

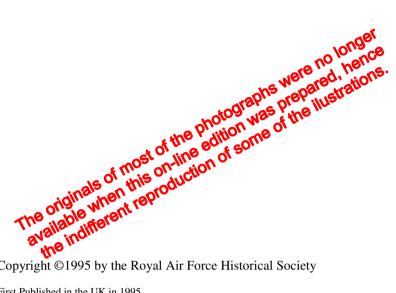


The RAF and the Far East War 1941-1945

Bracknell Paper No 6 A Symposium on the Far East War

24 March 1995

Sponsored jointly by the Royal Air Force Historical Society and the Royal Air Force Staff College, Bracknell



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First Published in the UK in 1995

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ISBN 0 9519824 4 3

Typeset and printed in Great Britain by Fotodirect Ltd, Brighton.

Royal Air Force Historical Society

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Preface

The sixth and last of the World War two series of Bracknell Symposia, the RAF and the Far East War 1941-45, was held at the RAF Staff College on March 25th.

There can hardly have been a hotter, more inhospitable or unhealthy part of the world in which to have to wage war than Burma/Malaya. It is this area on which the symposium largely concentrated – from bitter defeat in 1942 to final victory in 1945.

The proceedings were chaired by Air Chief Marshal Sir Lewis Hodges. Lively and extensive discussion groups in the afternoon were clear signs of the interest shown.

It is fitting that coverage should at last be given to what Air Commodore Probert aptly entitled his recent book 'The Forgotten Air Force'.

Derek Wood Editor



Air Vice-Marshal Mike Donaldson, Commandant of the Staff College, with, Chairman for the day's proceedings, Air Chief Marshal Sir Lewis Hodges

1. Welcome by the Commandant

Air Vice-Marshal Donaldson MBE

Good morning ladies and gentlemen. The Staff College offers a very real welcome to the RAF Historical Society. Great importance is attached to the link between the Historical Society and the Advanced Staff Course of the Staff College because the student body are at about that stage where they are able to look back a little as well as looking forward. They are now willing to consider the implications of the RAF's historical activities and to look at the lessons that can be drawn from them. We are enjoined these days to look at joint operations more and more in our consideration of military and air power, and to look at the joint perspective. We could not have a tougher joint operation than the Far East Burma Campaign of 1942-45. Therefore today's topic is extremely relevant to the studies here at the Staff College.

2. Introductory Remarks by the Chairman

Air Chief Marshal Sir Lewis Hodges

As your Chairman today at this Historical Society seminar on the Far East war, my main job is to introduce the speakers and to try and keep the programme running on time – as we have a lot to get through.

This year we commemorate the 50th anniversary, not only of the ending of the war in Europe, but also the war against Japan, and it is therefore timely that we should be discussing at this meeting the operations that took place in SE Asia 50 years ago – particularly from the point of view of the Air Forces involved.

We have, as you see from your programmes, six speakers who will be making the formal presentations in preparation for our syndicate discussions this afternoon.

3. Setting the scene

Air Commodore Henry Probert

The air war we are considering today is in many ways unique in the history of the RAF. It occurred much further away from home than any other major campaign we have ever been involved in. Much of it took place over mountain and jungle terrain, in weather conditions that knew no parallel elsewhere and often beggared description, with few of the aids to navigation that were taken for granted in Europe, and at times over distances that were enormous by the standards of those days. It was made possible by a great team of men working on the ground in conditions of heat, rain, disease and natural hazards that few had ever experienced before, and where all the key qualities were at a premium - leadership, team spirit, morale, technical proficiency, the ability to improvise. It was marked by what had by 1944/45 grown into the closest degree of co-operation that has ever been achieved between the airmen and the soldiers - they became quite simply 'one force' as that great commander of the 14th Army, General Slim, made abundantly clear. At the same time it was waged against the most ruthless of foes - one who could be relied on to fight to the death and whose conduct towards those who fell into his hands bore no resemblance to that of our other enemies, and it all started with an unprecedented series of disasters in which the RAF did no better than anybody else, so to put our later discussions into perspective I want first to say a little about the events associated with one of the greatest military defeats in our history – the fall of Singapore.

Britain's decision to build a naval base in the Far East was made in the early '20s in the hope of ensuring that an increasingly powerful Japan would not be able to threaten our important political and economic interests in SE Asia, Australasia and India, and the choice of Singapore was based on the assumption that naval power would be the key, in other words that a battle fleet based there would suffice to deter and if necessary repel attack. Yet when the assault came in December 1941, while the base was ready, only two battleships were there, and they not only failed to deter, or even interfere with, the attack but paid the price themselves. Gradually, over the previous 20 years, several strategic factors had been appreciated. First it was unlikely that a sufficiently large naval force could in practice be spared from elsewhere or would be able to get there in time. Secondly an attack was more likely to come overland from the north than via seaborne assault, which meant that the key to Singapore's defence lay in the defence of the Malayan approaches. Thirdly any successful defence of Malaya and Singapore would be impossible without the presence of a substantial air force. All three factors were in fact appreciated as early as 1937 by the military authorities on the spot, who were convinced that the best way for the Japanese to attack would be to use Indo-China as the base for landings in South Thailand and NE Malaya and then advance south.

In the superiese to utder would be to use into china as the base for landings in South Thailand and NE Malaya and then advance south. Yet four years later we were very far from prepared. On the RAF side, sufficient airfields had been constructed – 27 in all, although many had very limited facilities – but there had been no consultation between the Army and RAF about their actual siting; only in 1941, when most had been built, was it realised that there would be serious difficulties in defending them against land attack. Given enough aircraft this might not have mattered, but in the event many of the airfields were not even used and proved merely to be liabilities.

The situation as regards aircraft was, of course, dreadful. The commanders on the spot had in 1940 estimated their requirement as 582 (not only for Malaya but also for Burma, Borneo and Hong Kong); the Chiefs of Staff said 336 would be enough; in December 1941 there were in fact only 265 front-line aircraft, with a mere 181 serviceable. 79 of these were Buffaloes, American-built aircraft whose performance had caused them to be rejected for use in Europe; all four squadrons had been formed within the last eight months and a lot of the pilots (many Australian and New Zealand) were inexperienced. Day air defence was entirely in their hands. Of the others, 50 were Blenheims and 18 Hudsons, covering the bomber, night fighter and maritime roles, 31 the truly ancient Vildebeest torpedo bombers, and there were three Catalinas. Opposing them on the opening day based in Indo-China would be 88 bombers with the range to reach Singapore and 150 other aircraft, two-thirds of them long-range fighters, able to

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operate over South Thailand and northern Malaya – and, of course, to re-deploy very quickly to forward bases as soon as they were seized. The RAF was to be severely outclassed in both numbers and performance.

This leads us to the failings of the intelligence organisation. Ever since Japan went to war in China in 1937 there had been evidence of the performance of her air forces in bombing operations and in combat with the Chinese but there was total reluctance in London or Singapore - or for that matter in the USA - to do anything but discount it; it was simply inconceivable that either the Chinese or the Japanese air forces could be remotely comparable to ours. And incredibly - despite the mounting evidence to the contrary that was available to anyone with an open mind – this attitude persisted right up to the initial days of the war. The classic example is the Zero fighter, whose performance far outclassed the Buffalo and matched in many respects that of the Hurricane; the evidence was there but was not given due weight either in London or Singapore, where the intelligence organisation failed to disseminate it. As a result there was at all levels little awareness in December 1941 of the nature of the opposition the RAF would face; as Brooke-Popham, the CinC, later wrote in his Despatch: 'the strength of the Japanese Air Force came as a complete surprise – in quality, performance, mobility and experience of its personnel'. It is a sorry tale.

I'm not, however, one of those who throws all the blame at Brooke-Popham. He did not become CinC until November 1940, when the unified command was first set up, so he was there for little more than a year. He had been brought back from retirement to take the job, his earlier command and staff experience being thought ideal, and most of those who had close dealings with him in 1941 held him in high regard. But unfortunately he was given neither the authority, nor the staff, nor the resources to enable him to do a proper job. While he was given operational control over the land and air forces, the Army and RAF commanders retained all their normal single-Service links with London, and – far worse – he was given no authority at all over the Navy. As for staff, he was given just seven officers and not until far too late did his pleas for more succeed. In my view he was given an impossible job and deserves considerable credit for achieving as much as he did. Admittedly some of his statements were unfortunate, such as when he praised the Buffalo in Australia, but could one really have expected him to say anything else in public at that time?

Nor am I inclined to knock Pulford, the AOC, who arrived in April 1941 and was a good choice other than in terms of health. He too worked flat out, almost to the point of collapse, and eventually – after the fall of Singapore – died of disease and starvation having been marooned on an island off Sumatra. That he had to work so hard was partly because the relatively poor quality of much of his staff – there was in fact only one staff college graduate – compelled him to involve himself in far too much of the detail. One of the few RAF intelligence officers, a man well placed to see what was going on, wrote as follows:

'Right across the board, in the expanding HQ, on the new stations and in the support units, there was a dearth of staffs with any depth of service knowledge and experience; enthusiasm on its own was rarely enough.'

The result was a situation aptly described by an electrical fitter as, 'definitely peacetime air force'. To men coming out from the UK in 1941 it seemed like another world, one in which the military were out of touch with the realities of war, one in which the Army and RAF still harboured deep suspicions of each other and the Navy remained at arm's length; one in which the Services as a whole were looked down on by the civilian community as merely disrupting their all-important economy and way of life; one in which few thought there was any real risk of war, never mind an ignominious defeat.

Yet that was what lay in store. I can mention only a few major incidents of the ten-week campaign. First there were the Japanese landings and their rapid seizure of air superiority. They came in at night at three points, one in Malaya and two in Siam. At Kota Bharu they were given a warm reception by the local RAAF Hudson squadron but, despite heavy losses, they were ashore in strength by dawn; five other squadrons, including three of Blenheims, were directed to the area soon afterwards but already the enemy fleet was withdrawing and there was little they could do. Where they should have gone was to Singora and Patani across the border in Siam, where the main landings were proceeding unhindered. But war had not been declared; there was the strongest diplomatic pressure not to be the first to infringe Siamese neutrality, and it needed a daylight reconnaissance mission to reveal what was happening. By then it was too late; the bombers operating from the four main northern airfields were caught on the ground by the Japanese aircraft based in Indo-China, and by the end of the day the 110 operational aircraft in north Malaya had been reduced to 50. Had it been possible to direct the bombers to Singora and Patani while the landings there were under way it *might* have been a different story, but essentially the air defences were inadequate. Let me quote the historian Louis Allen:

'If one remembers the havoc wrought on the Japanese landing vessels off Kota Bharu by the pitifully few Hudsons flying from local airfields on 8 December, it seems likely that air forces provided on the scale requested, and approved by the Chiefs of Staff, might well have wrecked a seaborne invasion, and altered the course of history.'

So the Japanese had won on the first day the air superiority they needed. They had also shown their ability to reach Singapore itself, where, although the recently installed radars at Mersing and Changi did their job (and went on doing it until near the end), the city suffered its first night bombing with the defences unable to intervene effectively. Then came the appalling naval disaster as the Prince of Wales and Repulse set sail - knowing they would have no air cover to try to attack the Japanese invasion forces, failed to achieve the surprise they needed, and turned back. Unaccountably Admiral Phillips refused to break radio silence even when the ships knew they had been spotted, and it was 11/2 hours later, when the ships had been under attack for three quarters of an hour, that the Captain of Repulse - not Phillips -sent a signal to tell Singapore what was happening. A Buffalo squadron was immediately despatched and was there 90 minutes afterwards - too late. Had a signal been sent when the ships were first spotted the squadron would have been there by the time of the first torpedo attack - the enemy torpedo bombers were heavily laden and unescorted, and the Buffaloes could certainly have caused them serious problems. The question, 'Why did Phillips not signal?' has never been satisfactorily answered - he himself did not survive and perhaps it is Arthur Harris, who had worked with him in London

on the planning staff before the war, who gives us the clue in his parting words to his friend: 'Tom, you've never believed in air. Never get out from under the air umbrella; if you do, you'll be for it.' Phillips we must presume had remained unpersuaded.

Over the next fortnight the Japanese won control of northern Malaya and their air forces were able to operate in strength from the captured airfields. There was then, and still is, much criticism of the RAF over inadequate demolitions, ill-organised withdrawals and poor leadership, and a lot of it is valid – but under the very difficult circumstances they found themselves in most men did what they could, and whatever more might have been done the Japanese could not have been denied their 'Churchill airfields', as they called them, for any great length of time.

So by late December, with the Army having been steadily forced back, the RAF's only real chance of doing much to help lay in the arrival of substantial reinforcements, but those that did appear over the long reinforcement route could not even replace the losses. The one significant element that did arrive was Hurricanes (51 to begin with and more later), the first of which went into action in the defence of Singapore on 20 January but too late to affect the issue, for by then the Japanese were into Johore; Singapore was already under constant heavy air attack, and it was becoming obvious that the bombers would soon have to be withdrawn to Sumatra. Then on the 26th came a particularly tragic action when an enemy invasion force approached Endau, posing a new and immediate threat to Singapore. This was the moment at which everything had to be tried and the antiquated Vildebeest torpedo bombers, armed with bombs, were committed against the enemy, together with some Hudsons and an escort of Buffaloes and Hurricanes. The attack achieved little; the force suffered 50% losses; the CO at Tengah committed suicide after being severely criticised over the failure of his Hurricanes to prevent the disaster, and the RAF in Singapore was effectively finished – apart from the remaining Hurricanes, which fought on against overwhelming odds (at times 10:1 against) until the Japanese were ashore on the island. It's a dreadful story which I have of course grossly oversimplified – and I haven't even mentioned what happened to the Army – of whom over 50,000 went into the bag.

We cannot leave this story, however, without reminding ourselves

of the context. To have had an effective air defence in place we would have needed not only better aircraft, particularly fighters, but considerably more of them, together with the control, communications and reporting systems to enable them to operate effectively. Much work was being done in this respect by December 1941 but more time was still needed, and while Beauforts would shortly have replaced the Vildebeests other modern types were not yet in prospect – though Hurricanes would probably have been on their way but for the decision to send those we could spare to the Russians. But the real point is that, unless a decision to give higher priority to Singapore had been taken in 1940, there would not have been time to bring the system up to the required standard. I need hardly remind you that with the UK under threat of invasion – a threat that remained very real until well into 1941 – it was inconceivable that we should send very substantial air forces to defend an area which might well never come under attack at all. We were desperately short of everything in those dark days, including, of course, high quality officers; as Portal told Churchill.

'With the closing of the Staff College for over two years it was impossible to find really good staff officers for all the commands and naturally the Far East did not get the pick of those we had.'

What it really came down to was the nation's reluctance to devote enough resources to defence in the 1930s, a reluctance which nearly led to defeat in 1940 and which certainly made it impossible to prepare adequately for another major war on the other side of the world.

So with Singapore gone, what next? First came a very brief resistance alongside the Dutch at Palembang in Sumatra, where, after Hurricanes and Blenheims had carried out a series of highly effective attacks on the enemy landing forces, there were virtually no ground troops available to exploit their success. The surviving forces then found themselves in Java, where nearly all the RAF's remaining aircraft were destroyed, some in action, the rest on the ground, before the Allied surrender on 12 March, less than a month after the fall of Singapore. It was here that most of the 5,100 RAF men who became prisoners of war in the Far East fell into Japanese hands, and I will

give you just one statistic: of this 5,100, 1,700 died in captivity – exactly one third. Contrast this with 152 who died in German hands – out of a total of just under 10,000.

After Java came Burma, which was important not just for itself but for two wider purposes: beyond it lay India, where a Japanese incursion would have appalling consequences, and it provided the only route by which supplies could reach China from the outside world. The USA had long been trying to help Chiang Kai Shek in his war against Japan by sending supplies through Rangoon and along the Burma Road and with this route now under threat an unofficial American Volunteer Group of three Tomahawk squadrons was under training in Burma. So when the Japanese started to turn their attention to Burma at the end of 1941 the small RAF fighter force – Buffaloes to begin with and then Hurricanes – had one of the American squadrons operating alongside them. Between them they did a good job in the air defence of Rangoon but by March the Army had to evacuate the city and retreat northwards, and after a disastrous enemy air attack on the RAF's remaining base at Magwe the other aircraft had to be withdrawn. By May virtually all Burma belonged to the Japanese.

Meanwhile there had been yet another disaster. The Japanese Navy, which was carrying all before it in the Pacific, appeared in the Indian Ocean in April with the intention of knocking out the Eastern Fleet based in Ceylon. For the British this was a most dangerous move: for all they knew the Japanese might try to seize the island, from where not only India but also the ocean supply routes to the Middle East could be threatened. Remember that everything at this time had to come round the Cape, that Rommel was driving the Eighth Army back towards Egypt, and a new German offensive was likely in Russia. The possibility of a German-Japanese link-up in the Middle East seems with hindsight far-fetched, but it was a very real concern to Churchill and his colleagues; indeed he later called it 'the most dangerous moment' of the war.'

Hasty preparations had been made during March to meet such an attack, with Hurricanes, Blenheims, Catalinas and some radars being moved in, and when the enemy carrier-borne aircraft attacked Colombo and then the naval base at Trincomalee in early April the fighters had a good go at them. The outcome was the loss of a British

carrier and two cruisers, whereas the enemy emerged largely unscathed – but they never came back. So by mid-1942 the Japanese had overrun the whole of SE Asia and the East Indies and dominated the Western Pacific; they stood at the gates of Australia and India, and China was cut off from outside aid. On the other hand there was a critical new factor: at last the USA was in the war.

In global war, which this now was, there had to be priorities, and underlying the history of the next three years was the overriding principle agreed by the British and Americans, namely 'Germany First'. So for Japan the policy was to be essentially one of containment, though the Americans would still be able to devote much effort to driving the enemy back in the Pacific. As for the Indian Ocean and SE Asia, the areas of British interest, it would be a policy of holding the line and building-up – as far as resources would permit - the Indian base that would be so essential for the recovery of Burma, Malaya, Singapore and the East Indies. But there was another factor; the USA, which saw the defeat of Japan as the objective and felt no need to help the UK recover its lost empire, also had an interest in India. There were two reasons. First, if China was to be sent war supplies they could now only come by air from India across the mountains of North Burma – 'the Hump' as it came to be known. Second, if the new long-range strategic bombers, the B-29s, were to be used against Japan before suitable island bases could be captured – a distant prospect in 1942/43 – they would have to operate from forward airfields in China, which meant main bases in India.

So over the whole period we are going to discuss in detail today the USAAF was using India – or preparing to use it – as the base for its operations into and from China. It was very concerned, therefore, about the security of its Indian bases against Japanese air attack and possibly land attack as well, and was equally concerned about the situation in northern Burma and keen to see the Japanese evicted. As a result the USAAF built up strong forces in NE India in 1943/44 and – in addition to carrying out its independent roles – played a major part alongside the RAF in the air supply operations in Burma and a significant part in the close air support and airfield denial operations. Given the different strategic aims of the two air forces there were bound to be all sorts of command problems, but the complex structure eventually devised worked in practice, thanks to a great fund of goodwill on both sides – though there were some bad moments, especially in relation to air supply.

So the Indian base, which, in mid-1942, had hardly any of the infrastructure needed to support a modern air force, had to be built up almost from scratch to support two of them. We're talking of a vast country, dependent for transport almost entirely on its overladen railways, and with particularly acute problems in the critical east - a different gauge, many waterways, few bridges, with none over the Brahmaputra. While there was abundant labour, technical skills were rare, inefficiency and corruption were rife, and there were shortages of every kind of specialised equipment. Yet in March 1942, when only 16 airfields existed with all-weather runways in the whole of India, it was decided to build 215 more, and 18 months later there were 285 (71 fair-weather). I don't need to remind this audience of all the supporting facilities also needed - aircraft supply, maintenance and repair, communications, radars, to mention only the more obvious. Then came the aircraft – the 24 front-line squadrons of mid-1942, including 10 of Hurricanes, were 52 eighteen months later, by when some 10% of the RAF's total manpower –approaching 100,000 men – were out there. This was an immense achievement in face of vast difficulties; it required initiative, improvisation and rule-bending at all levels; it called for leadership and high morale in face of the many difficulties - not least of them the climate and the many health problems – and it depended on drive and determination at the top.

The CinC, Sir Richard Peirse, fought endless battles with the Air Ministry, which showed great ignorance of the local situation, and while he left under unfortunate circumstances in late '44 I consider he deserves great credit for his part in building up the RAF in India from almost nothing. And, I should add, much was owed to the Army, whose engineers and signallers had so much to do in building the airfields, and which had to accept that without the airfields, and thus the aeroplanes, they would never be able to take the offensive themselves.

I have so far ignored an overriding factor, namely that virtually everything needed for the RAF, and the USAAF, together with much of what the Army needed, had to come by sea – oil from the Gulf, some materials from Australia and most other things all the way round the Cape from Europe or the USA. The protection of these communications was therefore vital, and the RAF's contribution lay largely with 222 Group in Ceylon, though maritime aircraft operated too from India and East Africa, and used as necessary a number of remote island bases as far away as Mauritius. Fortunately in 1942 and 1943 the Germans were devoting nearly all their U-boat resources to the Battle of the Atlantic and there were few Japanese submarines around, but the possibility of submarine attack – or of another incursion by surface warships into the Indian Ocean – could never be ignored and the maritime aircraft – mainly Catalinas – carried out this unspectacular but truly vital task of patrolling the vast sea areas and escorting convoys in co-operation with the Royal Navy.

1944 – a critical time in view of the Japanese offensive in Burma – was a rather different story. While the supply situation had been eased by the reopening of the Suez route, the Catalinas, now supported by Liberators, Wellingtons, Sunderlands and Beauforts (some 160 aircraft altogether), had to counter a significant threat from both German and Japanese submarines, and the Germans were also using U-boats to convey strategic war materials from SE Asia to Europe. An improved control system was introduced in conjunction with the Navy, drawing on the lessons of the Battle of the Atlantic, and aircraft were switched between the many bases to cover areas where submarines were known to be. Just occasionally a submarine was found and hunted but hardly ever was one destroyed and the enemy had their successes; indeed in the first quarter of 1944 the enemy sank more Allied ships in the Indian Ocean than in any other theatre of war. All one can really say is that without the deterrent effect of the joint RAF and naval operations the losses would have been much greater. The aircraft were invaluable too for rescue operations, often carried out over great distances; ships' passengers and crews were often found - and saved from the atrocities frequently inflicted by the Japanese – and many searches were carried out for ditched aircrews, especially over the Bay of Bengal.

Two particular operations are worth recalling. In February 1944 a force of Catalinas was deployed to Mauritius to help search for two German tankers being used in the southern Indian Ocean to refuel their U-boats. One of these was sighted 900 miles east of Mauritius and sunk by the Navy; the second was spotted by a carrier-borne aircraft and similarly dealt with. Then in October '44 one of the Liberator bomber squadrons based near Calcutta joined in. Operating

at extreme range 15 aircraft carried out a 3,000 miles round trip to Penang where they laid four mines apiece in the harbour approaches exactly where ordered – and all returned safely after a 20-hour flight. The outcome, since the Japanese were unable to clear the mines, was to close the harbour to the U-boats: the Germans withdrew and the Uboat threat was over.

In conclusion I must make just a few introductory points about the Burma war. Late 1942 and '43 were marked by relatively minor operations; then came a major change in the command structure, when the unified South East Asia Command was set up under Mountbatten and the British and the American air forces were combined in Air Command South East Asia - under Peirse. 1944 was marked by three major campaigns which opened the way for Slim to reconquer most of Burma in 1945. We must remember that Burma was almost cut off by mountain ranges to the east, north and west; the occasional land route was tortuous, hilly, often impassable, and if the Army was going to fight its way back it would depend on air power to a far greater extent than in any other campaign of World War Two. This meant not only air superiority, close air support and interdiction but – above all – air supply. But remember too the weather. There was a seasonal factor here: the early months of the year were relatively dry but each May, with almost clockwork regularity, came the monsoon which lasted into autumn and produced the most awful conditions imaginable for both flying and ground fighting. In 1942 and '43 in fact, there was almost a moratorium on the war for several months but in 1944 and '45 the Allies decided to keep the pressure on the enemy and fight through the monsoon. So we must constantly bear in mind the extremely difficult climate and the consequent problems, both in the air and on the ground, with which everyone had to contend.

