bring their large vessels as close as possible to Rangoon, the enemy commenced using the relatively safe anchorages along the west coast of Lower Burma. From these places, supplies were further transported by coastal craft, as well as by motor transport and rail, to their destination in Upper Burma. When the Allies discovered what was being done, a small but persistent mining programme was started against the anchorages being employed and others that might be used for similar purposes. At the same time, Royal Naval submarines laid numerous mine fields in the strait of Malacca. By the end of 1944 the growing danger of mines discouraged the Japanese from bringing but a few of their fast dwindling merchant fleet in to the Andaman Sea area.

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During November and December 1943, six mining operations were flown to Rangoon and two to Moulmein. In the course of 22 sorties by U.S. B-24's to Rangoon, 115 mines were successfully laid, while at Moulmein 90 mines were laid in eighteen sorties, also by American aircraft. The final operation in this series was flown on 5 December 1943. In January 1944, Rangoon was visited twice, on the 7th and 10th, Moulmein was again the target for ten out of the eleven aircraft despatched and the first operation to Bangkok took place also on 10 January. The next mining operation was accomplished on 6 March when four out of six aircraft mined the anchorage at Goh Sichang. Between 8 and 10 April, three sorties were flown to Bangkok, ten to Mergui and four to Tavoy.

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May '44

During May 1944 the principal mine laying operations merely renewed the mine fields in ports which had previously been closed. The intention was to keep these harbours closed during the monsoon when long range mining operations could not easily be carried out. Goh Sichang, Moulmein, Sattahib Bay and Mergui were all visited by mine laying aircraft between 5 and 9 May 1944. One aircraft was lost during the operation to Sattahib Bay. There was a busy night of mining operations on 8/9 June when eight B-24's laid mines in Mergui harbour and four others mined the Manam River below Bangkok. On the same night R.A.F. Liberators laid 32 mines in the Rangoon River. A number of the mines dropped at Bangkok were equipped with a 30-day delayed action device and were thus not effective until July. This was equivalent to new mining and ensured continued discomfort to the Japanese at a time when the monsoon might hamper mining operations.

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No mining was carried out in July 1944 but in August there was considerable activity. For some time there had

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been under consideration the need to extend the range of mine laying aircraft since it had been observed that in the harbours already mined, there had been a great curtailment of shipping and also that shipping was anchored outside harbours. Cargoes had therefore to be landed by lighters, thereby further delaying the process of moving supplies into Burma. It was thus felt that the extension of mining in harbours at that time beyond the range of our aircraft, and which the Japanese continued to use with safety, would be highly effective. On 10 August 1944 the plan for long range mining matured when eight B-29's, operating from Ceylon, dropped mines in the approaches to Palembang in Sumatra. Through these waters passed vessels carrying oil. The mining operation was combined with the bombing of Palembang refinery and was the longest non-stop operation of its kind carried out up to that time.

Meanwhile, the Strategic Air Force continued their routine mining operations and in August 1944 visited Moulmein, Mergui, Tavoy and Port Blair. On 10 January 1944, B-25's had first participated in mining operations when nine aircraft had laid 18 mines in the Sittang River near Mokpalin. The operations of B-25's from 12 to 17 August were on a larger scale, however, fifty-one mines being laid in the Chindwin by 18 aircraft.

O.R.B.s H.Q.
No. 231 Group
Sept.-Oct. '44

The technique of very long range mining was developed and soon began to bear fruit. There had been increasing evidence of the growing importance of Khao Huagang in the Japanese supply system to Burma and the Pakohan river was accordingly mined on 12 September to disorganize the flow of traffic serving the new port. Bangkok, Goh Sichang and Tavoy were also mined. On 27 October 1944 a remarkably successful operation was carried out by No. 159 Squadron, R.A.F. Using the lengthy B-29 base of Kharagpur, fifteen Liberators took off and laid 60 mines according to plan in the inner approaches to Penang harbour, a return flight of 3,000 miles. Other areas mined in October included Mergui and the Ye and Pakohan rivers.

From 6 November 1943 to 27 October 1944, the Strategic Air Force despatched 327 aircraft to accomplish 39 mining operations. Of the aircraft despatched, 280 sorties were successful and 1,108 mines were laid, 664 by the R.A.F. and 444 by the Americans. Two aircraft were lost. Included in the target areas visited there were nine operations to Rangcon, Mergui six, Moulmein five, Bangkok four, Goh Sichang and Tavoy three operations each.

Summary of Strategic Air Operations

The number of aircraft lost during strategic air operations was surprisingly low and this was doubtless due to the degree of air superiority enjoyed by the Allies in South East Asia. Indeed, interception of our aircraft by enemy fighters was never a serious problem despite the long distances flown by our bombers over enemy held territory. Other types of Japanese resistance was similarly ineffective, though on occasions they used novel methods. In addition to the usual anti-aircraft opposition, there were unexpected methods by remote control which sometimes damaged our aircraft, generally those engaged in attacks on bridges at low altitudes. Land mines, for instance, were exploded under attacking aircraft. Flat railway trucks were turned into flak wagons armed with machine-guns, including some of 40-mm. The flak wagons were sometimes in sidings and sometimes formed part of moving trains. However, the success

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achieved by the Japanese, both in the air and on the ground, was small. In the course of operations from December 1943 to May 1944, sixteen heavy bombers were lost (three R.A.F. and thirteen U.S.A.A.F.) and fifteen medium bombers (five R.A.F. and ten U.S.A.A.F.). During the monsoon period, June to October 1944, the R.A.F. lost ten Liberators and the Americans three B-24's. No doubt bad weather accounted for the loss of some of these aircraft.

During operations against enemy communications within Burma and Siam, four factors were recognized. First of all the Strategic Air Force attacked railways most frequently because they were the most important means of enemy transport overland. The best targets on railways were bridges because they were the most vulnerable and difficult to repair. In bombing railways an attempt was made to isolate segments of the line and to destroy locomotives and rolling stock stranded thereon to prevent the transfer of war supplies across a single breach. Diversity of attack was employed to confuse the enemy. Since these four principles were born from experience and grew strong in practice, no exact date can be given for their acceptance. Thus in the course of strategic air operations from December 1943 to October 1944, Japanese railway communications were most frequently attacked, absorbing nearly half the total effort. Airfields received the next highest tonnage of bombs, closely followed by military targets such as dumps, enemy headquarters and so forth, and operations in close support of the land forces.

An analysis of operations by the Strategic Air Force indicates that their work was not always an unqualified success. In the early days, the attacks upon railways appear to have been somewhat inaccurate and disappointing. Bombs frequently skipped from railway tracks and exploded harmlessly. Bridges, even when long, were difficult targets to hit and the proper technique of approach had to be developed and assimilated in the course of operations. Attacks from high altitude proved ineffective, especially against lines of communication, and night attacks gave poor results. It must be remembered that the air offensive against enemy communications was not the sole prerogative of the Strategic Air Force; tactical aircraft also participated and in Burma, more perhaps than elsewhere, there was a slender division between tactical and strategic air operations. The cumulative effect of offensive air operations was, however, clearly apparent, but the exact result of any given raid, or even of many raids over a short period, is another matter. It was often impossible, owing to bad weather, to obtain adequate photographic coverage to assess the damage inflicted upon the enemy. Moreover, accurate statistics have never emerged regarding the damage to small targets, as in the case of railway locomotives. How many of these were destroyed, how many damaged, what proportion could be and were repaired, and how many new locomotives the enemy succeeded in bringing into Burma may never be known.

Despite the unsatisfactory evidence in the shape of statistics, some facts can be established. There is no doubt that the effectiveness of strategic bomber attacks increased as time went by, though mistakes were certainly made. As the campaign developed there was an ever increasing deterioration in the enemy's system of communications and a constant decline in the quantity of his supplies reaching the battle areas of Burma. There is some evidence for this

assumption from Japanese sources. By the end of 1944 there was evidently a shortage of locomotives available to the enemy which drastically cut down the efficiency of his railways. Long sections of railway lines were rendered unserviceable for weeks at a time owing to destroyed bridges, which increased in numbers all the time. More and more the Japanese were forced to rely upon road and water transport but they lacked the vehicles necessary to make the former an adequate substitute and his water-craft and M.T. were under constant attack, principally by tactical aircraft.

Though mining operations were on a comparatively small scale they paid dividends far in excess of what might have been expected from the effort involved. For the success of operations against ports, harbours and waterways, both by bombing and mining, must be judged not by the number of sorties flown, or even the number of ships sunk, but by the absence of Japanese shipping from waters which had been mined and from ports which had been bombed. Largely through Allied air superiority, at least after May 1944, large enemy vessels were driven from the Andaman Sea, purely because of a potential air threat. The Japanese dared not risk their dwindling tonnage of shipping to the bombs or mines dropped or laid by the Allied air forces. Since the potential threat of bombing or mining denied the enemy full use of his sea lines of communication, the operations of the Strategic Air Force in this field must be regarded as highly successful.

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According to the Japanese they suffered the greatest losses from submarine activity in the China Sea, although they admit feeling slight effects from attacks by Allied bombers operating from China. This is rather interesting since as far as is known, the Americans claimed a large tonnage of Japanese shipping sunk in the China Sea and many thought that the Fourteenth Air Force the principal weapon for attacks in this area. The latter view may, of course, be the correct one. By the autumn of 1943 the use of Rangoon by large ships had become impossible and the Japanese accordingly pressed into service as transports, small vessels of wooden construction, and routed them via the ports of Moulmein, Mergui and Tavoy. The steamship route terminated at Penang and the remainder of the journey to Rangoon was completed by 'power lighters' and 500 ton steam vessels. Although shipping losses directly attributable to Allied bombing were not of great consequence, the delay and uncertainty caused by the potential threat was considerable. Shipping on the sea route from Singapore to Rangoon was greatly delayed, all movements were restricted to the hours of darkness and vessels were obliged to hug the coast line the whole way. Shipping losses at sea, however, were comparatively light but it was the Allied bombing of harbour installations and shipping within harbour limits which brought about a shortage of supplies for Japanese troops in the fighting areas of Burma.

Ibid.

The prohibition of Rangoon to Japanese shipping forced the enemy to use the ports of Mergui and Tavoy but the limited harbour facilities and the difficulty of land transport from these places allowed only curtailed shipments to the ports. Only small coastal vessels could run to and from Rangoon but even this traffic was interrupted by Allied mines. In the harbours of Rangoon and Moulmein, mining resulted in heavy losses in vessels and supplies. After a mine laying operation it took the Japanese about

ten days to complete sweeping at Rangoon and Moulmein and this put a strain upon land transport. Mines in the harbour at Moulmein caused a heavy decrease in the traffic on the road and rail ferry. The Japanese had no specially constructed mine sweepers but had to perform the task with auxiliary schooners and motor boats and sometimes fishing vessels. The enemy's attempts to press into service as transports an assortment of wooden vessels did not meet with success, for they were subject to weather conditions and needed scattered bases for maintenance and shelter. The construction of wooden vessels, which began only on a large scale in June 1944, was too late to effect the situation. In any case these craft were often without engines and therefore practically useless against the strong tides in the harbours of Rangoon and Moulmein.

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From the various comments made by Japanese officers after the war, it would appear that Allied air attacks against communications targets on land were very successful. The bombing of the workshops at Insein (Rangoon) at the end of 1943 and early in 1944 reduced rapidly the ability of the Japanese to maintain rolling stock in good repair and reduced considerably the carrying capacity of the railways. The conveyance of civilian goods, in particular, had to be curtailed since all available railway space was utilized for moving men and material northwards prior to the Manipur campaign. Railway stations, water supply facilities, bridges and the like were bombed regularly by the Allied air forces and the railway lines were cut into a number of small sections. The capacity of the railways therefore became a matter of trans-shipment capacity. Vessels of fairly large size operating on the Chindwin and able to carry a considerable tonnage of supplies were also sunk by bombing. Smaller vessels were pressed into service but by the latter half of 1944 the river route had become almost useless.

On the main central and southern Japanese communications in Burma, Allied bombers heavily attacked the Sagaing-Wuntho railway, the Sagaing-Monywa railway (especially around Myinmu), the river lines of communication on the Chindwin up stream from Monywa, the Ye-U-Kalewa-Kalemyo-Tamu road and the Wuntho-Pinlebu-Homalin road. These attacks had a lot to do with the shortage of supplies among the advanced Japanese divisions. In spite of the dispersal and concealment of ammunition and stores in jungle country, Allied bombing turned the densest jungle into bare forest land and exposed the accumulated stores. The thorough bombing that followed set fire to valuable ammunition and stores destined to support the Manipur campaign. Transport by road and rail was limited to the night time only and the railway could only be used for local movement on a small scale. Motor transport in daylight was subjected not only to bombing but also to the machine-gun attacks by tactical aircraft which sought out practically every enemy vehicle that ventured abroad. The Japanese estimated that supplies destined for the Manipur front were about one-third of that originally planned. Allied attacks upon dumps and communications centres, particularly at Mandalay, Sagaing, Wuntho, Pinlebu, Kalewa and Kalemyo were apparently highly effective and about half the war materials at the Wuntho and Kalewa dumps were said to have been destroyed.

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It would appear that our long range attacks against the Burma-Siam railway did not result in very severe damage to the line and what damage was inflicted seems to have been quickly repaired. The enemy did, however, have trouble

with communications on this railway caused, it is said, by the hasty construction of the line. It is conceivable that the trouble experienced by the Japanese on the Burma-Siam railway may have been the result of intentionally shoddy workmanship on the part of prisoners of war who built the line.

From the foregoing it will be evident that an adequate summary and analysis of strategic air operations in South East Asia is impossible. The effects of Allied air attacks upon Japanese lines of communication as already mentioned were brought about by long range strategic bomber raids, medium bomber attacks and long range fighter operations and also the short range fighter attacks against targets close to the front lines.

Long Range Tactical Air Operations

The comparative lack in Burma of large static targets suitable for heavy bombers was to some extent offset by the vulnerability of Japanese lines of communication to long range fighter attack. For many months the only aircraft available for a long range fighter offensive were R.A.F. Beaufighters; No. 27 Squadron had been operating since January 1943 and No. 177 Squadron from September of the same year. As a result of their persistent and ubiquitous attacks by both day and night, the enemy had been driven to remove the main weight of his transport from road to river and from river to rail. His major movements were in due course restricted to the hours of darkness and for protection during daylight he was compelled to resort to an increasingly ingenious and complex system of camouflage coupled with an extensive network of gun posts scattered far and wide over the Burmese countryside as a supplement to his more orthodox anti-aircraft defences. The Taungup-Prome road, shipping on the Irrawaddy, the Ye-U and Myitkyina railway lines and other nodal points in the enemy's communications system long afforded daily targets for Beaufighters and later for P-38's and P-51's. In November 1943 there occurred an event of significance regarding the supply of enemy troops in Burma, for the Burma-Siam railway was opened to traffic. This, however, did not diminish the importance of attacking the well established routes or northern and western Burma but it did bring into prominence certain targets to the south and east, the railway junction at Thanbyuzayat, for instance, the ferry termini at Moulmein and Martaban, the bridges over the Sittang river at Mokpalin and in general the railway system north, south and east of the all important junction at Pegu.

O.R.B. No.
169 Wing

O.R.B. H.Q.
ACSEA, Int.
Feb. 44

The armament of Nos. 27 and 177 Squadrons' Beaufighters, consisting of four 20-mm. cannons and six machine-guns, proved highly suitable for attacking rivercraft, motor transport, rolling stock, locomotives and so forth, that might be found on the various lines of communication in Burma. Beaufighters ranged as far afield as Moulmein on 27 February 1944 when trucks on the railway to the north and carrying petrol bowlers were among the targets attacked. Fitted with long range tanks the Beaufighters thereafter flew regularly to attack targets on the Burma-Siam railway itself, the terminus of the main Siamese railway system at Chieng Mai, the railheads at Lashio and Myitkyina. The appearance of these aircraft at any hour of the day or night over the enemy's extended lines of communications in Burma and western Siam undoubtedly had a profound harassing effect upon the Japanese.

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211 Sqdn.
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In January 1944 a third squadron of Beaufighter aircraft using rocket projectiles began operations. This was a timely addition since to protect their lorries and locomotives from low level attacks, the enemy built in profusion well camouflaged shelters. The targets inside these pens were well screened from cannon or machine-gun fire but they were vulnerable to the rocket projectile. But the strategy of attack had at this time to be altered for a new reason. It had long been known that the enemy disposed sufficient rolling stock in Burma to meet their needs for some time to come and it was now realized through a study of photographs brought back by the Beaufighter crews, that the enemy was replacing destroyed locomotives by bringing others into Burma over the Burma-Siam railway. Accordingly, the emphasis of attack was moved to the permanent installations on the railway lines in Burma and Siam, such as stations, water towers, curved portions of the track which could not easily be replaced and, above all, bridges. In the hunt for vulnerable bridges carrying important lines of communication, which began in earnest in February 1944, the three Beaufighter squadrons were joined by P-38's, P-51's and, more important still, by B-25 medium bombers of the U.S.A.A.F.

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The valleys of Burma are honeycombed with watercourses and advantage was taken of the advent of American long range fighters and medium bombers to put out of action as many as possible of the scores of bridges which carried the railway from Bangkok to Moulmein and Pegu northwards to Mandalay, with the object of causing the maximum disturbance to enemy traffic. In the last week of February the vital bridge at Tantabin, near Toungoo, was severed by B-25's and this formed the prelude to a whole series of similar attacks by medium bombers and bomb carrying fighters. The bridges at Ela, Sinthe and elsewhere on the important Pegu-Mandalay railway were severed in the course of a series of attacks by Beaufighters, B-25's and P-38's. American P-51's similarly operated over north Burma, their targets including the bridges at Shweli, Meza and other places on the roads and railways.

The Japanese displayed a sensitivity to air attacks by a widespread extension of his policy of building reserve bridges of a temporary nature in the neighbourhood of those bridges most vital and vulnerable. The great Myitnge bridge was provided with no less than two such satellites. Such was the effect upon the enemy's communications that in April 1944 it was estimated that reinforcements travelling from their base at Bangkok to the Manipur battlefield took from six to eight weeks to reach their destination.

The task of destroying bridges was usually the responsibility of the Strategic Air Force and the American medium and fighter bombers of Third Tactical Air Force. The R.A.F. possessed no tactical weapon to use against bridges though with the introduction of the R.P. Beaufighters of No. 211 Squadron into the field they operated on occasion against them. But the rocket projectiles were not so successful as had been hoped, owing to the delay fuse with which they were fitted, and the Squadron therefore stopped attacking bridges. The R.A.F. Beaufighter squadrons usually found the most lucrative targets among the enemy's means of communications, motor transport, locomotives and the like. In addition to the Beaufighter aircraft, Hurricanes of No. 20 Squadron also participated in attacks upon enemy

communications, using 40-mm. cannons. This Squadron operated during the early months of 1944 in Arakan and when in March the battle moved north to Manipur, a detachment of these aircraft went thither. Here for the first time the 40-mm. Hurricanes encountered appropriate targets, armoured fighting vehicles, for the first time. Hitherto the daily incursions of these aircraft behind the front in Arakan had not proved effective since only armour piercing shells were available. Towards the end of February 1944, however, high explosive 40-mm. ammunition became available and these were found to produce highly damaging results against rivercraft. When hit with H.E. shells, sampans and other rivercraft often disintegrated at once and sank so rapidly that the craft could not be rushed to the bank or shore. Cargoes and lives which might have been saved after an attack by weapons of smaller calibre were thus lost to the enemy.

Although the detailed results of all the widespread attacks upon enemy lines of communication cannot be accurately assessed, there is no doubt that the long range fighter offensive in conjunction with tactical and strategical bomber attacks against similar targets, had a serious effect upon the attempts of the Japanese to maintain their troops in Burma. The rate of attrition among the R.A.F. Beaufighter squadrons was somewhat higher than in squadrons equipped with other types of aircraft. From December 1943 to October 1944 the R.A.F. twin-engined squadrons flew 2,348 sorties and lost 54 aircraft while many others returned to base badly damaged, generally through enemy small arms fire. Nevertheless, the success achieved by the Beaufighters may be regarded as adequate compensation for the losses sustained.

Clandestine Air Operations - December 1943 - October 1944

The origin of clandestine air operations in the Far East may be traced to 24 June 1942 when a Hudson aircraft of the Air Landing School, Chaklala (Punjab) flew the first sortie of this type. In December of the same year a Catalina of No. 321 (Dutch) Squadron carried out the first clandestine operation by a flying boat in the theatre. In April 1943 Catalina flying boats of No. 240 Squadron flew further sorties and again operated in the clandestine role in January 1944. There was little development in this form of warfare following the initial attempts and all that happened was an occasional sortie by Hudsons. During 1944, however, the scope of clandestine air operations broadened though it was not to reach its climax until 1945.

In the early days, single Hudson aircraft operated from the advanced landing ground at Dum Dum (Calcutta), 1,300 miles or so from the base at Chaklala and this severely handicapped operations. On 1 June 1943, however, the need for a special unit was recognized and No. 1576 Flight was formed at Chaklala with an equipment of six Hudson aircraft. Thenceforth it became possible to plan with some degree of certainty a series of clandestine air operations. But the range of Mark III Hudsons, even when fitted with overload bomb bay tanks, restricted operations for all practical purposes to areas in Burma. The need to extend the range of sorties to other territories had long been recognized and after lengthy negotiation, the addition of three Liberator Mark III aircraft was agreed by Air Ministry in November 1943. At the same time it was promised that nine Catalina aircraft, due to arrive in

ACSEA File
Int/159 E.49A
Optl. Dir. 10
Ibid. Encl. 58A
SASO. Min.
5 Oct. '44

India from West Africa, would be earmarked for special operations. When the three Liberators arrived in the Command it was found that they were modified to Middle East special duty requirements which did not fulfil the peculiar needs of the native agents employed in the Far East. Lengthy experiments then took place in order to modify the aircraft with a slide exit similar to that used on the Hudsons.

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O.R.B. No. 357
Sqdn. R.A.F.
Feb.-Mar. '44

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Committee
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The clandestine air operations carried out in the December 1943 moon period were all flown by Hudsons and were all successful. In January 1944 unfavourable weather conditions prevented any operations being attempted with Hudsons though Catalina flying boats of No. 240 Squadron successfully completed an operation. The development of clandestine air operations in South East Asia took another step forward on 1 February 1944 when No. 1576 Flight was reformed as No. 357 Squadron. Its establishment comprised six Liberators, three Hudsons and nine Catalinas, the former based at Digri, Bengal, and the flying boats at Red Hills Lake, Madras. The strength of the unit at first consisted of three Liberators, seven Hudsons and four Catalinas. It soon became apparent that it would be impossible to operate flights of fundamentally different aircraft and situated 900 miles apart under the command of one officer. The Catalina aircraft therefore formed the equipment of a new No. 628 Squadron, based at Red Hills Lake, and which included the crews of No. 240 Squadron experienced in clandestine work. The new squadron formed officially on 1 February 1944 but did not carry out its first operation until May. No. 357 Squadron was installed at Digri on 20 February 1944.

