THE FOUNDATIONS OF VICTORY:
THE PACIFIC WAR
1943-1944

RISING FROM THE ASHES:
ALLIED AIR POWER AND AIR SUPPORT
FOR THE 14th ARMY IN BURMA, 1943-1945

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On the afternoon of 2 May 1945 the Officer Commanding 110 Squadron, Wing Commander AE Saunders, piloting a de Havilland Mosquito, was making a reconnaissance of Rangoon airfield when he observed a large white marking, as though a cloth had been laid out in surrender. He decided to land. Finding no Japanese at the airfield he proceeded to the city gaol, where some 1,400 Allied POWs had been incarcerated. There he was received by the senior officer, Wing Commander LV Hudson, Royal Australian Air Force, who confirmed that the enemy had abandoned Rangoon a few days earlier.[1]

It was entirely appropriate that Rangoon should have been liberated, symbolically at least, by the Royal Air Force. For the advance that brought General Slim's 14th Army from northern Burma to within 50 miles the capital in just six months, after more than two years of stalemate, would have been impossible without air power. During the campaign, transport aircraft of the Combat Cargo Task Force supplied an army of more than 300,000 ground troops; without their efforts, Slim's operations would have been logistically unsustainable. Close air support aircraft were guided onto ground targets by forward air control teams, helping to punch through Japanese opposition wherever it was encountered. Medium and heavy bombers cleared particularly difficult obstacles in so-called 'earthquake' operations. In January 1945 an especially well-prepared enemy defensive complex at Gangaw blocking Slim's crucial right hook to the west of Mandalay was the target of one such attack, afterwards it was captured at a cost of only two infantrymen wounded. Allied fighters also shielded Slim's advance from Japanese reconnaissance aircraft, ensuring that their high command remained oblivious to the developing threat on their flank until it was too late; at the same time Allied aerial reconnaissance provided an abundance of vitally important targeting intelligence and battle damage assessment information. And as the ground troops moved southwards, so too did Allied air power; by the early months of 1945 former enemy airfields were being brought into operational use within days of their capture by Slim's forces. This both ensured the maintenance of airborne supplies and enabled close air support and fighter aircraft to be positioned near to the battlefront.

On the eve of hostilities with the Japanese, Allied air power in South-East Asia was virtually non-existent; in 1940 the Royal Air Force possessed only a handful of largely obsolete aircraft in theatre.[2] According to one leading historian,

> There were few airfields, a small maintenance unit on Singapore, few spare parts and supplies, few trained pilots and so little intelligence on the Japanese that the RAF did not know of the existence of the Zero fighter.[3]

Yet in 1944 the British Empire and American air forces in Burma participated in one of the war's most outstanding feats of air support for a land campaign. Moreover, they did so in a theatre where climatic and topographical conditions combined to produce one of the most hazardous flying environments in the world. The full range of land-based air operations which underpinned 14th Army's victory included air defence, offensive counter-air, close air support, air interdiction, strategic bombing, photographic reconnaissance, tactical air transport, airborne operations, glider operations, special operations and maritime air reconnaissance. A truly dramatic transformation had occurred.

Histories of the air war in Burma have predominantly offered narrative accounts of the growth of Allied air power from its inauspicious beginnings through to the victories of 1944 and 1945, culminating in the liberation of Rangoon. The aim of this chapter is to provide a more

analytical approach to the problem; by focusing here on air superiority, air transport, and close air support operations, the objective is to demonstrate how and why air power came to play such a crucial role in the Allied victory.

Inevitably, the specific issue of army-air cooperation, whether through airborne supply or close air support, has featured very prominently in the historiography of Allied operations in Burma. Yet it is important to remember that none of the air operations in support of 14th Army would have been possible without one fundamental precondition—air superiority, the air-air battle had to be won before the air-land battle could be won. During the early stages of the war with Japan, Allied air forces in South-East Asia found themselves heavily outnumbered and outclassed by their adversaries.