One final point. For virtually all the time the men who were out there – including the top commanders – felt themselves largely ignored by people back home, and at the back of the queue for everything they needed. Brooke-Popham and Pulford had felt this way in 1941; Peirse was constantly frustrated by it; and even Keith Park, who became CinC in 1945 and hoped for better things, fared little better. He and Mountbatten were certainly not best pleased to be told, when preparing for the recapture of Malaya and Singapore in September 1945, that the Air Ministry was giving priority to the despatch of a substantial part of Bomber Command to Okinawa to join the Americans in the bombing of Japan.

4. Burma: The Land Campaign

Major General Ian Lyall Grant

Ladies and Gentlemen, my brief is to describe to you in twenty minutes the three years of land fighting in Burma between 1943 and 1945, so you must excuse a very 'broad brush' approach.

1942

To make it worse, I must add an *extra* year because the lessons learned by the Army in 1942 were fundamental to the whole campaign. Briefly, a small semi-trained British force was then driven out of Burma by a more powerful and experienced Japanese one. A forced retreat of nearly one thousand miles against enemy air superiority clears the mind wonderfully. Fortunately, about half way through, General Slim appeared on the scene and soon perceived that new methods were required.

The problem was that our vehicle-rich forces were confined to the road and held positions astride it in the approved Staff College fashion. But the Japanese hadn't been to the Staff College and they didn't fight in the European way. Their tactics were to advance along village and forest paths and block the road behind our positions before attacking them frontally, usually at night. The force attacked would soon begin to run out of food and ammunition while casualties mounted and couldn't be evacuated. We would then try and break the fanatically held blocks behind us but rarely succeeded. The only answer was to be annihilated or to abandon the vehicles and march round the blocks.

General Slim quickly saw how this dilemma could be resolved. <u>First</u>, our troops must be trained to be more skilled, more mobile, and tougher physically and mentally, so that they could outfight the Japanese. <u>Secondly</u>, we needed a system of air supply so that encircled troops could hold out until relieved.

1943

On returning to India, General Slim advised against further offensive operations until these conditions could be satisfied. However General Wavell was determined to reverse the tide of defeat. In early 1943 he resolved to capture the small port and airfield of Akyab in the Arakan by a landing from the sea. This was a good idea and might well have succeeded. However, the landing craft and troops intended for the operation were diverted for the invasion of Madagascar. Wavell therefore decided to capture Akyab by an overland advance. This was NOT such a good idea. There were no roads, only tracks and beaches for fifty miles and surprise was impossible. The Army Commander, General Irwin, took personal command, ordering an advance on both sides of the Mayu River, which led to Akyab. The Japanese dug two strong one-battalion positions covering Akyab, one on each side of the river, at Donbaik and Rathedaung. The British, ultimately at divisional strength, made four frontal attacks on Donbaik. In spite of air, artillery and tank support, all were beaten back with heavy loss. A similar result occurred with the attacks on Rathedaung. Meanwhile the Japanese sailed a division up the coast to Akvab. Pushing back the British on the east side of the Mayu river, they crossed it and cut off the two forward brigades on the west side. These could not be supplied and were forced to break back. This series of failures caused a big drop in morale and something like a rout followed. It was the worst defeat of the Burma war. However some good came out of it. Irwin was removed and Slim took over the Fourteenth Army. The Higher Command was reorganised. Wavell became Viceroy, Auchinleck became Commander-in-Chief in India, and a new tri-Service command under Lord Mountbatten was set up to run the Burma war.

Meanwhile another significant operation had taken place. Brigadier Wingate had led a Chindit brigade on a raid right through the forests of northern Burma. They were supplied by air. Although they cut the railway to the north in many places, in truth military achievements were small and on the way back losses were heavy. However, there were two major benefits. *First*, the operation could be widely publicised as a brilliant and daring raid, as indeed it was, and in a time of gloom this was a great boost to morale. *Secondly*, it persuaded the Japanese to adopt a more forward defensive policy. This decision was to have a *profound* effect on the campaign and to lead them to disaster.

For the rest of 1943 both sides were preparing for the next year's struggle. The Allied High Command were convinced that a serious invasion of Burma from the north was impossible, Winston Churchill commenting on, 'the folly of going into the water to fight a shark.' They debated endlessly the merits of seaborne landings in many places from the Andaman Islands to Sumatra. All foundered on the rocks of Anzio and D-Day, which required all available landing craft to be in Europe. Finally they agreed that their plan for 1944 would be in the Arakan to capture Akyab, on the Central Front to advance to the Chindwin and on the Northern Front to capture Myitkyina and build a road and pipeline across northern Burma to China. This last was entirely an American project. Meanwhile General Chiang Kai Shek would be persuaded to stage an advance into Burma from Yunnan.

In addition Brigadier Wingate proposed to Churchill and the Joint Chiefs of Staff that a second and larger Chindit expedition into north Burma would have a dramatic effect on the war. The Americans supported him as they could see it would certainly help their Northern Front. The British hierarchy in India and Burma were NOT so keen. They saw it would compete for men, equipment and airlift with the main Central Front and they didn't believe its value would be as great as Wingate alleged. However Wingate was a zealot with a dynamic personality. He got his way and was authorised to raise a Chindit force of six brigades, supported by a surprisingly large private air force provided by the Americans.

At a conference in Rangoon in June 1943 the Japanese decided on *their* plan for 1944. They would first attack in the Arakan and draw the British reserves to that area. They would then advance across the Chindwin, climb into the hills and seize the Imphal plain with its depots and airfields. The aim was primarily defensive, to strengthen their NW Frontier and prevent any possibility of a British advance on this major axis. Contrary to some beliefs at the time, they had no intention of advancing further into India.

The Japanese plan was not without merit but by January 1944 it

had two fatal flaws. First, the British and Indian troops, thanks largely to General Auchinleck's efforts in India, were far better trained than before, and secondly, the British had achieved air superiority and many vitally important air transport squadrons, with their legendary Dakota aircraft, were now available to take advantage of it.

So, by the end of 1943, there were four widely separated fronts between the Allies and Japan, and the Chindits were to form a fifth. Reading from left to right, the first was the British Arakan Front where two Indian and one West African divisions faced one Japanese division. The Central Front was the main British one. It was the only one through which it would be possible to build a road and to invade Central Burma in any strength. There, three Indian divisions were about to face three Japanese divisions. The Northern Front was American under General Stilwell. He had an American commando brigade and three Chinese divisions, later supported by two more, facing one Japanese division faced twelve Chinese ones. Wingate's columns were in reserve.

1944

In February 1944 the Japanese struck first in the Arakan. They infiltrated two brigades through the British front under cover of the morning mist, encircled the 7th Indian Division, overran its headquarters and blocked the main British supply road to the 5th Division. It was a brilliant start. However, things then started to go wrong for them. The main British administrative area, organised as an all-round defensive box, resisted their repeated attacks. All the British boxes now held out and were resupplied with food and ammunition from the air. After three weeks of violent attacks the surviving Japanese, themselves starving and out of ammunition, were forced to retreat. The enormous advantages of air supply had been made abundantly clear to everyone. However, in spite of their defeat, the Japanese were not entirely displeased for General Slim, anxious to make quite sure of victory, *did* move his three reserve divisions forward towards the Arakan. The Japanese thought that it would now be impossible for the British to reinforce the Central Front before they attacked.

The next move was by General Wingate who, at the beginning of March, introduced a fifth front by launching four of his brigades into the forests of northern Burma by air, another brigade having already started off on a four-week march to join them.

On the main Central Front the British had one division and a tank brigade on the Imphal plain, the 20th Indian Division 60 miles to the south-east and the 17th Indian Division in the Chin Hills 170 miles to the south. If the Japanese attacked in strength the British plan was to withdraw both forward divisions to the plain and fight the battle there, thus forcing the enemy to fight at the end of lengthy communications. Conversely the Japanese plan was firstly to cut off and destroy 17 Division, and then to attack the Imphal plain with one division from the south and another from the north. Meanwhile a third division would seize Kohima and prevent any supplies or reinforcements reaching Imphal. They expected to capture Imphal at the latest by the end of April and well before the monsoon started at the end of May.

The Japanese started their attack at the beginning of March and at first it went well. The British Corps Commander in Imphal, General Scoones, was a good strategist but lacked a sense of urgency. He didn't order 17 Division to withdraw until two Japanese brigades had succeeded in forming road blocks behind them on the precipitous mountain road. He then sent most of his reserve division up to help clear the block nearest to Imphal. This laid the north of Imphal wide open to the enemy division advancing from the north-east. An Indian parachute brigade was hastily brought in and blocked this advance for five critical days before being overrun. This gave time for Slim to fly up from the Arakan an Indian brigade to Kohima and the rest of the 5th Indian Division to Imphal. Meanwhile 17 Division and the Corps reserve, supplied by air drop almost daily and much assisted by fighter-bomber attacks, fought their way back successfully through the blocks to the plain, while 20 Division stopped the Japanese force advancing up the main Tamu road at the Shenam Pass. The RAF support for these operations was magnificent and without it the outcome would have been *very* different.

Further north, the Japanese had surprised the British by sending a whole division across the hills to block the Dimapur-Imphal road at Kohima. This caused much alarm at first as it was thought that they might be aiming to seize Dimapur and cut the railway. Fortunately they weren't. The two positions at Kohima were held for two weeks by 161 Indian Brigade plus a scratch garrison, the Royal West Kents bearing the brunt of the attack. There is no time to describe this heroic defence nor the epic relief of Kohima by the 2nd British Division, who had been hastily flown up to Dimapur from southern India. The 7th Indian Division followed them by air and after two months the Japanese 31st Division was destroyed and its starving remnants were in full retreat. Nevertheless the only supply road to Imphal had been closed for 85 days.

Meanwhile, in spite of the most desperate attacks from the South with all their armour and heavy artillery, the Japanese were unable to capture Imphal. Nor did the British run out of supplies and ammunition as expected. In spite of the appalling monsoon weather all the supplies for four divisions, that is 120,000 men and several thousand mules, were steadily flown in, together with 12,000 reinforcements, while more than 50,000 non-essential personnel and casualties were flown out. Operations, constantly supported by Hurricanes and even the Strategic Air Force on occasion, were almost continuous. The 15th and 33rd Japanese divisions fought with fanatical bravery but they, their reinforcements and their tanks, were ground to pieces. In late June the few survivors were forced to retreat. There was now a gaping hole in the Japanese north-west frontier defences.

In the Arakan the British were advancing steadily. On the Northern Front General Stilwell had captured the airfield at Myitkyina on 21 May but could make no further progress. This, in spite of much help from the Chindits, who, although they failed to capture the supply centre of Indaw, weakened the supply line to Kohima and, by cutting the railway and main road to the north, reduced to a trickle the Japanese supplies to Myitkyina. Finally, one Chindit brigade in June captured Mogaung against fierce opposition. This sealed the fate of Myitkyina which fell in August. Meanwhile on the Yunnan front the Chinese advanced at a snail's pace and didn't reach the Burmese border until late in the year.

1945

With the Japanese in full retreat and five of their divisions

shattered, Mountbatten and Slim were determined to press ahead and exploit their success. The problem was how to keep the advancing troops supplied. The Americans had no interest in the reconquest of Burma and were reluctant to assist with more transport planes. Indeed they removed 75 of those already allotted to 14th Army to bolster the Chinese forces inside China.

Slim's first plan was to pursue the Japanese relentlessly and fight a main battle on the plain around Shwebo which he thought that the Japanese would try to hold. In late November the leading division of each of his two Corps, 4th and 33rd, crossed the Chindwin and set off for Shwebo. However, as 36 British Division, which had been flown in to replace the Chindits, advanced south from Myitkyina, it became apparent that the Japanese intended to fall back behind the line of the Irrawaddy. Slim saw his opportunity. Using all possible deception methods to make the Japanese believe that his two Corps were still advancing towards Shwebo and Mandalay, he secretly switched 4 Corps back across the Chindwin and down a track in the Gangaw valley far to the west. It was a move which would have been impossible to conceal without air superiority.

Meanwhile 33 Corps (three divisions and a tank brigade) fought its way up to the Irrawaddy. Despite the lack of equipment, first 19 Indian Division seized a bridgehead north of Mandalay, then 20 Indian Division did the same at Myinmu to the west, finally 2 British Division crossed in between them, all against fierce opposition.

While this was occupying the Japanese attention, 7th Indian Division, striking east from the Gangaw valley, secured a bridgehead across the mile-wide Irrawaddy south of Pakokku. Two brigades of 17 Division, plus 255 Tank Brigade, then passed through this bridgehead and seized the vital supply and communications centre of Meiktila, where another brigade was flown in. The main Japanese forces fighting in the north were now cut off. The Japanese were to refer to this bold move as 'General Slim's master-stroke'.

During the following month Mandalay was captured and the enemy position defending the Irrawaddy collapsed. They made desperate efforts to recapture Meiktila and did manage to capture the vital airfield for a couple of days, but they were driven off. The rest of the story is quickly told. The Japanese army was now completed shattered and in full retreat. Mountbatten gave Slim the go-ahead to thrust to the south and try to capture Rangoon before the monsoon arrived. Hopefully there would be six weeks and there was 320 miles to go. It would be a close-run thing.

On the west coast, 15 Corps had been advancing and by small seaborne operations had succeeded in capturing Akyab and Ramree Island. Airfields there could be supplied by sea and were in reach of 4 Corps' advance down the Sittang valley. Without these the main advance, almost entirely air supplied, would have been forced to a halt.

The Japanese did their utmost to block the British advance and there was some hard fighting. But the 5th and 17th Indian Divisions, supported by the powerful British tanks, proved irresistible. On the 2nd of May 17 Division reached Pegu, 50 miles from Rangoon. Then the monsoon suddenly broke, two weeks early, and the advance was halted. Fortunately this possibility had been foreseen. An airborne force was dropped on Elephant Point at the mouth of the Rangoon river and a brigade was landed from the sea on either bank. They found Rangoon deserted.

Japanese soldiers, however, would never give in and so two months of mopping-up followed before Japan's surrender in August allowed them to change their minds. Of 330,000 Japanese soldiers who went to Burma, over 200,000 never returned. It was the greatest land defeat in Japanese history and, as I hope I have shown, the victory was at every stage a joint Army/RAF one.

5. Burma: The Air War

Group Captain Dennis David

The reason for my being part of today's team is that I served in 224 Group – first as Air Corps Liaison Officer to 15 Indian Corps and later as SASO. It was there that I met Lord Bandon, AOC 224 Group, and General Sir Philip Christison, GOC 15 Corps – both wonderful men who did much to maintain and improve morale.

First let me say a little about the Japanese Air Force in Burma, which in 1941 was on the crest of a wave; only 16 days after Pearl Harbour they started bombing Rangoon, and then supported the victorious 15th Japanese Army as they overran the country: they seemed to carry all before them. After their successes in Manchuria and China and fresh from taking possession of Indo-China and Thailand they were seemingly unbeatable. At that time all seemed lost for the Allies. The Japanese also had good propaganda which justifiably supported their reputation for ruthlessness and cruelty. To be specific 'People were scared of them'. This propaganda had been supported by Tokyo throughout the latter part of the '30s. The smartly dressed men who were over-friendly, ready to dispense cash; the prostitutes who mixed with the poor as well as those who plied their trade with the influential and wealthy; the Japanese who joined in at sports (they were good too), all with strong support from Tokyo: all aimed at reducing the morale of the Allies.

Later on, though the JAF did carry out attacks on RAF airfields and other targets in the Arakan, it was the night bombing of Calcutta which caused the Allies most concern. In the early days of the Burma and Arakan campaigns their Oscars gave our Hurricanes some trouble but after this wave of fighting was over, with the advent of Spitfires and Beaufighters for day and night fighting respectively, it was a very different story. In fact, it can be stated that the only real support the JAF gave the overall Japanese strategy was the night terror bombing of the over-populated city of Calcutta, which caused riots that were only put down after considerable disruption. So much anxiety was caused that a night fighter squadron from the Middle East was ordered to send a flight of Beaufighter night fighters. In two subsequent attacks by the JAF at night, almost all the enemy were destroyed. Other attacks by the JAF, such as strafing RAF airfields and some specific attacks on specialised targets, were of nuisance value only to our overall war effort. Then, once the Allies had the required aircraft and equipment – and with the Japanese seemingly not keen on flying in bad weather – we gained the upper hand.

In the early stages our air forces fought well but aircraft with greater range gave the Japanese an advantage – our few Hurricanes, P-40s and Buffaloes were no match for the Japanese Air Forces of those days, and from the start they were on top – in spite of great bravery on our side. We can be proud of our troops in the Burma retreat; they fought like tigers and they did hold the enemy on the borders of India. Some comparisons between RAF and Japanese fighters would

Some comparisons between RAF and Japanese fighters would perhaps seem appropriate; I offer them as a pilot who flew single-seat fighters in France and the Battle of Britain with some 20 'kills' to my credit. The Oscar was a good fighter and more fitted for the role in Burma than our dear old and tried Hurricane. The Hurricane would take more punishment but both the Spitfire and the Hurricane lacked range. Furthermore, it is as well to reflect that the single-seat fighter is nothing more than a gun-platform; it is the pilot that matters and you fight differently when defending loved ones over the UK, though in time you become more professional. It is difficult to put this into words: to fly your aircraft is one thing, but to fight it is another. Of course, we always knew the Japs had more fuel than we did; on the other hand their aircraft could not take the punishment our Hurricanes and Spitfires were subjected to.

Turning now to the Allied build-up this was a gradual affair, its pace dictated by events on fronts nearer home. Being at the end of a long supply line meant there were battles to be fought with not entirely up-to-date aircraft and equipment. It hardly seems adequate to say that our men did well – in fact, they did wonders with old and inadequate machines and equipment. We owe those wonderful men a great deal. Always remember 'lost wars get poor press' – it was ever thus. But once the Allies had the right equipment and were able to fight the enemy on more or less equal terms, we thrashed them. Yet I

still maintain the Japanese did think they were invincible and it was

still maintain the Japanese did think they were invincible and it was this overconfidence in their ability which caused their downfall. They were also incredibly brave and their front-line men were good but the same cannot be said for the second-string or tail-enders. These were vile to say the least, their cruelty was boundless and they were bullies. Also, like all thugs, they were cowards at heart. They were beneath contempt. Our Gurkhas hated them and knew how to deal with them.

On the personal side, in 1943 I flew my Beaufighter night fighter squadron from the Western Desert to India. We split into three detachments at Madras, Vavuniya and Colombo. Here, before our groundcrews could join us we shot down a large Japanese flying boat which came over on a recce. This made us very popular with the locals! One of the enemy aircrew was over six feet tall; he still had his family belt on and in it he had his bus ticket from his home in the Tokyo district to the actual flying boat base. Such was the Japanese confidence at that time that they were not expecting Allied night fighters in the Colombo area. Our groundcrews arrived a few days later having avoided Japanese submarines in the Indian Ocean while travelling from Suez. While in Ceylon we looked after southern India as well – but our main responsibility was towards the Far East Fleet – a truly wonderful crowd, commanded by Admiral Somerville. I was promoted in October 1944 and posted to join 224 Group at Chittagong, first as Air Corps Liaison Officer to 15 Indian Corps and

later as SASO 224 Group. In my first post one of my most important tasks was to get wounded men out of the jungle and into base hospital. We left no wounded, for the Japanese were cruel to prisoners. Normally, the Army built small strips for light aircraft (we were using L-5s which would take a stretcher behind the pilot or, more conventionally, a seated passenger). I personally flew many a wounded man back to Cox's Bazar whence they were taken direct to hospital nearby; most wounds were mortar casualties. Remember that the evacuation of one wounded man released ten fit men for fighting; carrying stretchers in that terrain was difficult and we never left anyone behind. Strips were necessarily short and with good approaches we managed. There was usually an aircrew member working with the forward army units, not only to advise on airstrips but also to help with marking targets for close support.



RAF Historical Society Chairman, Air Mshl Sir Freddie Sowrey; Gp Capt Deryck Groocock; Air Chf Mshl Sir Michael Armitage and Air Chf Mshl Sir Lewis Hodges



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Lt Cdr Steven Powell; Sqn Ldr John Abbott; Maj Peter Young (CAF) and Maj Hayon (RMAF)



AVM Kemp; Sqn Ldr Chris Hull and ?



Sqn Ldr Clive Morrison; Derek Wood; Air Cdre Graham Pitchfork and Wg Cdr Andy Brookes



Gp Capt Dennis David; Air Mshl Sir Freddie Sowrey; Air Cdre Henry Probert and Air Chf Mshl Sir Lewis Hodges



Maj Vinnie D'Angelo (USAF); Air Cdre Ian Stockwell; Dr Michael Fopp and Lt Cdr Tim Green



Coffee time



Maj Scott Alexander (USAF); Maj Javier Olmos (Spanish AF); Maj Deb Turner (CAF); Keith Perry (MOD); Cdr David Baudain (RN) and RAFHS members



Lt Col Peter Liang; AVM David Dick and Tony Jutsum



Afternoon seminar group including: Air Chf Mshl Sir Michael Armitage; Maj Richard Thorpe (REME) and Sqn Ldr Al Rawahi (SOAF)



Another group including Air Cdre Graham Pitchfork and MRAF Sir Denis Spotswood



A point being made



A group in the library



AVM Sandy Hunter, Desmond Goch and Tony Jutsum with their group in the theatre

After Chittagong, a joint headquarters was set-up at Shalimar – just inland of the airfield at Cox's Bazar (which was a good all-weather base). It was a happy place with many characters, including the three commanders, Christison, Paddy Bandon and 'Blood and Guts' Martin of the Royal Navy. I have never experienced before or since a team more set on defeating the enemy; all concerned had one aim: 'Defeat the enemy; win the war as soon as possible.' We all helped each other. Unusual ideas were produced, such as carrying boats across jungle tracks and through tunnels to let us get men behind the enemy and catch them in the rear.

As US forces could not be given orders by other nationals I was given an American deputy, a Colonel Bob Gapin who was most supportive and fitted in well with the 'win-the-war' attitude. Under him were P-51 and P-38 squadrons, commanded by Lt Col Levi R Chase who personally carried out raids on JAF bases. His men destroyed many Japanese aircraft. Colonel Gapin shared my desk and we kept the Army and Navy informed of all operations.

We used to take the Commander to see all his forward positions and troops and especially his Divisional Commanders, by using the L-5 operating from forward strips. I can remember taking General Christison on a complete round of all his forward divisions before we joined up with General Slim's victorious 14th Army; our GOC was delighted to be able to see his team in this manner. It confirmed his own views that morale was high – even excellent – in spite of the troops having been in the jungle for many months and being totally supplied by air.

By early 1945 the Japanese were in retreat and our main thrusts against the enemy were being made by 14th Army from the north and by 15th Indian Corps along the Arakan coast towards Rangoon. This latter thrust had been made possible by carrying boats through tunnels at Buthidaung and catching the enemy in the rear – and by many more unusual ploys. Our main concern was always to keep the enemy guessing and to cut him off from supplies whenever and wherever possible. We had to capture the islands of Akyab and Ramree as early as possible as these had good, partially all-weather airfields. In the event, I myself captured Akyab on 3 January 1945 and took the village headman to see General Christison, whereupon our all-out attack on the island was cancelled. This change of plan was not popular with Admiral Mountbatten at Kandy but our GOC pushed ahead with the invasion of Akyab without the preliminary bombing and naval and army bombardments that had been planned. Our troops just walked ashore. 15th Indian Corps followed this up by driving the Japanese out of their position along the Arakan coast to the south.

