

MEMORANDUM

RM-3654-PR

JULY 1963

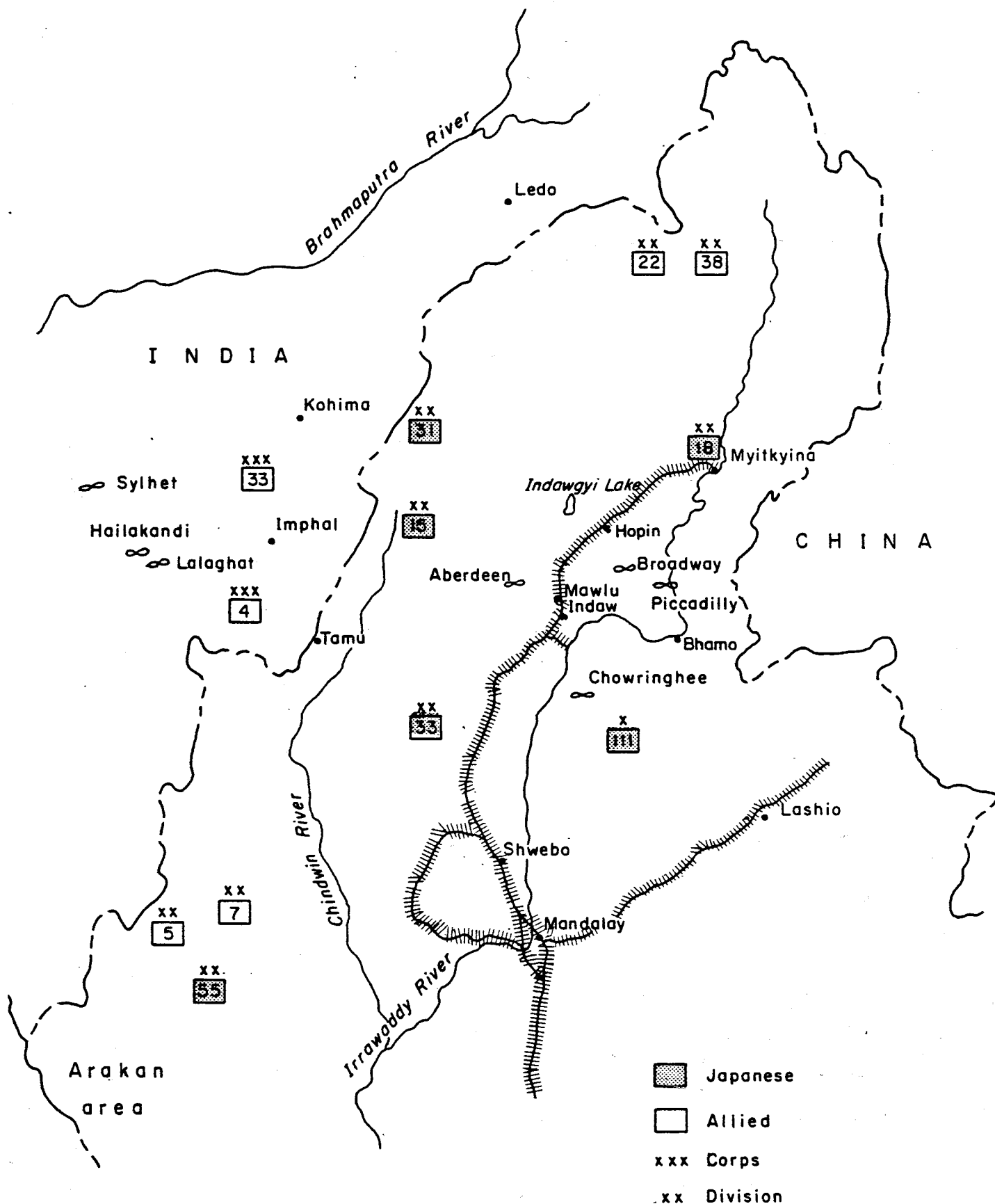
SYMPOSIUM ON THE ROLE OF
AIRPOWER IN COUNTERINSURGENCY
AND UNCONVENTIONAL WARFARE:
CHINDIT OPERATIONS IN BURMA