On 7 December 1941 the RAF possessed just 181 serviceable aircraft in theatre, and their principal fighter, the American-built Buffalo, quickly proved to be no match for modern Japanese fighters like the Zero and the Oscar. Although reinforced by small numbers of British Hurricanes and American P-40s, the squadrons committed to the defence of Burma fell victim to determined counter-air operations by large formations of Japanese aircraft early in 1942, and were soon wiped out.[4]

The task of rebuilding Allied air power in Burma afterwards passed to the British and American commands in India. It was a painfully slow process. The 'Germany first' strategy pursued by the Allies ensured that South-East Asia was invariably accorded lowest importance in the allocation of resources, and although more aircraft began to reach India during 1943, the most modern lighters and bombers were held in Europe. The first Spitfire fighters only arrived in October 1943.[5]

But such aircraft would in any case have been difficult to employ to optimum effect without the necessary supporting infrastructure, which had to be created almost from scratch. This inevitably look time, but it enabled air power to be far more decisively projected later on. The various infrastructure projects included a massive airfield construction program, the multiplication of supply and maintenance depots, the improvement of communications, and the establishment of a radar chain (augmented by ground observers), and fighter control facilities.[6] No less important was the creation, in the final months of 1943, of a properly unified and integrated command and control structure, Air Command South-East Asia, covering all British and American air forces in India and Burma.[7]

While these preparations were under way, Allied air strength was being steadily augmented. Compelled to spread their air forces across several theatres, and unable to produce sufficient numbers of aircraft or pilots, the Japanese lost the numerical superiority that they had enjoyed in 1942. Over Burma, by January 1944, the Allies possessed an advantage of almost 5:1 in fighters over the Japanese; moreover, by then fighter squadrons were being reequipped with aircraft like the Spitfire, soon followed by American P-38s, P-47s and P-51s, which proved more than a match for the best Japanese fighters. Japanese air operations over Allied territory began to incur unsustainable attrition rates.[8] In the second Arakan campaign in February, 1944, Japanese air attacks on the so-called 'Admin Box' were beaten off, and the Japanese Army Air Force proved unable to stop airborne supplies from reaching the surrounded Indian ground troops; 65 Japanese aircraft were destroyed or damaged, for the loss of only three Spitfires. The same pattern was to be repeated in the battles of Kohima and Imphal.[9]

At the same time Allied long-range fighters and bombers embarked on an offensive counter-air campaign against the principal Japanese airfields in Burma, destroying numerous aircraft on the ground and in air combat. The Japanese were compelled to operate from distant bases; some of their sorties over Imphal were flown from airfields 600 miles from the front.[10] Concurrently, Allied air strikes against Japanese supply lines left numerous aircraft at forward airfields grounded by shortages of spare parts.[11] Replacement aircraft, pilots, and spares were also stopped *en route* to Burma after details of their movement were intercepted by Allied signals intelligence.[12] The final tally of Japanese aircraft destroyed or damaged between December 1943 and May 1944 was 760.[13] By mid-1944 the Allies were able to conduct air operations virtually unchallenged; air superiority was won over Burma at

approximately the same time as it was established over Western Europe. By January 1945, after the diversion of some of their forces to the Philippines, the Japanese could field only 126 frontline aircraft in South-East Asia, while Air Command South-East Asia numbered more than 1,500 aircraft.[14]

The advantages which air superiority conferred on the Allies were nowhere more in evidence than in the air transport operations mounted in support of 14th Army between 1943 and 1945. Logistics lay at the very heart of the British Army's inability to confront the Japanese in 1942. Throughout the Burma campaign the Japanese had consistently mounted flanking movements through the jungle around road-bound British columns. While engaging British forces frontally, they sent mobile units on foot to strike the vulnerable British lines of communication. To protect them, the British then withdraw troops from the front line, only for the Japanese to increase the intensity of their frontal assault. The British were repeatedly left with no alternative but to retreat.

The potential for the Japanese themselves to be outmanoeuvred through the application of air power only gradually became clear. In the late 1930s the RAF had largely been constructed around Bomber Command and Fighter Command, and when Burma fell in 1942 an air transport force was still in the early stages of development.[15]

But air transport occupied a far more prominent position in USAAF doctrine, and the United States possessed significantly larger numbers of transport aircraft.[16] Air transport was employed effectively but on a limited scale by both air forces during the retreat from Burma in 1942 to bring emergency supplies to ground troops and to evacuate personnel. It subsequently became central to American efforts to support China from India, and to the supply of isolated garrisons such as Fort Hertz, and ground troops cut off from surface transport by the monsoon.[17] Elsewhere in the Far East, such as Papua, transport aircraft were successfully used to supply American and Australian ground forces.[18]

But the real turning point in Burma was the first of Orde Wingate's long-range penetration expeditions in February 1943. Although the direct military impact of his expedition was limited, Wingate demonstrated beyond doubt the feasibility and military economy of air supply of ground troops in jungle combat. Each of his columns had its own RAF liaison officer, responsible for relaying supply requirements to the supply base at Assam, and for organising drop zones.[19] In all, some 178 sorties were flown by RAF transport aircraft in support of Wingate's forces, the so-called 'Chindits', dropping 303 tons of supplies.[20] Thereafter, the potential for supplying ground forces by air would always be considered by Allied commanders.