The main thrust against the Japanese was made by Slim's 14th Army. Uncle Bill, as Slim was affectionately known by all, was a simply magnificent leader. His forces were mainly supplied by air for there was simply no other way of supplying an army with heavy loads over the Naga Hills – the paths were not easy to negotiate at the best of times. The Dakota had changed the very concept of war. Nevertheless air superiority had to be gained before air supply operations could be successful. It came as we built up our forces and obtained better aircraft. Modern Spitfires, P-47 Thunderbolts, P-38 Lightnings, Mustangs and Beaufighters replaced the old Buffaloes, Hurricanes, and other old faithfuls which had served us so well. I should mention in closing that we tended to use the Mosquito sparingly in operations in the Arakan in spite of its being a 'first-liner' in Europe. When the Mosquitos were first flown into the theatre they were parked in the open at Nagpur (120° plus in the shade), and the glue did not take kindly to this temperature on a long term basis. When the Mosquito was subjected to the Arakan weather with its cumulo-nimbus up to 30,000 ft (and very turbulent conditions) it was liable to break up. Enough said!

6. Offensive Air Operations in Burma in Support of the Army

Air Vice-Marshal A D Dick

In the short time available I can only hope to outline the principal features of offensive air operations in Burma, highlighting what I see as some of the characteristic differences to those in other theatres, and contributing to the agenda for discussions in the groups this afternoon.

TACTICAL AIR OPERATIONS IN DIRECT SUPPORT OF THE ARMY

I cannot put it any better than the ACSEA historian when he said:

"... 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 ... since little could be seen from the air, lines of communication were deduced rather than observed ...'

I see five things being particular to close support operations in Burma.

1. Most of the terrain between India and Burma is densely covered in vegetation, much of it jungle. The narrow Arakan coastal strip is relatively flat and swampy with perhaps lighter vegetation, but inland, successive river valleys are separated by steep hills, densely covered. These ranges are initially some 1,000 to 2,000 feet, but they rise progressively higher and some of the main mountains separating India and Burma are over 10,000 feet. The central plain to the east of these mountains is flatter and more open.

- 2. Between late October and late May the weather is usually good with little cloud and hence this was the main campaigning period 'The Dry Season'. Between March and May it becomes very hot, and in the weeks before the arrival of the monsoon the visibility can reduce to a thick haze. In May, lasting for three to four months, the monsoon brings appalling flying conditions towering cumulo-nimbus cloud, torrential rains and great turbulence. The weather is worse to the west of the mountain barrier ie over Bengal and Assam. Typical annual rainfall figures are some 175 inches on north Burma and 450 to 500 inches (some 40 feet) over Assam, probably over 85% of it occurring between mid-May and mid-August; by comparison the average maximum annual rainfall in north Europe is 60 to 70 inches. The weather over the central Burma plain was usually better.
- 3. The distance between our main airfields and our front line was often over 100 miles, especially in the Arakan, and between the bomber airfields sometimes 300 miles plus.
- 4. The scale of the close support operations was small compared with those we heard about here last year concerning the contemporary Operation *OVERLORD* in Normandy.
- 5. I see five qualities distinguishing our enemy.
 - a. Tenacity and stamina enabled him to take great punishment from the air and still retain his fighting spirit.
 - b. Mastery of camouflage and concealment made his positions extremely difficult to locate.
 - c. He showed amazing ability to dig himself in, either in shallow foxholes or, given more time, into an elaborate system of bunkers inside which he was unharmed by all but direct hits from heavy bombs or shells.
 - d. Travelling light, he was able to move swiftly and unobtrusively with minimum MT over tracks and small footpaths in the jungle.
 - e. And finally his alien ethos; Japanese commanders never hesitated to sacrifice their men. In combat they were fanatically

brave and were never willingly taken prisoner; to them dishonour was worse than death. I can tell you that when over Japanese held territory allied aircrew were mindful of Japanese opinion of POWs, and of the treatment they were known to receive.

Practical Difficulties

Other than their compasses and the pilot's (own) watch, tactical aircraft had no navigation aids as we know them today; the only means of obtaining a fix was the Mk 1 Eyeball. Away from the coast or rivers, good landmarks could be few and pilot navigation was difficult; maps were small scale (almost invariably 1:1,000,000) and of variable accuracy. Often the prime means of pilot navigation had to be thorough familiarity with the appearance of the terrain over which they flew regularly. The pre-monsoon haze and, of course, monsoon rain could make this very difficult.

Close support targets usually lay beneath the jungle canopy and visual target acquisition was seldom possible. Apart from briefing pilots to attack a point by means of a bearing and distance from another clearly identifiable feature, targets had to be indicated by smoke markers – but the Japanese could fire them too. Coloured smoke shells helped but even this was not satisfactory until, in late 1944, direct R/T contact became possible between men with the troops and the close support aircraft, to say when smoke was being laid, and of what colour.

Tactical Reconnaissance was of great importance to the Army and excellent work was carried out by RAF and IAF Hurricanes whose difficulties were no less affected by the above factors. Under dense jungle, tracks were largely hidden, and rarely was any movement seen on the ground. Sorties were usually flown at about 50 feet over rivers or open country, and at 100-150 feet over the jungle – from a greater height nothing of value could be seen. Pilots had to learn to look into the jungle rather than at it, and this required a little experience. Whilst many visual reconnaissances revealed nothing, the study of vertical and oblique photographs of their battle area by forward troops often produced much valuable information, but in Burma the logistic difficulties of getting them there were extremely formidable.

Close Support in the Arakan

Between November 1942 and May 1943 – the 'Dry Season' of '42/43' – the Blenheims available were too few and, although well and bravely flown, quite simply could not hit close support targets sufficiently accurately to be effective. Many of the Hurricanes could not carry bombs and the one Mohawk squadron did its best.

The next 'Dry Season' – that of '43/44' – included the major Japanese offensive in the Arakan. The advent of Spitfires enabled us to achieve local air supremacy and freed for offensive operations several squadrons of Hurricanes – mostly now Mk IICs which would carry bombs. Vengeances had become operational; they could dive bomb accurately – provided that they had a clear aiming point from the 12,000 feet they started their dive – not always possible. However they were vulnerable to Oscars and had a short range. Nevertheless they did sterling work during the Japanese offensive in the Arakan in February 1944 – between 5 February and 21 May 1944 the two squadrons flew 1,835 sorties. The main task then for the Hurricanes was to escort the supply-dropping Dakotas, the success of whose task was absolutely crucial.

In the third 'Dry Season' – that of '44/45' – Thunderbolts replaced Hurricanes and Vengeances. Thunderbolts could look after themselves; could dive bomb accurately; had a long range – when based on Akyab and Ramree Island they could bomb most targets in Burma. They could also carry napalm which could be effective against bunkers and strongpoints. Napalm would be dropped in a shallow dive at about 300/350 mph from very low level and if the target could be seen it could be dropped with great accuracy. Even if the actual target could not be seen twelve Thunderbolts, each carrying two 137 gallon tanks, were quite effective in burning away vegetation locally.

Intense close support was provided for the final advance down the coast to Taungup – in particular for the amphibious landings on Ramree Island and at Myebon, and for the hard fighting around Kangaw. Fighter cover also had to be provided for the armada assembled for these amphibious landings. Medium and heavy bombers were called in several times against Japanese strongpoints in what were called 'Earthquake Operations', of which more later.

Close Support in the Siege of Imphal

The crucial series of battles in the war in Burma were fought during this epic 85-day siege. The Imphal Plain is some 45 miles north/south and 25 miles east/west – as General Grant describes it '... *rather like a huge oval vegetable dish*...'. Itself some 2,500 feet above sea level, it is surrounded by ranges of mountains rising to 5,000 feet to the west and over 9,000 feet to the east; these were covered in cloud during the monsoon. In pre-monsoon haze or torrential rain the only way to find targets in this bowl surrounded by stuffed clouds was for pilots to get to know its topography intimately. After attacking a target outside, returning to the plain in bad weather presented hairy problems.

At the start of the siege, as 17 Division from Tiddim and 20 Division from Tamu fought their way back to the Imphal plain, the tac/recce Hurricanes were particularly valuable, searching for enemy movements and positions; attacking opportunity targets; spotting for artillery; taking photographs; passing information on the location of our own troops and dropping messages, and maintaining touch between our troops moving along the mountain road, and IV Corps HQ on the plain.

With Japanese infantry all round them, squadron personnel based on the plain had to live in self-contained dispersed 'Defensive Boxes'. Aircraft, tents and trenches had to be within the wire from dusk to dawn; everyone carried arms, and watches were kept around the clock ready to combat infiltrating Japanese. When possible, aircraft were flown out of the plain overnight, giving at least their pilots some rest, returning at first light; early morning movements were likely to be fired at. On top of the great discomforts of the heat, perpetual damp, illnesses and short rations, the noise of the battle at night added a progressive, pervasive tiredness.

On and around the Imphal plain a close association grew up between the two Services. The 'Hurribombers' maintained an unremitting assault on Japanese positions and especially their lines of supply. Between March and July 1944 between 9 and 15 tactical squadrons of 221 Group flew over 25,000 sorties. Often, before dark, pilots would visit units which were to make an attack on the morrow, consult the commanders, and from advanced positions study the lie of the target which they would bomb and strafe the following morning. The relationship between the 14th Army and 221 Group was excellent and they shared a joint, mobile, HQ. Air Vice-Marshal Stanley Vincent was an outstanding AOC.

Some operations had to be mounted as an immediate reaction to a Japanese penetration. On 29 March at about 1800, after stand-down, there was an urgent call for a maximum effort scramble to attack a battalion of Japanese which had just been detected only ten miles north-east of Imphal aerodrome by a returning tac/recce Hurricane. In the failing light thirty-three Hurricanes made a highly successful assault; landing lights were used to locate, rout and pursue the numerous and fleeting targets. Captured enemy documents reported over 215 casualties.

Close Support during the Re-conquest of Burma

On the central plain, in more open country, target acquisition was easier. The main workhorse for close support was the Hurribomber. Spitfires and Hurricanes were reasonably undemanding on strip size and surface, and having a short range they had to remain fairly close to the front line. Wholly supplied by air, these squadrons leap-frogged from strip to strip. The 221 Group Mosquito squadrons remained in Assam and, until Meiktila was captured and operational, their Thunderbolts remained on the Imphal plain. Maintaining six squadrons of these larger aircraft by air in Burma, as well as the nine Hurricane and four Spitfire squadrons, was beyond our resources. Over this period 221 Group aircraft were flying some 240 sorties per day on close support.

Three examples of the close support provided in this phase of the campaign are noteworthy. The first was the investment of a formidable Japanese strongpoint at a place called Gangaw, south-east of Tiddim on 10 January 1945. IV Corps was making a vital thrust southwards, of which the Japanese were unaware because our air supremacy had denied them reconnaissance. The Corps was to reach and cross the Irrawaddy at Pakokku, and then dash for Meiktila. They were seriously held up by this strongpoint at Gangaw and loath to reveal their strength by a frontal assault.

Heavier and more concentrated bombing than could be provided by fighter-bombers was needed, so medium bombers were used; four squadrons of USAAF B-25s were followed immediately by attacks by 12 Thunderbolts and 24 Hurribombers. The area was also patrolled by more Hurribombers on a 'Cab Rank', available to be called in on R/T by a VCP with the forward troops. The operation started at 1430 and by 1600 five of the six main positions had been captured with the loss of two men wounded. The Japanese withdrew without appreciating the strength and significance of IV Corps' thrust.

Another incident was on the morning of 19 February when two Hurricane Mk IIDs of 20 Squadron were on patrol. A heap of green branches was spotted which appeared slightly incongruous in that area. They fired some rounds at it and the camouflage was blown off, revealing a tank. Other tanks were then found and the whole of 20 Squadron was called up. In 29 sorties 13 tanks were destroyed – a very serious loss to the Japanese at that critical juncture.

A third was on 20 March when the Japanese stronghold of Fort Dufferin, in Mandalay, was taken. It had withstood intense bombardment for over a week and its early investment was necessary to free the 14th Army to continue its advance south. The Fort was surrounded by an immensely strong wall of brick banked up with earth, in all some 45 to 50 feet deep; the whole was surrounded by a moat. B-25s were again called on, followed by Thunderbolts of 910 Wing, the latter directed by the group captain commanding the Wing, flying a Thunderbolt, himself acting as the 'Master Bomber'. He saw that the bombs were bouncing off the earth embankments, and ordered the direction of attack to be reversed, and gave precise instructions. The result was that the wall was breached and the Fort taken.

Visual Control Posts - VCPs

The large distances which often separated squadrons from the troops they were supporting; the shortcomings of communications by landline in the theatre; and the difficulty of target acquisition led to a system in which a junior officer RAF pilot commanded an Air Support Signals Unit and a Visual Control Post with VHF R/T with which he alone could direct attacks. There were 10 of them in late 1944 and 18 of them in 1945. Senior officer Air Advisers were at Corps and Divisional HQs.

When a VCP was available a 'cab-rank' system could be used. It was effective but extravagant in aircraft hours and fuel – much of

which had to be taken by air to central Burma. An extreme case where Cab Ranks were justified was during the invasion of Rangoon. Communications were terrible and the Thunderbolts were based some 400 miles away. The monsoon had broken and transit flights had to be flown at low level. I led a section on such a mission on 2 May, with an under-belly drop tank and a 500 lb bomb under each wing; the sortie length was over 4 hours.

The Use of Medium and Heavy Bombers in Close Support

To troops on the ground the spectacle of heavy bombers attacking a Japanese strong point was impressive; the target area seemed to erupt, but in their bunkers the Japanese usually suffered few casualties. Many Japanese strong points comprised multiple linked bunkers; from the air few could be identified. A bunker needed a direct hit by a sizeable bomb – more probable if many bombs were concentrated in the target area, which was a task for bombers; the problem was to use them effectively. A typical target area might be 350 yards square in which a relatively small number of troops would be underground. Even when most of the bombs fell in the target area, the results were usually disappointing. It is not really surprising that, say, 200 bombs spread over that area resulted in few direct hits. Unless the bombing could be followed up immediately and the position over-run by our troops, the Japanese would put up tenacious resistance.

In the tactic developed successfully, fighter-bombers or smoke would mark the target; then the bombers were immediately followed by more fighter-bombers which, after bombing and strafing, continued to make dummy passes to keep the enemy's heads down until our troops were on top of them. A classic example of this was the attack on Gangaw described above.

In Burma, using the bombers was cumbersome, and as the Historian says:

'To make a comparison with Europe, it was as if Bomber Command were tasked, in conjunction with 2nd TAF (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.'

Offensive Action Indirectly supporting the Army

In 1942 and 1943 one squadron of Wellingtons and a small but growing squadron of Liberators bombed railways and airfields at night but navigation and target location proved very difficult. There were no great target systems such as there were in Europe, just a multitude of tiny targets, each of small importance, most of them unrecognisable from the air. The main target system – rather nebulous and very widespread – was the Japanese logistic chain.

Early in 1943, after escorting Blenheims to bomb Akyab, Hurricanes with drop tanks then scoured tracks and waterways up the Naf, Mayu and Kaladan rivers in offensive operations known as 'Rhubarbs'. Progressively these attacks forced the Japanese to move only at night. Some 'Rhubarbs' were extended over the Arakan Yoma mountains into central Burma, climbing to 15,000 feet each way; in a Hurricane these flights were 3½ hours, but the pickings were richer on the Irrawaddy.

In July 1943 Beaufighters arrived in theatre, with their heavy armament and long range. Hurricanes and Beaufighters scoured the waterways far down the coast. In central Burma Beaufighters made effective attacks on the railway, river traffic and notably on storage tanks in the oilfields. They also sank four of the five large paddle steamers on the Irrawaddy and the fifth never ventured north again.

Counter-air attacks kept the Japanese air force largely back in Siam, units being brought forward just for particular tasks. Constant bombing kept the port of Akyab effectively closed; and our mounting long-range interdiction of Japanese lines of communication proved increasingly effective. Barely one-third of the supplies despatched were reaching Japanese troops in their front lines.

From January 1944 a third squadron of Beaufighters arrived, and in October they were joined by two squadrons of Mosquitos in 221 Group. Intensive attacks on lines of supply in Burma forced the Japanese to move their transport from road to river, and then from river to railway and then to restrict this to night time, concealing his trains by day.

Long-range fighter-bombers and bombers joined Beaufighters and Mosquitos in attacking the Japanese logistic chain. The heavy and medium bombers – sometimes later in the year joined by B-29s of the USAAF 20th Air Force – successfully attacked key points on the railway system, port and military installations, especially supply dumps. The supplies held in Burma were of especial value to the Japanese in view of our attrition on all his supply routes into Burma. Late in 1944 Japanese reinforcements were taking six to eight weeks to reach the Imphal front from Bangkok, and the tonnage on the Burma/Siam railway – of crucial importance to the Japanese – fell from 750 tons per month to 150 tons.

Together, assault by bombers and long-range fighters, regularly taking the war to the Japanese far over Burma, constituted an effective counter-air campaign throughout 1944 and 1945. On 8 March 1944 long-range fighters of the USAAF Air Commandos, supporting the Chindits deep in north Burma, came across a substantial force of Japanese aircraft on the ground at Shwebo and Onbauk – almost certainly having been brought forward to support the Japanese offensive against Imphal and Kohima. Over the next few days they and RAF aircraft had a field day, destroying some 60 Japanese aircraft – mostly fighters. This little campaign and the follow-up over the next few weeks virtually banished the Japanese air force from the battlefield.

battlefield. The Beaufighters operated mainly at low level by day and night, their swift, quiet approach earning them their nickname of *'Whispering Death'*. One notable achievement was against Japanese shipping in the Gulf of Martaban. Because of our success in interdicting the Burma/Siam railway, to bring in supplies the Japanese had resorted to shipping supplies in large wooden coasters moving up the coast of Tennasserim and then across the Gulf of Martaban to Rangoon, sailing by night and concealed by day. Beaufighters sank 28 of them – many at dawn or dusk – from their base in Bengal over 500 miles away.

But the greatest air/sea success for ACSEA was also by Beaufighters at their extreme range over the Andaman Sea. They found a convoy of Japanese merchant ships. For 33 hours they attacked repeatedly, hitting 14 merchant ships, two sloops and a gunboat, most of which were left blazing. The rate of attrition of the Beaufighters was fairly high; between December 1943 to October 1944 from 2,348 sorties, 54 aircraft were lost and many more damaged; one squadron lost 75 aircrew killed in 18 months.

Then there was minelaying. As already mentioned, transport by ship, coaster and boat had become essential for the supply of the Japanese forces in Burma. Allied mining operations varied from laying them in inland rivers in Burma, to important coastal ports and harbours.

USAAF B-25s laid mines in several rivers inland, with excellent effect. In August 1944 B-29s mined Palembang in Sumatra. RAF Liberators mined ports and rivers in Siam, Burma and Malaya. The longest and most daring was the mining of Penang Harbour by 15 RAF Liberators – a round trip of over 3,000 miles lasting over 20 hours. As the ACSEA historian says:

"... the mining operations were on a comparatively small scale but they paid dividends far in excess of what might have been expected from the effort involved..."

The effect was marked by the subsequent absence from those waters which had been mined of shipping whose contents were vital to the Japanese army in Burma.

Finally a few words on photographic reconnaissance. PR in this theatre was of even greater importance than in other theatres owing to the meagre intelligence available from ground sources. As elsewhere, it alone provided an indispensable factor in the maintenance of air superiority by providing speedy evidence of the location of enemy aircraft and the work of the strategic forces would have been unprofitable without the coverage provided. It was done by RAF Spitfires, Mosquitos and Mitchells, and USAAF Mustangs, Mitchells, Liberators and Lightnings. B-29s also did long range survey cover. The weather hindered it greatly during the monsoon period, and the heat and humidity created continual technical problems.

7. Air Transport and Supply

Group Captain Deryck Groocock

Introduction

From what we have heard already it is clear that, if ever there was a campaign in which co-operation between land and air forces was absolutely vital, it was the campaign in Burma. We have heard how air superiority was secured and this made possible the supply of ground forces almost entirely by air – vital in an area almost completely lacking in railways, roads and navigable rivers.

Rear Organisation

Until 1941 any threat to India had been envisaged as coming from the West; with the Japanese invasion of Burma, great efforts had to be made to provide air bases in Bengal and Assam. Sensibly many of these were built at railheads and thus made excellent air transport supply bases (Agartala, Comilla, Sylhet and Feni). The supplies from the UK and US came by sea to India and together with locally produced supplies by rail to the bases. Here, army personnel sorted them, packed them into shapes and sizes suitable for air dropping and put them into store. A complicated control organisation received demands from the army by signal, allocated priorities (often extremely difficult) and matched the loads prepared to the aircraft available. Economic tasking of aircraft was very important; thus an aircraft based at Agartala might start its day dropping supplies in the Kaladan valley, collect a load at Chittagong (sea port), deliver it to Imphal and evacuate casualties to base hospital.

Build-up of the Transport Force

31 Squadron had been based in India longer than any other squadron – initially as an army co-operation squadron on the NW Frontier. Originally equipped with the Valentia, it acquired DC-2s before obtaining the first Dakotas. It gained experience by becoming

involved in the Iraqi problems in 1941, transporting an army battalion to that country and evacuating civilians. With the invasion of Burma it flew in supplies for the defence of Rangoon and evacuated casualties and refugees from Burmese airfields. In May 1942 it became involved in dropping supplies to the isolated garrison at Fort Hertz to the NE of the Naga hills. About the same time, a US squadron (2nd Troop Carrier) began supplying air warning posts in the Naga Hills.

The Japanese conquest of Burna closed the land highway to Chiang Kai Shek's armies in China and, to remedy this, the aerial route from Assam over the wild mountains of Yunnan was developed (the Hump route). Fort Hertz provided the only emergency landing ground on the route and hence its importance. Flying the Hump route was mainly the preoccupation of the Americans but 31 Squadron was also involved.

The first Wingate expedition took place in early 1943 and, although the troops marched in and out, they were supplied behind enemy lines by 31 Squadron aided by 194 Squadron which had been formed at Lahore in October 1942 (with Hudsons) to provide internal communications in India. In May 1943 194 Squadron was equipped with Dakotas and became involved in paratroop training in NW India; No 353 Squadron took over the internal communications role.

Early in 1944, 31 Squadron was in Assam and was joined by 62 Squadron (January), 194 Squadron and 117 Squadron (from the Middle East) (February). Two further American squadrons joined at this time (making a total of four) and, in response to pleas by Mountbatten, another RAF squadron (216) was sent out from the Middle East, arriving a few months later. This total of nine squadrons (supplemented by some C-46s diverted from the Hump) dealt with the extremely heavy commitment during the first nine months of 1944.

After the victories at Imphal and Kohima, the army prepared plans to retake Burma and it was clear that the demands on the air transport force would be greater than ever. To cope with the anticipated task, two Canadian squadrons (435 and 436) arrived in January 1945 and a further eight US squadrons were earmarked. Intense pressure was put upon Mountbatten to release squadrons for China but, with the backing of Churchill, this was resisted. A little later the force was reinforced by four more RAF squadrons, 267 from Italy, 238 which had been intended for Australia, and the re-formed and re-equipped 96 and 215 Squadrons.

As the 14th Army and XV Corps advanced, new transport bases were built at Akyab and Ramree Island. Not only did these greatly extend the range of the force, but also enabled supplies to be brought in by sea. During the advance, the daily tonnage delivered rose to a peak of 1,800 tons, more than double the original estimate.

Types of Operations and Operating Difficulties

Supplies were delivered to the ground forces either by air landing or air dropping. Air landing whenever possible was on existing airfields but could involve landing on airstrips constructed by the ground forces themselves (as in the 2nd Wingate expedition). These strips were behind enemy lines and usually only about 1,000 yards long. Landings were usually made at night and were particularly hazardous when the strip was surrounded by hills.