Edited by A. H. Peterson, G. C. Reinhardt and E. E. Conger

PREPARED FOR:

UNITED STATES AIR FORCE PROJECT RAND

The **RAND** *Corporation*
SANTA MONICA • CALIFORNIA



Approximate deployments in Northern Burma, March 1944

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PREFACE

This Memorandum is a condensation of the discussion of the Chindit Operations in Burma, a part of a RAND symposium on "The Role of Airpower in Counterinsurgency and Unconventional Warfare," January 14-18, 1963, A. H. Peterson, Monitor.

Because the material consists of personal recollections and discussions by men who were active in the campaigns, each Memorandum in the series covering the symposium was done in a purely reportorial style, with care exercised to retain the flavor and connotations of the discussants. For the same reason, no attempt was made to resolve any implicit or explicit differences among the participants' views or between them and available published works on the same subjects.

The symposium was organized to collect relevant detailed information of these types of warfare in the hope that such information, examined with the original environments firmly in mind, would suggest lessons for current air operations. In addition, the material, when considered within the context of advanced technology, should provide some guidance for future planning and hardware development.

The symposium Memoranda are as follows:

Symposium on the Role of Airpower in Counterinsurgency and Unconventional Warfare:

The Malayan Emergency, RM-3651-PR

The Philippine Huk Campaign, RM-3652-PR

The Algerian War, RM-3653-PR

Chindit Operations in Burma, RM-3654-PR

Allied Resistance to the Japanese on Luzon, World War II, RM-3655-PR

Unconventional Warfare in the Mediterranean Theater, RM-3656-PR.

The discussion leader for the subject of the present Memorandum was Brigadier General M. MacCloskey, USAF (Ret.).

FOREWORD

To be of value in actual application, battle studies should be based upon intimate experience in modern combat, not upon historical records of general operations of troops. The individual action of the soldier remains enveloped in a cloud of dust, in narratives as in reality. Yet his battle experiences must be studied, for the conditions they reveal should be the basis of all fighting methods, past, present and future.

Where can data on these questions be found? Stories in great detail, for the smallest detail has its importance, secured from participants and witnesses who knew how to remember, are necessary in a study of the battle of today.

The number killed, the kind and character of the wounds, often tell more than the longest accounts. Sometimes they contradict them. We want to know how man fought yesterday. Under the pressure of danger, impelled by the instinct for self-preservation, did he follow, make light of, or forget the methods prescribed or recommended?

Battle Studies, Col. Ardant du Picq,
(translated from the 8th edition),
Military Service Pub. Co.
Harrisburg, Pa., 1958

PARTICIPANTS IN THE DISCUSSION OF THE CHINDIT OPERATIONS IN BURMA

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I. INTRODUCTION

GENERAL ALISON: Since I didn't keep a diary, I will be talking from memory this morning. However, to put our Air Commando activities and the Chindit* operations into the framework of theater operations, I read through the U.S. Army official history of the CBI theater.** This was, of course, very helpful. After 20 years, recollection of some incidents becomes colored by other people's viewpoints and a tendency to crank in a little hindsight. I don't think this last will hurt or limit the discussion. It might be helpful.

I will start by telling you how this particular operation originated. In August 1943, Prime Minister Churchill brought General Orde Wingate, a very colorful military and political figure, to the Quebec (Quadrant) Conference. Wingate had convinced Mr. Churchill that his long range penetration forays during the spring of 1943 behind enemy lines in Burma had been effective;*** that air support, especially aircraft to evacuate the wounded, would greatly enhance their value.