The second Arakan campaign began in November 1943. For the first time, Allied planning now presupposed total dependence on airborne supply for at least one of the divisions involved, 81st West African Division, on the eastern flank. After early progress, the Allied advance was itself confronted by a Japanese offensive in February 1944, which was conducted on exactly the same tactical principles that had proved so successful in the past. The difference was that Messervy's 7th Indian Division did not respond to the Japanese flanking manoeuvres by retreating; instead they were ordered to stand and fight, and to rely on airborne supply.

Concentrated around the Admin Box, they heroically repelled the Japanese onslaught in some of the bloodiest fighting of the war in Burma, while a steady stream of Dakotas sustained them with rations, weapons and ammunition. These missions were executed in very close proximity to the enemy, and many aircraft were damaged by small-arms fire from the ground; nevertheless, 700 supply sorties were flown to the Admin Box, while in total Allied transport aircraft flew more than 3,000 sorties to convey 10,000 short tons of supplies to the divisions involved in the Arakan campaign in the crucial month of February 1944. By mid-February the forward Japanese units were themselves running out of supplies, and by the last week of the month they were in full retreat. Second Arakan demonstrated that through the use of airborne supply, Japanese jungle tactics could be defeated.[21]

The experience was to be repeated on a larger scale at the battles of Kohima and Imphal in March 1944, but not before a further radical development in the employment of air transport in Burma. This was the movement of an entire division, 5th Indian Division, from the Arakan front to shore up the defences around Imphal, which was threatened by the second stage of the Japanese offensive; the division's redeployment required about 750 transport sorties, in addition to those needed to airlift reinforcements from India into the area. The ground forces at Kohima were subsequently maintained in a tiny garrison area by transport aircraft flying in daylight at an altitude of only 200-300ft, invariably under small-arms fire from the Japanese. At Imphal a force of 150,000 troops in contact with the enemy and 138 miles from the nearest railhead had to be sustained entirely from the air. Their requirement of more than 400 tons of stores per day had to be flown into a valley ringed by Japanese guns. In total, Allied transport aircraft brought more than 32,000 tons of stores into the Imphal-Kohima area during April, May and June 1944, moved nearly 59,000 personnel into or out of the battle area, and evacuated 15,000 casualties. By the end of June it was once again the Japanese who were compelled to withdraw.

At Second Arakan, Kohima and Imphal, 14th Army had drawn decisively on air transport, but had largely done so spontaneously, as a desperate measure to stave off defeat. However, the potential for building air transport into many different stages of operational planning was in the meantime illustrated by the second of Wingate's long-range penetration expeditions. The first Chindits had their powers of endurance stretched to the very limit by their infiltration through the Burmese jungle on foot; they only depended on the air only for supplies. But Wingate's second, far larger, operation relied on air transport for deployment, supply, casualty evacuation, and in part for extraction. The initial deployment, undertaken by transport aircraft and gliders, conveyed 12,500 troops into the field along with full field equipment, pack animals, bulldozers, jeeps, tractors, armoured cars, ammunition, rations, and anti-aircraft guns and artillery; this force was then sustained by 2,000 tons of airborne supplies per month. Light L-l and L-5 aircraft evacuated more than 1,300 casualties, and RAF Sunderland flying boats brought out a further 500 wounded by landing on Lake Indawgyi, after forward air strips had been flooded by the monsoon.[22]

In summary, between the beginning of 1943 and mid-1944, air transport operations in Burma established a range of precedents, which came to exert a decisive influence on Allied planning and tactics. The first Wingate expedition introduced the principle of airborne supply for fielded forces in Burma; the second Arakan campaign witnessed the deployment of a regular division dependent on air supply, and the first defeat of a Japanese offensive in Burma, partly through airborne supply; the second Wingate expedition saw the deployment of a major ground force by air, and also the partial extraction of that force by air; Imphal demonstrated the Allies' capability to use air transport to switch an entire division from one front to another, and to sustain an entire corps by air. Hence, given the availability of sufficient transport aircraft, air power could demonstrably fulfil virtually all the essential transport and logistical requirements of 14th Army; moreover, it could also give the Allies a critical advantage in both movement and logistics over the Japanese, who were dependent on vulnerable land lines of communication and on water-borne transport. After Imphal it was possible to plan the recapture of Mandalay and the advance on Rangoon overwhelmingly on the basis of air transport and supply.