Operations

A.H.B./IIJ51/
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H.Q., ACSEA
File Encl. 37

The first clandestine air operation in the period under review took place on the night 7/8 December 1943 when a Hudson of No. 1576 Flight dropped agents and containers of supplies near Moulmein. Although operating from Dum Dum the aircraft were obliged to stage forward to Chittagong on the outward journey in order to achieve the required range; the Hudson was in the air for seven hours thirty minutes. No difficulty was experienced in finding the dropping zone, it being easily recognized by the conducting officer. Cover for the operation was provided by Liberators of No. 221 Group which bombed Moulmein itself. On 8/9 December a Hudson dropped three men and a quantity of supplies near Toungoo while Wellingtons bombed the town. Two operations involving three sorties by Hudsons took place on the night 9/10 December 1943, one aircraft dropping five containers of supplies at Mengpeng, about 100 miles east of Bhamo, while two other aircraft successfully delivered supplies to a dropping zone near Bhamo. As cover for the latter operation, Wellingtons bombed Wuntho and Bhamo. The final operation of the December moon period took place on 15/16 when an aircraft dropped supplies at Mengpeng. All the sorties flown in December 1943 were successful from the air point of view despite the fact that the dropping zone at Mengpeng was a difficult one in a narrow valley. January 1944, however, proved a blank month for clandestine operations by land based aircraft owing to adverse weather conditions.

A.H.B./IIJ50/47/32
Brief Hist. of
Clandestine Ops.
H.Q. ACSEA.
Int.

The flying boats of No. 240 Squadron were not affected by the weather and they completed the one task given to them. The lack of submarine transport for agents, coupled with the obvious advantage in speed, led the clandestine

organizations to plan a number of flying boat operations but owing to the shortage of aircraft and their commitments in the normal G.R. role, no clandestine operations were carried out by flying boats between April 1943 and January 1944. On 15 January, however, two Catalinas of No. 240 Squadron landed near an island off the south coast of Burma and completed their task despite the fact that the starboard gun 'blister' of the aircraft which landed was smashed. The aircraft had to take off with two feet of water flooding the blister compartment and it took nearly three hours of the return flight before most of the water had been baled out. This incident occurred after the agents had been safely put ashore. These agents were picked up by a Catalina of No. 240 Squadron on the night 14/15 February 1944.

A.H.B./IIJ50/
99/89 ACSEA.
File Encl. 7,
Encl. 8 (i)
to (viii)

Although only four nights were available in the moon period of February 1944, Hudson aircraft successfully completed eight sorties between the 6th and 15th of the month. The first took place on 5/6 February when a Hudson dropped seven containers and a package amounting to 1,052 lb. on a dropping zone north-east of Bhamo. The area of operations on 11/12 and 12/13 February lay in the region of Kogang where two agents and 1,161 lb. of supplies were dropped by two Hudsons. Also on 12/13th, four agents were deposited south-east of Katha while two other aircraft delivered 2,072 lb. of supplies to a dropping zone north-east of Bhamo. Finally, two Hudson sorties on 14/15 February were flown to drop an agent and two containers east of Henzada and two agents south of Bassein. In most of these operations, cover was provided by bombing attacks mounted by the Strategic Air Force.

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In March 1944 there was unprecedented activity in the sphere of clandestine air operations for no less than 23 sorties were flown, all but three of them allegedly successful. An extension of sorties into Siam was also accomplished during the moon period with the aid of Liberator aircraft. The Hudsons operated mainly in the area around Bhamo and in the course of 18 sorties between 5 and 16 March, they delivered over 13,500 lb. of supplies. Only on two occasions, however, were agents dropped, on 5/6 and 7/8 March. Two sorties to Bhamo were unsuccessful but both were accomplished a few days later. Two other Hudson sorties were flown to an area east of Bassein on 10/11 and 13/14 March when four agents in all were dropped. The first Liberator sortie on 6/7 March to an area west of Bangkok was unsuccessful but the three agents concerned were parachuted into the zone on 14/15 March. The other Liberator sortie, on which five agents were carried, was successfully accomplished on 6/7th.

Ibid.

The high level of effort and the success achieved during the moon period of March 1944 was marred by the loss of a Hudson near Bhamo on the 14/15th of the month. Apparently the aircraft dropped some of its load of supplies on the target but then crashed. Subsequent information was received at base that four of the crew had been killed and two were seriously injured. The medical officer of No. 357 Squadron, who had never executed a parachute descent, and a flight sergeant parachute instructor volunteered to be parachuted into the scene of the crash to give aid to the injured aircrew. A sortie was arranged for 17 March and at 0315 hours that day a Hudson took off from Chittagong. During the flight the Medical Officer was given some tips on parachute jumping and at 0610 hours, in daylight, the two volunteers were dropped, together with medical supplies

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and equipment. Their subsequent adventures make an interesting story of escape from capture by the Japanese but it must suffice to say that the one remaining survivor of the crash was carried in fifteen days to Yunnanyi airfield in China and then flown back to India.

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In the April moon period, from 4 to 13th, fourteen sorties were attempted of which four were unsuccessful. On 5 April 1944, an attempt was made to stage a Liberator operation to French Indo-China using Kunming (China) as an advanced landing ground. Two Liberators were scheduled to make the trip but one crashed in China killing thirteen R.A.F. personnel while the other made a wonderful landing on the tiny airstrip at Fort Hertz. These incidents were doubtless caused by inexperienced crews attempting what was regarded as one of the most difficult flights in the world - over the Hump from India to China. The only long range operation actually accomplished took place on 4/5 April when a Liberator dropped five men and supplies near Nagorn Sawarn in Siam. A further sortie was flown to the same area on 12/13 April but proved unsuccessful owing to haze obscuring ground signals. A Liberator also visited the Toungoo area on 12/13 April and Hudsons operated over Bassein and Katha. The busiest night was on 8/9 April when three Hudsons and a Liberator delivered an agent and supplies to a dropping zone in the region of Bhamo. Although not definitely known it would appear that the considerable clandestine in this area was in relation to the supply of guerilla forces being raised in that part of Burma. Towards the end of the month, on 21/22 April and on 25/26th, two Liberators ferried five agents and supplies to Kunming in China.

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ACSEA File
Encl. 57.

From May 1944 onwards, the effect of the south-west monsoon upon clandestine air operations was reflected in the number of unsuccessful sorties flown. Of the 23 sorties attempted during the moon period, 2 to 15 May, eleven were abortive, seven of them owing to bad weather, one owing to a technical failure and on two occasions no ground signals were seen. Once again the emphasis lay in the Bhamo area which accounted for twenty sorties, eleven of them successful. The only other success was by a Liberator on 6/7 May which dropped supplies north of Nagorn Sawarn. Two sorties were flown to an area south-west of Lao Kay by Liberators but both were unsuccessful, one because of technical trouble in the aircraft and the other owing to the absence of ground signals at the dropping zone.

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Also in May 1944 there were a number of sorties by flying boats of No. 628 Squadron which operated for the first time since its formation in February. Prior to May 1944, bad weather and sea conditions in the selected areas of operations had interfered with plans and No. 628 Squadron had filled in the time with meteorological sorties. However, on the night 2/3 May, a number of agents and their kit were put ashore in the region of Bangkok. A reconnaissance was made on 10/11 May but failed to make contact with the party flown in earlier in the month. One further sortie by flying boats took place during May following an S.O.S. by agents in the Bassein area of Burma. A Catalina was despatched thither to rescue them but though waterborne for over two hours the Catalina did not contact the fugitives. Monsoon conditions thereafter and until September 1944 prevented further flying boat operations.

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ACSEA File
Air/888 Pt. II
Encl. 10 & 11

A.H.B./IIJ50/
99/39B
ACSEA File
Encl. 14

A.H.B./IIJ50/
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ACSEA File
Air/888 Pt. III.
Encl. 5

A.H.B./IIJ50/
99/98
ACSEA File
Air/888
Pt. III

Monsoon weather was at its worst in June 1944 and only seven out of 21 sorties attempted were successful. Five of these were to the Bhamo area and two to Menglien, on the Burma-China frontier east of Mandalay. During the moon period 29 June to 8 July 1944, ten sorties were attempted of which half were successfully completed. Bhamo was again the principal area of operations and three sorties to this region were successful. Further operations around Menglien were all abortive. During this period, Liberators of No. 357 Squadron flew a number of sorties over the Hump to Kunming in order to ferry supplies for operations from the advanced landing grounds in China. The first operation from China took place on 4 July 1944 when four agents and 600 lb. of supplies were landed in daylight at an airfield called Nanning. On 5/6 July a Liberator dropped three agents and supplies over Langson. A third sortie from Kunming was undertaken on 29/30 July when supplies were dropped somewhere near Hanoi. In the latter half of July 1944, No. 357 Squadron made use of advanced landing grounds in the Assam valley since the monsoon had made their base airfield virtually useless. Between 18 and 28 July, four sorties were flown from Assam in daylight, three to the Bhamo area and one to Menglien. One sortie to each place was successful. Bhamo was again the target for the solitary sortie flown in August 1944; this occurred on the 13th. Other sorties were, however, flown in August to Kunming in order to build up stocks there for future operations.

The next moon period lasted from 28 August to 8 September 1944 during which eleven sorties were attempted, each of them proving successful. Following the many ferrying flights made by Liberators of No. 357 Squadron to Kunming to build up stocks of petrol and supplies there, several operations were carried out. On the night 31 August/1 September, a Liberator dropped 4,500 lb. of supplies at San Tay in French Indo-China when operating from the advanced base of Kunming. Two nights later the same area was visited when four men and supplies were released over the dropping zone. The other sortie from Kunming, on 4/5 September and aimed at Langson, was unsuccessful owing to bad weather. Operations in Burma were flown to the Bassein, Bhamo, Menglien and Moulmein areas and also south of Rajburi. The Hudson aircraft of No. 357 Squadron no longer formed the backbone of clandestine air operations since Liberators assumed more and more of the burden. Indeed, during the August-September moon period only three sorties were flown by Hudsons. In September 1944 there were a number of daylight operations since bad cloud conditions during the monsoon made night dropping on difficult targets somewhat uncertain. For instance, there were three sorties in daylight on 4 September and one on the 5th. Although the next moon period did not commence until 24 September, the policy of mounting daylight operations enabled one sortie to be completed successfully on the 17th to Kogang. A further flight from Kunming to the airfield of Nanning in south-east China took place on 24 September to land five agents and 500 lb. of supplies.

Night operations began again on 27/28 September 1944 with two Liberator sorties from Kunming to San Tay in French Indo-China; over 7,000 lb. of supplies were dropped on the zone there. Three agents and nearly 4,000 lb. of supplies were dropped at Menglien on 28/29th and another successful sortie was flown to Bhamo on 2/3 October. On the same night a Liberator at Kunming attempted to reach Kao Bang in

French Indo-China but was thwarted by bad weather. On 4/5 October 1944, three operations were attempted by two aircraft, the first dropping an agent and supplies in the course of visits to the Bassein and Promé districts of Burma. The other sortie was abortive owing to the absence of ground signals at a dropping zone west of Kyauktaw. A further attempt was made by a Liberator on 6/7 October to reach Kao Bang but once again bad weather intervened. Two daylight operations were flown on 9 and 10 October, one by a Liberator from Kunming to Kanchow in China and the other to the Bhamo area in Burma; both were successful. This ended clandestine air operations by land based aircraft during the period under review.

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While aircraft of No. 357 Squadron had been operating with varying degrees of success over Burma, Siam, French Indo-China and China, the flying boats of No. 628 Squadron had taken no part in clandestine warfare from June to August 1944 owing to adverse weather conditions over the Bay of Bengal during the monsoon. The aircraft of No. 628 Squadron were therefore employed on training, meteorological work and general reconnaissance. On 7 September 1944, however, No. 628 Squadron successfully completed an operation for an American clandestine organization. A party of four was put ashore on one of the islands of the southern Mergui Archipelago. The selected area was reached in daylight and a reconnaissance made of several islands before a suitable landing place was found. Two Catalinas made the flight, the one alighting while the other patrolled overhead. The aircraft waterborne remained so for over two hours and until the landed party had signalled their safety by R/T.

On 2 October 1944 an attempt was made by two Catalinas of No. 628 Squadron to carry out an operation to Bentinck Sound, seventy miles south of Moulmein. This was an emergency sortie to reinforce a party already in the area and to bring back five native prisoners who were embarrassing the agents. Very bad weather thwarted the first sortie. A second attempt was made on 4 October 1944 and this time a Catalina crew successfully contacted the shore party and brought back a sick member. The prisoners had earlier proved to be friendly Kerens and had been released a few days before. A second Catalina also took part in the operation, its task being to take in stores. It so happened that in attempting to land at the rendezvous the hull of the aircraft was badly holed but the pilot managed to become airborne again and succeeded in reaching base.

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H.Q. ACSEA.
15 Aug. '44

This operation ended the brief existence of No. 628 Squadron which had flown less than ten clandestine sorties in a career lasting eight months. Owing to various factors, principally bad weather during the south-west monsoon, the Squadron's potential effort had never been utilized on special operations. Moreover, experience had shown that the need for land plane operations had increased far beyond the capacity of No. 357 Squadron while the necessity for flying boat sorties had proved far less than had at first been envisaged. On 1 October 1944, No. 628 Squadron was disbanded and a flight of Catalinas attached to No. 240 G.R. Squadron for special duties. At the same time the establishment of No. 357 Squadron was increased from nine aircraft to ten Liberators, ten Dakotas and six light aircraft, though it seemed unlikely that the Dakotas would become available for some months.

Summary of Clandestine Air Operations

Air operations in connection with clandestine warfare in South East Asia increased during 1944 though there were never sufficient aircraft to meet all the demands made. At the beginning of the period in December 1943, there were only a handful of obsolescent Hudson aircraft of No. 1576 Flight which operated from Dum Dum, 1,300 miles from the base airfield at Chaklala. The first important step in making clandestine air operations a factor of some importance took place in February 1944 with the formation of Nos. 357 and 628 Squadrons. In addition to the Hudson aircraft and crews formerly with No. 1576 Flight, No. 357 Squadron acquired a number of Liberators which considerably extended the range of operations. These aircraft, however, were unsuitable for work in the narrow valleys of Burma and Hudsons continued for some months to fulfil the task of short range operations. The Hudsons were a constant drain on maintenance resources and it became an urgent necessity to replace them with Dakotas.

The base of No. 357 Squadron at Digri had long been regarded as unsatisfactory owing to poor land communications with Calcutta. The Hudsons invariably used Dum Dum airfield near Calcutta, which was suitably placed for the reception of agents and special stores of the clandestine organizations. After much negotiation Jessore was finally chosen as the special duty base and No. 357 Squadron moved there during the last week of September 1944. Thereafter Dum Dum was not used by aircraft carrying out the highly secret task of clandestine operations.

Despite the disadvantages under which No. 357 Squadron worked they flew, between 7 December 1943 and 10 October 1944, some 135 sorties, 87 of them successful. In the same period the flying boats of Nos. 240 and 628 Squadrons mounted fourteen sorties, ten of which were successful. Although the above figures give the number of successful sorties flown it must be mentioned that the figures relate to the air aspect of the operations. It seems likely that many operations were, in fact, unsuccessful and that some agents were captured soon after landing. In so far as this narrative is concerned, a successful sortie is one on which agents or supplies were dropped on the places indicated by the clandestine organizations and on dropping zones duly marked out by reception parties where appropriate.

Just what effect the clandestine air operations had upon the outcome of the war is not yet known since a good deal of secrecy still cloaks the activities of the Allies in this sphere of warfare. It would seem, however, that the excellent work carried out by the R.A.F. and Royal Navy, with very limited resources, enabled the Allies to increase their contacts in enemy held territory to a considerable extent. No doubt the beginnings of a machine emerged which, when properly reinforced, would prove of great assistance as the final phase of the war began to unfold. The building up of an organization in enemy held territories could be done by a few men and a small amount of equipment introduced by a small air and submarine effort. But at the right moment it would be necessary for the machine to be fed with large quantities of supplies and equipment. Thus the carrying capacity of the supporting agencies needed to be expanded into a force much larger than that which existed during 1944. This factor was realized and action

put in train to meet the foreseen demands of air transport for the clandestine organizations.

It will therefore be seen that a true analysis of clandestine air operations during 1944 cannot be undertaken. It is sufficient to say that the gathering of intelligence and the raising of guerrilla forces did much to influence the outcome of the war in Burma. But this is a story for a later volume of this narrative. It might be appropriate therefore to consider that without the experience gained and without the foundations laid by the tiny air force in 1944, the success of clandestine air operations in South East Asia during 1945 might not have been achieved.

Photographic Reconnaissance - December 1943 to October 1944

In November 1943 the two R.A.F. photographic reconnaissance squadrons in South East Asia were controlled by Air Headquarters, Bengal. With the proposed formation of Eastern Air Command in December 1943 it was planned that the squadrons would operate under the Strategic Air Force. But this plan did not reach maturity and instead a Photographic Reconnaissance Force eventually became a separate formation directly under Eastern Air Command. Before that event took place, Nos. 681 and 684 Squadrons were controlled until 16 December 1943 by A.H.Q. Bengal and thereafter, until 1 February 1944, by Third Tactical Air Force. On 20 December 1943 the P.R. squadrons were controlled through No. 171 Wing at Comilla. The American P.R. squadrons were under the Tenth U.S. Air Force until the formation of the P.R. Force on 1 February 1944. On that date all British and American P.R. units were integrated under the Photographic Reconnaissance Force, Calcutta, commanded by Wing Commander S.G. Wise.

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Wing, R.A.F.
Feb. '44

EAC. Gen.
Order No. 4
26 Jan. '44.
A.H.B./ILJ50/
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On 1 February 1944, Headquarters No. 171 Wing, R.A.F. assumed the duties of the P.R. Force and controlled all P.R. squadrons in Eastern Air Command and all fighter reconnaissance squadrons when those units were not detached to groups or other formations. The P.R. Force also controlled the processing, printing and interpretation of photographs. The headquarters of the P.R. Force were located at Calcutta where also was established a photographic reproduction laboratory, negative library and photographic interpretation facilities for second phase, bomb damage assessment and detailed interpretation, and for target map reproduction. The P.R. Force was therefore responsible for all photographic requirements of units under Eastern Air Command. The criteria for the organization of the P.R. Force were the maximum utilization of photographic facilities available, the securing and production of photographic coverage in the minimum time, the processing and delivery of this photographic coverage to the using agency in the minimum time and the production of materials for objective folders.

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At first the Photographic Reconnaissance Force had under its control, Nos. 681 (Spitfire) and 684 (Mosquito/Mitchell) Squadrons, R.A.F. and the 9th (F-5) Squadron, U.S.A.A.F. The R.A.F. units were located at Dum Dum, Calcutta and the American units at Barrackpore, near Calcutta. In May 1944 the two R.A.F. squadrons moved to Alipore airfield also in Calcutta itself.

P.R. Operations

Until December 1943, no really long range photographic reconnaissance had been carried out in South East Asia since No. 684 Squadron had only recently acquired Mosquito aircraft and had not yet explored the potential range of these aircraft under tropical conditions. The radius of P.R. cover on 1 December 1943, excluding the Andaman Islands, was only 680 miles. On 15 December, however, the first cover of Bangkok was obtained and provided much valuable information regarding Japanese dispositions and their use of airfields in the area. Although Bangkok became a routine target the sortie at the time was an outstanding achievement owing to the still unknown factors involved in operating Mosquito aircraft in the tropics. The main role of the two R.A.F. squadrons was to provide airfield cover for aircraft counts, to photograph communications and areas indicated by the army, and to determine the best targets for attack in Burma. Twice weekly sorties to Port Blair in the Andamans were flown to secure information about the enemy's shipping activities.

O.R.B. No. 171
Wing, R.A.F.
Dec. '43

In January 1944 one of the few Mitchells belonging to No. 684 Squadron photographed Mergui on the Tenasserim coast for the first time, a flight involving a round trip of 1,600 miles. Survey photography also began in January 1944 to remove a long felt want for accurate and up to date maps of Burma. By the end of May, not only had the immediate battle areas of Burma been surveyed, but also about 57 per cent of the whole country. The need to neutralize enemy air effort against the ground forces, and to assess the extent to which communications facilities were being used and the damage inflicted upon them by the Allied air forces, absorbed the remainder of the effort. The record number of 80 airfields were covered in one day, as was the greater part of the Burma rail system. This enabled an accurate aircraft count to take place and also gave a reliable estimate of the locomotives and rolling stock in the country. Another valuable result of the large scale airfield cover was the issue of target mosaics to long range fighter squadrons and this proved of great assistance in attacks upon enemy airfields.

O.R.B. No. 171
Wing, R.A.F.
Jan. '44

February and March 1944 were mainly notable for the many sorties flown to obtain airfield information and to assess the damage to enemy communications by the Third Tactical Air Force and First Air Commando. Survey work was also carried out together with regular flights to the Andamans and the vast area bounded by the line Kengtung-Sittang-Mergui-Goh Sichang, the latter south-east of Bangkok. Small countrycraft were now being used by the enemy and the waterways of Arakan and central Burma were frequently photographed to assess the density of traffic and activity at staging points. On 27 March the longest flight so far, 1,860 miles, was achieved when a large stretch of the Bangkok-Singapore railway was photographed. Further experiments were carried out in April to determine the extreme range of Mosquito aircraft in the tropics. The extension in range was desirable since the monsoon would soon restrict P.R. operations over Burma and P.R. aircraft could then maintain a watch upon Japanese held territory less affected by monsoon clouds than Burma. One of the experiments was carried out by a Mosquito of No. 684 Squadron which flew a distance of 2,172 miles in a flight of 7 hours and five minutes. The area visited included Victoria Point, Tenasserim and Jumbhorn on the

O.R.B. No. 171
Wing, R.A.F.
Feb.-Apr. '44

isthmus of Kra. This flight brought all Burma, all save the extreme south of Siam and approximately half of French Indo-China within range of P.R. aircraft, whilst in the southerly direction some of the islands in the Car Nicobar group could be reached. On one long flight - 5 April 1944 - a crew of a Mosquito brought their aircraft back to base on one engine, flying in this condition for 780 miles.