Wingate was the kind of leader who attracted and inspired troops, and on occasions irritated his contemporaries and his superiors. But

*The accepted pronunciation of "Chinthe," a lion-headed dragon that guards temples in Burma. Under Burmese Buddhism it alone is permitted to use force. The Road Past Mandalay, John Masters, Harper Brothers, New York, 1961, p. 127.

**United States Army in World War II, China-Burma-India Theater, Stilwell's Command Problems, Charles F. Romanus and Riley Sunderland, Office of the Chief of Military History, Department of the Army, Washington, D.C., 1956.

***The only successful offensive action taken by the British (in the China-Burma-India theater) during the 1942-43 dry season was that by Wingate's long range penetration group far behind Japanese lines. (Strategic Planning for Coalition Warfare 1943-44, Maurice Matloff, Office, Chief of Military History, Department of the Army, Washington, D.C., 1959.) At a cost of 30 per cent in casualties, the 77th Brigade had done no damage that bombers could not have done, but great results were to issue from Wingate's expedition. On the Allied side, commanders henceforth recognized that units on air supply could move in strength in Japanese rear areas. The Japanese re-evaluated their belief that the hills on India's borders were impenetrable and concluded that India could be invaded. They failed to observe that armies in the jungle

none deny that his Chindits were fine, dedicated soldiers with very high morale. Yet the fate of their wounded was almost intolerable. Far behind the enemy lines, dependent upon their feet and a few mules for mobility, these columns couldn't stand still right in the middle of large Jap concentrations. Consequently, a soldier immobilized by wounds would be left under a bush with a canteen of water, a rifle and a farewell, "Goodbye, friend." I don't think anything hurts a fighting man more than leaving his buddy all by himself to be picked up by the enemy.

Wingate desperately wanted ambulance planes, STOL aircraft that could rescue his wounded from behind enemy lines. At Quadrant, he apparently fired the imagination of American leaders.

could be supplied by air. The immediate effect of Wingate's expedition was the stopping of the Japanese advance (114th Regiment) on Fort Hertz. The Japanese had only one division (18th) in North Burma. Stilwell's Mission to China, Charles F. Romanus and Riley Sunderland, Office of the Chief of Military History, Department of the Army, Washington, D.C., 1956.

II. REVIEW OF THE CHINDIT CAMPAIGN

AIR COMMANDO CONCEPT OF OPERATIONS

GENERAL ALISON: Soon after General Arnold returned to Washington he called Phil Cochran and me, both of us lieutenant colonels in the Army Air Force, to his office. After a very brief explanation, the general said that someone had to bring out General Wingate's wounded and asked which of us wanted the job.

We were both reluctant. I had just organized a fighter group due to embark for England. I had had a fighter squadron in China and I was very anxious to get into the European War with what I considered to be a first-class fighter outfit of my own. I told the General that if L-5s picking up wounded was all that was required, I didn't really think he needed me.

General Arnold said, "That is not my plan at all. Wingate has made innovations in ground warfare; I want some in the air. Wingate's troops walked into Burma. From now on I want them to fly in and I want them to fly out. The U. S. unit to be formed for this mission will have first priority on any equipment necessary to the job."

Put in this light, both of us volunteered for this strange outfit. We started under a top secret label.* Cochran and I were not to tell anyone, not even members of General Arnold's own staff, the purpose of our mission. General Vandenberg was present when this decision was made and was directed to get us anything we wanted.

Actually, we were left with an A-1 Pentagon priority and specific instructions not to tell anyone what we were going to do. Two lieutenant colonels walking around the Pentagon trying to advance a project and telling general officers, "I'm sorry, sir, but I can't tell you what we are going to do because this is a very important mission," is not a way to win friends and influence people.

*The unit was first designated as U. S. Army Air Corps Classified Project Nine. Subsequently, it was called Number 1 Air Commando Force and then Number 1 Air Commando Group. Ed.