The Japanese response to the vastly enhanced use of air transport by the Allies was something of a paradox. In 1942 they had correctly identified the British Army's land supply lines as a centre of gravity; by severing British lines of communication, they repeatedly pursued the fastest and most effective route to victory. By contrast, in 1944 and 1945, the Japanese Army Air Force consistently failed to target Allied air transport, despite its fundamental role in the 14th Army's logistical chain. This was partly because of the losses incurred in combat against Allied escort fighters, but it also reflected the Japanese Army's preference for employing air power in direct support of ground operations. Yet by this stage of the war Japanese close air support was too weak to inflict significant damage or casualties on British ground forces, and numerous aircraft were lost during these attacks. The Commander-in-Chief Air Command South-East Asia subsequently expressed incredulity at this misdirection of scarce and very valuable resources: 'Had the enemy used his fighters effectively', he wrote, 'instead of frittering away their effort on infrequent low-level attacks against forward troops, he would have been able to do great execution among our supply aircraft, thus seriously impeding the advance.'[23]

The second (but no less important) field of Allied operations which could not have been conducted effectively without air superiority was close air support (CAS). The RAF's limited tactical capability during the early years of the war is well known and requires no further comment here. In fact it could be argued that the doctrinal obstacles to effective CAS which had so influenced the RAF in the late 1930s had largely been swept away by the time hostilities commenced with the Japanese, as a result of experience gained in northwest Europe and North Africa. Again, however, resource constraints impeded the development of CAS in Burma in 1942 and the first half of 1943.

During the first Arakan campaign in late 1942 and early 1943 the only bombers available for CAS were three squadrons of Blenheims, which proved quite unsuited to the task. Fighters also provided direct support, but were more successful strafing enemy lines of communication. Enemy targets in jungle locations were often impossible to identify from the air, so instead they were indicated to pilots by pin-point positions or by smoke shells fired by the artillery. The effectiveness of such methods was often hard to gauge, however, and there was a chronic shortage of accurate battle damage assessment information. On the ground, Army units at first supplied wildly over optimistic reports on their effectiveness; many Japanese bunkers and foxholes in fact emerged unscathed from bombing attacks. It also proved difficult to coordinate air and ground operations effectively; assault troops were assembled too far from the Japanese lines, and the defenders usually recovered from the effects of bombing before the ground attack started.[24]

During the operation 224 Group, based at Chittagong, had overall responsibility for providing air support, while an organisation called the Army Air Support Control operated alongside 14th Division's headquarters to control tactical aircraft engaged in CAS. Air Support Controls were linked to Brigade and RAF Wing headquarters; they had first appeared in the Western Desert in 1942. The Army Air Support Control seemed to function well enough, but the small scale of operations probably meant that it was not very rigorously tested.[25] Wingate's first expedition likewise provided few opportunities for developing CAS tactics or organisation.[26] The decisive impetus would only come at the end of 1943 and in early 1944.

By the *second* Arakan campaign, Allied air forces were numerically stronger and more capable, but could hardly be considered modern by the standards of the air forces in northwest Europe. The aircraft available for direct support included Hurricane fighter-bombers and Vengeance dive-bombers, and American B-25s and British Wellingtons from the Strategic Air Force also participated. But the results were far from satisfactory and were in many respects similar to those observed in the earlier campaign. Accurate targeting again proved exceptionally difficult in the jungle terrain; Japanese defences were deep, strongly protected, well camouflaged, and hence very resilient. The heavier bombers could only periodically be diverted from other operations to assist the offensive, and any advantage which they conferred on the attacking forces from the impact of their bombing was invariably offset by their greater margin of error, which compelled Allied ground troops to begin their assault too far away from their ultimate objective. The problem of coordination was exacerbated by the fact that the larger bombers were based hundreds of miles behind the battlefront.