Air dropping could be 'free fall' or utilise parachute containers. 'Free-fall' was used when the items to be dropped, eg rice, were not liable to damage on hitting the ground – it would be particularly hazardous to those on the ground! On locating the Dropping Zone, which in Burma was usually very small, the aircraft would need to make eight to ten circuits to get rid of its loads. The crew (navigator and two W/Ops), possibly aided by volunteer groundcrew or members of the Army Dispatch Unit, would eject the containers from the side door on red/green light signals switched on by the pilot. The hilly conditions would often involve the aircraft in tight, steeply banked circuits, and thus made life very difficult for the crew members performing Herculean tasks in very high temperatures and humidity.

The monsoon comes in Burma in May and lasts until October. Prior to 1944, it had usually been considered that active campaigning during this period was not feasible. However, this all changed in 1944. The army had been trained to fight in the jungle in monsoon conditions and the same supply effort was required throughout the year. Before the onset of the monsoon, most sorties were carried out at night to avoid contact with Japanese fighters, but during the monsoon most were carried out by day. The art of monsoon flying was to keep below cloud as much as possible, only flying into cloud (usually giant cumulo-nimbus) when it was impossible to avoid doing so. This involved much flying down small valleys with high mountains vanishing into the cloud on either side. Such was the rate of effort that, within a very short time of arriving in Assam, we knew the landscape of northern Burma like the back of our hands and knew just which valleys we could fly down without coming to a blind end. Sometimes it became impossible to avoid flying into cu-nim cloud and, once inside, the up and down currents were horrific.

With practically nothing in the way of navigation aids and not terribly good maps, finding the DZ posed a major problem and required great skill on behalf of the navigator. Fortunately, at night, the recognition signals used by the troops on the ground could be seen from a fair distance.

All these operations would have been quite impossible without an aircraft like the Dakota. It was extremely robust and reliable and in spite of its size it was a delight to fly and could be handled like a fighter. Its extremely high serviceability record was, of course, not only due to its in-built qualities but also to the long hours of hard work under difficult climatic conditions put in by the groundcrews. I should also mention the work done by the Air Landing Teams who, apart from doing all the packing and loading, often volunteered to come along and help with the eviction of containers – a task for which they received no flying pay.

Operations during 1943-44

As already mentioned under 'build-up of the transport force', operations in 1943 included supplying the first Wingate expedition, keeping Fort Hertz going, looking after radar and reporting stations in the Naga and Chin Hills, and dropping to the army in the Arakan.

1944 saw a great step-up in activity. Initially the four RAF Squadrons (31, 62, 117 and 194) were concerned with the campaign in the Arakan and in the Kaladan Valley. The West Africans in the Kaladan were totally dependent on air supply and the Japanese offensive further to the west threatened to cut off the 7th Indian Division near Maungdaw. However, transport air support enabled 7 Division to stand its ground and, with the aid of forces advancing from the north, turn the tables on the Japanese. The Arakan battle showed that, with air supply, so long as our forces stood firm, the enemy logistics problem when they got behind our lines became insoluble. This had a decisive effect on future Japanese offensives.

The second Wingate long-range penetration expedition was now looming. Its object was to help the war in the north by establishing a whole division far behind enemy lines to operate against the Japanese communications. Two brigades were to be flown into landing-strips set up using bulldozers flown in, along with other airfield equipment and initial troops, in gliders towed by the Americans. The initial fly-in (Operation THURSDAY) was planned for the night of 5/6 March and was to involve three landing areas. In the event, last minute reconnaissance showed one of them to be obstructed and the operation was nearly called off. However, plans were changed to confine the landing to one area, 'Broadway', and in spite of many difficulties (and in particular a heavy loss in gliders which had been towed two to a Dakota), a strip was set up and Dakotas were soon running a regular service with troops, mules, supplies, etc. Subsequently other strips were set up ('Chowringhee', 'Aberdeen', 'White City', 'Blackpool' and 'Piccadilly'), and were in use throughout the campaign which lasted until the middle of May.

Three days after the start of Operation THURSDAY, the Japanese started a new offensive by attempting to cut off 17 Division well south of Imphal. It had been planned to use 17 Division to reinforce Imphal against attack and reinforcements were essential to relieve the pressure. It was decided to move the whole of 5 Division from the Arakan to Imphal by air. Existing forces could not cope with this task in addition to Operation THURSDAY and hence the diversion of C-46s from the Hump. 194 and 117 Squadrons and the C-46s accomplished the task, flying 758 sorties.

By now the enemy were pressing towards Imphal and also further north to Kohima and Dimapur; with the cutting of the road north of Imphal the task of supplying the troops in the Kohima area became extremely urgent. The air transport forces (130 RAF and US Dakotas plus the Commandos) were now doing their utmost to meet the demands of the army in the Arakan and Kaladan valleys, the Chindits in central Burma, the defending forces in Imphal and the forces north of Kohima. Reinforcements were urgently needed and, after much argument, the Chiefs of Staff agreed to divert substantial numbers of US and RAF Dakotas from the Mediterranean. No 216 Squadron arrived in April. Supply from the air enabled our ground forces to deal with all the Japanese threats and they were poised for an advance into Burma by the third quarter of 1944.

Operations in 1945

I have already indicated the large additional transport forces which became available early in 1945. But there was constant pressure for aircraft to be diverted to the north to help Chiang Kai Shek's hard pressed forces and Mountbatten and Slim were continually battling to retain their air supply capability. Even with the greatly increased number of squadrons available, it was necessary to increase the sustained rate of RAF Dakotas from 100 to 125 hours per month, the intensive rate to 185 hours and the maximum rate to 250 hours. Great efforts were made to provide airfields at Akyab and Ramree Island as soon as the territory had been captured and this helped to increase the tonnage which could be delivered; over the first six months of 1945, pressure on both ground and aircrews was intense. Between 2 January and 1 May (fall of Rangoon), the 14th Army received 210,000 tons – this compared with only 5,500 tons delivered by road and 38,700 tons delivered by water down the Chindwin.

Personal Recollections

I was a very reluctant Dakota pilot. Having got away from the heavy Wellington by volunteering to fly Blenheims, I had just arrived on 60 Squadron at Dohazari when we were pulled out to re-equip. To my delight we were converting to Hurricanes. I had done about 10 hours on this delightful aircraft when I contracted a bad case of jaundice. By the time I had recovered in field hospital the squadron had gone back on 'ops' and it was too late for me. However, I need not have worried. 194 Squadron which I joined up with near Rawalpindi was a great squadron with a wonderful family atmosphere engendered by its giant of a man CO, Wing Commander 'Fatty' Pearson. The squadron was known as 'The Friendly Firm' which, together with its unofficial crest of a flying elephant, was emblazoned on all its aircraft and was shortly to become well known to practically all of the 14th Army. Moreover, the Dakota proved to be a delight to fly.

We were engaged principally on training Gurkha paratroops but

two months after my arrival we moved down to Agartala (Assam) and soon were in the thick of supply dropping down the Arakan. The monsoon had not started and most of our sorties were at night. The first time I flew a Dakota at night was on an operational drop. In March 1944 we became involved in Operation THURSDAY

In March 1944 we became involved in Operation THURSDAY and, after gliders carrying bulldozers had been flown in, the strip at 'Broadway' was opened up, enabling us to fly in troops, mules and various supplies. Five other strips were opened up, all way behind Japanese lines, and during the next few weeks I and my crew made 24 landings at night on those strips. The worst one was 'Aberdeen'; it was only about 1,500 ft long and had hills on three sides so that you landed one way and took off in the opposite direction. Because of the hills, you had to circle overhead at about 7,000 ft waiting for your turn to come down and land. One night my Flight Commander, Squadron Leader 'Dinger' Bell, was shot up by a Jap night fighter whilst circling overhead. Several soldiers in the back were killed and both engines knocked out. In spite of this he managed to glide down and accomplish a 'dead-stick' landing on the small strip without further injury to crew or remaining passengers. A great feat of airmanship.

As well as mules, we also flew in oxen which were taken 'on the hoof' by the Chindits and killed for food as required. Loading the mules on the aircraft could be a problem and to see one break away and about six soldiers trying to get a grip on the wet ground could be very amusing.

We all engendered a great admiration for the troops (British, Gurkha, Indian and African) who had to endure terrible conditions in dense jungle country. We realised how lucky we were to be able to get back to base most nights and to enjoy a somewhat primitive mess life. In the Officers Mess compound we kept a Himalayan black bear which was the squadron mascot. He became very tame and would knock back his gin with the best of us!

After a month or two flying over north Burma, we began to know every hill, mountain and valley by its shape – absolutely essential when the monsoon started. As mentioned earlier the art of monsoon flying is to try and keep the ground in view at all times and avoid flying into the fearsome cumulo-nimbus clouds which rise to 30,000 ft and have awesome up and down currents within them. Once one was familiar with the terrain one could fly up and down those valleys

which one knew had no dead-end and could fly safely in the jungle maze. My closest shave came one day when flying above an eight/eighths layer of stratus cloud above 7,000 ft mountains. We were flying at 8,500 ft and getting near to where the dropping zone should be. Hoping to find a hole in the cloud which would enable us to get down to where we could see the ground, my two wireless operators/crewmen started to pile up the load near the open door in preparation for the drop. To my consternation, the speed of the aircraft started to drop off for no apparent reason. My obvious response was to put on more power: nothing happened. A moment or two later, the nose reared up and the aircraft winged over to the right in a spin. It was gyrating down at about 2,500ft a minute and there were 1,500ft to go before we hit the mountains. We vanished into the cloud and I took spin recovery action – stick forward, opposite rudder. The altimeter was winding down, 7,000 ft, 6,500 ft, 6,000 ft, and I waited for the crash and oblivion. At 4,600 ft we emerged from the cloud in a narrow valley with peaks on either side of us reaching into the cloud. Shaking like a leaf I flew down the valley towards a column of smoke in the distance. By this time the crew had stopped trying to put their parachutes on (thank goodness they didn't manage it) and had joined me on the flight deck. We got to the smoke and found out that it was marking the very DZ we had set out to find. We dropped our load (free-fall rice) and then found the widest part of the valley in which to climb up back through the cloud. Once above we returned to base and, of course, were the only one of twelve aircraft who had dropped. We later got a signal of congratulation from the column commander little did he know how he got his rice. I later figured out exactly what had happened. The aircraft must have been grossly overloaded to start with and when the crew started to pile up the bags of rice near the door the centre of gravity must have moved way aft of its rear limit; hence the fall off in speed. Increasing the power moved the centre of pressure forward and the resulting turning moment caused the increasing nose-up attitude putting the centre of gravity back in limits. We all knew we were living on borrowed time!

Life for aircrew was interesting and exciting to say the least. For the groundcrew there was no such thing as an operational tour and they laboured long and hard in almost unbearable climate conditions to keep our serviceability rate to the maximum. That they did so without complaint and with unstinting cheerfulness was largely due to leadership at the top. 'Fatty' Pearson's influence was felt from top to bottom and his troops would do anything for him. His influence still lingers on, in spite of his sad death in 1946, in the squadron reunions which take place every year (this year was our 46th) and are still exceedingly well attended.

Casualty evacuation

Casualty evacuation by Dakota took place throughout the campaign wherever landings were made near to the fighting area. In particular, many casualties were flown out of the jungle strips during Operation THURSDAY. But the heroes of this type of operation were the pilots operating light aircraft – initially some modified Fox Moths and Tiger Moths were used but these were supplanted by the ubiquitous L-5 Sentinels which undertook a myriad of useful tasks in support of army commanders. Needless to say, evacuation of casualties played a major part in maintaining the morale of the hard-pressed infantryman.

Mention must be made of one special operation; Chindit survivors from 'Blackpool' (already mentioned) had made their way to Indawgyi Lake and, after much consideration, it was decided to use Sunderlands to evacuate the sick and wounded. Two aircraft of 230 Squadron were used; because of the distance involved they had to use a stretch of the fast flowing Brahmaputra as a staging post (an operation fraught with difficulty). They eventually managed thirteen sorties to Indawgyi evacuating 506 sick and wounded.

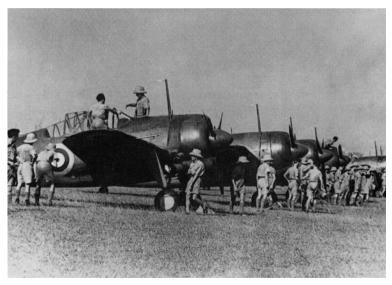
Conclusion

As we have seen, maintenance of the ground forces in Burma by air transport enabled India to be defended successfully and the Japanese to be driven out of Burma. army/air force co-operation and an efficient joint control system were vital and throughout the period, the high command had to fight to obtain and to hold on to adequate air transport forces. With the limited forces available today, one doubts whether a campaign fought under similar conditions and on a similar scale could ever be brought to a successful conclusion. Finally here is a statistic which may surprise you. From the spring

Finally here is a statistic which may surprise you. From the spring of 1944 until May 1945 supplies dropped to the army in Burma were 609,717 tons. During the same period, bombs dropped on Germany and occupied Western Europe were 54,700 tons.



Oct 41 – RAAF Hudsons patrol off Singapore



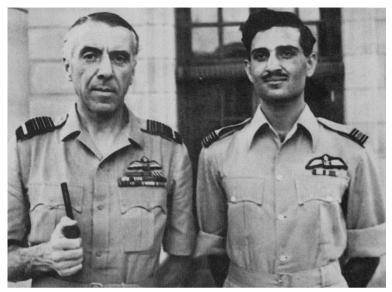
Oct 41 – Brewster Buffaloes in Malaya



19 Jul 44 – first Sunderland into Burma loads casualties on the Brahmaputra



29 Nov 44 - Casualties being loaded: Burma front



Jul 43 – Air Chf Mshl Sir Richard Pierse, AOCinC India, with Sqn Ldr Awan who was to go on a lecture tour of the USA



Everything is re-supplied by air



26 Sep 44 – men of the RAF Regiment mount guard at a forward airfield in the Arakan front



12 Jan 45 – Gen Sir A F P Christison, GOC 15th Indian Corps, and in charge of land forces, Air Cdre the Earl of Bandon and Air Mshl W R Coryton, after the capture of Akyab



19 Apr 44 – a Wellington stands near Indian troops waiting to embark on a Dakota with the monsoon obscuring the mountains



14 Mar 44 – Mosquitos over Burma

Mosquito fighter-bombers are now operating over the Burma Front with marked success. On Christmas Day they carried out their first offensive against the Japanese. Since August last they have been engaged on photographic reconnaissance penetrating dep into enemy held Burma and Thailand.

The groundcrew on the Mosquito fighter bomber admire the crest on the door of the cockpit. From L-R:- Rigger Cpl J Adamson, 78 Harewood Rd, Gosforth, Newcastleon-Tyne; Flight Mechanic AC H Mackay, Mount High, Points-field, by Cononbridge, Rosshire; Fitter LAC S Sawyer, 95 Starpitten Rd, Whitcombe, Torquay; and Fitter Cpl F Nichols, 45 Reed St, Burnley, Lancashire.

8. A Personal Memoir

Wing Commander Terence O'Brien

My contribution is a personal memoir, not an objective study. When Japan entered the war I had just been promoted to Flying Officer, was on my second tour of operations, and then the squadron – recently switched from Blenheims to Hudsons – was ordered to send a detachment to Singapore. I led out the first contingent and, to give you an idea of our impressions on arrival in January 1942, I'd like to read you an extract from a book of mine: "An air of defeat hangs over the island," Stanley quoted.'

This was a few days after our arrival. We were sitting on the terrace outside the Officers Mess at Tengah, looking across the airfield, when he read out that sentence, just written in his letter. I wondered just what it was that made the atmosphere of Tengah so perceptibly different to that of our previous station in Cornwall, and then we ALL began to search for particulars. Here's our list – I still have it today:

Tenoah

St Eval

Si Litai	rengan
Bomb damage quickly repaired	Bomb damage scarcely touched
Ground crews swarm over returning aircraft to check	Ground crews widely dispersed, never waiting for aircraft on return
Civilians at work on roads, drains, water, electricity, etc	Local labour run away, no work being done on airfield services
Signature required for drinks, to go on month's mess bill	You help yourself, no chits, no talk about end of month

Bomb attacks rouse fear only. No anger, no thought of reprisal
Night flying not permitted – flare path might bring bombers
Station and squadron records have been abandoned
There are more machines than crews to fly them

There were many more items, but that's enough to give you the picture.

The ways of local command were incomprehensible to us newcomers. For example, every morning 81 Japanese aircraft would arrive in formation, then separate off-shore into groups – 27 usually – for targets chosen from the four airfields, town docks, the city, naval dockyard, and the oil tanks. We heard of this on arrival – the oil tanks were still burning from the previous day's bombing – and saw it happen next morning when Tengah was not on the list. Naturally, therefore, our group – five more Hudsons arrived that afternoon, under Squadron Leader Lilley – decided we'd miss out bomb time next day. We'd fly away south over the Java Sea, then come back when the bombing was finished.

The Station Commander refused permission. 'FUSELAGE TANKS MUST FIRST BE REMOVED' he declared, quoting this local regulation for refusal – and he wouldn't query it with Command, despite Lilley's protests. So we stayed on the ground. Two formations of 27 bombed Tengah (they knew that Hudsons were there, of course – they'd done their usual PR run the previous afternoon). Two Hudsons were completely destroyed, two damaged, having just flown out 8,000 miles and not completed even one sortie.

Another peacetime order was issued: FIGHTER GUN PANELS

MUST BE LOCKED AWAY EVERY NIGHT. We took off on an attack: no-one could find the locker key, so we had no fighter escort. A single Japanese Zero shot down two more aircraft.

That evening the Station Commander at Tengah put a pistol to his head and pulled the trigger. I know of other suicides about that time. The rapidity of the Japanese advance – the sheer ease of it – had shattered morale. With so many aircraft lost on the ground up-country, Tengah was crowded with surplus air and groundcrews – just waiting, apprehensively, for the next setback. We, fresh from a fighting England – and the Middle East Blenheim crews too – naturally had a different ethos, and this division in spirit lasted right through to the end.

After only four days in Singapore we pulled back to Sumatra. We then had 24 Hudsons left out of the English arrivals, and about the same number of Blenheims from the Middle East; of the original bomber force, two biplane squadrons and two Australian Hudson squadrons still survived. But then – at the height of the full moon – we lost a third of our total force in the daylight attack against a Japanese landing at Endau. Our fighter escort never arrived, of course. The two biplane squadrons were wiped out – both Commanding Officers were among the dead – and we lost three more Hudsons. By then, no more reinforcement flights could get through. And of those that had arrived, a further 15 were shot down in the next fortnight in Sumatra – all in daylight sorties, all crews killed.

Here is a note I made about our final day at Sumatra:

14 February:

1000 Gp Capt calls meeting. Jap ground forces approaching, instructions about action to be taken when shooting starts. Burn unserviceable aircraft, burn all spares and documents, wait in planes with engines running till told take-off. If no such orders in reasonable time (??) take off for Java. Meanwhile stand by.

1100 To lead 3-aircraft attack on off-shore naval force.

1145 Wimpy takes my place. I take second trio at 1230.

Instead, at about midday, came an urgent message to dispersal: the field was being abandoned, with trucks standing by to take everyone down to the coast where a ship was waiting. I was to lead our last six aircraft off to Java at once, and hunt down the AOC for instructions.

On that job I did, finally, get airborne. The trio who had taken our place never returned.

The chaos in Java lasted only eight more days. Three aircraft were shot down; then the Zeros found our strip and finished off the last three. We got out on a freighter – crammed on the deck and filling the holds. We were some 2,000 out of the 8,000 original RAF strength. Two other boats got clear with us that night, en route to Australia, but then our captain decided to strike out alone for Ceylon. We made it – the other two ships did not.

I next found myself in India Command. After a few month's staff duty in Calcutta, in the Ops Room at Group Headquarters, I was posted to Bombay, an acting squadron leader, to command RAF station Juhu (the only operating one on the west coast), a new one being constructed at Santa Cruz (now Bombay civil airport), the OTU at nearby Andheri, and the RAF Naval Liaison Depot in Bombay city. In this quadruple command my responsibility for air defence of India covered some 800 miles of the west coast. I had six aircraft for that – four Ansons and two biplane Dominies. With a house on Juhu beach, a seaside flat in Bombay – and two enchanting Anglo-Indian secretaries - the job was widely envied, but not exactly what I had in mind when rushing off from the Solomon Islands to join the war. So when a signal came in April 1943, inviting volunteers for what was described as a dangerous mission, I grabbed for the escape – and finished up in the jungle with the 49th Gurkhas, training for a behindthe-lines stunt in Burma. An eccentric brigadier called Wingate had been inside for two months, was now pulling out, and our brigade would take over. But Churchill had noticed Wingate's operation, called him to England and taken him on a battleship to Quebec, where Roosevelt too was beguiled. He was an impressive zealot, Wingate.

Promoted to major-general he now took over our brigade as part of his Chindit force – which was fantastically endowed with aircraft. This was Colonel Cochran's US Air Commando, consisting of 100 L-1/L-5 light aircraft, 35 Dakotas, 50 Mustang fighters, 30 Mitchell bombers, 10 helicopters and 100 gliders ... All were for us, alone, and we were less than divisional strength.

Most of GHQ staff in Delhi were critical of this favouritism for Wingate – he was thoroughly unpopular up there, anyway. But our Air Commando did, in one action, have significant effect on the whole Burma war. This was in March 1944 when the Japanese, preparing for operation 'U-Go' – the invasion of India – deployed the bulk of their regional air force forward to Burma. A Cochran recce spotted the accumulation, and in the next three days – the RAF joined in the kill – 60 Japanese aircraft were destroyed on the ground. That effectively finished air opposition in Burma for the rest of the war.

The Chindits were to be landed on three separate jungle clearings, with two major groups on the near side of the Irrawaddy and our small group far beyond it. Gliders would land an advance party with bulldozers, make a strip, and then aircraft would bring in the brigades. But now came the weird bit. Wingate, with a bizarre sense of security, forbade his aircraft to go anywhere near the clearings. They had some old photographs and these were good enough (the RAF had much better ones – PRU Mosquitos were overflying the area twice every week). Luckily for us, on D-Day itself Cochran decided this was madness too far, and he ordered photographs – without permission. The pictures arrived at the strip that evening when the advance parties of the two major groups were about to embark in their gliders.

Wingate and the assembled brass, Slim among them, were shocked at the sight. They showed one clearing blocked – murderously – with logs. Did the Japanese know something? The second site looked fairly clear but had it also been compromised? In the extremity of decision that night, with all the gliders lined up on the strip, Brigadier Calvert – he had been a column commander in the first expedition, and was a close friend of Wingate – declared himself ready to take in the advance party of his brigade to that second clearing.

It was a close-run thing. Less than half the 60 gliders landed safely; 100 men were killed or wounded seriously. But they did finally manage to start work with the bulldozer. On the following night the strip was completed and had begun taking in plane-loads of men, mules and equipment. The night after that our small group, with eight gliders, went off to the far site, beyond the Irrawaddy. Among our losses was the bulldozer – with all its crew. So that left me to take on the strip-building that night – with a platoon of Gurkhas, five spades, and our kukris, cutting through the elephant grass, smoothing down the ridges – as best we could. But by dawn – when we had to pull back into the jungle – we had cleared some 400 yards. It was enough for a glider with bulldozer to land safely next night, and four hours after that the Dakotas were streaming into our jungle clearing.

The next three months our column toiled away northwards through that mountainous terrain along the Chinese border, setting up road blocks, withdrawing after action, searching for water – we had 150 mules, remember – and taking supply drops. The standard of marksmanship for these, from both RAF and USAAF, varied; rarely did a pilot start with a single parachute, then adjust afterwards on its fall. But the overall air support was truly astonishing. For a 12,000-man armed force to be landed in enemy-occupied territory, then supplied entirely by air for three fighting months, was a remarkable feat for the time. Any time perhaps.