Another strange facet of this enterprise was General Arnold's naming us co-commanders, as far as I know the first and only co-command in the Army Air Force. After about a month it was obvious that one individual had to assume command responsibility. We corrected this ourselves. Cochran ranked me, so we named Phil commander and me deputy commander. Then we got on with the job.

We didn't know what was involved. Having spent two months at the eastern terminal of the Hump, patrolling the Burma road and penetrating below Mandalay, I had a fair idea of the terrain. That was all we knew.

Phil immediately went to London to confer with General Wingate and shortly thereafter I followed to confer with his staff. The evolution of the tactics we developed really grew out of those conferences. When we reflected on the task, "What do we need to do this job?" we came right back to traditional doctrine, the roles and missions of airpower.

At this particular time both Cochran and I had had very limited staff experience. We had been fighter pilots, nothing more. There was a lot of military knowledge that we wished we had, but we didn't. We made our share of mistakes. However, military doctrine usually parallels common sense. We knew what the task was. Looking back, it is surprising how closely we followed what is now established military doctrine in the Air Force.

AIR COMMANDO ORGANIZATION AND EQUIPMENT

GENERAL ALISON: Knowing Burma and the general location of Japanese airfields, it was clear that we must have a degree of air superiority. We didn't expect it to be complete so we planned to operate under cover of darkness. But we knew that at times we would have to gain local air superiority. We did not know to what extent we could depend upon the RAF or the Army Air Force. So we decided to do it ourselves.

We got a squadron of P-51As, the first operational P-51 with the Allison engine, a pretty fine airplane for low level work. We also recognized that to isolate landing areas, to create diversions necessary to the success of our operation, we would have to interdict. So

we asked for a squadron of B-25s, which we received in India. We planned to use both the P-51s and the B-25s to support the ground troops once we were established.

Having been over there, I knew that this theater was very poorly equipped in all respects. Under the umbrella of General Arnold's priority we decided we'd get the best possible equipment. Communication was one of the problems we knew we would encounter operating behind the lines in Burma. We felt that it was absolutely essential to have what is now called command and control over our units. I knew we had to bring the equipment from the United States because we wouldn't find it in the theater.

In the latter part of 1943, the Air Corps was just beginning to put into the pipeline low frequency communication equipment that was a vast improvement over what I had seen before. We took this to Burma for point-to-point circuits and for mobile radio stations in gliders. This gave us unusually good communications for those days. We had the best point-to-point communications in the theater and soon found other people using our communication net.

In addition to the combat elements, we needed equipment to transport Wingate's forces behind the enemy's lines. Gliders had just been developed for the Army Air Force. The CG4A was coming into the inventory and we got a hundred simply because that was as good a guess as we could make at the time.* We knew that wounded would be involved, that we would be going into unprepared strips, some pretty good, and some not good at all. So we got a hundred L-5s, a dozen UC-64 Norseman transports, and a dozen L-1s, which is comparable to the L-28 now in the USAF First Air Commando Group.

* Wingate had no professional knowledge of air matters and he had left all detail as to the composition of the Number 1 Air Commandos to Cochran Wingate needed some persuasion regarding the practical value of gliders, but was won round (This may have been because of the need to economize on aircraft; Stilwell was opposed to drawing on Hump operation reserves.) Wingate's conversion to belief in this means of transport resulted in enormous change in his strategic ideas as to the right use of long range penetration groups, so great as to provide him (later) with the means of overcoming his most intractable problems. Orde Wingate, A Biography, Christopher Sykes, The World Publishing Company, Cleveland and New York, 1959, pp. 485,6.

We also had helicopters, the first ones ever to go into combat. We got them after great trouble because they were still in the test program at Dayton. We knew men would be wounded in places we could never reach with STOL airplanes. To really do a job for General Wingate we'd need an aircraft that could rise vertically.

With a hundred gliders, a hundred transports, plus fighters, bombers, and helicopters, we had almost three hundred aircraft. Our manning was slightly over 500 people, a pretty impossible situation for any normal operation, but we were told that this would be a one-shot operation. It would last three months, after which we would be withdrawn. We felt that a minimum number of personnel could keep these airplanes operating for three months.