O.R.B. No. 171
Wing, R.A.F.
May '44

The advent of the monsoon in May affected photographic reconnaissance work more perhaps than any other type of air action. Instead of concentrating upon the programmes laid down it became a question of finding areas where the weather was best and photographing the highest priority targets in them. Another successful long range operation took place on 6 May 1944 when a Mosquito succeeded in obtaining the first cover of islands in the Car Nicobar group. The short range aircraft in May were unable to obtain any really extensive cover and all possibility of proper aircraft and rolling stock counts had to be abandoned for the time being. In order to mitigate the effects of the weather P.R. aircraft were instructed to bring back a full weather report for use when planning the following day's operations. Survey photography was badly hit by the monsoon and most sorties on this task were unsuccessful.

Until the formation of the P.R. Force, there had been a marked lack of co-ordination between R.A.F. and U.S.A.A.F. photographic reconnaissance work, resulting in some duplication of operations while other areas were not covered at all. All tasks were subsequently pooled and a daily programme outlined for each squadron by the Air Commander, P.R. Force. No change was, however, made in the method of reporting used by the 9th P.R. Squadron, but it was decided that for the mutual benefit of all units in the P.R. Force, copies of reports and interpretations would be passed to H.Q. P.R. Force. This enabled the P.R.F. to arrange the completion of unfinished or abortive sorties without undue delay and also to complete the central library where details of all squadrons' operations could be made available for reference.

Although the 9th P.R. Squadron, U.S.A.A.F. (F-5 Lightnings) was under the P.R. Force, the Squadron maintained a detachment, consisting of one-third of its strength, at Din Jan for P.R. work on the northern sector of the front. This detachment was not under the P.R. Force but was controlled by the Northern Air Sector Force. In April 1944 it appears that the 24th Mapping Squadron operated under the P.R. Force though here again some of its aircraft operated under the control of other formations. The 24th Squadron was equipped with F-7 (Liberator) aircraft. By June 1944, photographic reconnaissance was being carried out by Nos. 681 and 684 R.A.F. Squadrons operating from Alipore and the F-5 (Lightnings), F-10 (Mitchells) and F-7 (Liberators) of three U.S.A.A.F. squadrons, the last of which specialized in mapping. A fourth American squadron, flying F-5's, began operating in September 1944.

O.R.B. No. 171
Wing, R.A.F.
Jun.-Jul. '44

There was a great reduction in the number of sorties flown by the P.R. Force in June 1944 and many of the aircraft that took off failed partly or totally to complete their missions. The main task of the P.R. squadrons was to photograph airfields whenever possible. Repeated attempts were also made to cover the Rangoon and Bassein areas since it was possible that, being protected by heavy cloud formations, the Japanese were using the ports to an extent

that would have been impossible in fair weather. Tasks given to aircrews as an alternative to the main target consisted merely of areas in which pilots could photograph anything regarded as important. Even this did not meet with much success since the banks of heavy cloud and rain covered a wide area. It was also found impossible to carry out really long range operations with any degree of safety save sorties to the Bangkok and Andaman areas which gave a sufficient safety margin of fuel to allow a diversion of aircraft to other bases as dictated by weather conditions. Similar problems confronted the photographic reconnaissance units during July 1944.

O.R.B. No. 171
Wing, R.A.F.
Aug. '44

In August 1944, however, a slight improvement in the weather enabled increased operations, especially during the second half of the month. Survey photography, although attempted several times, did not produce any negatives of value and could be regarded as being completely unsuccessful. The northward passage of the monsoon in August was utilized to procure the first large scale survey cover of northern Sumatra by Mosquito aircraft operating from Ceylon. Other detachments were later sent eastwards to operate from the forward airfields at Tingawak Sakan, (where at the beginning of September an American tactical reconnaissance squadron was placed under the P.R. Force) Imphal, Comilla and Chittagong. These moves were in preparation for the forthcoming 1944-45 campaign, the detachments later being reinforced to move forward step by step with the ground forces.

From the beginning of September 1944 a considerable measure of decentralization in the planning and conduct of operations was introduced, with the purpose of giving squadron commanders more latitude in the allotment of sorties. The organization in September 1944 was therefore as follows: Headquarters, P.R. Force at Calcutta had operational control over two R.A.F. squadrons stationed at Alipore, and three U.S.A.A.F. squadrons at Barrackpore, Alipore and Guskhara. The two R.A.F. squadrons each sent out a detachment, Spitfires to Comilla and Mosquitos to China Bay (Ceylon) under the direction of Third Tactical Air Force and No. 222 Group respectively. Two of the American squadrons had detachments, one at Tingawak Sakan under the Tenth U.S. Air Force and the other in China under the Fourteenth Air Force. The detachment of the 24th Mapping Squadron in China was engaged mainly in ferrying petrol over the Hump but could be called upon to perform photographic operations as required. A further R.A.F. detachment was sent forward to Imphal in October. In addition there was an American tactical reconnaissance squadron at Tingawak Sakan under the operational direction of the Tenth U.S. Air Force but in theory controlled by the Photographic Reconnaissance Force. The words 'operational direction' have therefore been used advisedly since full operational control was not vested in the directing formation which merely detailed the task to be carried out.

Photographic reconnaissance by aircraft based in Ceylon had commenced on 24 May 1943 and had continued thereafter by Liberators of No. 160 G.R. Squadron. Operating from Sigiriya the G.R. aircraft photographed enemy occupied territory that lay between 850 and 1,250 miles from base, the latter being the maximum range of the Liberator Mark III. This range, however, included the Andaman Islands, a small portion of southern Siam in the region of Phuket Island, and the northern part of Sumatra. This

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photographic requirement was urgent and the absence of suitable long range aircraft entailed the employment of one flight of a G.R. squadron on photographic reconnaissance. Since the P.R. aircraft were required to operate regularly at extreme range it was not possible to increase their armament so that apart from the camera installation, the aircraft were unmodified G.R. types. Liberator aircrews were employed on both G.R. and P.R. duties, as necessitated by operational requirements, and received little or no training in P.R. flying and procedure. In view of the limitations imposed on a unit operating in a dual capacity, the P.R. results were adequate.

After the P.R. Liberators had been operating for some months, the Japanese built up a strong air defence system in the Andamans, Nicobars and in the area of Sabang, regions in which the Liberators invariably operated. The result was the loss of several P.R. aircraft. The augmented enemy air defence system was subsequently avoided as far as possible in daylight but in order to obtain photographs of special targets in defended areas, experiments were made with camera installations for photographic reconnaissance in darkness. Though the results were not entirely satisfactory they proved, at least, to be of some value. From the work of No. 160 Squadron, maps were made of areas previously unsurveyed or inadequately surveyed. The photographs also made possible the production of target maps and models of special target areas. Prints and mosaics were also used by the Eastern Fleet during their operations around Sumatra.

A new development in photographic reconnaissance from Ceylon was marked by the arrival of a detachment of No. 684 Squadron equipped with Mosquito aircraft. Since the aircraft operated generally at extreme range, they were based at China Bay, Trincomalee, where a runway of the required length nearest to the target areas existed. This detachment made its first operational flight on 15 August 1944. On 13 September, the P.R. Liberators of No. 160 Squadron joined the detachment and from that date all P.R. aircraft at China Bay operated as a joint P.R. unit under the operational control of the commander of No. 684 Squadron detachment. Up to the end of October 1944 the detachment had flown 30 sorties, eight of them by Liberators. Four sorties were abortive owing to bad weather and three owing to mechanical failure in the aircraft.

Mosquitos were detailed to cover the Andamans, the Nicobars and northern Sumatra within their range, roughly a line from Samalanga on the north coast to Meulabo on the west. The Liberators were used to cover northern Sumatra within their own range but beyond that of the Mosquitos, and in areas where the Liberators were unlikely to meet enemy opposition. The Mosquitos carried 90 gallon fuselage jettisonable tanks on all sorties, the majority of which were in excess of 2,000 miles. The longest flights accomplished were 8 hours and 45 minutes covering a distance of 2,283 air miles, and 8 hours 37 minutes covering 2,289 air miles, both involving two sea crossings of 1,000 miles each. Operating at these extreme ranges the safety margin was cut down to a minimum and after covering targets in northern Sumatra, for instance, the Mosquitos usually landed with about 50 gallons of fuel. The fact that the last 1,000 miles of the return journey

had to be made across a sea devoid of landmarks demanded first class navigation. Limited endurance made it essential that the base airfield should be located quickly, and that weather conditions or other factors should not make it necessary for Mosquitos to be diverted or kept in the air longer than was absolutely necessary after making a landfall. On one occasion a P.R. aircraft, fortunately a Liberator, was prevented from landing at its base by a local storm, augmented by the accidental operation of a very effective artificial smoke screen.

The use of Mosquitos on very long range photographic reconnaissance quickly brought results when two newly constructed airfields in northern Sumatra were photographed. Owing to enemy air opposition, this part of Sumatra had not been covered by Liberators for more than twelve months. Liberators continued to carry out long range survey photography, switching to long focal length cameras when necessary. Leaflets were first carried by P.R. aircraft on 21 September 1944 and were thereafter dropped regularly.

Summary of P.R. Operations

With the advent of fair weather in October 1944, photographic reconnaissance sorties rose to their pre-monsoon level and during the month the daily average of sorties represented over a third of the total aircraft available in the P.R. Force. The methodical cover of airfields, communications and other targets was resumed, survey photographs being supplied as required by army and air force headquarters. The main hindrances to the operations of the Photographic Reconnaissance Force continued even in the dry season to be factors inseparable from flying in the tropics rather than the opposition of the enemy, which remained slighter than was usual in other theatres of war.

It may be said that the work of photographic reconnaissance squadrons in South East Asia was of great importance owing to the comparatively meagre intelligence available from ground sources. For air force purposes alone it provided an indispensable factor in the maintenance of Allied air superiority by providing speedy evidence of the location of enemy aircraft, while the work of the Strategic Air Force would have been unprofitable without the coverage of targets it furnished.

General Reconnaissance - December 1943-October 1944

The System of Operational Control in South East Asia

General reconnaissance operations in the Indian Ocean were hardly analagous to those carried out in the Atlantic where a constant battle of wits took place between the Royal Navy and R.A.F. on the one hand and the German U-boats on the other. The number of enemy submarines in the Indian Ocean was far less than in the Atlantic but there were fewer Naval vessels and R.A.F. aircraft available to protect the shipping lanes in a larger expanse of ocean. It cannot be said that the submarine threat reached alarming proportions in the Indian Ocean, but since the defence of India and Ceylon and any offensive operations mounted by the Allies in South East Asia depended largely upon the ability of the Allies to maintain a constant flow of shipping across the Indian Ocean, general reconnaissance played an essential if unspectacular part in the campaigns in the Far East. For

the industrial potential of India was inadequate to sustain the armed forces there so that materials of war, and many men too, had to be transported across the seas either from the United States or Britain. While the Mediterranean had been closed to Allied shipping, the principal areas of general reconnaissance in respect of the German threat lay in east and South Africa; but when towards the end of 1943 our convoys for Persia and India were once again routed through the Red and Arabian Seas, enemy submarines devoted their attention to the northern region. Temporary and permanent changes in G.R. resources and dispositions therefore became necessary.

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Encl. 40A.
Deputy Air
C.-in-C. to
No. 222 Group.
15 Dec. '43

O.R.B. No. 222
Group, R.A.F.
App. 'B'
May '44.

During the autumn of 1943 plans were afoot to form a command which would control all G.R. operations in the Indian Ocean and though this plan did not materialize, the first steps in the direction were taken in December 1943. Then, a new directive from the Chiefs of Staff extended the boundaries of the Naval Commander-in-Chief's command to include Aden. Simultaneously, all G.R. aircraft in East Africa, Aden, India and Ceylon were placed under the Air Commander-in-Chief, South East Asia, through the Air Officer Commanding, No. 222 Group, Colombo. Day by day operational control remained in the hands of the local A.O.C. but broad control was, in theory, the responsibility of No. 222 Group which worked in close co-operation with the Eastern Fleet. The new organization had its disadvantages since No. 222 Group had to assume additional responsibilities and still carry out its legitimate tasks in and around Ceylon. In practice therefore, all No. 222 Group could do was to issue general directives, and in certain instances definite instructions. Owing to the great distances involved and inadequate communications, a certain amount of decentralization was inevitable. It was foreseen, however, that eventually there would be more centralization, particularly when the war against Germany ended.

Ibid.

The policy of one formation controlling all G.R. operations in the Indian Ocean was adopted in December 1943 but not until 1 May 1944 did further development materialize. The A.O.C. No. 222 Group, Air Vice-Marshal A. Durston remained the director of G.R. operations but in May a deputy A.O.C. was appointed and, with an additional eight officers, became largely responsible for the co-ordination of coastal operations in the Indian Ocean. It was essential that the new staff should be located where it could plan general reconnaissance with the staff of the Eastern Fleet and on 1 May it became part of No. 222 Group headquarters where it commenced to function under the direction of the A.O.C. In order that the additional staff should not be confused with the Group staff, the new organization assumed the title IOGROPS, an abbreviation for Indian Ocean General Reconnaissance Operations. While the Deputy A.O.C. No. 222 Group had certain duties to perform for H.Q. No. 222 Group proper, his main responsibility lay with IOGROPS, whose function was to organize and supervise the operational effort of G.R. formations in the Indian Ocean. This included the standardization of operational procedure, tactics, training, intelligence and signals. The juxtaposition of IOGROPS to the Eastern Fleet H.Q. at Colombo enabled the new organization to ascertain with expedition the requirements of the Royal Navy in relation to general reconnaissance and to direct in broad terms the activities of the other groups and commands. The primary

function of the staff of IOGROPS in effect was to travel around the units in the Indian Ocean to advise and co-ordinate methods and procedure.

Under the broad direction of the A.O.C. No. 222 Group and IOGROPS, general reconnaissance was controlled by four separate formations whose areas of responsibility in the Indian Ocean were defined as follows:-

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Air Headquarters, East Africa controlled the area west of 65 degrees and south of 5 degrees North,

H.Q. British Forces, Aden were responsible for operations in the Gulf of Aden and Arabian Sea north of 5 degrees North and west of 61 degrees 30 minutes East, including the whole south Arabian coast from Perim Island up to and including Sharjah,

H.Q. No. 225 Group, Bangalore were responsible for G.R. activities in the remainder of the Arabian Sea north of 10 degrees North and a coastal strip 100 miles wide along the west coast of India from 10 degrees North to the latitude of Cape Comorin, the Bay of Bengal north of 10 degrees North including the east coast of India up to and including Cuttack,

H.Q. No. 222 Group, Colombo controlled the remainder of the Indian Ocean and Bay of Bengal.

One of the first tasks carried out by IOGROPS was an investigation of the practical application of the system used in the Atlantic by which air cover was given to shipping in accordance with the degree of risk and the value of the convoy. This system was considered necessary since the position regarding flying boats was not strong. They were very old and hard worked and had therefore to be used as economically as possible. Under the old system of decentralization, the local commanders had not always been in possession of the information held by the Commander-in-Chief, Eastern Fleet so that they had not been able to justify a reduction in escort work. This resulted in excessive engine hours and occasionally reduced the number of aircraft available in an emergency. A daily assessment of submarine activity was introduced, with the approval of the Eastern Fleet, which was distributed to R.A.F. squadrons daily. Parallel with this, local naval authorities received from the Commander-in-Chief, Eastern Fleet, a copy of the same signal and upon these intelligence summaries it was possible to arrive at a sensible and economic use of the air forces available. Operations by India and Ceylon based aircraft, for instance, came under the control of three Naval Air Operations Rooms at Bombay, Vizagapatam and Colombo. The resultant cohesion over the areas controlled and closer liaison with the Navy which these N.A.O.R.'s permitted augured well for the future.

The G.R. Forces Available

O.R.B.s H.Q.s
East Africa,
Aden, Nos. 225
and 222 Groups,
Jan.-Sept. '44.

Some attempt might be made to give an order of battle for the Indian Ocean but this is made difficult by the fact that the G.R. force was highly mobile and squadrons, from time to time, sent detachments far afield. However, in January 1944, Air Headquarters, East Africa had No. 230 (Sunderland) Squadron and No. 259 (Catalina) Squadron at Dar-es-Salaam, No. 209 (Catalina) Squadron at Kiperu and No. 265 (Catalina) Squadron at Diego Suarez. In the Aden

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area and Oman, Nos. 8, 621 and 244 Squadrons were located, the first two equipped with Wellingtons and the latter with Bisleys. H.Q. No. 225 Group controlled Nos. 191 and 212 (Catalina) Squadrons at Karachi, No. 240 (Catalina) Squadron at Madras, No. 203 (Wellington) Squadron at Bombay and No. 354 (Liberator) Squadron at Cuttack. In Ceylon there were three Catalina squadrons, Nos. 205, 321 (Dutch) and 413 (R.C.A.F.); Nos. 160 (Liberator), 22 and 217 (Beaufort) Squadrons were also based on the island. Few changes in the movement of squadron headquarters took place. In February 1944, No. 230 Squadron moved from East Africa to Ceylon. To Madras from West Africa came No. 200 (Liberator) Squadron. By May 1944 all three squadrons in the Aden area were equipped with Wellington aircraft. Two Beaufighter squadrons, Nos. 27 and 46, were located at Madras from March to October 1944 to form an anti-shipping wing but they had no operational work to do. In June and July 1944, Nos. 22 and 217 Squadrons changed from Beaufort to Beaufighter aircraft and changed their role from torpedo-bomber to torpedo-fighter units. Finally, No. 203 Squadron ceased operations in September for conversion to Liberator aircraft.

But the order of battle given and the changes mentioned do not give the whole picture of the resources available in the various areas. Flying boat squadrons in Ceylon, for instance, sent detachments to the Maldive Islands and the Chagos Archipelago when occasion demanded and even sent aircraft further afield to Aden. Flying boat anchorages existed at Seychelles while G.R. aircraft on occasion operated from Socotra. This constant coming and going was forced upon the G.R. squadrons because the vast area of the Indian Ocean presented an impossible patrol problem and it was necessary to concentrate aircraft where enemy submarines were known or suspected to be. Air escort to convoys where no threat existed was thus reduced to a minimum and flying hours thereby conserved for concentrated action when necessary. The concentrations of aircraft needed to implement this policy, as already mentioned, involved the shuttling of aircraft from base to base but these movements did not result in wasted flying hours. For on their various journeys to other bases, aircraft were routed over shipping lanes so that they could carry out traffic patrols in transit.

G.R. Operations

O.R.B. H.Q.
No. 222 Group
App. 'Y'
Dec. '43

At the commencement of the period under review, there was considerable activity and movement of G.R. aircraft from base to base. To relieve the congestion on the communications system to north-east India our troops there were to be reinforced from east coast ports. Extensive air patrols were therefore provided for the shipping involved to cover the entire eastern approaches to the Bay of Bengal. This patrol work entailed large scale and rapid movements of air forces over distances ranging from 1,000 to 1,400 miles to concentrate suitable aircraft in strategic positions. Continuous patrols began at first light on 6 December 1943 and finished at midday on the 9th as the ships reached Chittagong. During the operation there was only one sighting of a submarine, thought to be a Japanese of the 'I' Class. Unfortunately, the Catalina which made the sighting could not attack since it was armed with S.A.P. bombs. Further searches failed to locate the enemy again.

On 23 December 1943 a merchant vessel was torpedoed in convoy off the south-east coast of India: the attack was made in perfect weather at midday and while a Catalina was escorting the convoy. This was the first case of a submarine attack while air escort was being provided. Continuous day and night cover and a hunt to exhaustion was instituted but no further sighting was made. To offset this loss an escort vessel of the Royal Indian Navy attacked a submarine on 27 December near the south west tip of India and it seems likely that the submarine may have been destroyed. A Catalina witnessed the attack and was able to make a detailed report and to produce photographs. Further south-west on the same day a merchant vessel was torpedoed and to counter the threat to the many convoys in these waters, Catalinas were moved from Ceylon to Kelai and Addu Atoll. Since the commitments of No. 222 Group were heavy, especially in affording cover to the units of the growing Eastern Fleet, Beauforts of Nos. 22 and 217 Squadrons were used to escort coastal convoys, with the long range aircraft reserved for the forward island bases and the Australia-Colombo convoys. During December 1943 Liberators of No. 354 Squadron, based at Cuttack, took over the G.R. patrols previously flown by Wellington bombers and extended them to cover the north-east Bay of Bengal and the Arakan coastal areas. No sightings of enemy surface or underwater forces were made during these patrols but several small craft off the Arakan coast were attacked and sunk with bombs and gunfire.

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The year 1944 opened with few enemy submarines operating in the Indian Ocean but enemy activity gradually increased reaching its climax in March and fading away thereafter. The threat in January 1944 lay mainly in the region of Socotra and the entrance to the Gulf of Aden and this led to the reinforcement of the Aden area by flying boats from East Africa. One enemy submarine was known to be in the Maldives area and on 16 January another made an attack off Pondicherry, sinking one vessel in convoy. A Catalina assisted in the rescue work but the offensive anti-submarine search which was immediately instituted proved fruitless. What was probably the same submarine was sighted and attacked by a Catalina returning to base from convoy escort on the 22nd. Probable damage was done in spite of the difficult conditions of light and angle of attack. A hunt to exhaustion was immediately initiated by Catalinas of both Nos. 225 and 222 Groups but the enemy was not again seen. The search continued until after dawn on 25 January; whales were particularly numerous about this time and were the subject of several false alarms.

O.R.B. H.Q.
No. 222 Group
App. 'U'
Feb. '44

In February 1944 the number of enemy submarines estimated to be in the Indian Ocean rose to ten and patrol activity was intensified to meet the threat. It became necessary to augment air cover for the threatened areas around Ceylon with Catalinas and Wellingtons from No. 225 Group. Additional air escort was also necessary in the Gulf of Aden where a particularly audacious German submarine sank three tankers in one convoy. Despite an immediate hunt to exhaustion the U-boat escaped. Sinkings were fairly heavy during February. The month was not without success, however, for a Japanese submarine was sunk off Vizagapatam by an escort vessel with the co-operation of supporting aircraft. Another Japanese submarine was destroyed after it had sunk the strongly escorted troopship Khediye Ismail in the one and a half degree channel. There was heavy loss of life. There was no air cover to this

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Japanese
sources.

vessel since it was not considered necessary in view of the powerful escort of surface vessels in attendance. The many sinkings in February involved a number of rescue operations by aircraft. The survivors of three ships were located and covered while surface ships were guided to them. The outstanding rescue was that of survivors of a ship torpedoed fourteen days earlier 800 miles from the mainland.