Wingate had reckoned three months was the limit of human endurance in our conditions but when he was killed the Chindits came under control of the appalling General Stilwell, who refused to release us. The Chindit commanders were close to revolt when Slim finally sent a regular division to take over. Most Chindit survivors were lifted out from the Myitkyina area, some from Lake Indawgyi by Sunderland flying boat, we from our strip across the Irrawaddy -104of us - out of the 1,350 originally landed. I turned up at Air HQ presently to redeem the Air Marshal's promise – a choice of postings, on return. My choice was command of a Dakota flight, to be established in a Special Duties squadron in Autumn 1944. There were dozens of new squadrons by then, particularly transport, so vital to the 14th Army. But clandestine activity was still sluggish - only 18 sorties in the two full years up to January 1944. A few were by Catalinas, but most by Hudsons from a parachute training school – just occasional one-offs.

But that autumn clandestine operations ended in Europe, and material and expertise were suddenly available for India. The change for us was dramatic. By December 1944 a new Liberator Squadron, 358, had joined us at Jessore; our own Liberator flight was up to 16 aircraft; our 16 Dakotas were fully operational; we had a Lysander flight in preparation; and we had a new CO, fresh from England, with a wealth of experience in clandestine work – he had done operational tours in Europe on that work, as well as in Bomber Command, and had escaped through France after being shot down. Fifty years later, an Air Chief Marshal now, he's still backing me up as our Chairman today.

The clandestines took quick advantage of the bonanza. As against those 18 operations in the two years up to December 1943, there were 71 in the month of December alone in 1944, and more than 200 sorties each moon period by the summer of 1945. And the value of it all? There was dross, certainly, but there was also one real nugget: Operation CHARACTER, which was worth the whole RAF investment in clandestine operations, according to Colin Mackenzie, the head of SOE, who became a close friend many years later.

CHARACTER was composed of several British-Karen groups, set up – purely for intelligence gathering – in the hills east of Toungoo. They were important for the 14th Army because Toungoo was the last obstacle on the road to Rangoon, so it had to be closely monitored. The deadline for its capture had been set at 25 April, the traditional start of the rains – otherwise the army could be bogged down at the end of a monsoon-flooded support line of some 600 miles. It had seemed an easy target at first, held by just one brigade, but then two full Japanese divisions – pulled out from Mandalay – set off down the hill road, a motorable road, by-passing Meiktila which we had captured. They were being watched all the time, from the hills above, by the men of CHARACTER.

Once the Japanese divisions arrived Toungoo was going to be a formidable obstacle, and Mountbatten flew down to reassure the army commander. He wrote:

'I told him I would personally take responsibility for his getting anything up to 3,000 men killed to capture the town.'

Slim had not entirely given up hope of reaching the town first. He said afterwards that it seemed the Japanese would beat us to it, but that he 'had one last shot' in his locker. He fired it on 14 April, when he sent a signal to CHARACTER, urging they switch from passive spying to direct action. He asked that they do everything in their power to hold up the enemy divisions so that his forces – fighting their way down the main road – might get there first. That was just 12 days before the monsoon deadline of 25 April, with the enemy divisions then closing fast on the town. Both squadrons at Jessore were immediately involved in this critical race for Toungoo – for we were the only supply line to the guerrillas. And the outcome? This is from Slim's book:

'The Japanese, driving hard through the night down the jungle roads towards Toungoo, ran into ambush after ambush. They had to fight each inch of the way, slower and slower . . . until about fifty miles east of the town, and there they were held up for four vital days by demolitions and ambuscades. We entered the town on the 22nd April – the Jap divisions had lost the race for Toungoo.'

That cleared the way to Rangoon – it fell a week later. As against the 3,000 lives Mountbatten was prepared to pay for the town, it cost the army just seven and the SOE guerrillas five. The RAF lost eleven men in the three aircraft lost in the monsoon storms.

Such a concentrated effort on one particular clandestine operation was unusual. But it happened again just after the fall of Rangoon, when the Lysander flight became totally committed to the guerrillas fighting the Japanese groups trying to escape through the hills, and also on Operation ZIPPER when the Liberators, some flying out of the Cocos Islands, were dropping SOE teams to prepare for the seaborne assault on Malaya. The atomic bomb saved us from that.

Behind-the-lines work has always had great dramatic appeal – and some years ago I listed 31 books by, and about, the agents out there. But I couldn't discover one about the aircrews who had serviced them. Yet it wasn't down in the exciting, dramatic jungle that the greatest danger lay. Aircrew at Jessore suffered 40 times greater loss of life than the men we dropped – only five of them were subsequently killed in action in Burma, none at all in Siam or Malaya.

But it was a gratifying experience working with the clandestines, and now when I think back to those moonlight flights over the hills of South-East Asia it is nostalgia I always feel. Not like memories of the nights on bombers. With the clandestines, your arrival on target and the loads you dropped were always welcomed by those down below.

9. Synopsis of Points made in Discussion Groups

The Early Disasters

Many people said how appalled they had been by the story leading up to the fall of Singapore. *Air Cdre Foale* was one who posed the question. 'Can I just go back to Singapore briefly? It does seem that we had all the information that we needed about Japanese intentions, capabilities and resolve, and it was totally disregarded. It may well be that historically this was the lynch-pin of that part of the war, even allowing for the fact that we didn't have enough resources to send there. We had more troops than they had and we lost in a miserable way. It seems to me that the Japanese were always able to drop their bombs on our ships while we had incredible difficulties doing anything back. Does anyone know why that should be?'

In his own group this led to a variety of comments. AVM Newton spoke of complacency, the lack of unified command, the ignoring of the earlier strategic appreciations; Mr Ray referred to the poor quality of British intelligence and our unawareness of what the Japanese could do, '...yet they had been fighting the Chinese since the 1930s, and both the air force and the army were widely experienced in war, whereas many of our troops who turned up in Singapore just before it fell were greenhorns. We didn't realise their technological advance, for example the 'Long Lance' torpedo which was far in advance of anything we had, and early confrontations with the Zero fighter certainly surprised the Americans and the RAF.' Mr Peaty, however, felt it right to remind the critics that the problem was one of priorities and resources. 'We were fighting on several fronts, in home defence, in the Middle East, in Russia. All the best equipment and trained manpower we had had to go to these fronts, and it was a cruel choice, but one not made in ignorance. They were aware of the risks being run, and that it could all go horribly wrong. But they couldn't envisage

a scenario of the Japs coming into the war and the Americans not coming in. We ended up, as has been said many times, with a naval base with no fleet and airfields with no air force.'

In another group AVM Herrington offered a historical perspective. 'As a one time commander of one of those two squadrons whose Vildebeests were decimated in the battle of Endau \hat{I} should like to look back at the build-up to what was supposed to be the defence of Singapore and the Malayan peninsula in the 1920s and '30s. It didn't actually fool anybody except the media who loved to say, "We've got this almost invincible naval base in Singapore." It was partly designed, as you heard this morning, to prevent any aggressors coming through the Malacca Straits and going into the Indian Ocean. It was also designed very largely for the comfort of the Australians and New Zealanders because it indicated that the UK still had some political interest in keeping that part of the empire together and looking after them. I don't think they were fooled, because the Singapore naval base never got the full allocation of money it should have had – how often that has happened in our history. Then almost as soon as it was built, it was quite obvious that first of all if there was a problem in the Mediterranean the priority would be to keep our fleet there and not to send it to Singapore. Also once the Japanese went into China it was quite clear that it would be very difficult to defend against an attack from the north, whereupon the whole plan was changed but the defences never received their full allocation of resources. So not only did we suffer a huge military defeat but I think the political aspect and the subsequent effect on Commonwealth relations between the UK and Australia and New Zealand was absolutely disastrous.'

The Malayan campaign itself was discussed in Group 2, where *Sir Michael Armitage* felt that the poor co-operation between the Army and RAF was even more disastrous than *Air Cdre Probert* had indicated in the morning. 'The army knew they had basically been stationed all over the peninsula of Malaya in order to defend the 27 RAF airfields that had been built. Yet not only were there no aircraft to put on them but as the Japanese advanced through Malaya the RAF people on those airfields set light to the dumps and the fuel supplies and everything else, knowing the airfields were useless. So the soldiers were still in their trenches trying to hold up the Japs, or

preparing to meet them, and they looked over their shoulders to see the airfields all going up in smoke, so there was nothing to defend. This, of course, was disastrous for the morale of the very many troops who had been deployed up and down the peninsula. We must never get the idea there were no troops in Malaya; they were all deployed in these defensive positions ready to meet the Japs, so it was a total collapse, not in the tactical sense but at the operational and strategic levels. It was a disaster from the start to finish.'

Maj Gen Grant reinforced this point, commenting that the army was unable to concentrate on the defensive position as it should have done, because it was spread about defending areas which were not really vital. In response to Sir Denis Spotswood's observation that the airstrips throughout Malaya were sited somewhat haphazardly, Sir Michael Armitage commented that they undoubtedly were; the communications in Malaya at that time were poor, there was only one railway line running north to south, and roads were on the whole pretty bad, so airfields tended to be positioned where they could be sited rather than where they should have been sited and were virtually scattered all up and down the peninsula. Asked about what caused the disconnect between the two Services, he went on: 'There was a disconnection between the staffs, who never believed that a war was possible; nobody thought it was going to happen. Remember that when the Americans agreed to move their fleet from San Diego to Pearl Harbour, and Churchill promised to move what he called a substantial fleet from the UK to Singapore, this was to bluff the Japanese into not launching any kind of offensive. The Japs knew that it was a bluff and, of course, they called it. As for the disconnection between the army and the air forces, the plans were very grandiose and ambitious and the resources available were never available to meet their plans. Then on the ground itself you had, what to us these days, was an inconceivable disconnect between the various commanders themselves. For example, as you heard from Air Cdre *Probert,* Admiral Phillips, the Commander of Force Z, ie *Prince of Wales* and *Repulse* and the four destroyers, was quite independent. He had no responsibility whatever to the local commanders in the Far East, he answered only to Whitehall, and the result was that when he decided to sail his fleet up the coast of Malaya he didn't even tell the air force at first that he was going to do it. No consultations took

place. This divide between the Services was so total that when one reads the accounts it is just difficult to grasp that it could happen, but it did'.

Sir Christopher Foxley-Norris recalled being officially briefed that the Japanese aircraft were no good; '...they were made of cardboard, so if you did get into trouble you just dived away and the wings fell off. Also the pilots themselves were practically blind; unless they wore three pairs of spectacles they couldn't see anything at all. The official brief was that the opposition was negligible.' Brig Wilson recalled being briefed in similar terms in Singapore in November 1941. Mr Richards, however, did not remember in the pre-war appreciations of the Far East papers showing that we actually ran down the Japanese Air Force to that extent. 'This may have been permeated through the squadrons but I don't see it in the papers. The only thing that really stood out was that we hadn't appreciated that the Japanese Navy's Zero fighter was as effective as it was.'

Inevitably the commanders came in for criticism, for example from Gp Capt South: 'What was lacking in the Far East at that time was someone with real 'grasp' at the top. If the CinC had had the courage to cross the Thai border during the Jap assault on Malaya, the picture might have been very different but he was not prepared to take the risk'. Mr Richards explained this particular episode: 'There was a correct appreciation that, if the Japanese attacked, it would not be by means of a frontal attack on Singapore but through Malaya, and for that reason the Army developed a potential operation, Operation MATADOR, to move into Siam where they thought the Japanese would land, but they weren't allowed to do this. Crosby, the Ambassador in Bangkok, sent the most fervent telegram to Brooke-Popham saying 'For God's sake, don't be the first to interfere with Siamese neutrality', and in the light of that and the pressure put on him, Brooke-Popham was not allowed to implement MATADOR until it became impossible to do so. It was the Japanese landing in the Gulf of Siam, much more than landing at Kota Bharu, which was really decisive in getting their forces on the Malayan peninsula'.

Like others, *Dr Sweetman* expressed interest in what *Air Cdre Probert* had said about Brooke-Popham; his perception as an historian was that the CinC got it wrong, and not least in oft-quoted phrases such as 'the Japanese are not very good at aircraft'. *Sir Michael*

Armitage described him as an excellent staff officer but one who was what had been known in the first world war as a 'dugout'. 'He had been dug out of retirement, he had been Governor of Kenya for two years, and had been brought in because they were so short in those days of very senior commanders. The sad fact is that he was somewhat out of touch with the latest developments in air warfare when he took command, and he had an over-optimistic view of the capability of even his own limited forces.' Sir Denis Spotswood agreed that Brooke-Popham and one or two others were too far out of date and perhaps lacked the experience that had been gained in Europe and North Africa to enable them to meet the needs of the moment. 'I don't think either of us is blaming them; it was just that they had been brought up in a different manner.'

Mr Richards, who also noted that *Air Cdre Probert* had taken pains to exculpate Brooke-Popham from the obloquies which had been heaped on him during the war, particularly after his return home, offered a personal reminiscence. 'Dr Allison, by that time Lord Allison, had been Lloyd George's Minister of Health, and he accused Brooke-Popham in the House of Lords of being a nincompoop and largely responsible for the failure. It so happened, much to my surprise, that I had been plucked from my RAF training to become an Air Force historian. The first job I was given was to help Brooke-Popham write his despatch when he came back from Singapore and I was immensely impressed with him. I thought he was a splendid old boy – I suppose he was only about 60 then. He was no fool at all and I am sure that whatever could have been done in the Far East he had done.' Dr Carter, who was in Singapore in 1941 as Acting Command Radar Officer and had had to discuss radar policy with Brooke-Popham, had exactly the same impression. 'He was a delightful person to talk with; you didn't feel that you were just a 23-year-old jumped up volunteer reservist. He was there listening to you and asking you for your advice on this and that and making a clear decision about where we wanted to have radar cover.'

Dr Carter was keen to set the record straight on one bit of the history. 'It is well known that the Japanese started the war in Malaya with an early morning landing at Kota Bharu. They started shortly after midnight on the night of 7/8 December and the next thing that happened was an air raid on Singapore. What is not well known is that

the raid had been plotted by our radar stations for 55 minutes and the ARP system, which was, of course, the civilian system under control of the government, had not sounded the siren. The next morning I had a word with the Chief Radar Officer and asked him: "What the hell went wrong last night?" He spluttered and said: 'The bloody Governor laid it down that the sirens were never to be sounded without his prior personal permission because they might upset the civilian population, and when that raid was being plotted the Governor wasn't at Government House.' Indeed, nobody seemed to know where he was. The first I knew of what was happening that night was being woken up at Seletar, we, the Services, had been on first degree readiness for 36 hours by then and been working flat out over that weekend. The first I knew was that the station Tannoy woke me up some time around about 3.30 and reminded station personnel that they should be on first degree war readiness. Well, what do you say to that? You say to yourself "Stupid clot; what the hell does he want to wake us up for all of us know we are on first degree war readiness?" We all went back to sleep. The next I knew was my sub-conscious saying to me (I had been in France, Norway and South East London before then), there are bombs falling. I cleared the mosquito net and got down on the concrete floor before they hit the aerodrome a hundred yards away. I pursued the matter further that next morning with Wing Commander Cave and he said, not only was the Governor not at Government House but he hadn't had his ARP Centre manned on a war footing. I wrote a history of RDF in the Far East in 1944 which found its way into the Air Ministry and is now in the Imperial War Museum. If you look at Marder's History of the Imperial Japanese Navy you will find a footnote on page 406 which says that, at the critical moment, the Governor was at the Naval Base discussing the critical moment, the Governor was at the Naval Base discussing the use with Admiral Phillips of the *Prince of Wales* and *Repulse*. He was, and I've no doubt that what happened was that Pulford, who was at that meeting, but left early to return to AHQ, arrived in the Ops Room and said, "God Almighty, what's that?" An incoming raid which had been picked up 75 miles north-east of Mersing had now turned west directly towards Singapore. "Why haven't the sirens been sounded?" he asked. He got an answer and immediately rang the Governor at the Naval Base. The Governor then, and there's a glorious cover up in the Governor's post-war report, rang the Harbour Board. Why the Harbour Board? Well, it had its own ARP Centre. Then he rang his own ARP Centre and didn't get an answer. I'm afraid I get carried away on this subject. I had a lot of very good boys out there. Out of 250 who stayed in Singapore the day before the surrender, I finished up with 32 and I think they need their efforts to be recognised.'

Several army speakers described how the land forces were similarly unprepared. *Brig Wilson* stressed the attitude of the civilian community. 'Unfortunately at that time Malaya was so important in rubber and tin that the local authorities, directed by Whitehall, decreed that this was much more important than digging trenches and putting up wire; Malaya had just got to carry on as it was. There was just one of my commanding officers who had served in Shanghai and Japan, who said, "These Japanese are a bloody sight better than you think they are going to be.""

Col Dixon-Nuttall reminded his group of the ethos of the 'British Raj', the Far East, prior to 1940. 'Anything that was not our colour did not exist – must be worse than us. That was a fact of life, so when things started to happen and we realised that the Japanese weren't quite so ineffective as we thought, mentally we couldn't accept this.' He went on to speak of the speed of the invasion. 'It happened so fast and furiously; there was quite a lot of bold command at the lower echelons but the ability to command from higher echelons was extremely limited given the communications at the time. At the speed with which the Japanese were moving, and they moved extremely fast, they literally disappeared in front of us.'

There was little discussion of the air campaign, but two recollections from pilots who flew Hudsons in reinforcement are worth recording. *Wg Cdr Lilley* left the UK on 31 December, arriving on 18 January via Toungoo, Mingaladon and Medan. 'Air Headquarters then held a reinforcement flight conference which I attended and met Air Commodore Staton, who had flown out with us; he was very shaken at the attitude there. They were still having golf tournaments! This was on 19 January, and as I stood outside with him on the steps, a staff car drew up and a wife got out with all her shopping. "Look at that", he said, and was disgusted. My crew were going to be allocated to one of the RAAF squadrons, the next crew to an RAF squadron, 62 as it happened, and then alternately. I said "No" and was supported by the air commodore; we had very high squadron

morale in 53 Squadron and I said that I wanted to keep my crews together, so we re-equipped 62 and the Australians received 53 Squadron as they arrived. We went back to Tengah but didn't operate for three days before going down to a secret airfield in the Sumatran jungle (Palembang 2). When we operated we flew up to Sembawang in Singapore. This attitude made us feel like outsiders when we reequipped the squadron. They told us we had no idea what operating was like; it was all very well in Europe but we didn't understand conditions here in the Far East. We were not used as much as we should have been: our first operation was to bomb the Japanese invasion of Endau; we were led by Terence O'Brien. He was shot up with no elevators. Nothing happened after that for about four days; then came an operation to bomb shipping. We didn't know what shipping so they sent an Australian aircraft to find out. "Two cruisers and a destroyer with a few transports, coupled with precise course and speed", was the answer. We asked what nationality, British, Dutch or Japanese? This answer was a little unexpected: "How the hell do you expect me to see from 15,000 feet?", so we sent out a Hudson and as they turned out to be Japanese, this was followed by a strike of six aircraft briefed to go in at mast height. I disagreed and suggested we might save time and trouble by just shooting the crews. The briefing was then changed to go in at sea level until the ships were visible on the horizon and 90% climb and dive bomb from 6,000 feet. As the aircraft approached in VIC 5, the enemy opened up with main armament and got one shell right in the middle of the VIC proving their accuracy was pretty good. We were not much used after that and went down to Java where all the aircraft on the ground except one were destroyed by Zeros. I think the story of the Singapore campaign was aptly named in Chris Shores' book *Bloody Shambles*.'

Was apply handed in Chris bioles' book field by senarized $Wg \ Cdr \ O'Brien$ joined 62 Squadron on his arrival; he had been flying Blenheims and had lost almost everyone. 'The Squadron Commander and two Flight Commanders still remained in control of us, but they had never flown the Hudson and I don't think any of them had flown in action. It was very difficult to be commanded by someone who couldn't fly your aircraft and knew nothing about your capabilities or experience, and in a way this was really the fault of higher command. Although there was some defence put up this morning for Pulford and the others I think they must shoulder a certain

amount of the blame for it. There should have been closer supervision or even the removal of those people in charge, and those who came from the Middle East and England should have been put in command of their units. We took out a chap called Air Commodore Staton, who had earlier commanded Dishforth, a Whitley bomber station. Just as we were going out to Singapore the Air Ministry decided to send out a couple of air commodores to put some verve into the local campaign; almost at once he was engaged in problems with the local command (such as that mentioned above by Wg Cdr Lilley), but he could not persuade them to do anything about it. He and Bill Williams, who also came out, were the only really lively commanders there in my opinion although Air Cdre Probert did put up a defence this morning for some of the others. Of course, as junior officers we didn't have much contact with the air commanders. I do, however, remember AVM Maltby who had come over to take command in Sumatra, and he was disappointing. There had been some problems about the evacuation of airfields up country in Malaya before we arrived there; as he put it, an Australian squadron was charged with desertion having abandoned the field, rushing off on mere rumour of the Japanese approach. Maltby was talking to twenty or thirty of us and the Australian Adjutant of that particular squadron tried to intervene: "No, the position was this." Maltby said, "Shut up", and went on: "Here we will fight to the end. You'll use your aircraft; you'll use your revolvers; we'll use the aircraft turrets, if necessary, but we will not abandon this field." He then flew off to Java. The next day the order came through which I read out this morning "Abandon the field, leave at once."

On the general point of leadership, *Air Cdre Probert* reminded his group of the low priority that had necessarily been given to the Far East up to the end of 1941; under the pressure of the European war the best men had to be kept at home, and all too many of the good junior commanders – including a lot of those trained at Cranwell – had been killed. The Far East, where it was hoped to deter a war, rather than have to fight one, had to make do – in the main – with commanders of lesser ability. Not surprisingly, therefore, when the crunch came, not all were up to the job and it was too late for new arrivals to retrieve the situation. *Mr Richards* also referred to the wider context. Observing that by the end of the Sumatra and Java campaigns the RAF in the Far East had been virtually wiped out, he pointed out that

this was the stickiest period of the war: 'Rommel was threatening us in the desert; the Germans were going deep into the Causasus; the Battle of the Atlantic was at a critical stage. The priority was to win the battles near home first and later look at the more distant regions – and that continued for most of the war.' *AVM Stacey*, who as a Catalina pilot arrived in Ceylon after the Easter Raid of 1942, accepted this: In his experience: 'At no time did the portrayed atmosphere of a feeling of helplessness exist. Everyone totally accepted that we were the third theatre and that we would be short of everything. Everyone knew we were working on a shoestring but nobody really minded.'

The Easter Raid was discussed in one group, where AVM Dick recalled his Hurricane squadron's arrival from the Middle East. 'Ten days later the Japanese Navy raided Colombo and that was the first a lot of them saw of the Japanese. They very quickly had to learn that things were different; as General Slim said: "Things don't work that way out here." One thing I should say to compliment the Japanese is that Admiral Nagumo's task force, which had razed Pearl Harbour and then came into the Indian Ocean, was an elite force. They were very, very good, they were battle-hardened in China and knew their aircraft. In particular their dive-bombers were absolutely deadly; they had worked out exactly how to take out naval ships and which direction to approach; we saw evidence of that in the sinking of *Cornwall* and *Dorsetshire* off Colombo, when about 30 aircraft sank both of them in 15 minutes. Something that isn't realised is that the losses which they suffered after raiding Colombo and raiding Trincomalee three days later did cost them a lot of aircrew and in fact only two of their five carriers were able to take part in the battles of the Coral Sea and Midway, and that was crucial.'