Operational control of CAS aircraft engaged in Second Arakan was again vested in 224 Group, but the Group headquarters was separated from 15 Corps headquarters by a distance of about 100 miles. CAS during Second Arakan was therefore once again directed through the medium of an Army Air Support Control located with 15 Corps. Difficulties arose because, while 15 Corps was entirely committed to the Arakan offensive, 224 Group was engaged in a variety of other operations, including long-range attacks on enemy lines of communication and fighter escort duties. In these circumstances there was inevitably strong competition for resources between the two headquarters, and it proved difficult to strike a mutually acceptable balance.[27]

Second Arakan nevertheless witnessed two tactical developments of considerable long-term significance. First, in the later stages of the campaign, ground forces communicated directly by radio with tactical aircraft to guide them towards their targets—a technique then also

emerging in Italy and (under American sponsorship) in northern Burma. Second, a system was introduced whereby heavier bombing attacks were swiftly followed up by precision attacks by tactical aircraft, designed to keep enemy forces pinned down until ground troops had closed on their positions. Properly practised and refined, these tactics would in time provide the solution to coordinating air and ground attacks in the Burmese theatre.[28]

Ground operations in the spring of 1944 provided a further stimulus to the development of CAS organisation and tactics. The tactical aircraft of 221 Group flew more than 25,000 sorties from March to July in support of ground forces at Kohima and Imphal; Slim later acknowledged that 'without the victory of the air forces there could have been no victory for the Army'. The battle raised many of the same tactical issues that had arisen on the Arakan front, but inter-service cooperation improved considerably, not least because 221 Group headquarters was located forward on Imphal plain, along with some of the squadrons actually engaged in CAS. This greatly facilitated army-air liaison.[29] Closer cooperation was reflected in more effective targeting and coordination between air and ground forces; during the battle assault troops were brought to within 200 yards of enemy targets being attacked by tactical aircraft.[30]

In the same period Wingate's second expedition witnessed the more systematic employment of ground-to-air radio to direct tactical aircraft on to their targets. In a sense there was no alternative, because Wingate's forces were operating hundreds of miles from Allied air bases; the situation on the ground was liable to change between the time that air support was requested and the arrival of the aircraft in the target area. So RAF sections—the RAF Component Special Force—deployed with Wingate's six brigades. During tactical air operations they worked as forward air controllers, guiding aircraft towards enemy forces, which were also illuminated by smoke shells from mortars or artillery.

The supporting aircraft were themselves assigned to a special unit named the Air Commando Force, a controversial measure but one that worked in the specific circumstances of the expedition. Tactical air operations during the expedition provided ample opportunity for comparing attacks by aircraft with and without radio contact with the ground, and it was found that CAS was far more effective when ground-to-air radio was employed. The difficulty of targeting enemy forces in the jungle environment also encouraged efforts to exploit photographic reconnaissance more effectively. Altogether some 382 tactical operations were conducted during the campaign involving 1,900 sorties.[31]

14th Army's campaigns in the first half of 1944 contained numerous lessons on CAS. They demonstrated that operations would benefit from closer army-air cooperation at headquarters level, that tactical air control could be improved by the more widespread use of ground-to-air radio and photographic reconnaissance, and that air and ground attacks could be better synchronised without undue risk to ground troops. During the second half of the year these issues were studied intensively, together with developments in the application of CAS in Europe. The result was a series of organisational changes, which drew on European experience while at the same time making allowances for differences between the two theatres. These included the far greater distances between deployed formations and units that was often a feature of operations in Burma, and the relatively poor standard of communications there.[32]

First, the decision was taken to co-locate the headquarters of 14th Army with the headquarters of 221 Group, which was to be responsible for controlling all CAS aircraft engaged in the forthcoming campaign in central and southern Burma.[33] When the speed of 14th Army's southward advance threatened to open too great a gulf between the headquarters and units near the battlefront, it was decided to form what was known as a Group Control Centre, which would move as far forward as possible with the most advanced Wing headquarters to take control of all CAS operations.[34] Secondly, once the controlling function of the Air Support Controls had passed to the Army/Air headquarters, they were replaced by Air Support Signals Units. Their role was to operate a dedicated signals network solely for the purpose of air support, functioning at corps, division and brigade level and at group and wing headquarters; these units had first been created in Europe earlier in 1944.[35]

At the battlefront itself the basic organisational unit, underpinning the entire system, was the Visual Control Post. Visual Control Posts were joint mobile Army/RAF teams functioning at brigade level and equipped with ground-to-air radios. As the name suggests, they controlled tactical aircraft visually from a position on the ground commanding a view of the battle area. Specifically, they were tasked to:

1. Assist aircraft to identify their targets, or to adjust them.
2. Cancel or delay operations if necessary.
3. Direct aircraft to secondary targets.
4. Direct aircraft from a 'cab rank' (orbiting patrol).
5. Coordinate and control heavy bomber operations in support of ground forces.[36]