Towards the end of February 1944 there arose what was thought to be a threat to the east coast of India when a considerable portion of the Japanese fleet moved from the Pacific area to Singapore. Plans were laid for the assembly and despatch of air striking forces, including all heavy bomber squadrons, should the need arise, navigators trained in long flights over the sea being provided for the bomber squadrons. Bases in southern India and Ceylon were prepared and stocked for the possible advent of large air forces from Bengal. Reinforcements also arrived in the shape of No. 200 (Liberator) Squadron from West Africa and No. 47 (Beaufighter) Squadron from the Mediterranean which, with No. 27 Squadron, made up an anti-shipping wing at Madras until October 1944. The threat did not materialise but the organization built up was retained in skeleton form. It seems that the Japanese had no plans for offensive operations in the Bay of Bengal and that the reason for the move of their fleet to Singapore lay in the fact that they had been severely battered in the Pacific and Singapore provided a safe base for training and reorganization. Moreover, the Japanese had no intention of operating against the Eastern Fleet for the enemy did not regard it as a serious menace to their hold on South East Asia.

A.H.B./IIJ50/
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Translation and
Interrogation
Rep. No. 242.

O.R.B. H.Q.
No. 222 Group,
App. 'A'
Mar. '44

March 1944 witnessed a peak in general reconnaissance operations. On the 1st a hunt to exhaustion followed the sinking of a merchant vessel 25 miles south-west of Galle. After 23 hours of operations a Catalina sighted and attacked a surfaced submarine by moonlight. The enemy was not seen after the attack and further air searches in the following two days did not produce any results. Further enemy activity resulted in the loss of two ships in the Arabian Sea, four in more southerly waters and one troopship in the northern Bay of Bengal, an area hitherto almost immune from submarine attacks. There were regrettable delays in reporting the attack and in assembling forces to search for the submarine. The limited number of aircraft in the area, including Beaufighters of No. 224 Group, carried out a modified search until the arrival of reinforcements. The flying effort and quick turn round of the few G.R. aircraft available was, however, particularly creditable, one Liberator of No. 354 Squadron being airborne again within 45 minutes of landing. These efforts were all without result. In all, some ten ships were lost during March 1944 and four submarines were attacked by aircraft. It is interesting to note the places of attack - south of Ceylon, north of Madagascar, northern Bay of Bengal and south of Cape Town - since it gives some idea of the problem involved in hunting enemy submarines in eight million square miles of ocean. Three sightings and three attacks resulted in the probable destruction of a U-boat off Cape Town by Catalina aircraft. The submarine attacked north of Madagascar was a Japanese I-class, carrying a float plane which made reconnaissance flights over Diego Suarez and Kilindini on 4 and 5 March respectively.

In April 1944 the enemy submarine threat faded and only two were estimated to be operating in the Indian Ocean.

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One was believed to be in the Maldives area and the other to be operating on the trade routes between Freemantle and Colombo, beyond the range of flying boats based on Addu Atoll. Beaufort aircraft were therefore employed on coastal convoy escort while the long range aircraft were held in Ceylon in readiness to meet the threat further afield. But no ships were sunk in the waters around India and Ceylon. In April the gradual change-over from the defensive to the offensive was symbolized by the successful escort provided to the Eastern Fleet in their strike with carrier borne aircraft against Sabang in north-west Sumatra. Other naval raids were to follow the Sabang attack and were designed to cause a diversion for the Pacific offensive then being launched by the Americans. During the attack on Sourabaya by the Eastern Fleet in May 1944, fifty sorties were flown in two days by G.R. aircraft covering the return of the naval force.

O.R.B. H.Q.
No. 222 Group
App. 'BZ'
May '44

From the point of view of enemy submarine activity, May 1944 was a quiet month and apart from one Maldivian dhow, no ship was lost through enemy action. But May turned out to be an important month since the first enemy submarine was destroyed through the agency of air power in South East Asia Command. A Wellington of No. 621 Squadron took off from Sousouiban on 2 May 1944 to carry out an anti-U-boat patrol of the shipping lanes in that area. After a few hours the aircraft encountered a German submarine which was attacked with depth charges. The U-boat was forced to the surface but then became highly belligerent. The captain of the Wellington, knowing that other aircraft were on their way kept out of the way of the enemy's guns after a few attempts to straddle the submarine with machine-gun fire. Two hours and ten minutes after the initial attack a second Wellington arrived followed in due course by others. Eight attacks in all were directed against the U-boat and aircraft had considerable opportunity for practising diversionary baiting tactics while other aircraft attacked. The ensuing 22 hours operations proved invaluable for training purposes. For instance, one aircraft circled the enemy waiting to attack with bomb doors open while another aircraft made feint attacks. The latter was puzzled because he could not draw the enemy's fire but it seems that the bomb doors were shut and the enemy not therefore deceived. The German submarine proved to be a tough opponent and despite the Wellington attacks he kept moving, maintaining speeds of 5 to 12 knots. The U-boat took evasive action continuously, heading in a general coastwise direction. At dawn on the 3rd, after being shadowed throughout the night, the U-boat beached and blew itself up in position 9032N. 5049E., much to the chagrin of two aircraft of 8 Squadron who were about to administer the Coup de grace. This submarine, which had just arrived from the Atlantic, was destroyed before it had had time to operate in the Indian Ocean.

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App. 'BZ'
May '44

May 1944 was a disappointing month for D/F. bearings on enemy submarines, for wireless silence was maintained by both German and Japanese submarines alike. Agents were landed near Cochin by a Japanese I-class submarine but they were captured within 48 hours of being put ashore. Despite constant sweeps and searches the submarine escaped. Operations in June were somewhat unusual since it was evident that a number of German units were at large and yet only one Allied ship was lost. It was sunk between the Chagos Archipelago and the Maldives on the shipping route to Australia. This seemed to be an area favoured by the

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enemy and many reports were received from ships or submarines. Air strength was moved to meet this anticipated threat and sweeps, searches and patrols were flown continuously throughout June and July covering the shipping lanes. There was an increase in enemy submarine activity in July when one Japanese and two or three German submarines were thought to be operating, mainly south of Ceylon. Two ships were sunk east of the Maldives though the submarine responsible was not located. Catalina aircraft, however, operating from Addu Atoll and Diego Garcia were instrumental in the rescue of 244 survivors in six lifeboats. Three other ships were also sunk in the same area. But towards the end of July 1944 it appeared that the threat was diminishing since D/F. bearings obtained on the Japanese submarine indicated that it was returning to Penang and that the two German units would soon have to return to base for refuelling.

O.R.B. H.Q.
No. 222 Group
App. 'Z'
Aug. '44

Five German U-boats operated in the Indian Ocean during August 1944, one of which was sunk by aircraft and escort vessels north of Madagascar on the 12th. One Japanese submarine was indicated by D/F. bearings to be in the Bay of Bengal but no shipping was attacked. The other three German units operated off the African coast, one of them moving as far north as the Gulf of Aden. Six ships were sunk, four off East Africa, one off South Africa and one off Aden. The U-boats operated with extreme caution and their achievements were negligible when compared with the amount of shipping plying the shipping lanes of the Indian Ocean. Since the sinkings occurred between 1554N. and 3058S. and since the U-boats broke W/T. silence only on five occasions, the difficulty of locating them will appear obvious. G.R. aircraft failed to make any sighting though it is conceivable that the small success achieved by the enemy may have been the result of sweeps and patrols which were flown.

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It was estimated that the submarine operating in the Bay of Bengal in August had returned to base early in September so that only three German U-boats were active in the Indian Ocean during September 1944. By the end of the month two had reached Penang and one was sunk by H.M. Submarine Trenchant off Penang on the 23rd. As the submarines had been operating at sea for some time it was considered likely that they might attempt to reach the Japanese submarine base at Penang. Consequently, G.R. activity was centred around the Chagos Archipelago-Maldives Islands area since this was the most likely region through which the submarines might travel. It so happened that nothing of them was seen. The Japanese have admitted the loss of a submarine in August 1944 though the Allies made no claims in July, August or September. It seems possible, however, that the supposed German U-boat sunk in August may have been a Japanese unit. During the remainder of the period under review there was little activity and no ships were sunk, though from the middle of October 1944 two Japanese submarines operated in the Bay of Bengal.

Summary of G.R. Operations

A study of submarine warfare in the Indian Ocean shows clearly that the threat to shipping was not constant but that the majority of enemy under water units commenced operating at the same time and returned to base more or less simultaneously. This created periods of maximum and minimum threat. Hence the need to husband carefully the air resources during quiet periods in order to provide

maximum effort when the occasion arose. It is apparent that the German U-boats which operated in the Indian Ocean were invariably engaged on offensive patrols whereas the larger, faster and less manoeuvrable Japanese submarines were used more frequently for reconnaissance, transport and the landing of enemy agents. The small RO-class Japanese submarine was restricted by range to operations in the Bay of Bengal.

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Until the end of August 1944, nine Japanese submarines were, at one time or another, engaged in operations in the Arabian Sea, the Indian Ocean and the Bay of Bengal. These comprised seven I-class and two RO-class submarines. During January and February 1944 seven of these submarines, based at Penang, were actually engaged on operations against Allied shipping. But the number of submarines decreased during the succeeding months; three were lost, presumably owing to Allied action. The first, an I-class submarine, failed to return from operations in central and western Indian Ocean in February 1944. Also in February an RO-class submarine was lost in the Bay of Bengal. The third, operating in central Indian Ocean did not return to its base in August 1944.

Ibid.

During the period March to August 1944, four Japanese submarines were sent back to the homeland for repairs and re-equipment; one was sent to Sourabaya and one was received from Japan as a replacement. In fact, by the end of May 1944 the Japanese had available only four submarines for operations in South East Asia, all of them of the I-class. Although the submarines in the Indian Ocean achieved some success, the Japanese did not believe that such operations could become a decisive factor in the general outcome of the war. They believed that the important battles would be fought in the Pacific and thus in February 1944 thirty-four Japanese submarines were in action in the Pacific whereas only seven patrolled the Indian Ocean. At the commencement of August the only submarines operating were the German units which had moved from the South Atlantic into the Indian Ocean. After operating off the African coast with a limited amount of success, these U-boats attempted to move eastwards to the Japanese submarine base at Penang. Two out of four attempting this journey were destroyed by the Royal Navy. At the end of October 1944 there were only two submarines operating, both Japanese RO-class vessels, neither of which had sunk any ships.

The results of general reconnaissance are seldom tangible and an account of the work carried out by the G.R. squadrons in South East Asia must of necessity draw attention to those occasions when the enemy's positive attacks overcame the efforts of negative reconnaissance. Such attacks in the area patrolled by aircraft based in India and Ceylon did not, and could not, meet with sufficient reaction to provide a continual deterrent to the enemy's intrusions, nor was the rate of destruction of enemy submarines high enough to prove a serious obstacle to them. For the maximum force available to the Allies in the Indian Ocean amounted to ten flying boat squadrons and nine land based medium and long range G.R. squadrons. These forces had to cover the vast expanse of ocean ranging from East Africa and Aden to the Bay of Bengal and southwards in the eastern waters of the Indian Ocean well beyond the Equator. It is difficult to assess the achievements of the G.R. force but it seems reasonable to

suppose that the singularly ineffective enemy submarine offensive may be a tribute to the constant vigilance of G.R. aircraft. Their work may not have produced many sightings and kills - a consideration of the immense area of ocean to be guarded will clearly show the difficulty of locating enemy units - but G.R. operations may have kept enemy submarines submerged and out of range of our shipping.

CHAPTER 12RECAPITULATION
AND SUMMARY

The campaigning season in Burma started in November and lasted until the following May or June. Between these dates the south-west monsoon rains restricted land and air operations and until 1944 both sides used the monsoon period primarily for rest, re-equipment and training for the battles expected to be renewed once the rains had passed. The first major battle of the 1943-44 dry season, which was fought in the air and proved to be a landmark in the battle for air superiority, began in November 1943 and lasted until February 1944 by which time the Japanese air force had been badly mauled by the newly arrived R.A.F. Spitfire aircraft. From March onwards the enemy became increasingly difficult to engage in the air and the task of whittling down the enemy's air strength fell to the long range fighters of the U.S.A.A.F. which achieved conspicuous results in attacks upon enemy airfields.

While the battle for air superiority raged above India's eastern frontier and over enemy airfields in Burma, momentous events occurred on the ground. In Arakan, XV Corps were ordered to push down the Mayu Peninsula and secure the Maungdaw-Buthidaung road, while a West African division, guarding the flank of the main axis of the advance, moved down the Kaladan Valley to Daletme and Kyauktaw. Our troops in Kaladan were maintained solely by air transport squadrons. The Allied advances in Arakan were going according to plan when on 4 February 1944 the Japanese forces on the Mayu Peninsula initiated one of their characteristic envelopment movements, initially highly successful, with the result that the 7th Indian Division was cut off from the main body of the Arakan forces. In previous years the situation would have called for a fighting withdrawal to re-establish land lines of communication but this time, instead of fighting their way out as best they might, the Division was ordered to stand fast and help was immediately forthcoming in the form of airborne supplies. With this aid the 7th Division was able to stand its ground and finally, with the aid of fresh troops advancing from the north, to turn the tables on the Japanese troops in its rear.

Scarcely, however, had the bitter conflict in Arakan subsided when a struggle on a yet larger scale flared up in the north, the battle area of which extended from the confines of northern Burma across the Chin and Naga hills into Assam and the plain of Imphal on the one hand, and on the other eastwards over the Salween to the Chinese outposts in Yunnan. While Allied troops launched an offensive in north Burma, the situation on the central front became immensely more complicated by reason of the opening of the main Japanese offensive. This began in March when enemy troops already west of the Chindwin made for the vulnerable road running between Imphal and Tiddim. A few days later two other Japanese divisions crossed the Chindwin to the north and struck out for the Dimapur-Imphal road at Kohima and for Palel on the perimeter of the Imphal plain. By 31 March, IV Corps at Imphal had been completely surrounded and its survival thenceforth depended solely upon the ability of the air forces to keep it supplied. The siege of Imphal, as it became known, lasted 84 days

and was finally broken when XXXIII Corps advancing from Dimapur joined the troops of IV Corps moving northwards. This occurred on 22 June 1944.

The ultimate prize for which the Allied forces in the distant and inhospitable terrain of north Burma were fighting was by any standards a large one. It was no less than the possibility of opening a land route to China via Ledo, north Burma and Lashio. Since the opening of the 1943-44 campaigning season, Chinese-American forces advancing from Assam had crossed the mountains into the Hukawng Valley, supplied largely by transport aircraft. But the fate of these troops was placed in grave danger by the Japanese invasion of Manipur. Yet despite the threat to the Assam line of communication, the advance in north Burma continued and had as its object the capture of Myitkyina, the first stage in the opening of a road to China. In addition to the land advance it was planned to convey by air the best part of a whole division far behind enemy lines to the Wuntho-Bhamo area, primarily to operate against communications of the enemy forces opposing the advance of the Chinese-American forces towards Myitkyina. This operation was under the command of Major-General O. C. Wingate, leader of the previous year's foray. The fly-in began on 5/6 March and continued for some days thereafter. The subsequent operations of the Special Force, though perhaps less dramatic than its entry into the field, were potentially important. The Force harassed the enemy, cut his communications and destroyed his supply dumps. But with the onset of the rains in the latter half of May, air transport commitments to Wingate's Special Force dwindled. One of the brigades was flown back to India and the remainder joined in the battle for Mogaung and Myitkyina. Throughout their operations the brigades of Special Force had possessed no land communications.

The climax of the campaign was undoubtedly the assault upon Myitkyina, a daring and difficult achievement which provoked protracted and intense fighting after the rains had already begun. The capture of Myitkyina airfield on 17 May was a coup achieved by American and Chinese troops who hacked their way through the jungle so swiftly that the Japanese were caught unawares. Transport aircraft then flew in reinforcements to beat off the inevitable counter attack, but it would appear that the reinforcements arrived too late to effect the immediate capture of Myitkyina town. After a long siege the town fell to the Allies on 3 August 1944 and was the eventual reward of the strenuous fighting by troops under General Stilwell who battled their way southwards from Assam through a country of mountain, swamp and jungle. The final reduction of Myitkyina town was delayed by the fanatical resistance of the Japanese garrison but in due course the Allies held undisputed possession of the town and airfield which thenceforth constituted not only a vital link in the India-China air route but a staging post on the projected highway to China.

Behind the ebb and flow of the land campaigns, the Allied air forces maintained a ceaseless vigil in defending bases and installations, they bombed and machine-gunned enemy positions, they continued an unrelenting war of attrition upon enemy lines of communication in Burma and beyond, they supplied the land forces with food and ammunition, they evacuated casualties and provided reconnaissance over large tracts of enemy held territory. All these things were performed with varying degrees of success as described in earlier chapters of this narrative.

By the end of the dry season of 1943-44, events had moved decisively in our favour. The Japanese air force was crushed, the siege of Imphal raised and control of north Burma was passing into Allied hands. It is reasonable to say that the story of 1944 is one of many courageous men who themselves never courted publicity and hardly received it, and who fought the Japanese in a wilderness ruled by a fierce and depressing climate. But for the intervention of the Allied air forces, however, the plight of the land forces during the campaigns of 1943-44 would have been unenviable. It is difficult to see how the disasters that threatened our troops in Arakan could have been averted and it is certain that in March 1944 we could not have held Imphal. The Wingate expedition could not have been launched nor could General Stilwell have piloted his troops across north Burma to Myitkyina. Shorn of air superiority in all its aspects, it seems inevitable that the Japanese would have been ensconced at Chittagong and Manipur and the situation in the eastern marches of India would have indeed been ugly. The plains of Bengal would have been open to invasion and our hold upon the Brahmaputra valley and the aerial life-line to China would have been placed in jeopardy. By June 1944, however, the Allies were able to dictate the course of the battles and while operations ceased for some weeks in Arakan, operations continued in north Burma until August and the advance from Imphal to the Chindwin was maintained throughout the monsoon. This could not have been accomplished without the aid of supply by air, for the land lines of communication had been washed out by the monsoon rains. By October 1944, with the coming of the dry weather, Allied forces were advancing on all sectors of the Burma front.

The Maintenance of Air Superiority

In Burma as in many other overseas theatres of war, the establishment of air superiority over friendly bases was not in itself sufficient to enable other air and land operations to be accomplished. The very nature of operations in Burma demanded that all types of aircraft should be free to fly over enemy held territory at no great risk. For instance, in 1944 both defensive and offensive land operations depended upon air transport support, in some cases in areas far beyond the range of India based short range fighters. Hence the primary task of the Allied air forces was not merely to protect our bases but to destroy enemy aircraft, or at least to prevent, the Japanese air force from operating effectively at all. As matters turned out the most that could be done during the early months of the 1943-44 dry season was to make Japanese raids upon India prohibitive. But with the advent of American long range fighters in March 1944, the fate of the Japanese air force in Burma was sealed, for these aircraft could seek out and destroy the enemy on or over their own airfields.

Long range fighter operations, though the most effective, were not the only means of attacking the Japanese air force, for bombers were also used if somewhat sparingly. There were, however, factors militating against bomber raids upon enemy airfields which in Burma were plentiful and mainly used as forward airstrips upon which aircraft were seldom based for long. This made them generally unprofitable as bombing targets but in addition, Japanese skill in camouflage and dispersal and their capacity for swiftly repairing runways reduced the desirability of extensive bombardment of enemy airfields.

In the sphere of bomber operations, the bombing of Japanese lines of communication unquestionably affected the enemy's air effort, although it is difficult to say by how much. During the 1944 campaigns the enemy held considerable reserves of oil in Burma, including a topping plant at Chauk and Yenangyaung. But it is doubtful whether aviation fuel was produced in Burma and it seems likely that this commodity was shipped from the Netherlands East Indies. It can safely be assumed that the progressive interruption of rail and river traffic in Burma was one of the factors in the reduction of the enemy's potential air threat. The effects of strategic bombing on Rangoon and Moulmein, which denied these ports to heavy Japanese shipping and necessitated long overland transport routes from Saigon and Singapore, undoubtedly also had their effect.

The above factors and the diversion of enemy aircraft to other theatres of war played their part in removing the menace of Japanese air power in Burma. But the major role was taken by long range fighters which hunted out enemy aircraft in the air and shot them down and also destroyed them on the ground. In view of the higher priorities accorded by the Japanese to other theatres, the replacement and reinforcement of the Japanese air force in Burma was uncertain and so the destruction of enemy aircraft had a greater effect upon Japanese air power than might otherwise have been the case. By the middle of 1944, Japanese air power in Burma was crushed and never again was the enemy air force to make an effective contribution to the war there. As a result of the complete air superiority achieved and maintained by the Allies, our own air operations could be mounted with little or no interference from enemy fighters. Allied ground forces conducted their campaigns with negligible opposition from the air. At the same time, Allied bases and installations in India, and the Hump air route too, were adequately defended and unarmed transport and reconnaissance aircraft could fly almost at will over Burma. On the other hand, the enemy's air arm was unable adequately to provide appreciable support for their land forces.

The Japanese never appreciated the importance of adequate maintenance, logistic support, communications and control, nor were his air bases adequately prepared to handle large numbers of aircraft. Consequently, they were unable to concentrate any large percentage of their air strength at any one time and place. Neither did they appear to have the ability to control large formations in the air with any degree of efficiency. Local air control and its tactical exploitation the Japanese understood and on occasion achieved. But as with many other military powers prior to the war, the Japanese failed fully to appreciate the strategic revolution brought about by the increased capabilities of aircraft. The ability to achieve general and continuing control of the air was not envisaged as a requirement in their basic war strategy as was the planned destruction of the United States fleet. Once started upon a strategic plan which did not provide the means of assuring continued air superiority, there was no way in which the enemy could lessen the growing predominance in the air of basically stronger opponents who came to understand this requirement and whose war was being fought accordingly.

In Burma, the 5th Japanese Air Division felt the impact of the inherent weakness of their air strategy and of their short sighted policies. Their pilots and crews, with the possible exception of those based in extreme rear areas, were at first experienced and resourceful fighters, with

perhaps upwards of 500 flying hours to their credit before entering combat. But these experienced pilots, once expended, could not be replaced, and the Japanese paid the penalty for failing to husband and train properly her replacement pilots. In aircraft and airfields the 5th Air Division was more favourably placed. His Rangoon-Moulmein air installations, at first beyond the range of Allied fighters, afforded him opportunity to accomplish repair and maintenance with little risk while being served by good water, road and rail communications. His forward airstrips, of which he had scores, were located favourably for strikes against Allied objectives and were, in many instances, well served by land communications. The mobility of the Japanese air force was therefore one of its chief characteristics; yet despite its mobility it remained singularly inflexible strategically. It was the enemy's practice to base the majority of his aircraft in Lower Burma and in areas even more remote, stage them forward to his numerous air strips in central or Upper Burma and to mount sharp attacks in quick succession. Following the attacks he would disperse his aircraft to various forward airstrips, refuel them, and return them to the comparative safety of his bases at Rangoon and beyond. However necessary this policy might have been, it was undoubtedly wasteful of flying hours and could not but seriously affect the air striking power of his air forces. Thus the scales were heavily weighed in favour of the Allies for while we had adequate reserves of aircraft to call upon, the technological inadequacy of the Japanese war machine as a whole, meant that the destruction of the existing strength of the 5th Air Division would mean the virtual end of Japanese air power in Burma.