In planning our operation we neglected photo reconnaissance, although we discussed it. Because of the limited time we counted on getting photographic support from other units. In India, it didn't work out exactly that way. The 10th Combat Camera unit detached about three people and sent them down to work with us. They were our photographic unit and they were good. Our recce was limited to pictures taken by hand-held cameras in B-25s, maybe not the best situation but adequate for us. We did some bomb assessment, but we really had no substantial requirement for reconnaissance other than eyeball.

I think we went overseas with 525 people. In India we added the photographic department of three people and the B-25 squadron of less than 100. So we ended up with about 600 personnel and 300 airplanes.

It took all the skill and cooperation of the logistics people in the Pentagon for us to meet our scheduled departure. In spite of our problems of secrecy, we received tremendous help from the Pentagon staff. Knowing little about logistics, I had to depend completely upon others, and I will be forever grateful for the people who showed us how to get organized and get on a boat in time. Looking back, I don't know how we did it.

We recognized we couldn't train in time to meet our objectives so we asked for trained volunteers. There were plenty available. The returned fighter pilots, some real fine ones who had been in Europe and the CBI, included a fairly high percentage of aces. Most important

of all, we had no rating limitations imposed on our enlisted men, enabling us to select highly trained airmen. This carried the show for us for three months. Untrained or unskilled personnel get in each other's way maintaining an airplane. We actually had crew chiefs who successfully maintained two P-51s.

Many of our maintenance and flying crews came from the Training Command, skilled personnel who were "impounded" there. They were good Americans, chafing at the bit to go overseas, so when we waved the flag they volunteered. We were allowed to take the very best.

As an example of their abilities I'll tell you about one night in Burma when we received a radio call at ten o'clock that a C-47 had lost an engine behind the enemy lines--not at an airfield--in a rice paddy. At daybreak the next morning we flew it out with a new engine. This was not a very unusual occurrence.

A word about the morale of these troops. General Wingate was an unusual leader and Phil Cochran, a very attractive Irishman, is kind of unusual himself. He gained a lot of notoriety through a friend of his who drew a comic strip called Terry and the Pirates, in which he made Phil a principal character. People who didn't know Phil thought he must be a flip individual but he wasn't at all. Flip in his manner, perhaps, but a very serious, competent airman; an unusually fine leader of men.

We recognized some of the outfit's limitations and we completely closed our eyes to others. When you take a high priority unit on a special job, it has a beneficial effect on morale to begin with. Then with Cochran telling the men how good they were and me backing him up we had these men believing they could do anything. I am afraid we even believed the talk ourselves, but the effect was beneficial.

We assembled our unit in Goldsboro, North Carolina, for a little training in glider tactics, then departed for India, most of the unit arriving in January. I reached India late in December, spending Christmas Day at the base area where we would be stationed. Training started promptly with Wingate's troops and with General Merrill's Marauders, the 5307th Regiment, I believe.

Originally Merrill had been assigned to work with Wingate and the

British, but because of command problems in the theater his unit went to General Stilwell, who had two divisions of Chinese on the North Burma front. Merrill's men were crack American troops. Stilwell wanted them and he got them.

Our air unit was also a crack unit and Stilwell wanted us, but it was General Arnold's specific instructions that we carry General Wingate in. We stayed with Wingate.

Some aspects of this background are interesting. For example, we had one very useful piece of paper, a two-sentence letter signed by General Marshall stating our task. We had to use it on many occasions before we finally got our unit operational.

OTHER FORCES IN THE AREA

GENERAL ALISON: I have tried to explain the situation in early 1944 in Burma on the map (inside front cover). Much of the action centered around Imphal, a valley in a moderately high mountain range. Operating across this range we had to go to 8200 feet for safe clearance for transports and gliders flying at night.