Dr Carter, who had got away from Singapore to Ceylon, added that the raid on Colombo on 5 April got in undetected. 'It came in overland. There was then one radar station in Ceylon but it was at Negombo, north of Colombo, and it did the things that radar stations traditionally did; it looked out to sea, so it was looking west and was virtually blind north and south, and the Japanese cheated by coming in from due south. A few days before that we found the dockside absolutely jammed solid with radar equipment that had been intended for the Middle East. It had been diverted to Singapore, re-diverted to Colombo and plonked on the dockside. Jumbo Morton, who had just arrived as Chief Radar Officer in India, came down and told me to take one of these sets and get it up to Trincomalee as quickly as possible – there was a site at Elizabeth Point that looked from the map as if it might be all right. We did just that, got it operational, and 24 hours later the Japs came in. But this time the Elizabeth Point radar station plotted them in. Meanwhile China Bay had been told to scramble every single aircraft they had and that is why the Japanese lost relatively so many there and therefore had to go back to Japan to re-equip.'

Air Operations in the Burma Campaign 1942-45

Flying Conditions

Many speakers, including Sir Denis Spotswood, stressed the appalling weather in which so many of their air operations had to take place. Gp Capt Arscott, who flew Liberators on Special Duties operations in 1945, described them as follows. 'I don't think anybody in the air force today would understand the conditions in which we had to fly. I got there virtually as Mountbatten had decreed that, "We will fly through the monsoon." Up to then you had flown on only reasonable nights; now you flew whatever the weather. However early you took off it was a battle between whether you could climb over the Chin Hills before the cloud got up above you. Then, as the day progressed, the cu-nims built-up to as high as 35-40,000 ft. and the only way around them was underneath or, if you had the Jap on your tail, straight into them because he wouldn't follow you in there. We used to do this since, because of the range, we were going all the armament had been taken out of the aircraft - all the armour behind the pilot's seat, all the guns with the exception of the rear gun. You therefore had no defence whatsoever so this was one of the times when the weather, appalling as it was, was in fact your ally'.

'As to navigation, it was nothing like Europe at all, where you had GEE and lots of other things. We had the American LORAN but the distances were such that the navigators couldn't pick up a signal worth using. So we returned to basic navigation – the sky, the stars if you could see them, wind drift over the sea if you could see the sea, and topographical maps which were absolutely useless. As was said this

morning, we used to go on the theory that if you got over your first three ops you were probably all right; the reason for that is that the navigator used to pick out pinpoints and put them on his own chart, which was just a plain piece of paper, and thereafter we used to navigate from this spot to that spot to that spot which we used to get to know just by eyeball.'

AVM Stanbridge, a Dakota pilot, said that quite a few aircraft were lost or thought to have been lost in turbulence. 'Once they went down in the jungle a lot of them disappeared forever and have never been heard of since. The weather conditions out there in the monsoon in these great cu-nims which would go up to 38-40,000 ft. were terrifying; you've never seen anything like them in Europe. You talk about stair rods here, but it was a very different matter there. To hear the hail rattling down on the aircraft as one flew it was very frightening and I remember one occasion myself flying at about 8,000 ft over the mountains and having to go through a cu-nim because there was no way round it and no way back. I encountered very severe turbulence and at one stage was caught by an up-draught which took me up to 14,000 ft from 8,000; I throttled back, stuck my nose down and just hurtled out of the top of this cloud from 14,000 ft. A lot of aeroplanes did break up in those conditions and I think it was a worse hazard than the enemy, because as you heard this morning they were pretty well decimated early on.' *Sir Denis Spotswood* added a comment: 'I think unless you have seen the Burmese jungle in the monsoon it is almost impossible to believe that anything can be quite so horrible. It really is incredible that people could drop through holes in clouds with mountains all round them to very, very small dropping areas or targets with the aids, or lack of aids, that were available at that time. The modern generation would have almost no belief that it could have happened.'

Sqn Ldr Turner, who flew the Mosquito, operated mostly at treetop height, with the weather more or less above, though it was always piddling down with rain. It was very uncomfortable, particularly when one hit a monsoon cloud, which was diabolical; he hit one once and found himself upside down. He also described the conditions on the ground. 'We had just moved to a new jungle strip and put our tents down and the monsoon struck. In no time at all we all found ourselves in our tents with about a foot of water; we had parked them in a paddy

field. The strip itself was completely submerged and out of action. There were so many problems which could have been effectively dealt with if we had known more about the place and the conditions.'

Anxieties about being captured

If the weather was an anxiety, another was the fear of capture. According to Mr Jutsum, who flew Hurricanes, their thoughts of survival if they were shot down and fell into Japanese hands were not over-optimistic. Generally they were equipped with what was called a Beaton Suit for escape purposes. They had a few chaps who did walk back. In one incident three aircraft landed at an airfield called Tamu which had been captured by the Japanese. There were two Canadian officers and one British Flight Sergeant of No 113 Squadron. The two Canadian officers went to see if they could get the aircraft refuelled. Flt Sgt 'Curly' Clements stayed with his aircraft but felt that it was a bit spooky as the airfield was empty. He then heard a couple of shots and thought that it was not too good, so he nipped off into the jungle and within a few minutes a Japanese division, tanks, lorries and everything roared down the strip. They were then shelled by the British – the Flt Sgt thought that there wasn't much future there. In Burma there wasn't much in the way of navigation aids, but one benefit there was that the ranges of hills and mountains almost invariably went north to south and it took a fortnight to walk back, existing on Horlicks tablets: but he got back. When the intelligence summary recounting this chap's escape came through, it was a tremendous boost to morale. They thought that if he could do it then there was some chance for them. Generally morale was boosted from the aircrew point of view.'

Wg Cdr O'Brien felt one did not think about it. 'You never thought, "If I go down I'll have my head chopped off, so I won't do the job." When you take off on an operation like that you don't think that it is possible to die; otherwise you'd never take off. I think there obviously was fear of being captured by the Japanese because their reputation was such that if you were captured by a small body the chances were that you would be killed, whereas if it was a large unit, they usually sent you down to Rangoon. But they did announce that all the Chindits captured would be shot or killed in some other way.'

Mr Prentice spoke of his experience on the ground staff. 'We had

been detailed to clear up a runway after the army had moved forward, and were to wait for some army protection. The CO called all 36 of us together and said he had just had news that we had been left behind and were completely surrounded and there was little hope of being rescued. We had been playing badminton at the time and he said we had two choices. "With eight Sten guns and two rifles we can set a guard round the perimeter or we can give the guns to the Japs and go and work on the railway." Unanimously we agreed to fight it out. The guns were given to ten men and the rest of us went back to playing badminton. Fortunately, the Gurkhas eventually came to our rescue.' *Dr Winstanley*, who fought at Kohima, issued a salutary reminder of the Japanese attitude towards being taken prisoner: 'In 1943/44, the main fighting, very few were taken, and such as I remember were wounded. And they were still unwilling to be helped.'

The Battle for Air Superiority

Critical to the Allied victory in Burma was the winning and maintenance of air superiority: *Mr Diamond* and others asked about the weaknesses of the Japanese Air Force. AVM Dick explained that they were reluctant to leave their aircraft in Burma if they were likely to get clobbered by counter-air, so they tended to withdraw into either Malaya or Siam and bring them forward when needed. In his view they did not understand the proper use of air power; they were essentially soldiers who were put into the air force and a lot of their senior commanders did not fly. They certainly did not understand the use of bombers and they never followed up, for instance, the raid on Calcutta. To British minds it was unbelievable that they did not follow it up because they could have wrought absolute havoc in Bengal if they had. Nor did they seem to understand the value of using their fighters to interfere with air supply. If they had done that, even at great loss, they would again have wrought havoc. The reasons were not technical; their aircraft were quite robust and serviceable. They often came over and even in late 1944 they still came over in some strength, occasionally 50 or 60 strong.' *Sir Michael Armitage* considered that the Japanese ran out of quantity and quality as the war went on. When the head of the Japanese Navy was asked before the start of the war what the prospects were, he said he could guarantee victory for the first six months and after that it would be anybody's guess; he was

quite right. Of course, once the American industrial machine gathered pace to produce the enormous resources which it did the Japanese had no hope whatever of keeping up. 'On the qualitative side, the Zero was a very good aircraft indeed, there were experienced pilots and they simply ran all over us to begin with, but they then ran out of aircraft and they also ran out of their best and experienced pilots, so they lost on both counts. Moreover, while the Zero was manoeuvrable and had many other good qualities it was not armoured, and it had unprotected fuel tanks, so if you hit it in the right place it just blew up.'

Dr Hallion wondered about Japanese pilot quality. In the central Pacific the Americans encountered for the most part Japanese Navy pilots and their quality went down dramatically after the Battle of Midway simply because they had lost so many of their really good people. By 1944 the pilot quality was beginning to deteriorate. In Burma the British were fighting mainly Japanese Army Air Force pilots and he wondered how they were regarded. *Mr Jutsum* answered that they were very good, though the attrition rate was such that they did tend to get more inexperienced people. He had talked to two Japanese Army pilots after the war and wondered why they had survived, because in the Japanese Air Force they stayed on a Sentai until they were killed or the Sentai was moved back; there was no question of doing a fixed tour. He questioned both the pilots quite closely. One of them, Yasudo – 64th Sentai, flying Oscars – had come over to England to meet the pilot of the Blenheim whose rear gunner had shot down his CO, which was quite a dramatic thing. Yasudo had later been operating as a night fighter pilot and when attacking an American Liberator which was bombing Rangoon at night had been hit by the return fire from the Liberator. He baled out, but was so badly burned that he was returned to Japan. The Japanese only did this in extreme cases. The second pilot, Ito, had had a longer spell. He had been part of a fighter escort on raids on Calcutta. When asked how many were in the fighter escort, he replied 70 aircraft. However, they had no radio contact with the commander of the fighter escort; they operated either by hand signals or simply obeying the order to stick to their Sentai Commander and go with him. Ito said he had been part of a fighter sweep just south of Imphal in March 1944 and at 24,000 ft they were dived on by 136 Squadron which had been warned by radar

and went straight through the formation. Ito said he had seen nobody, just heard a whoosh and been shot through the back of the neck; there was blood all over the place but he flew that aircraft back to Meiktila which took him two hours. This showed the stamina of these characters; he too was returned to Japan. Both men were again engaged when the Americans were raiding Japan; everybody who could fly with any combat experience was strapped in an aircraft and told to go. They were very experienced but survived, for they were tough as old boots and they had been training longer, but it was something that he had noticed and found interesting.

Asked about the Japanese airmen's view of the RAF, *AVM Dick* commented: 'The rapidity with which we collapsed in Malaya and Singapore and then in Burma led them to the opinion that we were absolutely no good, a factor which perhaps led them to be very confident in 1944 when they made the attack in the Arakan and at Imphal. Maybe they were over-confident but they formed their own opinion from their own experience. We should remember too how unbelievably ill-equipped we were in 1942 after we retreated to India; we had lost so much in Burma and brought back hardly anything with us. We had just two squadrons of Blenheims, I think, available for offensive operations and a few Hurricane squadrons, mixtures of Marks I and IIB, and one Mohawk squadron – a desperate situation. We then had the Japanese raids on Calcutta, with the Japanese coming over in some strength – 60 Oscars on a sweep accompanying their bombers – and this posed a tremendous problem for the Hurricanes who did extraordinarily well.

Also in action over Calcutta were the Beaufighter night fighters of 176 Squadron, mentioned by *Mr Aveyard*, who was a senior NCO signaller. He remembered the aircraft being scrambled on the night of 15 January 1943 to intercept Japanese Type 97 bombers attacking Calcutta; uncamouflaged and gleaming like silver fish in the moonlight, three of the enemy aircraft were shot down by Flt Sgt Pring in five minutes. The newspaper headline next day said 'Calcutta, like Coventry, can take it', and the City Corporation gave the whole squadron a civic reception dinner.

AVM Dick commented further on the Hurricanes. 'It was no good, however brave we were, going in with the Hurricanes to mix it with the Japanese; we realised you had to get height, go in and make your

pass, get away, come back and go and make another pass. To that extent there was very much a tactical rethink and the older hands had to educate the Spitfire pilots when they came from the Middle East. Inevitably, the Spitfire pilots said, "Oh bunkum; we know how to deal with this"; they had to learn the hard way'. Dick also reinforced Gp Capt David's statement that gaining air superiority was in fact a very specific event. 'Before October 1943 we only had Hurricanes to confront the Oscars; the Oscar was well made and extremely manoeuvrable, ideal for close-in dog fighting. We gradually learned, however, that the Oscar and the Zero were not very good above about 280-300 mph. The controls became extremely heavy so the answer was to try and keep him in a regime where he was absolutely at a disadvantage and not to dally with him where he was absolutely at an advantage. As Gp Capt David said, initially our experience was in fighting the Germans, where the Hurricane would always out-turn a Messerschmitt, so the Hurricane pilots had to learn a completely different form of behaviour when up against Zeros or Oscars. They had to get above the Oscars and then keep their speed up. The trouble was that, in the heat and fitted with air filters, the Hurricane's rate of climb was not very good. Nor did our radar system give the Hurricanes the sort of warning to enable them to get up to height first, and furthermore they could not reach the Jap equivalent of the Mosquito, the high-level photographic reconnaissance aircraft which we called the Dinah. These used to come over at 30,000 ft; they were faster than the Hurricanes and anyone who has flown a Hurricane at that height will know what a disadvantage you are at. What changed this was the advent of the Spitfire. The Mark Vs, which arrived in October 1943, could catch the Dinahs, and shortly afterwards we got the Mark VIIIs, a much more potent version; from then on the Dinahs hardly ever got back and the enemy got no photographic reconnaissance. Furthermore the Spitfires had the necessary power to deal with the Oscars; the VIIIs in particular could outfight them and there are some very dramatic accounts and graphic descriptions in the army records of air fighting over the Admin Box and the Arakan which was the first major battle in winning air superiority. It came just in time because air supply was now absolutely crucial. It was the Spitfires that enabled the supply-dropping Dakotas to do their work, because if they had not been able to deliver the supplies the battle

would have been lost. We were then able to re-deploy the Spitfires up to Imphal where again they ensured that the Japanese fighters would not interfere with the supply dropping. The other aspect of the air superiority battle, of course, was won by the counter-air campaign.'

Mr Richards fully supported these comments: 'The winning of this campaign was a classic example of the critical importance of gaining air superiority. It depended, of course, not only on the superiority of the equipment but also on quality. While at first we lacked this, one of the reasons we won the campaign was because we simply had more aircraft than the Japanese. On the decisive front by 1944 the RAF was nearly twice as strong numerically.' *Sqn Ldr Turner* added that, in the later stages, the enemy's commitments elsewhere, particularly against the Americans, compelled them to withdraw a lot of aircraft. When he went to Burma in March 1945 there was no Japanese opposition at all.

The effectiveness of the radar warning system was also discussed, with *Mr Jutsum* saying that it was a bit hit or miss; in the Arakan it was very inaccurate on height. All too often, maybe because of the mountain ranges, the aircraft would be scrambled to orbit a particular place but nothing would happen and they would find that the enemy had gone to Calcutta or somewhere else. The Japanese tended to fly up the Bay of Bengal and if radar did pick them up the controller would never know whether they were going to turn right and go for Chittagong or whether they were going on further. *Sir Lewis Hodges* said that around Imphal there were radars on isolated sites and they did a very good job, despite being very exposed and often attacked by Japanese patrols. *Mr Jutsum* commented that sometimes they had to be pulled in because they were threatened, but gradually the Japanese were pushed back and once they could get on the hills surrounding the Imphal valley things improved. *Mr Game* mentioned that the radar cover was full of gaps and the many wireless observer units (each usually consisting of an RAF officer, a sergeant and a few operators) did the job that the Observer Corps did at home. They had two or three pack sets to work with and they communicated by W/T. Each message had to be written, encoded and sent within three minutes.

Air Transport and Supply

The importance of air transport/supply was stressed by many speakers and as *Brig Calvert*, one of General Wingate's senior

commanders, pointed out, its value was well demonstrated in the Chindit campaign of 1943/44. He was with Wingate when the latter was trying to raise his first Long-Range Penetration Group, whose formation had been agreed by Wavell and the War Office, but Wingate was receiving very little help from the Indian Army. It was Paddy Bandon, then on the air staff, who, on hearing that it would be a joint RAF/Army operation, provided the much needed official support and lent Wingate a hand in getting things done. 'I emphasised that, from the start, it was the RAF who made the operation possible and guided it into being.' The RAF also agreed, Calvert went on, to supply the Chindit columns with liaison parties, in each of which was a pilot who was resting, and three signallers. 'These men were of very high standard and never let us down; they could talk to the pilots in the air and direct them on to close support targets; they helped arrange the air supply in featureless jungle; they were war winners and utterly reliable.'

Mr Dickson referred to the value of the L-5 light aircraft which formed part of the private air force provided to Wingate by the USAAF, and *AVM Dick* mentioned how useful such aircraft were for light communications and particularly for casualty evacuation. *Col Dixon-Nuttall* had no doubts: 'To the infantry, the ability to get your casualty back to where he could get hospitalisation was vital. In early 1944, when the Japanese came round the 8 Division Box, casualties from my battalion had to be carried 26 miles, requiring four men per stretcher plus 16 bearers. The only arms they had in territory where there might well still be Japanese was a machete. So we would hold on to our casualties as much as possible and carry them forward, unless the doctor said he had no chance and had to go back. But as soon as we had some flat ground we cleared a 150-yard strip, down came an L-5, and away they went. The value of this for morale was enormous. Later, once we could get a Dakota in, we were really talking because then you could fly them right back to base at Comilla'.

AVM Dick added that in the Arakan the RAF used a lot of modified Tiger Moths. The pilot flew in the front cockpit, and the bulge would take a stretcher behind. The Narratives said that light aircraft evacuated over a thousand casualties between January and May 1944. It was usually counted as a rest tour for a Hurricane pilot; they navigated their way to these little 150-yard strips, landed and took off

again without stopping their engines. *Wg Cdr O'Brien* agreed that casualty evacuation made a tremendous difference, though it was not always easy to find some of the more distant strips where some of the Chindits were operating.

Mules were an important cargo, said *Maj Gen Britten*. The army needed them very badly as load carriers on the hills and mountains. The Dakotas used to fly them in if the army had strips to land them nearby. One problem was that they used to pee like hell in the aeroplanes; their pee was just like acid and if it got near the control cables and wasn't swilled out very quickly it would eat through them. Experiments also took place in dropping them with four parachutes attached. They were lucky, in that all four opened, but unfortunately the poor beasts broke their legs and the experiment had to be abandoned.

Col Dixon-Nuttall referred to the logistics organisation; there were shortages of everything so they had to make do with what they had or what they could get locally. This meant that those who were involved in supply had to improvise all the time and one of the great success stories of air supply was the ground organisation that gave the airmen the wherewithal to drop what they had to drop; getting that together was most amazing. *AVM Dick* added that the logistics of air supply was probably the key and much was learnt from the Americans. 'The whole commercial distribution philosophy in the USA before the war was ahead of ours and they taught us a lot about getting our act together. The units would signal back to somewhere what it was they wanted and you had to get the right Dakota load in the right Dakota to the right dropping zone. I believe the success rate in getting the right loads to the right people was unbelievably high. Nor was the achievement restricted to air supply; air transport also gave Slim the ability to fly up the reserves that had been drawn down to the Arakan in early 1944; to be able to fly them to and fro was again something that saved the day. Then, as was explained this morning, he flew out 50,000 surplus personnel from the Imphal plain and had reinforcements flown in. In 1945, of course, it was the complete 14th Army – and the Air Force that went with it, including the Spitfires and the Hurricanes – that were supplied by air, something that had never been done before.'

Sir Denis Spotswood agreed. 'The essence of the campaign, when

you get down to it, was air supply and I think the organisation was marvellous. Admittedly you always found somebody who wanted a gold-plated teapot or something similar but by and large it worked jolly well and tremendous credit is due to the soldiers who volunteered to be in the aeroplanes. We had an American crew on occasion carrying 1,00lb. bombs; they had tied the nose fuse to a wire and as they went round doing their drop they went over the Japanese lines and kicked these bombs out of the door. We should remember too that after the atom bomb was dropped we had to help the Allied prisonersof-war and internees spread over an enormous area and the transport crews really went to town, saving many thousands of people from the most frightful circumstances.'

The routine entailed was described by *Mr Macrae*, who joined 31 Squadron in September 1944 and completed his 700 hours of operations in July 1945; at the peak his crew did three three-hour trips a day, which meant rising at 0400 and landing at 2000. During the monsoon the critical moment in each trip was finding a hole in the clouds to come through for landing or drop. *Air Cdre Probert* added that such operations carried great risks, even though in the closing stages there was no enemy air opposition. Enemy ground fire was a constant hazard but the greatest danger was always the weather; during June and July 1945, when the monsoon was at its worst, no fewer than 18 Dakotas were lost.

Offensive Air Support

Several speakers recorded their experiences of offensive support operations. *Mr Jutsum* was based at Kangla, a fair-weather strip near Imphal, during the siege. 'The Japanese were within 10 miles of Imphal town; you would fly down the road from Imphal and on our side you could see tanks, trucks, guns and so on. You knew where the front line was because beyond that there was nothing, absolutely nothing, yet you knew that probably 10 or 20 thousand Japanese troops were there. Their concealment was quite masterful; as he saw for himself later on, the Japanese bunkers and trenches were dug so that instead of just throwing the spoil up onto the edge they took it away and lost it. You could walk and fall into a trench without realising it was there.'

Mr Aveyard too was at Imphal as a signaller with a Beaufighter

detachment. Although night fighting was the primary role, most sorties were 'Rhubarbs' searching for transport targets. The conditions were primitive; they operated from rolled paddy fields with interleaved metal sections acting as the runway. 'Our domestic quarters were in defensive 'boxes' where earth had been bulldozed to form four walls of a compound with just one small entrance. Tents were pitched and foxholes were dug in the compound. A VHF radio link was set up with Wing HQ, as the field telephone link was frequently cut and repair was not very speedy. We were subject to many infiltration attacks by Japanese ground troops using small calibre mortars and were expected to provide our own guards and patrols round our aircraft. Sometimes we had army airfield protection units, ie Gurkhas who were very good or West African troops who were not so good. In spite of the uncomfortable conditions and having to be on the qui vive for sneak attacks, morale was quite high.'

were not so good. In spite of the uncomfortable conditions and having to be on the qui vive for sneak attacks, morale was quite high.' *Sqn Ldr Turner* flew Mosquito fighter bombers in 110 Squadron towards the end of the Burma campaign. 'We were in close contact with the army who had chaps behind the enemy lines who could get messages through, and they would send us, following successful operations, what they called 'strawberries'. One, for example, followed an attack by eight Mosquitos, including mine: "300 Japs killed in recent air attack. Well done RAF." This was the sort of thing that really cemented our relationship with the army; we were very close and it was so important that whenever the army called we did our utmost to respond whatever the weather.' *Turner* said that one of the problems with the Mosquito was that it was a wooden aircraft whose main spar was made of laminations of wood which were stuck together with glue. 'I remember one aircraft doing some practice when the wing broke off. This meant that all Mosquitos were grounded and the close support which had been planned for General Slim and the 14th Army had to be held up while the aircraft were checked out. They eventually found that the formaldehyde-glued Mosquitos were all right but meanwhile we had been told that we might be going back to the single-engined Vengeance, which would not have been half as effective.'

AVM Dick, who flew with 30 Squadron, discussed the Thunderbolt. It could carry two 137 gallon tanks, one under each wing, they weighed nearly 1,500 lbs each, and the most dangerous part of each flight was getting airborne; it needed an awful lot of runway. One of their roles was long-range bomber escort, when they brought back their tanks which were really quite valuable. On other occasions the tanks were filled with napalm; this entailed filling them with petrol, injecting the special patent jelly into the tank, and strapping three detonators on the outside.