Air Transport Support

During the early war years of 1942 and 1943, when air supply in Burma was in its infancy, the transport squadrons were not backed by any clear cut organization governing their operational and administrative control in liaison with the army. The lack of a proper framework to co-ordinate the needs of the land forces with air transport resources produced various anomalies and difficulties outlined elsewhere in this narrative. From the resultant lessons it was soon learned by both land and air forces, that air supply required more than a sufficiency of aircraft and crews. It had in fact to be supported by an extensive network of administration and equipment. The major problem may be summarised as being that of co-ordinating the needs of troops in action with the number of transport aircraft available, with the storage capacity of the base airfields and with the ability of lines of communication to keep those airfields supplied. It was under the necessity of resolving such difficulties as these that an army/air organization was improvised. Under the impetus of the continuous development of air transport on the Burma front, the army/air supply organization grew alike in size and complexity. By the spring of 1944 the technique of transporting supplies by air and dropping them or landing them at selected points had developed beyond the capacity of both army and air force authorities on the ground to build up the administrative organization without which there could be no guarantee that supplies of the right types could be brought to the waiting aircraft in the right quantities. This all formed part of the larger problem of inter-service liaison and the administrative control of transport aircraft.

Inevitably during the crises in Arakan and at Imphal, adaption and improvisation characterised the administrative background to these operations. Although mistakes were

made in matters concerning inter-service co-ordination, the actual results achieved were no doubt creditable in the prevailing conditions. For it suddenly became necessary to supply by air large numbers of troops far in excess of anything that had been foreseen. The subsequent expansion of the whole air supply organization then brought in its train a series of supplementary problems. Extra depots were built up and additional labour provided to convey stocks to store and thence to aircraft. But handicaps were plentiful. Save at Chittagong, where a second runway could be used, none of the base airfields in use possessed sufficient hardstandings or completed taxi tracks adequate for the quick turn round of aircraft. Moreover, even though the existing depots were used as far as possible, their organization had to be wrested to meet novel needs. They had in the main been developed as bases to supplement inadequate land lines of communication and now they had become universal providers not only for an army corps fighting for its life on the plain of Imphal, but to many other land formations, notably Wingate's Special Force and Stilwell's Chinese-American troops in the north. As the year 1944 progressed, however, the administrative lessons of the earlier months were assimilated and some improvement effected, though shortcomings were still to be observed. This applies particularly to the air supply organization supporting operations on the coastal and central sectors of the front. In the north, where an American organization operated, there was an early realisation of the importance of a firm administrative backing to the air supply system and this resulted in a very high standard of operating efficiency.

Difficulties also faced the air side of the growing transport organization. During 1942 and 1943, the activities of the transport squadrons were not operationally controlled by a separate headquarters. The R.A.F. squadrons came under A.H.Q. Bengal and the U.S. squadrons under the Tenth Air Force. Although no provision had been made for it, liaison between the two air forces was to some extent effected in practice. Consequently, the early transport operations over Burma, though on a small scale, suffered from all the disadvantages inherent in a divided set up. Furthermore, the R.A.F. had no specialist framework within which the transport squadrons could operate. Not until January 1944 was a Troop Carrier Command headquarters established to exercise operational control of all Allied transport squadrons operating in support of the land forces on the India-Burma frontier.

Even the new organization of Troop Carrier Command had its teething troubles for it had not been constituted to deal with the enormous demands made upon it during the spring of 1944. Eventually the organization proved too inflexible to deal with increasing commitments. In June 1944, therefore, Troop Carrier Command disbanded and control of air transport was vested thereafter both in the Third Tactical Air Force, in respect of squadrons allocated to the central and southern fronts, and in the Tenth U.S. Air Force which became responsible for the control of American transport aircraft operating in support of Stilwell's campaign. Operationally, this change worked reasonably well since Third T.A.F., responsible for air support to the Fourteenth Army, was placed in a position whereby control could be exercised over transport operations in co-ordination with fighter support. On the other hand, the change had many drawbacks. It had already been recognized that air transport support to the Fourteenth Army

needed to be backed by specialist knowledge of the various problems which were peculiar to a new technique of war. Third T.A.F. unlike the Tenth Air Force, which numbered among its new component formations a specialist Air Cargo H.Q., was not constituted to deal with these problems. Hence it became necessary for a small 'cell' of specialist officers to be detached from H.Q. No. 229 Group, which controlled internal air lines in India, and was a formation of R.A.F. Transport Command. These officers acted as advisers on air transport to the Air Commander, Third T.A.F. and assisted in formulating plans for a new integrated transport headquarters. These measures were all very well as far as they went but, paradoxically, the very means adopted to resolve current problems in turn succeeded in creating new ones. It was not sufficiently realised that there was a danger of air transport becoming a tool in the hands of too many agencies, each of which had a vested interest in its general welfare.

By the autumn of 1944, recognition that the planning and operational control of air supply operations required a separate organization from Third T.A.F. had become widespread among army and air force authorities. In October, therefore, Combat Cargo Task Force, an integrated British/American headquarters, was formed. C.C.T.F. headquarters worked alongside and in close co-operation with an army formation, also newly formed, called the Army/Air Transport Organization whose role was that of co-ordinator of army requirements with the supply delivery capacity of the air forces. This new system of controlling air supply operations in Burma was certainly an improvement on its predecessors but since the effects of reorganization were not felt during the period covered by this narrative, a description of the organization, its advantages and shortcomings properly belong to the next volume.

It seems quite certain that the turning point of the campaigns in Burma was undoubtedly the development of air supply which gave the ground forces something revolutionary in air-land warfare. In no other theatre of war was air transport the principal supply agency of major formations. The hitherto baffling mobility of the Japanese soldier in jungle country was in the event countered by the extensive use of transport aircraft which enabled land forces, when surrounded, to stand firm until relieved or reinforced by other formations. The tenuous and vulnerable Allied administrative tail was at the mercy of fast moving and lightly equipped Japanese troops and until the advent of air supply on a large scale in Arakan in February 1944, our troops had no alternative but to withdraw in the face of an encircling movement or, if too late to do that, to fight their way out as best they could. In either case the enemy achieved his objective. But from February 1944 onwards our ground forces could stand their ground in the sure knowledge that supplies by air would enable them successfully to resist the enemy and eventually to counter attack. Later in the year air transport proved itself capable of supporting a general offensive while earlier it had been the medium for airborne operations in north Burma. This new dimension in warfare offered many distinct possibilities. It made possible large scale operations behind enemy lines and at points inaccessible by land routes. It enabled reinforcements of armed troops to be flown in at given airfields and enabled supplies to be dropped in areas where landing grounds were not available. It contributed greatly to the mobility of ground forces by freeing them from the necessity of carrying large quantities of supplies. It provided

speedy transport of essential supplies and where the tactical situation or a special emergency existed, such as casualty evacuation, air transport could fill the need. Air supply facilitated the installation and maintenance of radar stations and observation posts in isolated areas. It gave valuable assistance to such ventures as the operations of Special Force, the Galahad Force and the Air Commando Force.

Thus by using landing strips, airfields and by dropping supplies, transport aircraft could overcome the problem of maintaining ground forces operating in the jungle and mountainous country found on the Burma frontier. In tonnage alone air transport could prove itself a vital and practical adjunct to modern warfare by speeding up operations and thereby enabling our ground forces to defeat an able and wily enemy well versed in the art of jungle fighting. A word of caution is, however, necessary lest it should be thought that what happened in Burma might happen elsewhere with equal effect. It does not necessarily follow that air transport could or should replace surface communications in any and every scene of conflict. It may or may not be the best and most economical method of supply depending upon local conditions. For instance, in the face of an enemy air force of great strength and backed by large reserves of aircraft and industrial potential, air transport would probably be impossible, particularly in cases where supply dropping was necessary. Moreover, there are still limitations in the ability of transport aircraft to lift the necessary equipment to fight a major armoured battle. This, however, does not lessen the possibilities of development of air transport, for in Burma there was clear evidence that under similar conditions of terrain and opposition, air supply was the most efficient method of maintaining ground troops.

Joint Air/Land Warfare on the Burma Front

The British army and air organization in South East Asia during 1944 reflected the early history of the campaign in Burma. The Japanese invasion of the country in 1942 exposed the Allied weakness in equipment and manpower. Retreat to the India-Burma frontier was therefore inevitable and the first task of the Allies after the spring of 1942 was to establish a firm defensive line for the protection of India. The air organization too was defensive in character involving static operations rooms extending on the British front from Cox's Bazar in the south-west to Imphal in the centre and extending farther north still to the American defensive system centred around Ledo. A defence organization also existed in the Calcutta area. While the Allies remained on the defensive these arrangements were perhaps adequate, but were hardly suitable for the adoption of offensive intentions. Behind the defensive shield established by the land and air forces on the Burma frontier, the Allies built up a small air striking force and at the first opportunity developed an air offensive over Burma in an endeavour to establish air superiority.

By the middle of 1944 this policy had borne fruit and the enemy had been driven from his airfields in north Burma while those in the central districts could only be used for staging purposes. Thenceforth, Japanese aircraft were based on airfields in the Rangoon area and beyond. Meanwhile the land forces took the opportunity to turn from a purely defensive policy to one of limited offensive. Hence the

organization of both land and air forces needed re-adjustment to meet the requirements of a new strategic policy.

The air organization at the beginning of the 1943-44 campaigning season found itself obliged to discharge at one and the same time the defensive role in respect of the vital base of Calcutta and adjacent areas of Bengal, and the offensive role of providing air support for the land forces. These tasks were mutually incompatible. The one required that the air commander should be in intimate contact with his machinery of operational command and control and the other called for close contact between the representative land and air force commanders through a combined army/air headquarters. Efforts were indeed made to mitigate the difficulties produced by the changing situation in Burma by moving the headquarters of Eastern Air Command from New Delhi to Calcutta in April 1944 and placing the air forces allotted to the defence of Calcutta directly under Eastern Air Command. Earlier, Third T.A.F. had arisen from the old Air Headquarters, Bengal and placed alongside the Fourteenth Army at Comilla. The two composite groups of Third T.A.F. were located as far forward as airfields, communications and equipment allowed. These measures provided a basis for the change over from defence to offence but did not meet all the requirements of an offensive campaign. In the event this did not greatly matter, for the Allies instead of launching a general offensive in Burma found themselves engaged on two fronts in major defensive battles. Nevertheless, all was not well since land commanders found themselves dealing with more than one air headquarters; similarly R.A.F. group commanders found themselves dealing with more than one army commander. Yet the character of the land and air force organizations militated against the formation of joint army/air headquarters.

The experiences of 1943-44 showed that re-organization of the land forces could not be long delayed. The Japanese mounted an offensive in Arakan which was held by XV Corps who subsequently counter attacked. During these operations some five divisions were employed and difficulties in command and control were experienced. In the Imphal-Kohima area a situation arose where two army corps, operating from different ends of the same axis, were supported by 221 Group, R.A.F. In these circumstances it might have been better to have a higher military headquarters working alongside 221 Group, though during the operations in Manipur this was hardly possible owing to communications and administrative difficulties engendered by siege conditions. The situation in the northern sector of the front, where the Northern Combat Area Command and Northern Air Sector Force co-operated, was less complex though they were at first hampered by a lack of experience in joint air/land warfare.

The British land and air force commanders attempted to make their fundamentally defensive organization fit the requirements of the Burma war by exploiting to the full the use of the orthodox army/air support control technique. Perhaps no other solution was immediately practicable owing to the pressure of events. That results were reasonably satisfactory may be attributed to the excellent relations existing between army and air force authorities which enabled a squeaky machine work in spite of rather than because of the organization. Detailed criticisms of the results achieved would be unprofitable since they were all the

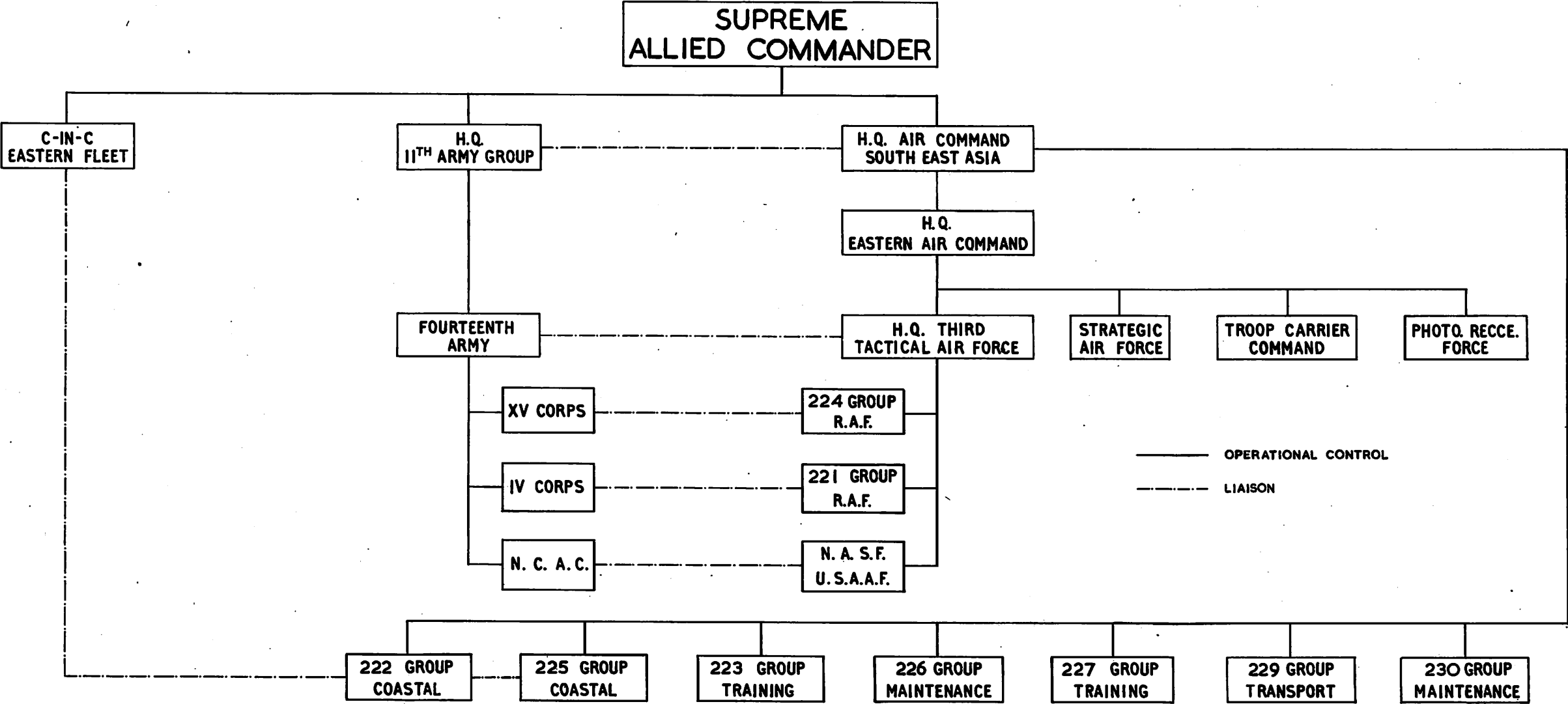
logical outcome of an attempt to make a specifically defensive static system meet the needs of a mobile war. It is sufficient here to add that towards the end of 1944, when events were less exacting, an extensive reorganization took place and there emerged combined army/air headquarters, air support signals units and visual control posts replacing the old army/air support organization.

It would be idle to assume that Allied soldiers were, man for man, a match for their Japanese counter-parts. The administrative machine supporting enemy troops in Burma could be far less complex than that of the Allies, for the men of more civilised nations require a higher level of existence than the more primitive Japanese. Moreover, Japanese army commanders would generally sacrifice the lives of his troops, even when commonsense decreed otherwise. Thus Allied ground troops, with or two notable exceptions, had to be supported by overwhelming fire-power to defeat the Japanese in Burma. In this the Allied air forces played a major part. They not only cleared the skies of enemy aircraft, but they provided a form of highly mobile artillery in the shape of explosive missiles projected from aircraft. Furthermore, long range aircraft practically isolated the enemy in the field. This tremendous advantage enjoyed by the Allies after 1943 virtually sealed the fate of the Japanese armies in Burma and though much hard fighting had still to be undertaken in 1945 before the Japanese were finally evicted from Burma, it is reasonable to assume that the decisive battle was won in the Manipur hills in 1944 and to a lesser extent in north Burma. So emphatically were the Japanese beaten in 1944 that never again were they able to do more than mount limited and relatively unimportant counter-offensives.

Although the foregoing is undoubtedly true, the Allies made a number of mistakes in the air, for in retrospect it would appear that greater efficiency in the employment of air power could have been achieved. For instance, not until the autumn of 1944 did a combined army/air headquarters emerge; not until the end of 1944 was an effective method of tactical air control introduced, though small scale and successful experiments in the field had earlier been demonstrated by the Americans. Finally, only towards the end of 1944 was a reasonably efficient air transport organization developed. Nevertheless, the Allied air forces did enough to sway the course of the battles fought during 1944 and it is clear that without the support given in various ways to the land forces, the defence of Imphal could not have been sustained nor our several offensives launched. The battles on land in South East Asia during 1944 witnessed the defeat of an ambitious attempt to capture Allied bases on the India-Burma frontier and it saw the return of Allied forces to the banks of the Chindwin and to Myitkyina. The campaigns did not pass without important developments in the air war. But it would be profitless to aver that air power alone defeated the Japanese in Burma for the progress of the war in the air was intimately connected with the land campaigns, one reacting upon the other as mutual cause and effect.

OPERATIONAL CHAIN OF COMMAND IN SOUTH EAST ASIA

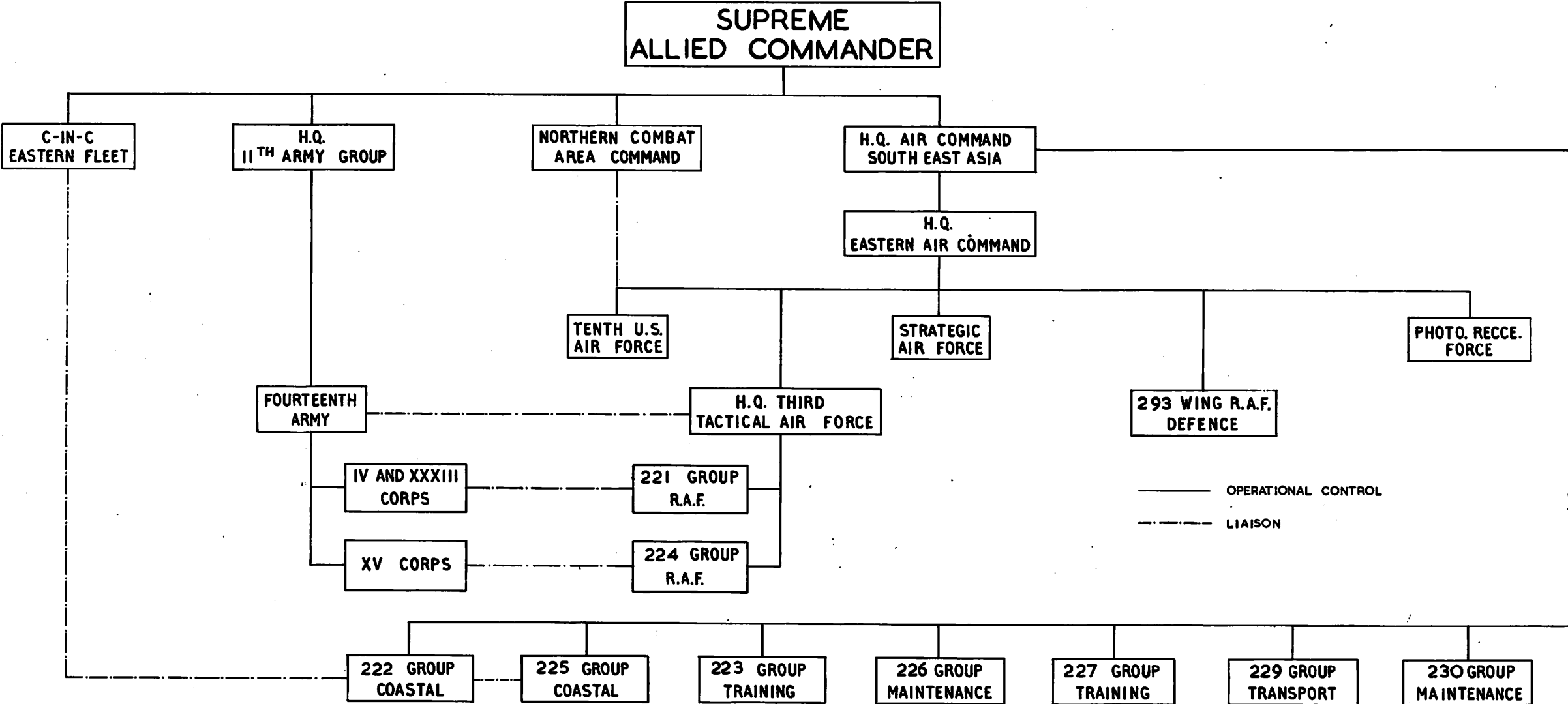
DECEMBER 1943 – JUNE 1944



APPENDIX No. 1

OPERATIONAL CHAIN OF COMMAND IN SOUTH EAST ASIA

JUNE - OCTOBER 1944



PRINCIPAL AIR OFFICERS OF S.E.A.
(With dates of appointment)

H.Q. AIR COMMAND, SOUTH EAST ASIA
NEW DELHI

Allied Air Commander-in-Chief

Air Chief Marshal Sir Richard E. C. Peirse,
K.C.B., D.S.O., A.F.C.

16 November 1943

Deputy Air Commander-in-Chief

Air Marshal Sir Guy Garrod,
K.C.B., O.B.E., M.C., D.F.C.

16 November 1943

Senior Air Staff Officer

Air Vice-Marshal J. W. Baker,
C.B., M.C., D.F.C.

16 November 1943

Air Officer Administration

Air Vice-Marshal R. V. Goddard,
C.B., C.B.E.

16 November 1943

Air Marshal A. Lees,
C.B., C.B.E., D.S.O., A.F.C.

8 April 1944

Air Marshal R. V. Goddard,
C.B., C.B.E.

1 October 1944

AIR HEADQUARTERS, BENGAL
CALCUTTA

(Disbanded 15 December 1943)

Air Officer Commanding

Air Marshal Sir John Baldwin,
K.B.E., C.B., D.S.O.