West of Imphal were three airports, Hailakandi, Lalaghat and Sylhet. Our Air Commando headquarters was at Lalaghat.* Sylhet was Headquarters, Troop Carrier Command, combined American and British, with eight squadrons of C-47s. Defending this area was General Slim's Fourteenth Army, with the IV Corps around Imphal and the XV Corps (5th and 7th Divisions) in the Arakan area.

The Japanese command had the Fifteenth Army with three divisions facing the IV Corps. The 31st, 15th, and 33rd Japanese Divisions opposed the British, while to the north the 18th confronted Stilwell's two American-trained Chinese divisions.

* Chindit Headquarters was split between Imphal (forward) and Sylhet (rear) until Wingate ordered a consolidation (March 21) at the rear location. Wingate always stressed that his was a "wireless headquarters" depending on widespread radio installations, which could no longer be secure at Imphal. Cochran's headquarters was at Lalaghat throughout. Sykes, op. cit., pp. 530, 531.

SUMMARY OF THE BURMA CAMPAIGN, EARLY 1944

Japanese Strategy

GENERAL ALISON: The Japanese offensive plan had been disclosed to the Allied leaders prior to its full implementation. Action started in November 1943 with attacks on the airfields, primarily in the Imphal area.

In December the Japanese staged two strategic raids; 50 airplanes hit the Chittagong area. Early in February, the 55th Japanese Division launched a very aggressive attack against the 5th and 7th Indian Divisions in the Arakan. Because of Allied activity in Southeast Asia, where Admiral Mountbatten had taken command, the Japanese expected a sea invasion, so they kept two divisions building fortifications along the coast. These were never needed.

The 55th Japanese Division accomplished a swift envelopment of the two Indian divisions, expecting to draw troops from the north. Their main force would then penetrate the Imphal area and go through to the rail line supplying China.*

Things turned out differently. Mountbatten had assembled enough air transport to become relatively air mobile. The surrounded divisions formed secure areas supplied by air drop and our L-5s. This aircraft was a good supply plane in addition to its litter capacity. In an emergency we carried as much as 500 pounds in an L-5. We carried supplies, fresh men, their mail, even the daily papers to them, and brought out their wounded.

The Japanese, having surrounded these two divisions, waited in vain for them to use up their supplies and try to escape. Instead, General Slim introduced a fresh division and pulled up another division in reserve in a few days--all with air transportation. The 55th Japanese Division, then outnumbered and cut off, was so badly defeated that it was, in effect, destroyed.

The Japanese had expected three divisions to drive on the Imphal plain in late February but it wasn't until March 8 that this attack

*Brahmaputra valley route to the Ledo road. Ed.

occurred, in great force, penetrating the Imphal plain. Two divisions, the 33rd and 15th, surrounded four Indian divisions on their home territory. These Indian divisions were having trouble and had to call for air supply. Transports had to be diverted^{*} from the first priority Hump operation to supply the Indians, who were criticized for their inability to defeat two divisions of Japanese advancing over tremendously rough terrain at the end of a long supply line.

After the war we found out that the Japanese "divisions" had been reinforced to 55,000 men, 40,000 first line regulars and 15,000 Burmese laborers supporting them. With the advantage of the initiative, they seized strategic areas from which the British had to dislodge them. Once they got dug in, the Japanese were very hard to dislodge.

The enemy objective was cutting the main supply artery from Calcutta to the Hump airfields supplying China. They almost did it, but thanks again to air mobility the Japanese were defeated, losing 65,000 killed out of a total of 155,000 men engaged in this campaign. This destroyed Japanese strength in Burma.

Allied Strategy

Allied objectives were never really clearly defined, and the tactics involved were changed from time to time. Admiral Mountbatten wanted an amphibious operation against Burma, probably the best strategy, had equipment been obtainable. General Slim preferred to hold in Eastern India until the Japanese committed themselves to an offensive, and then destroy the strength of the attackers.^{**} General Stilwell

^{*} Mountbatten's plea for 20 C-46s and 70 C-47s to fly reinforcements to besieged units and the Wingate Columns was approved, allowing Southeast Asia Command to relieve a rather desperate situation. The use of these transports threw Japanese attack timetables awry. Matloff, op. cit., pp. 448, 9.