Wg Cdr Skinner described the use of the Thunderbolt in close support. 'The target would be given the night before if you were on the morning shift. The timing would come from the army, from the front line; they would designate a target and we would go at the necessary time. What came home to me from listening to AVM Dick this morning was that the whole area looked the same. It was most difficult to pick what was the target. We relied on our leader – we had some very fine leaders, superb people – and they hopefully picked the right area. If you were lucky, you had some people on the ground who marked the target. The normal procedure was to dive-bomb the target first. then come round and strafe it. Sometimes we did shallow dive bombing or skip bombing, and then we used napalm, which was pretty horrible stuff. It not only cleared the jungle away but it also had unpleasant side effects, because we were told that a poison gas was given off. The napalm was handled only by the Americans; RAF and army personnel were not allowed to handle it at all.' He added: 'The bombs and guns that we had then for many targets were completely ineffective. In particular you could bomb a bridge all day long with two or three squadrons of Thunderbolts with 500 1b. bombs under each wing and not even scratch it.'

AVM Dick mentioned the communications problems. 'The trouble was getting VHF sets that could be used on a jeep and it was not until late 1944 that we got any. The Americans used them with their Air Commando supporting the Chindits because they had the advantage of HF, so we were aware of its benefits. The land communications, of course, were terrible, in fact often non-existent. So we, on the basis of the American experience, went hard for radio control at the front end. The Air Support Signals Unit used W/T back to the division or the next higher formation in the army, who then got on to the Wing Ops Room concerned who then launched the aircraft. It was cumbersome, but conditions were very difficult and it really developed quite well, particularly in the 221 Group area where much of the fighting

happened. I know that at times the visual control posts (VCPs) were misused when an army commander on the spot wanted to change the target because the tactical situation had changed. That did cause some difficulties and AVM Vincent had to be absolutely firm; he must be the only one to direct the airborne strike force.'

Mr Jutsum was a reluctant forward air controller – or VCP – with 26 Division in 1945, applying his Hurricane experience. *Col DixonNuttall* recalled working with him during the operations leading to the capture of Ramree Island. While crossing a chaung – a small, tidal river – they lost their boats and with only half the company across were stuck. There were not all that many Japanese but like all Japanese they fought extremely well in small parties and were very heavily dug in. 'Tony sat on a bit of rock alongside my commanding officer and he talked Fleet Air Arm aircraft on to 25 yards in front of where our chaps were; it was totally brilliant. Now that was the Indian Army and the Royal Air Force talking to the Fleet Air Arm. It worked.'

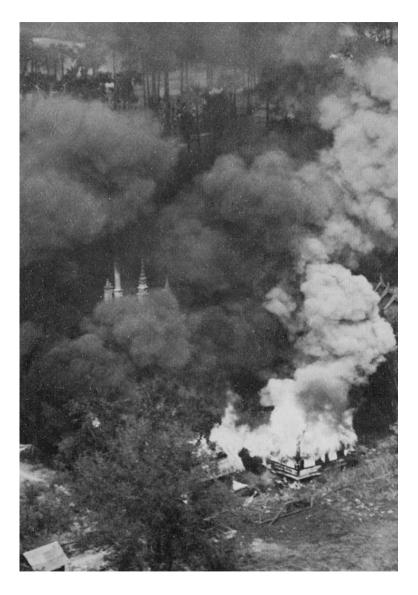
Wg Cdr O'Brien, from his experience with the Chindits, felt that a lot of army commanders over-estimated the value of the air force. 'I remember a colonel wanting to take a small village; he asked me to send out a signal saying that it should be bombed the next morning just before we went in. Well, it was just a few huts at the side of a small stream and there was very little of military nature left. Nothing would happen except that all the villagers would be killed. So often in a moment of desperation the army would say, "Send for the air force; they'll come and bomb them." On another occasion a Japanese convoy pulled off the road under very dense jungle and they called for the Air Commandos to come and do something about it. I watched from the hill – I was supposed to direct them – but it was a cock-up, as usual, because they disappeared down the valley. I do not think in the jungle you can do all that much; after all a man can stand by a tree and a 250 1b. bomb can go off and he will not be touched. I remember Wingate saving at a big meeting before we went in, "You will not have guns but what you will have is Cochran's Air Force (the Air Commando); they are your artillery; you will use them as your artillery, and you will find them as effective." But of course they were not. A gun fires, it falls short, and you raise the barrel a bit. But the aircraft goes in, drops its bombs, misses and goes back to base, and you cannot do



13 Mar 44 – pilots of a Spitfire squadron which claimed 15 Jap fighters in one day



22 Nov 45 – Lt Gen Negano, CinC Japanese 18th Japanese Army, Maj Gen Yamamoto (COS) and Maj Gen Nakamura of Japanese 16th Army HQ about to leave Batavia for the surrender ceremony in Singapore. (The accuracy of this caption is suspect in several respects – Ed)



1944 – direct hit on a Japanese petrol dump in southern Burma



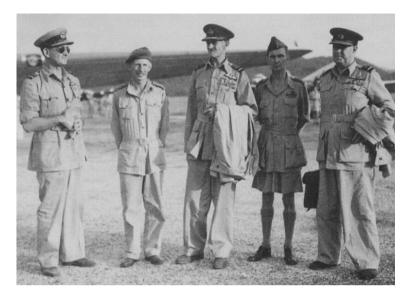
15 Sep 45 – Adm Lord Louis Mountbatten, Supreme Allied Commander SE Asia, with Air Chf Mshl Sir Keith Park, Allied Air Commander-in-Chief SE



Asia, and General Sir William Slim, CinC Allied Land Forces SE Asia 6 Jan 45 – Thunderbolt pilots brief for a sortie; foreground left is Gp Capt G F Chater DFC



11 Jun 45 – AVM S F Vincent DFC AFC who commanded No 221 Gp in Burma



24 Sep 45 – Air Chf Mshl Sir Keith Park, Allied Air CinC SE Asia with Air Mshl Sir Hugh Saunders, Air Commander RAF Burma, and AVM A T Cale



RAAF (ext left) on Georgetown airfield, Penang 1944 – Bridge (at Kalumpe?) broken after RAF attacks



19 Mar 45 – Mandalay Hill to the NW of the town, scene of bitter fighting



prior to its capture by the XIVth Army 2 Mar 45 – RAF Liberators fly 2,500 miles to hit Siam



19 Feb 45 – Liberators destroy bridges with 1,000 lb bombs in southern Burma



20 (sic) Sep 45 – Lord Louis Mountbatten and COSs enter the municipal buildings, Singapore for the surrender ceremony



20 (sic) Sep 45 – Surrender of Malaya and Singapore. L-R Adm Power, Lt Gen Slim, Lord Louis Mountbatten, Lt Gen Wheeler and Air Chf Mshl Sir Keith Park

anything about it.'

Brig Calvert, however, had no doubts about the value of close air support; one air strike he remembered was near Mogaung, where a target was struck only 50 yards away. Nor could he recall the 12,000 or more Chindits operating behind enemy lines suffering a single casualty from friendly fire. Nevertheless, as *Sir Lewis Hodges* observed, it was always difficult for the fighter/ground attack squadrons to know exactly where our own troops were. Despite the close liaison between the group headquarters, the squadrons and the army formations which enabled them to sort out problems on a personal basis, there were always going to be occasions when unfortunately one shot up one's own side.

Several such incidents were mentioned. *Maj Gen Grant* referred to one during the Japanese invasion of Burma in 1942. After one division had held up two Japanese divisions for four days they were ordered to withdraw to the Sittang River which was about 30 miles away along a forest track. 'They set off with RAF support and the RAF put out a very good report saying that they had got right among the Japanese and bombed them to hell. Unfortunately they had got right in among the retreating troops and a Gurkha colonel told me that after about three runs he decided the Japanese had captured some of our aeroplanes and he ordered his troops to open fire. He alleged that he had shot down three. Whether this is true I do not know, but the point I am making is that the fault did not, I think, lie with the RAF but with the army liaison officer who gave the wrong order. It was the lack of proper training in land/air co-operation that led in that case to a considerable tragedy.'

Maj Gen Britten, who remembered being well served by his RAF air controllers, mentioned one occasion when it went very wrong indeed. 'We were besieging Fort Dufferin, in Mandalay, and I was actually on the hill watching as the USAAF sent in two waves of Mitchells in square formation; the first wave bombed beautifully accurately, slap in the middle of the Fort. Five minutes later the second came along; there happened to be a slight breeze which was virtually undetected – they certainly would not have known there was a wind up there – and a whole ball of dust the size of the Fort had moved outside the walls and over our troops who were then bombed. They lost several of their officers and many men. Their forward air

controller was as horrified as we were, as there was no way you could tell they were coming over with the dust cloud moving on.' Asked about the attitude of the troops to the air force following an incident like that, *Britten* said that with everyone in the middle of a battle you just accepted that on occasions things like that did happen.

Col Dixon-Nuttall referred to a monsoon afternoon in the Arakan in July 1944. 'We were on the northern bank of a river while the Japanese were on the southern bank. Quite a lot of our supplies came by river from the north by sampan and that afternoon we were busy unloading when we heard aircraft approaching. We knew we were not due for air supply and wondered what they were; then out of the murk came two aeroplanes – I think they were Hurricanes. They passed over us and we thought they were going south to attack the enemy; then they came back and gave us the works. I had five men killed and fourteen or fifteen wounded. About twelve hours later we had a signal from Corps HQ and 224 Group with the greatest apologies. They also said they were sending us two young gentlemen in pale blue; we were to keep them three days but not get them killed. These two young pilots arrived and we scared the pants off them because we took them out on patrol and got the Japs to open up on us'.

Longer Range Operations

These were not extensively discussed, but *Mr Archbold*, an air observer in 215 Squadron, provided an interesting account of the earliest stage of Wellington operations in mid-1942. His squadron, equipped with the Mark IC, arrived at Asansol, 130 miles north west of Calcutta, on 6 April, but its two tarmac runways were too short for the underpowered aircraft, which needed at least 2,000 yards to take off with full fuel and war load in the very hot conditions. So ten days later they moved to Pandaveswar, which had a 2,500 yd natural surface strip and would serve until the monsoon began. At that time there was little or no infrastructure for a modern air force in eastern India: there were no navigational aids, no D/F stations, no M/F beacons, and the only radio source was All India Radio in Calcutta which shut down at 22.30. Nor were there any Mercator plotting charts for Burma, and the topographical maps were inaccurate, with dangerously wrong spot heights for the hills. The astro tables too were out of date, and navigation had to be by dead reckoning backed up by

visual pinpoints.

Archbold went on to describe his first mission. On the night of 30 April/1 May six aircraft were tasked to bomb the airfield at Magwe, in central Burma; each carried a load of 250 1b bombs and some incendiaries and had enough fuel for nine hours. Four of the aircraft turned back owing to a tropical storm over the Bay of Bengal, the fifth force-landed through engine trouble, and his pressed on, bombed what they thought was Magwe and turned for home. Running short of fuel – probably because of a leak – the captain decided to divert to Chittagong but could not raise them on R/T and eventually had to ditch a mile off shore. Three of the crew were killed; *Archbold* broke his leg and with the other two survivors was eventually rescued by local fishermen. The next fourteen months he spent in hospital.

The contrast between this first Wellington operation in the Far East war and the extensive Liberator operations of the closing years could not have been more marked. *Mr Fellows* thought the air force effort, as far as bombing was concerned, would have been disastrous without the B-24; the Wellingtons were useless. *Sir Lewis Hodges* agreed that the Liberator transformed the whole situation in that what was lacking from the start was aeroplanes with sufficient range. The distances were enormous and unless one had the range capability one could do nothing. *Dr Hallion* said he had always felt that the B-24's contribution to the war had not been very well recognised or appreciated; the B-17 Mafia after the war ensured that.

Gp Capt Arscott, of 358 Squadron, flew the Liberator in 1945 on Special Duties missions; he described the routine. 'On Day 1 you were briefed for your DZ, and in the afternoon you met the Joes, the people you were going to drop, and tried to set their minds at rest. You went to bed early, got up at 0200, went down to the airstrip, got into the aircraft and took off round about 0530 or 0600. Our missions usually covered the areas around Saigon and Hanoi and amid those extraordinary weather conditions took about 18 hours. We used to land about midnight and after debriefing were in bed by about 0300. Rested, we went to the bar in the evening to recover and the pattern started again. I actually flew my operational tour of 300 hours in two months.' He went on to stress the importance of having a decent navigator, someone who could literally make his own charts as he went along. 'One of our advantages was that we were made

responsible for particular areas. Mine, in addition to Saigon and Hanoi, included an area in Burma for short trips when they wanted to give us a break, and by going to the same place in effect about every third day we learnt to spot special features which told us exactly where we were. From say a certain river bend we knew that if we flew in such and such a direction for two and a half hours we should hit a small village; if we didn't we were in dead trouble. So it largely depended on the navigators: the DZs were in thick jungle, some were as small as cricket squares and sometimes the reception committee did not turn up. All I had to do was to fly in the direction the navigator told me to.'

AVM Farr, who commanded 358 Squadron, recalled that it was not always easy to deliver the Joes. On one occasion he took five Frenchmen all the way from Calcutta to Saigon – it took about nine hours – and found the dropping zone. It was getting light and being only twenty miles from Saigon he wanted to get to hell out of it very quickly. So he lined up with the 'T' and the green light came on. Then the despatcher said, "They won't go." I thought, I'm not going to hang around here, and I'm not going to fly 16 hours and take them back again. On the Liberator your passengers slid down a chute like a swimming pool – it was better than getting out of the door. They would sit on this slope and when the front one let go they would all go. Since the front Frenchman was refusing to leave I told my crew man to fix it, so the next time we went round he hit his knuckles and they all went.' *Farr* also stressed the unsuitability of some of the dropping zones, the height of the monsoon (on one night he lost three aircraft) and the absence of enemy air opposition – except on one occasion, when an aircraft was jumped by three Zeros in northern Thailand a month before the war ended.

Gp Capt Verity pointed out that towards the end of the war Air Command South-East Asia had more long-range Liberators dropping parachutists and supplies than were dropping bombs. Their targets included Malaya, which entailed flights of over 20 hours to deliver very small payloads, having taken off from their bases near Calcutta or in Ceylon seriously over the maximum permitted all-up weight. He also mentioned that at the end of the war the Special Duties squadrons were quickly adapted to deliver medical staff and supplies to prisonerof-war camps all over the theatre.

Special Duties missions were also undertaken by Catalinas, said AVM Hawkins, who remembered flying in agents for Force 136 (the Far East extension of SOE) and recovering them two months later much the more hazardous operation because of the possibility of their RVs being compromised. The work of the Lysanders was mentioned too. Mr Arkell served in the 357 Squadron Lysander Flight, whose job was to supply the men of Force 136 who were living well behind the enemy lines, usually 3,000-4,000 feet up. They organised the Shans, the Karens and other smaller tribes to fight in the rear of the Japanese; they were passionately pro-British and did a wonderful job. The heavier drops of ammunition and so on in Burma were mainly made by Dakotas and the job of the Lysanders was to get out any enemy prisoners they wanted removed, to convey the more senior officers, and to evacuate casualties. Among the worst illnesses were jungle sores and amoebic dysentery, and one should not forget fatigue, which affected everybody. The only bad thing about the flying was coping with the monsoon conditions in the mountains. 'You had a rough map and knew where you were going; you then entered the cloud, the rain and the filth and the only way you could steer up between the mountains was to keep underneath; otherwise you were lost. Once you got into a cloud it was too turbulent and could tear your plane apart. If, however, you did get into it and it got too dark on one side you violently turned the plane because you knew the mountainside was there. You went up your valley relying almost entirely on timing, and eventually if you were lucky you came out into a beautifully clear spot with mountains all round. In the middle was a tiny grass strip and a lot of chaps waving. You landed, hoping they had got the grass right and it was not so wet that you would get bogged down. Each round trip took about five and a half hours and we took in and out whatever they needed.'

The USAAF Contribution

The strength and roles of the American air forces were discussed in several groups, where it was made clear that they provided much the greater part of the air transport effort until almost the end, when substantial numbers of aircraft came in from the European theatre. *Dr Hallion* confirmed this but pointed out that the Americans were

largely tied up with other things, such as the Hump resupply and trying to conduct a strategic air campaign at long distance. So if one asked the people on the ground for their image of air support in this war they would be thinking primarily about Hurricanes and at a later stage about aircraft like the Thunderbolts. *Mr Jutsum* agreed that the main American interests were to keep the Hump route open, to keep Chiang Kai Shek in the war, and to help General Chennault with his fighter-bombers which were based in China. Yet without the American Curtis Commando transport aircraft he thought that we could have been in dire trouble in Burma. *Sir Lewis Hodges* agreed, saying that once the Burma Road was cut by the Japanese coming in from Siam the only way into China was by flying over the Hump or putting a vast effort into building the Ledo Road in the north, which was a very long-term project. In the event an enormous amount of air effort was absorbed in flying over the Hump, not least in carrying petrol. *Dr Hallion* mentioned that B-29s deployed in India operated from forward bases in China against Japanese industrial targets in 1944, but with little success.

Wg Cdr Skinner, agreeing that the Americans were there in great strength, thought that perhaps we were fighting two different wars. The Americans were fighting to beat the Japanese; the British were fighting both to beat the Japanese and to regain their colonies when the war was over. Gp Capt Groocock felt the Americans rather deprecated the British colonial attitude and were not at all concerned with helping us to recover our Empire.

Dr Winstanley was at pains, 'to stress the huge level of American co-operation. For instance the aircraft that lifted the 5th Indian Division from the Arakan to Imphal were all American – after a great tussle to persuade the authorities to allow the use of them.' At the practical level AVM Stacey recounted an experience which gave him great confidence in the Americans. 'I was commanding a Liberator squadron in Ceylon doing long 20-hour trips relying heavily on the Minneapolis Honeywell automatic pilot. It was a splendid piece of equipment but it often went wrong and we had no spares. My very innovative Canadian Flight Commander got a letter signed by the AOC and touring India found an American supply base which held the spares we required. Thereafter once a month we sent an aircraft there with all the unserviceable parts that we needed replacing. New parts were supplied and never a piece of paper changed hands. It is impossible to imagine better co-operation that that.' *Gp Capt Croucher*, a Dakota pilot, agreed on the very close co-operation that existed with the Americans; 'We knew they were doing the same job as us and doing it just as well.'

The Support Organisation

Several aspects of the vast infrastructure and support organisation were discussed, with *AVM Dick* reminding his group of the immense task of constructing all the airfields; this and so much more entailed an amazing piece of staff work – an incredible achievement. *Mr Danaher* said the railways too were critical; to develop those in north east India the Americans brought in railway battalion after railway battalion – 'If they had not done that we could never have survived.' *Wg Cdr Skinner* observed that the logistics chain which led back from the airfields via the railways and then the sea routes and eventually to the UK must have required phenomenal planning, and *Sir Denis Spotswood* paid tribute to Base Air Forces South East Asia and its precursors, who did a tremendous job.

Maj Gen Grant quoted from his own experience of being on the receiving end of air-dropped supplies. 'In March 1944 when we were withdrawing through the Chin Hills one of our battalions had a position on top of a sharp steep ridge, and there was a Japanese battalion on either side. At 10 o'clock in the evening we sent a demand for ammunition, food and 750 gallons of water – there was none on top of the ridge. By midnight the request had been accepted and a drop came in at 11 o'clock next morning. It was 100% accurate. That was the sort of efficiency that was achieved and it revolutionised the war.' *Grant* was asked by one of today's support helicopter pilots how, with the technology of the time, a lonely army formation in the middle of the jungle could get the messages through; as far as *Grant* could remember one of the chaps simply radioed back to one of the base airfields and the aircraft came next morning on the dot.

Sqn Ldr Mitchell, a signals officer, said that the whole thing revolved around an efficient communications organisation. 'The signals would come in to the Signals Centre at Comilla, which was in 1944 the headquarters of 3rd Tactical Air Force. We had a very large signal centre with communications out to all the different units and the army had their own signals centre running alongside it; messages were passed from one to the other. So when a request came in it was passed directly back to whichever stores depot had been detailed by BAFSEA for the items required. All the signals had to be encyphered and decyphered, so we had a very efficient cyphering team as well at each station. For most of that year we had HQ 14th Army alongside us; my opposite number was an Indian Army officer who was communications officer and we worked very well together'.

The difficulties of aircraft maintenance were discussed by *Mr Barnett*, a fitter with 194 Squadron. 'One of the things I remember is the tremendous time we had to spend on repairing the aircraft; we could be working as many as 20 hours on and four hour off. You had no sooner left a job and got your head down than someone was shaking you and saying you had got to go back on duty again. Eventually you got into such a state that you did not know what you were doing; it became very, very dangerous. On one occasion an instrument mechanic actually connected up an instrument gauge to a fuel line. Moreover you not only worked by day but also by night under cluster lamps which immediately attracted all the insects; they virtually obscured the light.'

Sqn Ldr Turner mentioned that spares were always scarce and his squadron ground staff did a wonderful job, constantly robbing Peter to pay Paul; nevertheless aircraft had to be flown back fairly regularly to the MU to collect spares. *Mr Rixon* added that in his experience it was the men who had graduated from Halton who held the maintenance service in Burma together. 'Most senior NCOs and some of the officers had come up that way, developing their skills over the years in parallel with the development of the aircraft, and taking three years to learn carefully that which we had to assimilate in one. They were the salt of the earth, all of them'. *AVM Hawkins* echoed this, emphasising the importance of the old-time SNCOs – the sergeants and the 'chiefies', most of whom were considerably older than the junior airmen and had a vast range of service experience behind them. 'The nature of man and the need for strong and understanding leadership', he said, 'does not and will not change.'

Brig Watkins said how much he had learnt about the campaign while editing Air Cdre Probert's book (The Forgotten Air Force). It was a campaign which had always fascinated him and he believed that

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if you wanted to start teaching military history this was the one on which to begin. One side of the campaign that he had found intriguing was the logistic effort that went into the maintenance of the squadrons in the field, and the amazing achievements of the ground crews living under the most appalling climatic conditions. He wanted to know how one actually moved a squadron from one location to another and what the physical problems were of transferring the spares and other equipment. *Wg Cdr Mohit Nayyar*, of today's Indian Air Force, commented: 'When it comes to moving a squadron from one place to another, even now when things have greatly improved in India, we still have problems with movements by road.' He asked what time frame one was talking about in those days when one said that a squadron was operational at place A and was to become operational at place B.

An unidentified speaker said that ground parties would go ahead, for the next week or so the aircrews would carry on flying; then they would move forward and the rear ground party would wind things up and then join them. He did not know how they managed it, but sure enough they got there. The overall move usually took about two weeks depending upon the distance. *Sir Lewis Hodges* quoted from his own experience. In May 1945, after the capture of Rangoon, the Liberators of his squadron were moved to Ceylon because they were getting ready for Operation ZIPPER, the invasion of Malaya, and the forces were being redeployed with that end in view. They moved the Liberators down to China Bay and flew a lot of groundcrew in them. They took as much ground equipment as they could in Dakotas. There was certain really heavy equipment that had to be sent by rail and took quite a long time to get there. They were, however, able to operate straight away using their own resources as transport aeroplanes.

The challenges facing the medical services as transport actoprates. The challenges facing the medical services were also discussed, several speakers mentioning that in certain phases of the campaign, particularly during the monsoon, casualty rates from malaria, dysentery and other diseases were far greater than those from enemy action. *Maj Gen Britten* and *Col Dixon-Nuttall* stressed the importance of the measures that were introduced as the campaign went on; as Slim and other senior commanders realised, the enormous sickness rates just could not be allowed to continue. One way to combat the problem was to get the casualties out of hospital and fit as quickly as possible; another was to enforce preventive measures such as the taking of Mepacrin tablets. In many units the men were paraded every night, wherever they were, in order to be given their pills, and by the closing stages of the war the disease rates were greatly reduced.

Leadership

The qualities of some of the senior commanders were widely mentioned. *Sir Denis Spotswood*, who believed there had never been closer collaboration between the Services than there was in Burma, considered that Mountbatten deserved much credit; he was certainly instrumental in the decision to operate throughout the monsoon. *AVM Stacey* said Mountbatten was a master of public relations, coupled with a tremendous memory for names; he possessed great charisma. *Wg Cdr Ercolani*, who flew Wellingtons and then Liberators and ended up commanding 159 Squadron, said that Mountbatten electrified the whole arena on his arrival, rather like Nelson hoisting his pennant on HMS *Victory*. *Wg Cdr Skinner* agreed: 'He talked to the troops and everybody thought he was fantastic; moreover the Americans seemed to accept him quite readily.' *Gp Capt Groocock*, who had once flown him to visit an Indian Maharajah, remembered Mountbatten – now CDS – greeting him personally many years later at the Staff College and recalling the trip; he was very good at his staff work.