15 November 1943

H.Q. EASTERN AIR COMMAND
NEW DELHI/CALCUTTA

Air Commander

Major-General George E. Stratemeyer, U.S.A.

16 December 1943

Assistant Air Commander

Air Vice-Marshal T. M. Williams,
O.B.E., M.C., D.F.C.

16 December 1943

Air Vice-Marshal A. Gray,
C.B., M.C.

19 July 1944

H.Q. STRATEGIC AIR FORCE
CALCUTTA

Air Commander

Major-General Howard C. Davidson, U.S.A.

16 December 1943

Air Commodore F. W. J. Mellersh, A.F.C.

20 June 1944

APPENDIX No. 3H.Q. No. 231 GROUP, R.A.F.
CALCUTTAAir Officer Commanding

Air Commodore F. J. W. Mellersh, A.F.C.

7 January 1944

THIRD TACTICAL AIR FORCE
COMILLA
(Disbanded 4 December 1944)Air CommanderAir Marshal Sir John Baldwin,
K.B.E., C.B., D.S.O.

16 December 1943

Air Marshal W. A. Coryton,
C.B., M.V.O., D.F.C.

15 August 1944

Senior Air Staff Officer

Air Vice-Marshal G. E. Gibbs, M.C.

23 December 1943

H.Q. No. 221 GROUP, R.A.F.
IMPHALAir Officer Commanding

Air Commodore H. V. Rowley

1 January 1943

Air Commodore S. F. Vincent, D.F.C., A.F.C.

17 February 1944

H.Q. No. 224 GROUP, R.A.F.
CHITTAGONGAir Officer Commanding

Air Commodore A. Gray, M.C.

2 January 1943

Air Commodore The Earl of Bandon, D.S.O.

19 July 1944

NORTHERN AIR SECTOR FORCE
KANJIKOAH
(Disbanded 20 June 1944)Commander

Colonel J. F. Egan, U.S.A.

16 December 1943

TENTH U.S. AIR FORCE
KANJIKOAHCommanding General

Major-General Howard C. Davidson, U.S.A.

20 June 1944

PHOTOGRAPHIC RECONNAISSANCE FORCE
CALCUTTAAir Commander

Group Captain S. G. Wise, D.F.C.

1 February 1944

TROOP CARRIER COMMAND
COMILLA
(Disbanded 4 June 1944)

Air Commander

Brigadier-General William D. Old, U.S.A.

16 December 1943

H.Q. No. 222 GROUP, R.A.F.
COLOMBO

Air Officer Commanding

Air Vice-Marshal A. Lees,
C.B., C.B.E., D.S.O., D.F.C.

1 December 1942

Air Marshal A. Durston, C.B., A.F.C.

28 March 1944

H.Q. No. 223 GROUP, R.A.F.
PESHAWAR

Air Officer Commanding

Air Commodore H. J. F. Hunter, C.B.M., M.C.

1 May 1943

H.Q. No. 225 GROUP, R.A.F.
BANGALORE

Air Officer Commanding

Air Commodore P. H. Mackworth, D.F.C.

2 June 1942

Air Vice-Marshal N. L. Desoer, C.B.E.

23 August 1944

H.Q. No. 226 GROUP, R.A.F.
DELHI

Air Officer Commanding

Air Commodore L. M. Iles, C.B.E., A.F.C.

9 May 1942

H.Q. No. 227 GROUP, R.A.F.
BOMBAY

Air Officer Commanding

Air Commodore F. J. Vincent, C.B.E., D.F.C.

24 August 1942

H.Q. No. 229 GROUP, R.A.F.
NEW DELHI

Air Officer Commanding

Air Commodore C. E. N. Guest, O.B.E.

16 December 1943

H.Q. No. 230 GROUP, R.A.F.
BARRACKPORE

Air Officer Commanding

Air Commodore P. S. Blockey

3 April 1944

ORDER OF BATTLE
AIR COMMAND, SOUTH EAST ASIA

15 November 1943

AIR HEADQUARTERS, BENGAL
Calcutta

No. 31 Squadron	Dakota	Trans.	Kharagpur
No. 31 Sqn. Det.	Dakota	Trans.	Agartala
No. 31 Sqn. Det.	Dakota	Trans.	Tezpur
No. 681 Squadron	Spitfire/Hurricane	P.R.	Dum Dum
No. 684 Squadron	Mosquito/Mitchell	P.R.	Dum Dum

H.Q. No. 221 GROUP, CALCUTTA

*No. 8 Sqn. IAF.	Vengeance	L.B.	Charra
*No. 84 Squadron	Vengeance	L.B.	Ranchi
*No. 211 Squadron	Beaufighter	TEF.	Ranchi

No. 293 Wing, Calcutta

No. 79 Squadron	Hurricane IIc	SEF.	Alipore
No. 136 Squadron	Spitfire Vc	SEF.	Baigachi
No. 607 Squadron	Spitfire Vc	SEF.	Alipore
No. 176 Squadron	Beaufighter (AI)	N.F.	Baigachi

No. 168 Wing, Kumbhigram

No. 45 Squadron	Vengeance	L.B.	Kumbhigram
No. 110 Squadron	Vengeance	L.B.	Kumbhigram

No. 170 Wing, Imphal

No. 28 Squadron	Hurricane IIb	F.R.	Imphal
No. 34 Squadron	Hurricane IIc	SEF.	Palel
No. 155 Squadron	Mohawk	SEF.	Imphal

No. 175 Wing, Jessore

No. 99 Squadron	Wellington	M.B.	Jessore
No. 215 Squadron	Wellington	M.B.	Jessore

No. 184 Wing, Salbani

No. 5 Squadron	Hurricane IIc	SEF.	Kharagpur
No. 159 Squadron	Liberator	H.B.	Digri
*No. 355 Squadron	Liberator	H.B.	Salbani

H.Q. No. 224 GROUP, CHITTAGONG

No. 28 Sqn. Det.	Hurricane IIb	F.R.	Cox's Bazar
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No. 165 Wing, Ramu

No. 258 Squadron	Hurricane IIb	SEF.	Dohazari
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No. 166 Wing, Chittagong

No. 67 Squadron	Hurricane IIc	SEF.	Chittagong
No. 261 Squadron	Hurricane IIc	SEF.	Chiringa
No. 615 Squadron	Spitfire Vc	SEF.	Chittagong

*Not operational

No. 167 Wing, Dohazari

No. 82 Squadron	Vengeance	L.B.	Fenny
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No. 169 Wing, Agartala

No. 27 Squadron	Beaufighter	TEF.	Agartala
No. 177 Squadron	Beaufighter	TEF.	Fenny

No. 185 Wing, Fenny

No. 11 Squadron	Hurricane IIc	SEF.	Lalmai
No. 60 Squadron	Hurricane IIc	SEF.	Agartala
No. 146 Squadron	Hurricane IIc	SEF.	Comilla

H.Q. No. 222 GROUP, R.A.F.
(Colombo)

No. 17 Squadron	Hurricane IIc	SEF.	China Bay
No. 30 Squadron	Hurricane IIc	SEF.	Dambulla
No. 272 Squadron	Hurricane IIc	SEF.	Ratmalana
No. 89 Squadron	Beaufighter (AI)	N.F.	Vavuniya
No. 22 Squadron	Beaufort	T.B.	Vavuniya
No. 217 Squadron	Beaufort	T.B.	Vavuniya
No. 160 Squadron	Liberator	LRGR.	Sigiriya
No. 205 Squadron	Catalina	GRFB.	Koggala
No. 321 Sqn. Dutch	Catalina	GRFB.	China Bay
No. 413 Sqn. RCAF.	Catalina	GRFB.	Koggala

H.Q. No. 225 GROUP, R.A.F.
(Bangalore)

No. 135 Squadron	Hurricane IIc	SEF.	Madras
No. 191 Squadron	Catalina	GRFB.	Karachi
No. 212 Squadron	Catalina	GRFB.	Karachi
No. 240 Squadron	Catalina	GRFB.	Madras
No. 354 Squadron	Liberator	LRGR.	Cuttack

NON-OPERATIONAL SQUADRONS

No. 20 Squadron	Hurricane IID	SEF.	Kalyan
No. 42 Squadron	Hurricane IIc	SEF.	Yelahanka
No. 62 Squadron	Dakota	Trans.	Chaklala
No. 113 Squadron	Hurricane IIc	SEF.	Yelahanka
No. 117 Squadron	Dakota	Trans.	Dhmail
No. 194 Squadron	Dakota	Trans.	Basal
+No. 353 Squadron	Hudson	Trans.	Palam

ORDER OF BATTLE
AIR COMMAND, SOUTH EAST ASIA
1 JANUARY 1944

EASTERN AIR COMMAND
New Delhi

STRATEGIC AIR FORCE, CALCUTTA

H.Q. No. 231 Group, R.A.F., Calcutta

No. 175 Wing, Jessore

No. 99 Squadron	Wellington X	M.B.	Jessore
No. 215 Squadron	Wellington X	M.B.	Jessore

No. 184 Wing, Salbani

No. 159 Squadron	Liberator III	H.B.	Digri
No. 355 Squadron	Liberator III	H.B.	Salbani

U.S. Army Air Force

7th Bomb. Group, Pandaveswar

9th Bomber Squadron (H)	B-24	Pandaveswar
436th Bomber Squadron (H)	B-24	Panagarh
492nd Bomber Squadron (H)	B-24	Panagarh
493rd Bomber Squadron (H)	B-24	Pandaveswar

341st Bomb. Group, Kurmitola

22nd Bomber Squadron (M)	B-25	Chakulia
490th Bomber Squadron (M)	B-25	Kurmitola
491st Bomber Squadron (M)	B-25	Chakulia

THIRD TACTICAL AIR FORCE, COMILLA

H.Q. No. 221 Group, R.A.F., Imphal

No. 168 Wing, Kumbhigram

No. 45 Squadron	Vengeance	L.B.	Kumbhigram
No. 110 Squadron	Vengeance	L.B.	Kumbhigram
No. 123 Squadron	Hurricane IIc	SEF.	Patharkandi
*No. 211 Squadron	Beaufighter	TEF.	Silchar

No. 170 Wing, Imphal

No. 5 Squadron	Hurricane IIc	SEF.	Sapam
No. 28 Squadron	Hurricane IIc	F.R.	Imphal
No. 34 Squadron	Hurricane IIc	F-B.	Palel
No. 42 Squadron	Hurricane IIc	F-B.	Palel
No. 81 Squadron	Spitfire VIII	SEF.	Imphal
No. 113 Squadron	Hurricane IIc	SEF.	Manipur Road
No. 155 Squadron	Mohawk	F-B.	Imphal

H.Q. No. 224 Group, R.A.F., Chittagong

No. 165 Wing, Ramu

No. 136 Squadron	Spitfire Vc	SEF.	Ramu
No. 607 Squadron	Spitfire Vc	SEF.	Ramu
No. 261 Squadron	Hurricane IIb	SEF.	Chiringa
No. 6 Sqn. IAF.	Hurricane IIb	F.R.	Cox's Bazar

APPENDIX No.5No. 166 Wing, Chittagong

No. 79 Squadron	Hurricane IIc	SEF.	Chittagong
No. 258 Squadron	Hurricane IIc	SEF.	Dohazari
No. 615 Squadron	Spitfire Vc	SEF.	Dohazari

No. 167 Wing, Dohazari

No. 8 Sqn. IAF.	Vengeance	L.B.	Double Moorings
No. 82 Squadron	Vengeance	L.B.	Dohazari

No. 243 Wing, Fenny

No. 11 Squadron	Hurricane IIc	SEF.	Lalmaj
No. 20 Squadron	Hurricane IID	SEF.	Rumkhapalong
No. 60 Squadron	Hurricane IIc	SEF.	Agartala
No. 134 Squadron	Hurricane IIc	SEF.	Parashuram

No. 169 Wing, Agartala

No. 27 Squadron	Beaufighter	TEF.	Agartala
No. 177 Squadron	Beaufighter	TEF.	Fenny

No. 293 Wing, Calcutta

No. 67 Squadron	Hurricane IIc	SEF.	Alipore
No. 146 Squadron	Hurricane IIc	SEF.	Baigachi
No. 152 Squadron	Spitfire VIII	SEF.	Baigachi
No. 176 Squadron	Beaufighter (AI)	N.F.	Baigachi

Northern Air Sector Force, Din Jan80th (Fighter) Group, Nagaghuli

88th Fighter Squadron	P-40	Moklebari
89th Fighter Squadron	P-40	Nagaghuli
90th Fighter Squadron	P-40	Jorhat
459th Fighter Squadron	P-38	Kurmitola

311th Fighter-Bomber Group, Din Jan

528th F-B. Squadron	A-36	Sookerating
529th F-B. Squadron	A-36	Din Jan
530th F-B. Squadron	P-51	Mohanbari

PHOTOGRAPHIC RECONNAISSANCE FORCE(Headquarters not determined)No. 171 Wing, Comilla

No. 681 Squadron	Spitfire	P.R.	Chandina
No. 684 Squadron	Mosquito/Mitchell	P.R.	Comilla

5306th P.R. Group, Guskhara

9th Photo. Squadron	F-4/F-5/B-25	Barrackpore
24th Mapping Squadron	F-7	Guskhara

TROOP CARRIER COMMAND(H.Q. not determined)

No. 31 Squadron	Dakota	Trans.	Kharagpur
1st T.C. Squadron	C-47	Sookerating	
2nd T.C. Squadron	C-47	Din Jan	

SECRET

3

APPENDIX No.5

H.Q. No. 222 GROUP, R.A.F.
(Colombo)

No. 17 Squadron	Hurricane IIc	SEF.	China Bay
No. 30 Squadron	Hurricane IIc	SEF.	Dambulla
No. 273 Squadron	Hurricane IIc	SEF.	Ratmalana
No. 89 Squadron	Beaufighter (AI)	N.F.	Vavuniya
No. 22 Squadron	Beaufort	T.B.	Vavuniya
No. 217 Squadron	Beaufort	T.B.	Vavuniya
No. 160 Squadron	Liberator	LRGR.	Sigiriya
No. 205 Squadron	Catalina	GRFB.	Koggala
No. 321 Sqn.Dutch	Catalina	GRFB.	China Bay
No. 413 Sqn.R.C.A.F.	Catalina	GRFB.	Koggala

H.Q. No. 225 GROUP, R.A.F.
(Bangalore)

No. 135 Squadron	Hurricane IIc	SEF.	Madras
No. 203 Squadron	Wellington	MRGR.	Bombay
No. 354 Squadron	Liberator	LRGR.	Cuttack
No. 191 Squadron	Catalina	GRFB.	Karachi
No. 212 Squadron	Catalina	GRFB.	Karachi
No. 240 Squadron	Catalina	GRFB.	Madras

H.Q. No. 229 GROUP, R.A.F.
(New Delhi)

+No. 353 Squadron	Hudson	Trans.	Palam
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NON-OPERATIONAL SQUADRONS

*No. 84 Squadron	Vengeance	L.B.	Maharajpur
*No. 62 Squadron	Dakota	Trans.	Chaklala
*No. 117 Squadron	Dakota	Trans.	Dhamail
*No. 194 Squadron	Dakota	Trans.	Basal

*Non-operational units
+Internal air lines squadron

SECRET

1

APPENDIX No. 6

ORDER OF BATTLE
AIR COMMAND, SOUTH EAST ASIA
1 APRIL 1944

No. 357 Squadron	Liberator/Hudson	S.D.	Digri
No. 628 Squadron	Catalina	S.D.	Madras

EASTERN AIR COMMAND
(New Delhi)

STRATEGIC AIR FORCE, CALCUTTA

H.Q. No. 231 Group, RAF., Calcutta

No. 175 Wing, Jessore

No. 99 Squadron	Wellington X	M.B.	Jessore
No. 215 Squadron	Wellington X	M.B.	Jessore
*No. 292 Squadron	Warwick	ASR.	Jessore

No. 184 Wing, Salbani

No. 355 Squadron	Liberator III	H.B.	Salbani
No. 356 Squadron	Liberator III	H.B.	Salbani

No. 185 Wing, Digri

No. 159 Squadron	Liberator III	H.B.	Digri
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U.S. Army Air Force

490th Bomber Squadron (M)	B-25	Kurmitola
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7th Bomb. Group, Pandaveswar

9th Bomber Squadron (H)	B-24	Pandaveswar
436th Bomber Squadron (H)	B-24	Panagarh
492nd Bomber Squadron (H)	B-24	Panagarh
493rd Bomber Squadron (H)	B-24	Pandaveswar

THIRD TACTICAL AIR FORCE, COMILLA

No. 293 (Defence) Wing, RAF., Calcutta

No. 67 Squadron	Spitfire VIII	SEF.	Alipore
No. 155 Squadron	Spitfire VIII	SEF.	Baigachi
No. 176 Squadron	Beaufighter (AI)	N.F.	Baigachi
No. 261 Squadron	Hurricane IIc	SEF.	Alipore

H.Q. No. 221 Group, RAF., Imphal

No. 168 Wing, Kumbhigram

No. 7 Sqn. IAF.	Vengeance	L.B.	Udarband
No. 84 Squadron	Vengeance	L.B.	Kumbhigram
No. 110 Squadron	Vengeance L.B.		Kumbhigram

APPENDIX No.6No. 170 Wing, Imphal

No. 1 Sqn. IAF.	Hurricane IIb	F.R.	Imphal
No. 5 Squadron	Hurricane IIc	SEF.	Wangjing
No. 11 Squadron	Hurricane IIc	F-B.	Tulihal
No. 28 Squadron	Hurricane IIb	F.R.	Imphal
No. 34 Squadron	Hurricane IIc	F-B.	Palel
No. 42 Squadron	Hurricane IV	F-B.	Palel
No. 81 Squadron	Spitfire VIII	SEF.	Tulihal
No. 113 Squadron	Hurricane IIc	F-B.	Tulihal
No. 136 Squadron	Spitfire VIII	SEF.	Wangjing

No. 189 Wing, Silchar

No. 9 Sqn. IAF.	Hurricane IIc	SEF.	Kulaura
No. 123 Squadron	Hurricane IIc	SEF.	Patharkandi

H.Q. No. 224 Group, RAF., Chittagong

No. 6 Sqn. IAF.	Hurricane IIb	F.R.	Ratnap
No. 60 Squadron	Hurricane IIc	F-B.	Agartala

No. 165 Wing, Jalia

No. 20 Squadron	Hurricane IIId	SEF.	Mardhaibunia
No. 607 Squadron	Spitfire VIII	SEF.	Rumkhapalong
No. 615 Squadron	Spitfire Vc	SEF.	Nazir
No. 656 Squadron	Auster	AOP.	Bawli North

No. 166 Wing, Chittagong

No. 4 Sqn. IAF.	Hurricane IIb	F.R.	Fenny
No. 30 Squadron	Hurricane IIc	SEF.	Fazilpur
No. 79 Squadron	Hurricane IIc	SEF.	Dohazari
No. 152 Squadron	Spitfire VIII	SEF.	Chittagong
459th Fighter Squadron, U.S.A.A.F.		P-38	Chittagong

No. 167 Wing, Ramu

No. 8 Sqn. IAF.	Vengeance	L.B.	Mambur
No. 82 Squadron	Vengeance	L.B.	Jumchar

No. 169 Wing, Fenny

No. 177 Squadron	Beaufighter	TEF.	Fenny
No. 211 Squadron	Beaufighter	TEF.	Bhatpara

No. 243 Wing, Ramu

No. 134 Squadron	Hurricane IIc	SEF.	Ramu
No. 258 Squadron	Hurricane IIc	SEF.	Ramu

Northern Air Sector Force, Kanjikoah80th Fighter Group, Nagaghuli

20th Tac/R. Squadron	P-40	Kisselpari
88th Fighter Squadron	P-40	Moklebari
89th Fighter Squadron	P-40	Nagaghuli
90th Fighter Squadron	P-40	Jorhat

811th F-B. Group, Din Jan

528th Fighter-Bomber Squadron	A-36	Sookerating
529th Fighter-Bomber Squadron	A-36	Din Jan
530th Fighter-Bomber Squadron	P-51	Mohanbari

First Air Commando (USAAF) Hailakandi

30	P-51	aircraft	SEF.
12	B-25	aircraft	M.B.
13	C-47	aircraft	Trans.
12	C-64	aircraft	Trans.
50	L-1	aircraft	Liaison
50	L-5	aircraft	Liaison
4	Helicopters		
150	Gliders		

TROOP CARRIER COMMAND, COMILLANo. 177 Wing, R.A.F., Agartala

No. 31 Squadron	Dakota	Trans.	Agartala
No. 62 Squadron	Dakota	Trans.	Chandina
No. 117 Squadron	Dakota	Trans.	Sylhet
No. 194 Squadron	Dakota	Trans.	Agartala

443rd T.C. Group, USAAF.

1st Troop Carrier Squadron C-47
 2nd Troop Carrier Squadron C-47
 27th Troop Carrier Squadron C-47
 315th Troop Carrier Squadron C-47

PHOTO. RECCE. FORCE, CALCUTTANo. 171 Wing, R.A.F. Calcutta

No. 681 Squadron	Spitfire	P.R.	Dum Dum
No. 684 Squadron	Mosquito/Mitchell	P.R.	Dum Dum

8th Photo. Recce. Group, USAAF.