Alongside this new organisation, important tactical changes were introduced to maximise the impact of Allied air support. There were particularly marked improvements in the exploitation of heavy and medium bombers immediately preceding the assault of enemy strong points by the Army. The tentative experiments witnessed during the second Arakan campaign were rationalised and refined; there were extensive exercises and rehearsals. The 'earthquake' operations that resulted were designed to exploit the psychological effect of bombing on the enemy and not simply the material damage inflicted. According to one contemporary document,

> Air bombardment can NOT completely neutralise an area ... At Cassino and Caen ... reports show that the numbers actually killed were small but that there was a most marked stunning effect for a period of time ... Our infantry and armour must take immediate advantage of this period of stunned uncertainty.[37]

Earthquake operations scheduled an initial strike by heavy or medium bombers, followed by fighter-bomber attacks which receded as the ground troops advanced, and which finished with dummy attacks. Ground troops were brought to within 700-800 yards of their objectives during the heavier bombardment, and closed to 200-300 yards while the fighter bombers were in action. By launching their final assault so close to the Japanese positions, they were able to exploit the demoralisation and disorientation which bombing invariably generated among enemy forces to overwhelm their defences.[38]

In 14th Army's southern offensive to liberate Burma in 1945 all the basic components of Allied air support for ground operations described in this chapter can be identified. When operations commenced, Allied air superiority protected Slim's troops from all but the most limited and ineffective attacks by the Japanese Army Air Force. It also ensured unhindered air transport and CAS in support of ground forces; air transport provided the army's logistical chain, while CAS played a crucial part in destroying Japanese resistance. As soon as territory had been seized, captured airstrips were reopened, bringing air superiority fighters and ground support aircraft close to the front, and allowing supplies and reinforcements to be flown in; this in turn provided the impetus behind further advances on the ground. The application of these tactics had almost brought 14th Army to the gates of Rangoon when the monsoon started at the end of April 1945. By that time the Japanese had fled the city.

The process by which air power was developed to support Allied ground forces in Burma can only be described as incremental-the absorption of lessons from previous operations and from other theatres, and their application to future campaigns. After the initial defeats of 1942, Allied air power was gradually rebuilt, like the proverbial phoenix rising from the ashes. Air superiority-the key to full exploitation of the air medium-had been won by mid-1944. The scope for using air transport to solve the army's fundamental problems of movement and logistics became clear partly from unplanned measures of last resort implemented to avoid defeat, and partly from the inventive and far-sighted initiatives of Wingate's expeditions. In Wingate's second operation it was for the very first time *planned* that virtually all long-range movement and logistical arrangements should depend on air transport. The same basic approach, vastly extended, was then employed by 14th Army during the reconquest of central and southern Burma. The evolution of CAS was similarly incremental, the exigencies of battle producing organisational and tactical changes which were then studied, refined, rehearsed, and adapted in the light of European experience. After a great deal of trial and error, the Allies had by the later months of 1944 established a formidable CAS capability, which was applied with devastating effect in the final Burmese campaigns.

An explanation of air power's triumph in Burma in 1945 must begin with the disastrous defeats of 1942 and early 1943. These early campaigns showed that the Japanese were better prepared for jungle warfare than the Allies in almost every respect—experience, doctrine, training, equipment, tactics and logistics. In a straightforward confrontation between Allied and Japanese ground forces, the Japanese clearly held too many advantages; the task of evicting them from Burma using ground forces alone would have proved enormously difficult, drawn-out and costly. It was air power which by 1944 gave the Allies a means of defeating the Japanese army, particularly (although by no means exclusively) through the systematic exploitation of airborne movement and logistics, and close air support. At the same time these vital capabilities were denied to the Japanese, so that their ground forces were placed at a decisive disadvantage. Behind these developments lay the Allies' pursuit of a general air strategy, and their willingness to allocate material and human resources to air power on a scale that dwarfed the combined efforts of the Axis powers, who tended to view air warfare merely as an adjunct to land or naval warfare.[39] The final word may be left to Slim himself:

> The Allied air forces ranged all over Burma as far south as Rangoon, on a plan designed almost entirely to help 14th Army. Enemy fighter squadrons were driven farther and farther back, his communications harried all round the clock, his movement by day made perilous and by night delayed. Our attacks were preceded by devastating 'earthquake' bombardments; our bridgeheads as we clung to them screened from fire by the air. Never, I believe, was air cooperation closer, quicker or more effective; never was it more gratefully appreciated than by 14th Army and its commander.[40]

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