Bill Slim too was widely praised; some rated him more highly than Mountbatten, one or two suggesting that he was the best British commander in the whole of the Second World War. *Maj Gen Grant*, who pointed out that it was Slim who in fact instigated air supply on the North West Frontier as an experiment, described him. 'He looked a big bluff sort of man but was actually a very intelligent man who passed out first at Staff College. He was articulate and could write well, and he was very pro-RAF because he saw from the beginning that without the RAF in Burma there was no hope of succeeding. I believe he used all his influence to spread air doctrine all the way through.' *Wg Cdr O'Brien* said that Slim's inspiration extended across all three Services and thought nobody could have done better. *AVM Stanbridge* stressed his leadership qualities in the field and *Maj Gen Britten* recalled that Slim always made a point of talking to all the officers of any newly arrived formation: 'Nobody likes being buggered about by someone they've never seen', Slim would say, 'you've seen me now.' *AVM Price*, who had known Slim as Governor-General of Australia, said 'One of his great skills was that he never forgot anybody. I saw him shaking hands and suddenly upsetting the whole timing and protocol because he recognised a lift attendant as being from the Burma campaign. His ability to relate to and identify with the fighting soldier was a great skill and perhaps the true secret of his leadership.'

Of the RAF commanders, Air Marshal Baldwin received several tributes. *Mr Saxon*, who recalled that Baldwin had been brought back from retirement at the beginning of the war, described him as the sort of man who led from the front – as an AOC he had 'stowed away' on the first Thousand Bomber Raid –and his qualities were invaluable in the Far East. *Brig Calvert* singled him out for praise; Baldwin lived in the same mess as Slim, always encouraged him to make the fullest use of the Air, and was in command of all air activities in the Kohima and Imphal operations. 'In my opinion he did more to win the war in Burma than anyone else'. They met after the war, when Baldwin's only regret was that the co-operation between the RAF and the Army had never been properly written up for future use and study.

only regret was that the co-operation between the NAT and the Army had never been properly written up for future use and study. The two group commanders were also given credit. Paddy Bandon, AOC 224 Group, was described by *Sir Lewis Hodges* as a very forceful commander who got on extremely well with his army opposite number in the Arakan and did a fine job; *Sqn Ldr Turner* mentioned the morale value of his frequent visits to the squadrons in the forward areas. Stanley Vincent, AOC 224 Group, was mentioned by *AVM Hunter* as one of the little recognised personalities of the RAF in the Second World War, and *Mr Jutsum* recalled him as not only immensely able but as the most courteous officer he had ever met, highly regarded by all the squadrons. Not long after joining his squadron *Jutsum* was due to fly as No 2 to the CO on a mission to strafe the Japanese across the Chindwin and had just started his engine. Suddenly someone leapt onto the aircraft. He saw that it was an AVM, wondered what he had done, pulled off his helmet, and heard the AVM say: 'They are pouring across the Chindwin, thousands of them. Stop 'em!' *Jutsum* felt he had been commissioned as the one man to fight the whole Japanese army. 'Vincent was quite superb and his rapport with Slim was very good. He would take the General out to show him the battle and the fighter squadrons would be warned that the AOC was up in his Harvard; we were a bit nervous about radial engined aircraft – not very different to an Oscar. Vincent was a perfect complement to Slim, and it was thoroughly unjust that he went unhonoured after the war.'

Sir Lewis Hodges made an interesting personal point in connection with Air Chief Marshal Leigh-Mallory, who was to fly out to take over from Peirse in Kandy in November 1944. Sir Lewis had been in Bomber Command and having just completed the Staff College course had been appointed PSO to Leigh-Mallory. It so happened, however, that Sir Arthur Harris had decreed that nobody who had been in Bomber Command was to be allowed to leave the command, so he was not permitted to go with Leigh-Mallory, who flew into a mountain in the south of France and was killed. For *Hodges* it was a lucky break (later, of course, he was allowed to go – to command 357 Squadron).

Leadership and its relation to morale were also discussed at the squadron level. *Sir Lewis Hodges*, who pointed out that he was flying from a permanent base with a 2,000-yard concrete runway and not from an unprepared forward strip, referred to the many problems created by the monsoon conditions and having to service the aircraft in the open in intense heat and humidity; such circumstances were very trying indeed for the groundcrew. The first thing that was important in maintaining morale and keeping spirits up was for the whole squadron, the aircrew and the groundcrew, to feel that the organisation was running well and that the officers in charge knew what they were doing; this gave confidence. Mr Jutsum was convinced of the importance of having not only a good CO, but also a good adjutant. His adjutant used to say: 'Let me deal with the paper work. You aircrew can sign your names, but don't get involved.' They did not have to worry about air force regulations; the adjutant dealt with it all. They also had a superb engineering officer, and with those three key characters the squadron morale was excellent. Another point, said Jutsum, was that he always insisted on keeping his ground crew informed as to what the aircraft were doing. The ground crew would spend a very dreary time servicing the aircraft and the aircraft would take off and be away all day. Eventually they would watch you land and leap onto your aircraft and ask; 'Everything all right, sir? How did

it go? What happened? Where did you go? Why is there a hole in the aircraft? You aren't looking after it!' They would also criticise your take-offs and landings. *Jutsum* thought that was marvellous, for it showed they were involved.

'One of the things', said *Gp Capt Arscott*, 'was that we were allowed to use our own initiative right down to the airman level. This was most marked on my squadron; we had 15 Liberators and the engineering side was run by a flight sergeant. He was God in our eyes. I don't know how he used to do it, but with bits of wire here and bits of wire there he ensured that aircraft were always on the line in the morning and we used to put in the air at least 12 aircraft a day. It happened because our team spirit made us determined to resolve whatever problems might arise, no matter if it meant doing deals and bending rules. In my own ground crew we had five lads who used to just look after our aircraft and the way they did it was absolutely magnificent. We would go out on long trips with total confidence that although we were going to be away for up to 20 hours, over enemy territory all the time, the engines or the aeroplane would not let us down. This was the co-operation that we had at squadron level'.

The question of tour lengths was raised, bearing in mind today's reluctance to send people away from their home bases for more than three months. *Gp Capt Arscott*, who was in Burma from March 1943 to June 1946, pointed out that when the country as a whole was at war and everybody was in it together it was a different matter. *Sqn Ldr Mitchell* was there for nearly three years, but four years was quite common and if the war had not ended they might have been there for five years.

Maj Gen Britten referred to the practical implications of tour lengths at the end of the war. 'In the Far East the soldiers were required to serve for 3 years 8 months, after which they were entitled to go home. The company commanders were beginning to drift away after the Battle of Mandalay and I personally left in June 1945; officers in my company who had arrived to take over spoke of all the best soldiers having gone back to India and all the British officers to England. So the training units had been dredged and newcomers were being pushed straight into the tail end of the battle in Burma. They did not know what was going on and they were very frightened of the jungle, having never seen it and trained for it. I think we were very

lucky in the timing of the Japanese surrender'.

Closing Comments

Three final observations are worth recording. From *Brig Calvert* came the recollection of being interviewed recently by a Japanese television team which asked him, 'Why did the Japanese invasion of India fail?' He first quoted Brig Jack Masters to the effect that practically every Japanese infantryman could have won the Victoria Cross or the Congressional Medal of Honour, so their defeat was not due to lack of courage. But, *Calvert* went on, after the Allies had gained air domination, it was we who had reliable air supply, excellent close air support directed at the target, and air evacuation of the wounded with its wonderful effect on morale. 'You, the Japanese', he stated, 'had not.'

A recently serving officer, Air Cdre Pitchfork, offered some important conclusions. 'In the land/air warfare game we continually have to re-learn lessons. At the beginning of the Far East war we hear of a dreadful lack of co-operation; at the end of it we hear of the closest possible co-operation. My concern is that we are going to do the same again and time will no longer be on our side. The Services must understand the need for this and take note of the lessons of the past. It is important that students who are here today do not just listen apathetically on a late Friday afternoon and say, "Well, jolly nice." The Burma campaign epitomises what can be done if the will is there and the preparation is made in advance. I have spent many hours flying over the army in support and not being used properly. I have also tried to run tri-Service periods here as Directing Staff and noticed their lack of knowledge of what the air can do for them and how to ask for it. While I have worked with our army colleagues and have the greatest possible respect for them, we still have to educate them about what air power can give them.'

Finally, *Maj Gen Grant* provided a brief but poignant tribute written by a Canadian, Mr Michael Esdaile, in 1993:

'To those gallant fellows who did what they did to the Kanchanaburi Bridge. As one who was down below and alongside the bridge I am full of admiration. I was naked at the time of your attack, having just been on an ablution effort to the river. I do not remember when I have ever sweated more. My thanks go to the accuracy of your bombing and then to President Truman for having the guts to drop the big bomb. Without the two of you I would not be here today.'

Note

The Editor wishes to thank Air Cdre Henry Probert, Gp Capts Geoffrey Thorburn and Tony Stevens, Sqn Ldr Peter Singleton, Mr Sebastian Cox, Mr Peter Love, Mr Peter Mason and Mr Tony Richardson for their work in transcribing the tapes of the eight discussion groups. The Synopsis itself has been compiled by Henry Probert, who has assumed that many members will read it in the context of his book on the subject, *The Forgotten Air Force*.

10. Chairman's Summing Up

To wind up our proceedings today I would like to reflect for a few moments on some of the more important issues which seem to me to have dominated the conduct of air operations in the South East Asia campaign.

First of all the geography of the region. The maps and presentations today have emphasised the very great distances involved and, when the Japanese turned their attention to South East Asia, we just didn't have anything like the aircraft necessary for the defence of Malaya and Burma, in terms of quantity, performance and range capability. Furthermore the reinforcement route from the UK to the Far East was a very long and tortuous one and required a strong ground organisation to be deployed along it. This all took time to organise and we were certainly ill-prepared in the early days. It is easy to be critical with hindsight, and one can readily understand the immense dilemma facing the government and Chiefs of Staff in the UK at this juncture, with the Germans on the Channel coast and with the war in the Mediterranean at a critical stage. It was very difficult indeed for additional squadrons to be made available for the Far East, which had to take a lower priority.

Nevertheless, although we started very late, a great deal was done in 1942/43 – for example in the construction of airfields. As you have heard over 200 airfields were built – a large number of them all weather. Also large numbers of ground personnel were sent out from the UK to augment the base organisation in India – to set up maintenance and repair units, supply depots, radars, etc to back up the air campaign in Burma. From the command point of view again the distances involved presented problems. The Air Commander-in-Chief had his Headquarters in Delhi – 1,000 miles from the scene of operations and from our air bases in East Bengal.

At the Quebec Conference in 1943, Churchill proposed a unified command for South East Asia with Mountbatten as Supreme Commander. This appointment was agreed by the Americans, and in the autumn of 1943 the new Supreme Commander arrived in Delhi and SEAC was formed. I believe that Mountbatten's appointment as Supreme Commander was a major turning point. As we heard from Air Commodore Probert this morning, the sizeable American air forces based in Assam had until this time remained under national command, the main American interest being in keeping open a supply route to China; and with the Burma Road to China cut by the incursion of Japanese forces into North Burma the only way was by air from India over what came to be called 'the Hump' route to Kunming. Eventually the Joint Chiefs of Staff in Washington agreed with Mountbatten's request to put all the air assets under a single command; a new Eastern Air Command was set up in Calcutta to control all air operations in Burma – with a United States commander - General Stratemeyer - responsible to Mountbatten's Air Commander-in-Chief, at that time Sir Richard Peirse. So we thus had a joint Headquarters, American/British, much nearer the scene of operations.

Another very important step in my opinion was the new Supremo's decision to extricate himself from the politics and bureaucracy of Delhi and to move to a new Headquarters in Ceylon at Kandy. This gave a fresh start and a new impetus to the conduct of the war. The integration of the air forces into a single joint command had far-reaching effects when we came to the critical battles of Imphal and in the Arakan where every available transport aircraft was needed for the supply of our forward troops. Although the Americans were at first reluctant to switch their transport aircraft from the delivery of supplies to China, the intervention of the Supreme Commander with the Joint Chiefs in Washington achieved the desired result. The importance of the combined US/RAF air transport forces in the Arakan battles and during the siege of Imphal was paramount as we discussed this morning in the formal presentations.

To turn now to a personal note on my own involvement, I was posted to India in the autumn of 1944 to take command of 357 Squadron – a Special Duties squadron. We were joined later by 358 Squadron doing the same jobs, the role of the squadrons being the parachuting of agents into Japanese occupied territories, Burma, Siam, French Indo-China (as it was then) and Malaya, in support of Force 136, which was the Far East equivalent of the SOE in the UK, and also the intelligence services. It was a mixed squadron with Liberators and Dakotas based at Jessore in East Bengal 70 miles north east of Calcutta. The Liberators had been modified for parachuting with the installation of a slide in the rear fuselage – rather like a slide into a swimming pool; five or six agents sat one behind the other on this slide connected to their static lines, and when the bar at the bottom of the slide was removed by the dispatcher, out they went one after the other through the rear hatch. This worked extremely well and was a fairly painless way of leaving the aircraft. The advantage of the Liberator was of course its great range capability, enabling us to carry out operations to the more distant target areas in Indo-China, Siam and Malaya – as well as operations to Burma. The Dakotas were primarily involved in Burma – but also in Siam and Indo-China. The Dakota was an excellent aircraft for the job –highly manoeuvrable for dropping into small DZs surrounded by mountains.

Whereas in Europe we were dropping agents in civilian clothes, in the Far East it was more a question of combat teams; typically it could be a small team of Siamese nationals – probably recruited in India with a British officer in command. In Indo-China we mostly parachuted French nationals – usually army people. And of course we were dropping stores, explosives, weapons, radios, etc. The main problem was the weather, particularly during the monsoon. The conditions were often appalling with massive build ups of cu-nimbus cloud and the terrain very mountainous with dense jungle – making navigation very difficult – and trying to find a small dropping zone tested the navigators to the limit, especially at night. We only operated at night in the moon period and the DZs were mostly marked by fires and a code recognition signal was flashed from the ground. Sorties to Burma were about 6-7 hours – but Indo-China for example was 15 hours and Malaya 20 hours or more. The longest sortie I did was 21 hours to Singapore. We usually refuelled at Cox's Bazar on the way out on the longest Malayan sorties.

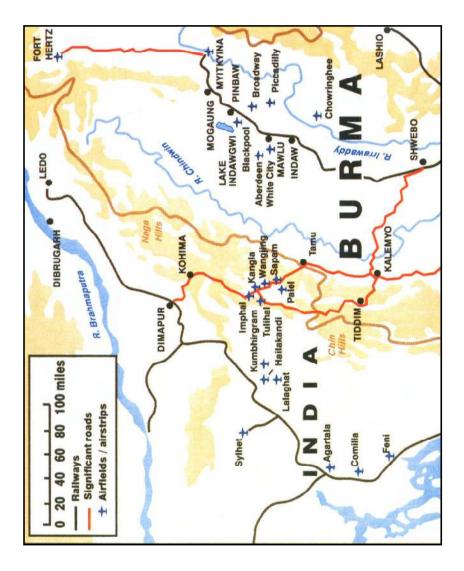
Prior to the arrival or availability of the Liberators in India Hudsons were used but with their restricted range they operated mainly in Burma but they did go to French Indo-China from American bases in China. Also in 1943 Catalina flying boats operating from Madras were used for landing agents on the Siam and Malayan coast but this was discontinued due to the difficulty of getting agents ashore in rubber dinghies through the surf. Submarines were also used but once the long range Liberators arrived on the scene they provided a much more economical way to do the job. The agents and combat teams we parachuted in were concerned mainly with the gathering of intelligence, sabotage and harassing the Japanese lines of communication generally. In 1945 a number of Lysanders joined the squadron for operations in Burma, particularly to work with the Force 136 teams supporting the advance of the 14th Army to Rangoon.

Here I would like to pay tribute to our ground airmen who kept the aircraft flying in the most trying and difficult conditions of heat, humidity and heavy monsoon rain. Working very often from forward bases with primitive facilities and having to improvise to keep the aircraft serviceable, they often came under Japanese attack. Like the radar technicians who manned isolated radar sites they did a splendid job and without their contribution we could never have achieved the final victory.

Finally I would like to quote some words by the 14th Army Commander, General Slim, from his book *Defeat into Victory*:

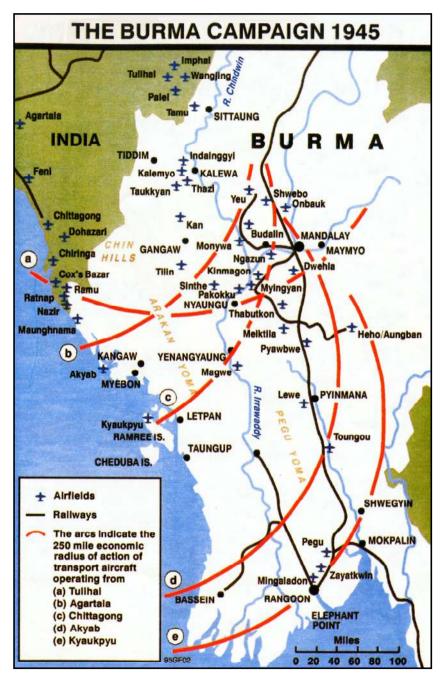
'Our pattern of operations depended almost entirely on a very large measure of air supremacy. Until a degree of air superiority, amounting at least locally to dominance, had been secured, neither air supply, movement or tactical support could be carried on with the certainty and regularity our operations demanded. The fighter and the bomber between them had to sweep the skies and push back the enemy landing grounds; the air battle had to be won first.'

That I think about sums it up.



NORTH BURMA 1944





11. Biographical Notes on the Main Speakers



Air Chief Marshal Sir Lewis Hodges KCB CBE DSO DFC

An old Cranwellian, Sir Lewis trained as a bomber pilot, was shot down over France in 1940 and interned. He later escaped, rejoined his squadron and flew many more operational missions. He then transferred to special duties, parachuting agents into occupied Europe and landing by night to pick up important passengers. In 1944 he moved to India to take command of No 357 (Special Duties) Squadron at Jessore,

near Calcutta. Equipped with Liberators and Dakotas, his squadron flew in support of resistance groups operating against the Japanese in much of South-East Asia. His later appointments included command of RAF Marham, AOCinC Air Support Command, Air Member for Personnel and Deputy Commander-in-Chief Central Europe.



Air Commodore H A Probert MBE MA

A Cambridge history graduate, Henry Probert joined the RAF Education Branch in 1948. During the 1960s he served in Singapore and on the Staff College Directing Staff and in 1976 he became Director of RAF Education. After retirement in 1978 he spent the next eleven years as Head of the Air Historical Branch. He is the author of *High Commanders of the RAF*, published in 1991 and has since been writing a history of the RAF in the Far East war. This was

published in July 1995 under the title The Forgotten Air Force.



Major-General Ian Lyall Grant MC

Ian Lyall Grant was commissioned into the Royal Engineers in 1935 and, after two years at Cambridge, was seconded to the Bengal Sappers and Miners in the Indian Army in 1938. After a year on the NW Frontier, he raised and commanded a field company which joined 17th Indian Division near Rangoon in March 1942 and withdrew with them to India. He stayed with this division on the Indo-Burmese frontier until August 1944, taking part in several of the key battles in the Chin Hills

several of the key battles in the Chin Hills and Imphal. After the war he served in the British Occupation Force in Japan, joined 16 Para Brigade for a tour in Cyprus and Egypt, and commanded 131 Parachute Engineer Regiment. He later went to Aden as Brigadier AQ before commanding the Royal School of Military Engineering at Chatham. His last posting was to the MoD as DQMG and he retired in 1970. He is the author of a recently published book called *Burma: The Turning Point*, describing the main part of the battle of Imphal in 1944.



Group Captain W D David CBE DFC AFC

Having joined the RAF on a short service commission in 1938 Dennis David flew Hurricanes in the Battle of France and the Battle of Britain, during which he was a Flight Commander with 213 Squadron at Tangmere. In 1943, after a spell on operational training duties, he commanded 89 (Beaufighter) Squadron in the Middle East and then Ceylon, where he took command of RAF Minneriya and Kankesanterai. In 1944 and 1945 he was SASO at HQ 224 Group in the Arakan,

working for AVM the Earl of Bandon and responsible for liaison with XV Corps. After the war he served on in the Far East, commanded several stations including Tangmere and completed his RAF career in the Air Secretary's Department, retiring in 1976.



Air Vice-Marshal A D Dick CB CBE AFC MA FRAeS

Having joined the RAF in 1942 David Dick trained as a pilot in India and after a spell as a flying instructor joined 30 Squadron, newly equipped with the Thunderbolt. His squadron operated in 224 Group and played a major part in the closing year of the Burma campaign. After the war he took a degree in Mechanical Sciences at Cambridge and rejoined the RAF in 1950. His subsequent career included tours at CFS, Boscombe Down,

North Coates and Andover (Directing Staff), and command of 207 (Valiant) Squadron. He retired in 1978 after seven years in Whitehall, the last three as Deputy Controller Aircraft (C) in the Procurement Executive.



Group Captain D W Groocock AFC

After completing his flying training Deryck Groocock flew a Wellington to India in 1942 and carried out operations with 99 Squadron. In 1943 he converted to the Dakota and flew with 194 Squadron (The Friendly Firm) throughout the battles of early 1944. He then joined the BAFSEA Communications Squadron and became personal pilot to Air Marshal Sir Leslie Hollinghurst. His post-war appointments included a tour on the

Directing Staff at the RAF Staff College Andover, command of Swinderby and Air Adviser in Canada. He retired in 1972.



Wing Commander Terence O'Brien DFC

An Australian, Terence O'Brien worked before the war as a copra planter and joined the RAF in 1939. Having piloted Hudsons in Coastal Command in 1941 he flew one of the reinforcement aircraft to Tengah and took part in the air operations in Singapore, Sumatra and Java in early 1942. He subsequently joined the Chindits as an RAF liaison officer and served with them in Burma during the 1944 campaign, after which he went to 357 Squadron to fly

Liberators on special duties missions. Since the war, as well as undertaking various business and teaching activities at home and abroad, he has written three books about his wartime experiences, mainly in the *Far East; Chasing after Danger, Out of the Blue* and *The Moonlight War*.

Royal Air Force Historical Society

The Royal Air Force has been in existence for over 75 years; the study of its history is deepening, and continues to be the subject of published works of consequence. Fresh attention is being given to the strategic assumptions under which military air power was first created and which largely determined policy and operations in both World Wars, the inter-war period, and in the era of Cold War tension. Material dealing with post-war history is now becoming available for study under the 30-Year Rule. These studies are important to academic historians and to the present and future members of the RAF.

The RAF Historical Society was formed in 1986 to provide a focus for interest in the history of the RAF. It does so by providing a setting for lectures and seminars in which those interested in the history of the RAF have the opportunity to meet those who participated in the evolution and implementation of policy. The Society believes that these events make an important contribution to the permanent record.

The Society normally holds three lectures or seminars a year in London, with occasional events in other parts of the country. Transcripts of lectures and seminars are published in the Proceedings of the RAF Historical Society, which is a publication provided free of charge to members. Individual membership is open to all with an interest in RAF history, whether or not they were in the Service. Although the Society has the approval of the Air Force Board, it is entirely self-financing.

Membership of the Society costs £15 per annum and further details may be obtained from the Membership Secretary, Dr Jack Dunham, Silverhill House, Coombe, Wotton-under-Edge, Gloucester, GL12 7ND (Tel: 0453-843362).