9th Photo. Squadron	F-4/F-5	Barrackpore
24th Mapping Squadron	F-7	Guskhara

H.Q. No. 222 GROUP, R.A.F.
(Colombo)

No. 17 Squadron	Spitfire VIII	SEF.	Minneriya
No. 273 Squadron	Spitfire VIII	SEF.	Ratmalana
No. 135 Squadron	Hurricane IIc	SEF.	Minneriya
No. 89 Squadron	Beaufighter (AI)	N.F.	Minneriya
No. 22 Squadron	Beaufort	T.B.	Ratmalana
No. 217 Squadron	Beaufort	T.B.	Ratmalana
No. 160 Squadron	Liberator	LRGR.	Sigiriya
No. 292 Sqn. Det.	Warwick/Walrus	ASR.	Sigiriya
No. 205 Squadron	Catalina	GRFB.	Koggala
No. 230 Squadron	Sunderland	GRFB.	Koggala
No. 321 Sqn. Dutch	Catalina	GRFB.	China Bay
No. 413 Sqn. RCAF.	Catalina	GRFB.	Koggala

H.Q. No. 225 GROUP, R.A.F.
(Bangalore)

No. 27 Squadron	Beaufighter X	TEF(C).	Cholavaram
No. 47 Squadron	Beaufighter X	TEF(C).	Cholavaram
No. 146 Squadron	Hurricane IIc	SEF.	Madras

No. 200 Squadron	Liberator	LRGR.	Madras
No. 203 Squadron	Wellington	MRGR.	Bombay
No. 354 Squadron	Liberator	LRGR.	Cuttack
No. 191 Squadron	Catalina	GRFB.	Karachi
No. 212 Squadron	Catalina	GRFB.	Karachi
No. 240 Squadron	Catalina	GRFB.	Madras
*No. 45 Squadron	Mosquito	L.B.	Yelahanka
<u>H.Q. No. 229 GROUP, R.A.F.</u> <u>(New Delhi)</u>			
No. 353 Squadron	Hudson (Internal air lines)	Trans.	Palam

*Not operational

SECRET

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APPENDIX No. 7

ORDER OF BATTLE
AIR COMMAND, SOUTH EAST ASIA
1 JULY 1944

No. 357 Squadron	Hudson/Liberator	S.D.	Digri
No. 628 Squadron	Catalina	S.D.	Madras

EASTERN AIR COMMAND
(Calcutta)

NO. 239 (DEFENCE) WING, CALCUTTA

No. 67 Squadron	Spitfire VIII	SEF.	Baigachi
No. 155 Squadron	Spitfire VIII	SEF.	Baigachi
No. 176 Squadron	Beaufighter (AI)	N.F.	Baigachi

STRATEGIC AIR FORCE, CALCUTTA

490th Bomber Squadron (M)	B-25	Kurmitola
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*7th Bomb. Group, Pandaveswar

9th Bomber Squadron (H)	B-24	Pandaveswar
436th Bomber Squadron (H)	B-24	Madhaiganj
492nd Bomber Squadron (H)	B-24	Madhaiganj
493rd Bomber Squadron (H)	B-24	Pandaveswar

H.Q. No. 231 Group, R.A.F., Calcutta

No. 175 Wing, Jessore

No. 99 Squadron	Wellington X	M.B.	Jessore
No. 215 Squadron	Wellington X	M.B.	Jessore
No. 292 Squadron	Warwick	ASR.	Jessore

No. 184 Wing, Salbani

No. 355 Squadron	Liberator VI	H.B.	Salbani
No. 356 Squadron	Liberator VI	H.B.	Salbani

No. 185 Wing, Digri

No. 159 Squadron	Liberator VI	H.B.	Salbani
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TENTH U.S. AIR FORCE, KANJIKOAH

80th Fighter Group, Nagaghuli

88th Fighter Squadron	P-40	Shingbuiyang
89th Fighter Squadron	P-40	Sadiya
90th Fighter Squadron	P-40	Moran

611th F-B. Group, Din Jan

528th Fighter-Bomber Squadron	A-36	Sookerating
529th Fighter-Bomber Squadron	A-36	Din Jan
530th Fighter-Bomber Squadron	P-51	Kurmitola

*This Group of four squadrons was detached to the Tenth U.S. Air Force for ferrying duties over the Hump to China.

APPENDIX No. 7:443rd T.C. Group, Sylhet

1st Troop Carrier Squadron	C-47	Sookerating
2nd " Squadron	C-47	Din Jan
11th " Squadron	C-47	Din Jan
315th " Squadron	C-47	Din Jan

THIRD TACTICAL AIR FORCE, COMILLANo. 177 Wing, Agartala (R.A.F.)

No. 31 Squadron	Dakota	Trans.	Agartala
No. 62 Squadron	Dakota	Trans.	Chandina
No. 117 Squadron	Dakota	Trans.	Agartala
No. 194 Squadron	Dakota	Trans.	Agartala

3rd C.C. Group, Sylhet (USAAF)

9th Combat Cargo Squadron	C-47	Sylhet
10th Combat Cargo Squadron	C-47	Sylhet
12th Combat Cargo Squadron	C-47	Fenny

12th Bomb. Group, Tezgaon (USAAF)

81st Bomber Squadron (M)	B-25	Madhaiganj
82nd Bomber Squadron (M)	B-25	Pandaveswar
83rd Bomber Squadron (M)	B-25	Pandaveswar
434th Bomber Squadron (M)	B-25	Madhaiganj

H.Q. No. 221 Group, RAF., ImphalNo. 168 Wing, Kumbhigram

No. 81 Squadron	Spitfire VIII	SEF.	Kumbhigram
No. 84 Squadron	Vengeance	L.B.	Kumbhigram

No. 170 Wing, Imphal

No. 1 Sqn. IAF.	Hurricane IIC	F.R.	Imphal
No. 11 Squadron	Hurricane IIC	F-B.	Imphal
No. 42 Squadron	Hurricane IV	F-B.	Tulihal
No. 113 Squadron	Hurricane IIC	F-B.	Palet
No. 607 Squadron	Spitfire VIII	SEF.	Imphal
No. 615 Squadron	Spitfire VIII	SEF.	Palet
No. 656 Squadron	Auster	AOP.	Imphal

No. 243 Wing, Dergaon

No. 34 Squadron	Hurricane IIC	F-B.	Dergaon
No. 60 Squadron	Hurricane IIC	F-B.	Dergaon
No. 28 Squadron	Hurricane IIC	F.R.	Jorhat

H.Q. No. 224 Group, RAF., ChittagongNo. 165 Wing, Comilla

No. 9 Sqn. IAF.	Hurricane IIC	SEF.	Comilla
No. 152 Squadron	Spitfire VIII	SEF.	Comilla

No. 166 Wing, Chittagong

No. 4 Sqn. IAF.	Hurricane IIC	SEF.	Fenny
No. 136 Squadron	Spitfire VIII	SEF.	Chittagong
459th Fighter Squadron (USAAF)		P-38	Chittagong

No. 167 Wing, Cox's Bazar

No. 6 Sqn. IAF.	Hurricane IIB	F.R.	Cox's Bazar
No. 8 Sqn. IAF.	Vengeance	L.B.	Cox's Bazar

No. 169 Wing, Fenny

No. 211 Squadron	Beaufighter	TEF.	Fenny
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PHOTO. RECCE. FORCE, CALCUTTANo. 171 Wing, R.A.F. Calcutta

No. 681 Squadron	Spitfire XI	P.R.	Alipore
No. 684 Squadron	Mosquito/Mitchell	P.R.	Alipore

8th P.R. Group, USAAF. Calcutta

9th P.R. Squadron		F-5	Barrackpore
20th Tac/Rece. Squadron		P-40	Kisselbari
24th Mapping Squadron		F-7	Guskhara

H.Q. No. 222 Group, R.A.F.
(Colombo)

No. 17 Squadron	Spitfire VIII	SEF.	Vavuniya
No. 89 Squadron	Beaufighter (AI)	N.F.	Vavuniya
No. 135 Squadron	Thunderbolt	SEF.	Minneriya
No. 273 Squadron	Spitfire VIII	SEF.	Ratmalana
No. 22 Squadron	Beaufighter X	T.B.	Vavuniya
No. 217 Squadron	Beaufort	T.B.	Ratmalana
No. 160 Squadron	Liberator	LRGR.	Sigiriya
No. 205 Squadron	Catalina	GRFB.	Koggala
No. 230 Squadron	Sunderland	GRFB.	Koggala
No. 321 Sqn. Dutch	Catalina	GRFB.	China Bay
No. 413 Sqn. RCAF.	Catalina	GRFB.	Koggala

H.Q. No. 225 GROUP, R.A.F.
(Bangalore)

No. 5 Squadron	Hurricane IIc	SEF.	Vizagapatam
No. 27 Squadron	Beaufighter X	TEF(C)	Cholavaram
No. 47 Squadron	Beaufighter X	TEF(C)	Cholavaram
No. 200 Squadron	Liberator	LRGR.	Madras
No. 203 Squadron	Wellington	MRGR.	Bombay
No. 354 Squadron	Liberator	LRGR.	Cuttack
No. 191 Squadron	Catalina	GRFB.	Karachi
No. 212 Squadron	Catalina	GRFB.	Karachi
No. 240 Squadron	Catalina	GRFB.	Madras

H.Q. No. 229 GROUP, R.A.F.
(New Delhi)

No. 353 Squadron	Hudson/Dakota	Trans.	Palam
No. 353 Sqn. Det.	Dakota	Trans.	Dum Dum

NON-OPERATIONAL SQUADRONS

No. 30 Squadron	Thunderbolt	SEF.	Yelahanka
No. 45 Squadron	Mosquito	L.B.	Dalbhumgarh
No. 79 Squadron	Thunderbolt	SEF.	Yelahanka
No. 82 Squadron	Vengeance	L.B.	Kolar
No. 110 Squadron	Vengeance	L.B.	Kalyan
No. 123 Squadron	Thunderbolt	SEF.	Madras
No. 134 Squadron	Thunderbolt	SEF.	Arkonam
No. 146 Squadron	Hurricane IIc	SEF.	Yelahanka
No. 177 Squadron	Beaufighter X	TEF.	Ranchi
No. 258 Squadron	Thunderbolt	SEF.	Arkonam
No. 261 Squadron	Thunderbolt	SEF.	Yelahanka

ORDER OF BATTLE
AIR COMMAND, SOUTH EAST ASIA
1 OCTOBER 1944

No. 357 Squadron Hudson/Liberator S.D. Jessore

EASTERN AIR COMMAND
(Calcutta)

R.A.F. STATION, BAIGACHI

No. 89 Squadron	Beaufighter(AI)	N.F.	Baigachi
No. 607 Squadron	Spitfire VIII	SEF.	Baigachi
No. 615 Squadron	Spitfire VIII	SEF.	Baigachi

STRATEGIC AIR FORCE, CALCUTTA

7th Bomb. Group, Pandaveswar

9th Bomber Squadron (H)	B-24	Pandaveswar
436th Bomber Squadron (H)	B-24	Madhaiganj
492nd Bomber Squadron (H)	B-24	Madhaiganj
493rd Bomber Squadron (H)	B-24	Pandaveswar

H.Q. No. 231 Group, RAF., Calcutta

No. 175 Wing, Dhubalia

No. 99 Squadron	Liberator VI	H.B.	Dhubalia
No. 292 Squadron	Warwick	ASR.	Jessore

No. 184 Wing, Salbani

No. 355 Squadron	Liberator VI	H.B.	Salbani
No. 356 Squadron	Liberator VI	H.B.	Salbani

No. 185 Wing, Digri

No. 159 Squadron	Liberator VI	H.B.	Digri
No. 215 Squadron	Liberator VI	H.B.	Digri

TENTH U.S. AIR FORCE, KANJIKOAH

490th Bomber Squadron (M)	B-25	Dergaon
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33rd Fighter Group, Nagaghuli

58th Fighter Squadron	P-47	Moran
59th Fighter Squadron	P-40	Nagaghuli
60th Fighter Squadron	P-47	Tingawk Sakan

80th Fighter Group, Tingawk Sakan

88th Fighter Squadron	P-47	Shingbuiyang
89th Fighter Squadron	P-47	Myitkyina
90th Fighter Squadron	P-47	Tingawk Sakan

3rd C.C. Group, Din Jan

9th Combat Cargo Squadron	C-47	Moran
10th Combat Cargo Squadron	C-47	Din Jan
11th Combat Cargo Squadron	C-47	Din Jan
12th Combat Cargo Squadron	C-47	Moran

APPENDIX No. 8443rd T.C. Group, Ledo

1st Troop Carrier Squadron	C-47	Sookerating
2nd Troop Carrier Squadron	C-47	Shingbuiyang
315th Troop Carrier Squadron	C-47	Ledo

THIRD TACTICAL AIR FORCE, COMILLAWing H.Q. Agartala

No. 117 Squadron	Dakota	Trans.	Agartala
No. 194 Squadron	Dakota	Trans.	Imphal

12th Bomb. Group, Fenny (USAAF)

81st Bomber Squadron (M)	B-25	Fenny
82nd Bomber Squadron (M)	B-25	Fenny
83rd Bomber Squadron (M)	B-25	Fenny
434th Bomber Squadron (M)	B-25	Comilla

H.Q. No. 221 Group, RAF., ImphalWing H.Q. Kumbhigram

No. 45 Squadron	Mosquito	L.B.	Kumbhigram
No. 146 Squadron	Thunderbolt	F-B.	Kumbhigram
No. 261 Squadron	Thunderbolt	F-B.	Kumbhigram

Wing H.Q. Imphal

No. 1 Sqn. IAF.	Hurricane IIC	F.R.	Imphal
No. 11 Squadron	Hurricane IIC	F-B.	Imphal
No. 42 Squadron	Hurricane IIC	F-B.	Tulihal
No. 60 Squadron	Hurricane IIC	F-B.	Imphal
No. 152 Squadron	Spitfire VIII	SEF.	Tulihal
No. 656 Squadron	Auster	AOP.	Imphal

Wing H.Q. Palel

No. 34 Squadron	Hurricane IIC	F-B.	Palel
No. 113 Squadron	Hurricane IIC	F-B.	Palel
No. 155 Squadron	Spitfire VIII	SEF.	Palel

Wing H.Q. Manipur Road

No. 79 Squadron	Thunderbolt	F-B.	Manipur Road
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H.Q. No. 224 Group, RAF., ChittagongWing H.Q. Comilla

No. 67 Squadron	Spitfire VIII	SEF.	Comilla
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Wing H.Q. Chittagong

No. 9 Sqn. IAF.	Hurricane IIC	SEF.	Hathazari
No. 30 Squadron	Thunderbolt	F-B.	Chittagong
No. 135 Squadron	Thunderbolt	F-B.	Chittagong
459th Fighter Squadron (USAAF)		P-38	Chittagong

Wing H.Q. Cox's Bazar

No. 4 Sqn. IAF.	Hurricane IIC	SEF.	Cox's Bazar
No. 273 Squadron	Spitfire VIII	SEF.	Cox's Bazar

Wing H.Q. Chiringa

No. 177 Squadron	Beaufighter X	TEF.	Chiringa
No. 211 Squadron	Beaufighter X	TEF.	Chiringa

PHOTO. RECCE. FORCE, CALCUTTAR.A.F. Station, Alipore

No. 681 Squadron	Spitfire	P.R.	Alipore
No. 684 Squadron	Mosquito/Mitchell	P.R.	Alipore

8th P.R. Group (USAAF) Calcutta

9th Photo. Recce. Squadron		F4/F5	Tingawk Sakan
20th Tac. Recce. Squadron		P-40	Kisselbari
24th Mapping Squadron		F-7	Guskhara
40th Photo. Recce. Squadron		F-5	Guskhara

H.Q. No. 222 GROUP, R.A.F.
(Colombo)

No. 17 Squadron	Spitfire VIII	SEF.	Vavuniya
No. 81 Squadron	Spitfire VIII	SEF.	Minneriya
No. 136 Squadron	Spitfire VIII	SEF.	Ratmalana
No. 176 Squadron	Beaufighter (AI)	N.F.	Minneriya
No. 22 Squadron	Beaufighter X	T.F.	Vavuniya
No. 217 Squadron	Beaufighter X	T.F.	Vavuniya
No. 160 Squadron	Liberator	LRGR.	Kankesanturai
No. 292 Sqn. Det.	Warwick/Walrus	ASR.	Ratmalana
No. 205 Squadron	Catalina	GRFB.	Koggala
No. 230 Squadron	Sunderland	GRFB.	Koggala
No. 321 Sqn. Dutch	Catalina	GRFB.	China Bay
No. 413 Sqn. RCAF.	Catalina	GRFB.	Koggala

H.Q. No. 225 GROUP, R.A.F.
(Bangalore)

No. 200 Squadron	Liberator	LRGR.	Madras
No. 203 Squadron	Wellington	MRGR.	Bombay
No. 354 Squadron	Liberator	LRGR.	Cuttack
No. 191 Squadron	Catalina	GRFB.	Karachi
No. 212 Squadron	Catalina	GRFB.	Karachi
No. 240 Squadron	Catalina	GRFB.	Madras

H.Q. No. 229 GROUP, R.A.F.
(New Delhi)

No. 52 Squadron	Dakota	Trans.	Dum Dum
No. 353 Squadron	Dakota	Trans.	Palam

(Internal air lines squadrons)

NON-OPERATIONAL SQUADRONS

No. 5 Squadron	Thunderbolt	SEF.	Yelahanka
No. 20 Squadron	Hurricane IID	SEF.	Madras
No. 27 Squadron	Beaufighter X	TEF.	Ranchi
No. 28 Squadron	Hurricane IIC	F.R.	Ranchi
No. 31 Squadron	Dakota	Tpt.	Basal
No. 47 Squadron	Beaufighter X	TEF.	Cholavaram
No. 62 Squadron	Dakota	Tpt.	Basal
No. 82 Squadron	Mosquito	L.B.	Kolar
No. 84 Squadron	Vengeance	L.B.	Samungli
No. 110 Squadron	Vengeance	L.B.	Kalyan
No. 123 Squadron	Thunderbolt	SEF.	Yelahanka
No. 134 Squadron	Thunderbolt	SEF.	Yelahanka
No. 258 Squadron	Thunderbolt	SEF.	Yelahanka

SUMMARY OF SORTIES FLOWN
DECEMBER 1943 - OCTOBER 1944

R.A.F.

ROLE	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTALS	AIRCRAFT
H & M.B.	299	280	422	290	370	318	84	101	158	195	145	2662	Liberator/Wellington
L.B.	647	618	834	1,408	2,044	1,555	374	220	-	-	-	7,700	Vengeance
SEF. Offensive	450	1,061	1,770	3,106	4,573	3,874	2,369	3,003	3,433	2,399	4,526	30,564	Hurricane/Spitfire/Thunderbolt
TEF. Offensive	159	170	244	290	221	297	127	130	222	211	233	2,304	Beaufighter/Mosquito
SEF. Defensive	1,396	670	2,309	2,246	2,053	2,196	1,580	438	346	294	253	13,781	Hurricane/Spitfire
TEF. Defensive	24	1	31	17	37	15	17	-	15	4	17	178	Beaufighter
Tac/Recce.	363	502	683	1,037	1,262	1,092	604	409	416	373	437	7,178	Hurricane/Auster
Photo. Recce.	117	155	190	193	211	153	68	39	63	53	133	1,375	Mosquito/Mitchell/Spitfire/Liberator
Transport	279	507	1,112	1,860	1,911	3,713	3,629	2,012	1,228	1,315	1,109	18,675	Dakota
G.R.L.P.	131	157	221	279	226	301	337	323	345	203	225	2,748	Liberator/Wellington/Beaufort
G.R.F.B.	179	105	134	253	154	228	280	388	440	345	188	2,694	Catalina/Sunderland
Spec. Duty	6	2	10	24	14	28	25	12	1	17	24	163	Hudson/Liberator/Catalina
Totals	4,050	4,228	7,960	11,003	13,076	13,770	9,494	7,075	6,667	5,409	7,290	90,022	

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SUMMARY OF SORTIES FLOWN
DECEMBER 1943 - OCTOBER 1944

e U.S.A.A.F.

ROLE	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTALS	AIRCRAFT
Heavy Bomber	230	195	126	218	116	173	59	-	-	-	95	1,212	B-24
Medium Bomber	320	134	164	352	436	572	163	179	605	625	1,089	4,639	B-25
Fighter-Bomber	540	438	809	1,895	1,773	1,874	1,169	1,541	1,547	545	872	13,003	P40/P51/P38/P47
Offensive Ftr.	383	86	186	707	475	711	95	523	279	344	438	4,227	P40/P51/P38/P47
Defensive Ftr.	635	534	226	672	126	160	76	110	141	116	668	3,464	P40/P51/P38/P47
Tac. Recce.	-	-	10	64	71	35	7	82	94	-	-	363	P-40/P-51
Photo. Recce.	-	4	20	63	60	45	48	99	25	36	177	577	F-4/F-5/F-7
Transport	?	707	1,050	2,187	3,369	6,837	5,695	6,026	8,537	7,019	10,245	51,672	C-46/C-47
TOTALS	2,108	2,098	2,591	6,158	6,426	10,407	7,312	8,560	11,228	8,685	13,584	79,157	

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APPENDIX No. 10

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BOMBING ANALYSIS
DECEMBER 1943-OCTOBER 1944

MONTH	SORTIES - R.A.F.				TONS - R.A.F.				SORTIES - USAAF.			TONS - USAAF.		
	B	L.B.	F-B.	T	B	L.B.	F-B.	T	B.	F-B.	T	B.	F-B.	T
DEC. 1943	299	647	157	1,103	450	259	33	742	550	540	1,090	700	119	819
JAN. 1944	280	618	222	1,120	418	340	49	807	329	438	767	414	96	510
FEB. 1944	422	834	365	1,621	805	452	73	1,330	290	809	1,099	406	252	658
MAR. 1944	290	1,408	1,265	2,963	438	836	269	1,543	570	1,895	2,465	805	660	1,465
APR. 1944	370	2,044	2,200	4,614	631	1,048	468	2,147	552	1,773	2,325	664	555	1,219
MAY 1944	318	1,555	1,680	3,553	548	762	332	1,642	745	1,874	2,619	1,029	494	1,523
JUN. 1944	84	374	1,256	1,714	96	127	227	450	222	1,169	1,391	221	311	532
JUL. 1944	101	220	1,627	1,948	188	133	354	675	179	1,541	1,720	187	425	612
AUG. 1944	158	-	1,872	2,030	181	-	395	576	605	1,547	2,152	533	406	939
SEP. 1944	195	-	1,216	1,411	266	-	225	491	625	545	1,170	576	166	742
OCT. 1944	145	-	3,426	3,571	200	-	699	899	1,184	872	2,056	1,378	241	1,619
TOTALS	2,662	7,700	15,286	25,648	4,221	3,957	3,124	11,302	5,851	13,003	18,854	6,913	3,725	10,638

COMBINED R.A.F. & U.S.A.A.F. TOTALS:
44,502 sorties 21,940 tons.

B= Heavy & Medium Bombers
F-B= Fighter Bombers

L.B.= Light Bombers
T = Total.

AIR TRANSPORT SUPPORT
DECEMBER 1943 to OCTOBER 1944

MONTH	TONS OF SUPPLIES DELIVERED			MEN CARRIED FORWARD			TOTAL TONNAGE CARRIED FORWARD*			CASUALTIES EVACUATED		
	R.A.F.	U.S.A.A.F.	TOTAL	R.A.F.	U.S.A.A.F.	TOTAL	R.A.F.	U.S.A.A.F.	TOTAL	R.A.F.	U.S.A.A.F.	TOTAL
DEC. 1943	812	?	812	-	-	-	812	?	812	-	-	-
JAN. 1944	1,773	3,263	5,036	-	-	-	1,773	3,263	5,036	153	-	153
FEB. 1944	3,532	4,849	8,381	-	-	-	3,532	4,849	8,381	545	-	545
MAR. 1944	3,332	5,469	8,801	5,959	5,640	11,599	3,864	5,973	9,837	2,906	-	2,906
APR. 1944	4,741	12,443	17,184	5,136	19,177	24,313	5,199	14,156	19,355	1,898	7,972	9,870
MAY. 1944	5,118	10,498	15,616	3,055	13,902	16,957	5,390	11,740	17,130	1,819	4,259	6,078
JUN. 1944	6,882	14,411	21,293	5,961	5,831	11,792	7,415	14,931	22,346	3,765	2,908	6,673
JUL. 1944	3,462	12,994	16,456	6,520	5,243	11,763	4,044	13,462	17,506	5,695	2,735	8,430
AUG. 1944	1,428	18,359	19,787	4,245	13,508	17,753	1,807	19,565	21,372	5,585	2,143	7,728
SEP. 1944	1,967	14,980	16,947	341	14,735	15,076	1,998	16,296	18,294	1,534	4,188	5,722
OCT. 1944	2,050	20,891	22,941	458	25,106	25,564	2,091	23,233	25,324	-	5,065	5,065
TOTALS	35,097	118,157	153,254	31,675	103,142	134,817	37,925	127,468	165,393	23,900	29,270	53,170

*The weight of men carried has been estimated on the assumption that each man and his kit weighed 200 lb.

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OPERATIONAL WASTAGE OF AIRCRAFT
DESTROYED AND MISSING

R.A.F.

		1943	1944										TOTALS
AIRCRAFT TYPE AND ROLE		DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
Liberator	H.B.	-	-	3	-	1	1	1	-	2	5	5	18
Wellington	M.B.	1	-	3	3	-	-	2	1	-	-	-	10
Vengeance	L.B.	2	2	1	3	5	4	-	-	-	-	-	17
Mosquito	L.B.	-	1	-	-	-	-	-	-	-	-	3	4
Beaufighter	TEF.	4	6	4	11	7	7	3	1	6	6	5	60
Beaufighter & Hurricane	N.F.	3	-	-	1	2	-	-	-	-	-	-	6
Spitfire	SEF.	4	3	5	5	5	10	6	-	6	4	1	49
Hurricane	SEF.	10	7	19	11	18	19	9	14	9	9	8	133
Thunderbolt	SEF.	-	-	-	-	-	-	-	-	-	-	3	3
Auster	AOP.	-	-	1	2	-	-	-	-	-	-	-	3
Dakota	Trans.	-	1	2	1	9	8	7	4	3	2	1	38
Spitfire	P.R.	1	1	-	2	-	-	-	1	1	-	-	6
Mosquito	P.R.	1	-	-	1	-	-	-	1	-	-	-	3
Mitchell	P.R.	-	-	-	-	-	-	-	-	-	-	-	-
Catalina	G.R.	1	-	1	-	-	1	1	-	1	-	1	6
Sunderland	G.R.	-	-	-	-	-	-	-	-	-	-	-	-
Liberator	G.R.	1	-	-	-	1	1	-	-	-	-	-	3
Beaufort	G.R.	-	-	1	-	-	-	-	-	-	-	-	1
Wellington	G.R.	-	-	-	1	-	-	-	-	-	-	-	1
Warwick	ASR.	-	-	-	-	-	-	-	-	-	-	1	1
Hudson	S.D.	-	-	-	1	-	-	-	-	-	-	-	1
Liberator	S.D.	-	-	-	-	1	1	-	-	-	-	-	2
TOTALS		28	21	40	42	49	52	29	22	28	26	28	365

This table includes all aircraft lost on operations through enemy action, crashes and those which did not return to base.

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OPERATIONAL WASTAGE OF AIRCRAFT
DESTROYED AND MISSING

U.S.A.A.F.

		1943	1944										
AIRCRAFT TYPE & ROLE		DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTALS
B-24	Heavy Bomber	-	1	1	-	3	1	1	8	5	2	3	25
B-25	Medium Bomber	-	-	3	2	3	3	3	3	6	2	7	32
P-40	S.E. Fighter	-	-	-	3	2	-	1	2	-	-	1	9
P-51	S.E. Fighter	-	3	3	7	-	3	3	5	1	-	-	25
P-47	S.E. Fighter	-	-	-	-	-	-	-	2	2	1	3	8
P-38	T.E. Fighter	-	-	1	4	3	3	3	1	-	3	1	19
F-5	T.E. Photo.R.	-	-	-	1	-	2	-	-	-	-	-	3
F-7	M.E. Mapping	-	-	-	-	-	-	-	-	-	-	1	1
C-47	Transport	-	4	6	-	3	10	10	1	2	1	6	43
C-46	Transport	-	-	-	-	-	-	1	-	-	-	-	1
TOTALS		-	8	14	17	14	22	22	22	16	9	22	166

No U.S.A.A.F. figures are available for December 1943. This table does not include the losses sustained by the Air Commando Force.

COMBINED RAF & USAAF TOTALS	28	29	54	59	63	74	51	44	44	35	50	531
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SECRET

AVERAGE NUMBER OF AIRCRAFT ON STRENGTH OF
OPERATIONAL SQUADRONS
R.A.F.

EASTERN AIR COMMAND 1943 1944

ROLE	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	AIRCRAFT
H. & M. Bombers	52	64	60	59	59	57	67	48	55	46	46	Liberator/Wellington
Light Bombers	57	62	57	68	81	71	38	16	-	4	12	Vengeance/Mosquito
S.E. Fighters	199	242	272	258	277	241	158	139	127	144	182	Hurricane/Thunderbolt
S.E. Fighters	63	80	91	101	110	109	108	111	98	95	95	Spitfire
T.E. Fighters	33	43	46	44	30	29	16	16	26	30	32	Beaufighter
Night Fighters	17	16	16	16	16	17	18	17	17	16	16	Hurricane/Beaufighter
Photo. Recce.	27	30	33	31	32	36	35	38	40	40	44	Spitfire/Mosquito/Mitchell
Transport	20	33	60	76	89	68	78	65	43	38	36	Dakota
Air Obs. Post	-	-	8	11	8	14	6	5	2	1	7	Auster
TOTALS	468	570	643	664	702	642	524	455	408	414	470	EASTERN AIR COMMAND

Nos. 222 & 225 GROUPS

S.E. Fighter	76	60	55	74	87	76	97	93	96	54	71	Hurricane/Spitfire/Thunderbolt
Night Fighter	15	15	18	17	16	14	14	15	12	15	15	Beaufighter
Long Range G.R.	18	20	22	25	27	29	30	35	37	36	38	Liberator
Medium Range G.R.	56	52	52	50	49	46	36	23	14	15	2	Wellington/Beaufort
Coastal Fighter	-	-	-	-	23	32	44	45	36	34	16	Beaufighter
G.R. Flying Boat	39	38	41	51	57	62	71	75	76	71	72	Catalina/Sunderland
TOTALS	204	185	188	217	259	259	292	286	271	225	214	Nos. 222 & 225 GROUPS
COMBINED TOTALS	672	755	831	881	961	901	816	741	679	639	684	R.A.F. IN S.E.A.

SECRET

SECRET

AVERAGE NUMBER OF SERVICEABLE AIRCRAFT IN
OPERATIONAL SQUADRONS
R.A.F.

EASTERN AIR COMMAND 1943 1944

ROLE	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	AIRCRAFT
H. & M. Bombers	29	41	42	34	37	30	26	30	35	29	34	Liberator/Wellington
Light Bombers	48	53	52	60	75	65	36	13	-	1	7	Vengeance/Mosquito
S.E. Fighters	163	207	232	223	243	213	140	125	112	129	154	Hurricane/Thunderbolt
S.E. Fighters	54	70	79	85	92	93	90	98	84	82	81	Spitfire
T.E. Fighters	20	31	34	33	23	22	12	12	17	18	25	Beaufighters
Night Fighters	10	8	10	10	11	12	14	11	12	11	10	Hurricane/Beaufighter
Photo/Recce.	18	22	22	22	23	27	27	31	32	30	33	Spitfire/Mosquito/Mitchell
Transport	13	27	50	64	75	55	64	52	37	32	21	Dakota
Air Obs. Post	-	-	8	10	7	13	5	4	2	1	6	Auster
TOTALS	355	459	529	541	586	530	414	376	331	333	371	EASTERN AIR COMMAND

Nos. 222 & 225 GROUPS

S.E. Fighters	55	48	43	59	65	59	68	61	65	37	52	Hurricane/Spitfire/Thunderbolt
Night Fighters	9	8	12	10	9	7	9	9	8	9	6	Beaufighter
Long Range G.R.	8	9	12	15	15	14	15	20	23	24	26	Liberator
Medium Range G.R.	24	25	25	28	31	29	24	16	10	10	1	Wellington/Beaufort
Coastal Fighter	-	-	-	-	17	24	28	33	24	22	9	Beaufighter
G.R. Flying Boat	19	15	19	20	27	32	36	40	41	46	49	Catalina/Sunderland
TOTALS	115	105	111	132	164	165	180	179	171	148	143	Nos. 222 & 225 GROUPS
COMBINED TOTALS	470	564	640	673	750	695	594	555	502	481	514	R.A.F. IN S.E.A.

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AVERAGE NUMBER OF AIRCRAFT ON STRENGTH OF
OPERATIONAL SQUADRONS

U.S.A.A.F.

EASTERN AIR COMMAND

1944

ROLE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	AIRCRAFT
Heavy bomber	48	45	44	45	44	27	-	-	-	23	B-24
Medium bomber	22	16	15	73	81	76	70	85	65	80	B-25
S.E. Fighter	110	110	113	148	157	125	130	122	92	123	P-40/P-47/P-51
T.E. Fighter	19	17	16	21	22	18	17	20	20	25	P-38
Tact. Recce.	-	15	31	47	23	22	12	19	42	28	P-40
Photo. Recce.	7	9	9	14	19	15	13	14	24	11	F-5/B-25/F-7
Transport	51	53	114	115	105	116	115	130	182	214	C-47/C-46
TOTALS	257	265	342	463	451	399	357	390	425	504	U.S.A.A.F.

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AVERAGE NUMBER OF AIRCRAFT ON STRENGTH OF
OPERATIONAL SQUADRONS

R.A.F. AND U.S.A.A.F.

EASTERN AIR COMMAND

1944

ROLE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	AIRCRAFT
Heavy Bomber	79	74	72	72	73	59	33	48	46	69	Liberator/B-24
Medium Bomber	55	47	46	105	109	111	85	92	65	80	Wellington/B-25
Light Bomber	62	57	68	81	71	38	16	-	4	12	Vengeance/Mosquito
S.E. Fighter	432	488	503	582	530	413	392	366	373	428	Hurricane/Spitfire/Thunderbolt/ P40/P51/P47
T.E. Fighter	62	63	60	51	51	34	33	46	50	57	Beaufighter/P-38
Night Fighter	16	16	16	16	17	18	17	17	16	16	Beaufighter
Photo. Recce.	37	42	40	46	55	50	51	54	64	55	Spitfire/Mosquito/Mitchell/F5/B25/ F7
Transport	84	113	190	204	173	194	180	173	220	250	Dakota/C-46/C-47
Air Obs. Post	-	8	11	8	14	6	5	2	1	7	Auster
TOTALS R.A.F. & U.S.A.A.F.	827	908	1,006	1,165	1,093	923	812	798	839	974	EASTERN AIR COMMAND
TOTALS R.A.F.	185	188	217	259	259	292	286	271	225	214	Nos. 222 & 225 GROUPS, R.A.F.
TOTALS R.A.F. & U.S.A.A.F.	1,012	1,096	1,223	1,424	1,352	1,215	1,098	1,069	1,064	1,188	AIR COMMAND, SOUTH-EAST ASIA

Single-engined fighters include offensive and defensive
fighters and tactical reconnaissance aircraft.

SECRET

APPENDIX No. 18

SECRET

APPENDIX No. 19

ORDER OF BATTLE
JAPANESE THIRD AIR ARMY
NOVEMBER 1943

5TH AIR DIVISION
(Burma area)

33rd Air Regiment	Fighter	40 aircraft
50th Air Regiment	Fighter	40 aircraft
64th Air Regiment	Fighter	40 aircraft
77th Air Regiment	Fighter	40 aircraft
204th Air Regiment	Fighter	40 aircraft
8th Air Regiment	Light bomber	20 aircraft
34th Air Regiment	Light bomber	30 aircraft
12th Air Regiment	Medium bomber	30 aircraft
62nd Air Regiment	Medium bomber	30 aircraft
81st Air Regiment	Reconnaissance	30 aircraft
83rd Air Regiment	Reconnaissance	30 aircraft

9TH AIR DIVISION
(Sumatra area)

21st Air Regiment	Fighter	40 aircraft
87th Air Regiment	Fighter	40 aircraft
24th Ind. Air Sqdn.	Fighter	15 aircraft
71st Ind. Air Sqdn.	Fighter	15 aircraft
58th Air Regiment	Medium bomber	30 aircraft
60th Air Regiment	Medium bomber	30 aircraft
? Air Unit	Reconnaissance	10 aircraft

APPROXIMATE STRENGTH OF THE JAPANESE
THIRD AIR ARMY

Unit	F	B	R	Trans.	Trg.	Total
5th Air Division	200	110	60	-	-	370
9th Air Division	110	60	10	-	-	180
Under Army Command	20	60	20	60	30	190
Totals	330	230	90	60	30	740

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APPENDIX No. 20

ORDER OF BATTLE
JAPANESE THIRD AIR ARMY
JUNE 1944

5TH AIR DIVISION
Burma area

50th Air Regiment	Fighter	20 aircraft
64th Air Regiment	Fighter	20 aircraft
204th Air Regiment	Fighter	20 aircraft
8th Air Regiment	Light bomber	20 aircraft
12th Air Regiment	Medium bomber	15 aircraft
62nd Air Regiment	Medium bomber	15 aircraft
81st Air Regiment	Reconnaissance	15 aircraft

9TH AIR DIVISION
Sumatra area

21st Air Regiment	Fighter	40 aircraft
87th Air Regiment	Fighter	40 aircraft
24th Ind. Air Sqdn.	Fighter	15 aircraft
58th Air Regiment	Medium bomber	20 aircraft

APPROXIMATE STRENGTH OF THE JAPANESE
THIRD AIR ARMY

	F	B	R	Trg.	Total
5th Air Division	60	50	15	-	125
9th Air Division	110	20	-	-	130
Under Army Command	50	60	40	210	360
Totals	220	130	55	210	615

SECRET

APPENDIX No. 21

ORDER OF BATTLE
JAPANESE THIRD AIR ARMY
END OF 1944

5TH AIR DIVISION
Burma area

13th Air Regiment	Fighter	15 aircraft
50th Air Regiment	Fighter	30 aircraft
64th Air Regiment	Fighter	20 aircraft
204th Air Regiment	Fighter	15 aircraft
8th Air Regiment	Light bomber	20 aircraft
81st Air Regiment	Reconnaissance	15 aircraft

9TH AIR DIVISION
Sumatra area

21st Air Regiment	Fighter	40 aircraft
26th Air Regiment	Fighter	20 aircraft
33rd Air Regiment	Fighter	20 aircraft
87th Air Regiment	Fighter	35 aircraft
24th Ind. Air Sqdn.	Fighter	15 aircraft
71st Ind. Air Sqdn.	Fighter	15 aircraft
74th Ind. Air Sqdn.	Reconnaissance	15 aircraft

APPROXIMATE STRENGTH OF THE JAPANESE
THIRD AIR ARMY

	F	B	R	Trg.	Total
5th Air Division	80	20	15	-	115
9th Air Division	145	-	15	-	160
Under Army Command	290	120	135	285	830
Totals	515	140	165	285	1,105

AHB. ILJ50/75
HQ. ACSEA.
SEATIC No. 248

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APPENDIX No. 22

JAPANESE AIRCRAFT LOSSES
DECEMBER 1943 - OCTOBER 1944

CLAIMS BY THE R.A.F.

MONTH	IN THE AIR			ON THE GROUND			TOTAL		
	DES.	P.D.	DAM.	DES.	P.D.	DAM.	DES.	P.D.	DAM.
Dec. 1943	20	6	18	-	-	-	20	6	18
Jan. 1944	21	11	34	-	1	4	21	12	38
Feb. 1944	12	6	56	1	-	1	13	6	57
Mar. 1944	16	3	12	4	1	11	20	4	23
Apr. 1944	9	10	23	1	-	-	10	10	23
May 1944	9	9	32	1	-	-	10	9	32
Jun. 1944	8	4	4	-	-	-	8	4	4
Jul. 1944	1	-	-	-	-	-	1	-	-
Aug. 1944	-	-	-	1	-	-	1	-	-
Sep. 1944	2	-	-	-	-	2	2	-	2
Oct. 1944	3	-	3	-	1	3	3	1	6
TOTALS	101	49	182	8	3	21	109	52	203

CLAIMS BY THE U.S.A.A.F.

Dec. 1943	-	-	-	-	-	-	-	-	-
Jan. 1944	1	4	6	-	-	-	1	4	6
Feb. 1944	-	-	-	-	-	-	-	-	-
Mar. 1944	42	11	16	10	-	2	52	11	18
Apr. 1944	26	5	11	60	4	14	86	9	25
May 1944	49	10	33	19	-	7	68	10	40
Jun. 1944	3	-	9	-	-	-	3	-	9
Jul. 1944	4	5	6	4	5	-	8	10	6
Aug. 1944	2	-	2	-	-	-	2	-	2
Sep. 1944	1	-	-	-	-	-	1	-	-
Oct. 1944	4	6	4	15	-	2	19	6	6
TOTALS	132	41	87	108	9	25	240	50	112

COMBINED R.A.F.-U.S.A.A.F. CLAIMS

Dec. 1943	20	6	18	-	-	-	20	6	18
Jan. 1944	22	15	40	-	1	4	22	16	44
Feb. 1944	12	6	56	1	-	1	13	6	57
Mar. 1944	58	14	28	14	1	13	72	15	41
Apr. 1944	35	15	34	61	4	14	96	19	48
May 1944	58	19	65	20	-	7	78	19	72
Jun. 1944	11	4	13	-	-	-	11	4	13
Jul. 1944	5	5	6	4	5	-	9	10	6
Aug. 1944	2	-	2	1	-	-	3	-	2
Sep. 1944	3	-	-	-	-	2	3	-	2
Oct. 1944	7	6	7	15	1	5	22	7	12
TOTALS	233	90	269	116	12	46	349	102	315

No U.S.A.A.F. claims are available for
December 1943.

DES.= Destroyed P.D.= Probably Destroyed
DAM. = Damaged

AMERICAN AIRCRAFT DESIGNATIONS

<u>Type</u>	<u>British Name</u>	<u>Description</u>
A-36	Mustang	Single-engined fighter-bomber
B-24	Liberator	Multi-engined heavy bomber
B-25	Mitchell	Twin-engined medium bomber
C-46	Commando	Twin-engined transport
C-47	Dakota	Twin-engined transport
UC-64	Norseman	Utility transport
F-4	Lightning	T.E. Photo. Recce.
F-5	Lightning	T.E. Photo. Recce.
F-7	Liberator	M.E. Photo. Recce.
L-1	Vigilant	Single-engined liaison
L-5	Sentinel	Single-engined liaison
P-38	Lightning	Twin-engined fighter
P-40	Kittyhawk	Single-engined fighter
P-47	Thunderbolt	Single-engined fighter
P-51	Mustang	Single-engined fighter

MINING OPERATIONS
BY
EASTERN AIR COMMAND

November 1943 to October 1944

TARGET AREA	Des.	R.A.F. Att.	Mines	Des.	U.S.A.A.F. Att.	Mines	Des.	R.A.F. & U.S.A.A.F. Att.	Mines	TARGET AREA
Bangkok	5	5	19	17	14	45	22	19	64	Bangkok
Chindwin River	-	-	-	21	18	51	21	18	51	Chindwin River
Goh Sichang	9	8	31	12	10	50	21	18	81	Goh Sichang
Mergui	29	24	84	16	11	31	45	35	115	Mergui
Mokpalin	-	-	-	9	9	18	9	9	18	Mokpalin
Moulmein	28	24	92	18	18	90	46	42	182	Moulmein
Pakchan River	29	24	92	-	-	-	29	24	92	Pakchan River
Palembang	-	-	-	14	8	14	14	8	14	Palembang
Penang	15	15	60	-	-	-	15	15	60	Penang
Port Blair	11	10	40	-	-	-	11	10	40	Port Blair
Rangoon	18	17	68	30	23	118	48	40	186	Rangoon
Sattahib Bay	-	-	-	6	3	7	6	3	7	Sattahib Bay
Tavoy	23	22	105	4	4	20	27	26	125	Tavoy
Ye River	13	13	73	-	-	-	13	13	73	Ye River
TOTALS	180	162	664	147	118	444	327	280	1,108	TOTALS

Des. = Aircraft despatched.

Att. = Aircraft attacking.

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GENERAL RECONNAISSANCE
NUMBER OF HOURS FLOWN
R.A.F.

	1943	1944										
SQUADRON	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTALS
22 Squadron	60.00	191.15	95.00	5.55	201.50	30.40	-	-	2.45	2.00	-	589.25
160 Squadron	134.45	70.30	71.50	461.00	356.00	235.35	130.15	470.35	35.00	172.15	237.10	2374.55
191 Squadron	286.25	275.20	197.55	517.00	170.50	190.35	183.10	229.10	121.40	159.45	127.25	2459.15
200 Squadron	-	-	-	-	16.50	77.20	116.35	208.40	266.10	92.30	370.05	1148.10
203 Squadron	149.25	332.05	258.05	471.45	120.50	241.45	440.35	153.20	233.35	55.10	-	2456.35
205 Squadron	270.25	99.00	128.00	291.50	143.35	320.10	601.05	488.05	785.10	520.55	216.40	3864.55
212 Squadron	235.15	161.05	138.15	711.30	174.40	220.20	138.55	347.15	-	213.05	101.30	2441.50
217 Squadron	76.30	24.15	160.55	33.10	140.00	27.55	3.25	12.35	-	-	-	478.45
230 Squadron	-	-	18.50	162.10	77.30	45.40	76.30	121.30	158.55	136.25	106.35	904.05
240 Squadron	654.20	245.05	389.25	496.40	582.50	248.25	120.30	406.55	442.50	360.10	176.40	4123.50
321 Sqn. Dutch	655.20	512.50	835.50	552.10	405.05	317.55	238.30	431.30	610.35	472.05	189.15	5221.05
354 Squadron	416.45	392.50	601.05	968.15	826.40	655.45	204.45	317.15	392.30	80.45	96.35	5953.10
413 Sqn. RCAF.	242.15	261.25	238.45	651.15	231.30	338.50	678.25	732.25	?	581.05	385.20	4341.15
TOTALS	3181.25	2565.40	3133.55	5322.40	3448.10	2950.55	2932.40	3919.15	3049.10	2846.10	2007.15	35357.15

In addition to the above, R.A.F. squadrons flew 2,380 hours on air/sea rescue work.

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