^{**} We knew the offensive was coming, for throughout January and February there were increasing indications. Scoones (Lt. Gen., IV Corps) and I agreed that the Fifteenth Japanese Army could begin an offensive about March 15 with three divisions and another in reserve. His objectives would be Imphal and to break through to the Brahmaputra valley.... I decided to fight a major battle (in the Imphal plain) to destroy this Army. I was tired of fighting the Japanese when they had a good line of communications behind them and I had an execrable one. This time I would reverse the procedure. Defeat into Victory, Viscount Slim, McKay Company, New York, 1961, pp. 247-250.

planned to push from Ledo to Myitkyina with his Chinese divisions, build a road, and establish a landline to China.

General Wingate had tried to convince his superiors that he could establish a line across Burma at approximately the latitude of Lashio.* His long range penetration groups could be flown in, supported by air, and eventually could link up with the British Army.

When the Japanese attack started, Wingate was told to change his plans, to locate his groups to create maximum damage behind enemy lines and then to attack the enemy rear opposite Imphal.

Unfortunately, Wingate never communicated this to his commanders, hoping that General Slim would allow him to stay in and complete his plan.** Then he was killed in an aircraft accident, leaving the Chindit operation in some confusion. He died March 25, 1944 in the crash of one of our B-25s returning to Hailakandi from Burma. We don't know what happened; the airplane went out of control and straight in. I had flown him on every flight prior to this time but by then I had been in Burma and out again; I was flying other missions and trying to do some administrative work. We were terribly understaffed and undermanned. For this mission another pilot had been assigned to fly General Wingate. There is no way of knowing what caused the accident; the same thing probably would have happened if I had been flying that plane. It was just one of those things you never know about and you often wonder. I regretted that I wasn't with him that day. It has always been on my conscience; maybe there was something that could have been done.

Later, all the long range penetration groups already committed were

* On February 4, Stratemyer and I issued a joint directive to Wingate and Cochran, to march and fly in to the Indaw area and from there operate under direct command of the Fourteenth Army to: help Stilwell's advance from Ledo; create a favorable situation for the Yunnan Chinese to enter Burma; inflict damage and confusion on the enemy in North Burma. Slim, op. cit., p. 224.

** The Japanese offensive was now the dominating factor. (Should I) send his (Wingate's) second wave to relieve or reinforce his first; more important, should I change his directive from that of helping Stilwell to helping Imphal. I decided to adhere to my original plan.... I was wrong. I should have concentrated at the decisive point. Slim, op. cit., p. 233.

turned to attack north in support of Stilwell.* That is a very general sketch of the situation. Organized for a 90-day campaign, the Chindits were required to fight much longer in the heart of enemy territory. Despite dissension between the new Chindit Commander and General Stilwell as to their employment,** the penetration groups proved very useful.

Air Commando Operations

The first landing area in the jungle was an open grassy place we called Broadway. The second night we landed at a strip called Chowringhee. A few weeks later we landed two brigades in an area called Aberdeen.

As soon as the 77th Brigade (the first to land) were on the ground, they immediately marched out in two columns. The larger of the two cut the main rail supply line supplying the 18th Japanese Division at Myitkyina. With part of the 111th Brigade, also put down at Broadway, they established a block that was never broken until they finally pulled out and went north to join Stilwell. The smaller column went east, eventually to Myitkyina, harassing the Bhamo road. In preparation for the drive on Imphal the Japanese had stopped building up supplies at Myitkyina and hadn't used that supply line, intending to do so as soon as they were in place on the Imphal plain.

About March 10 our troops were across it, and the supply line was never used again. This didn't affect the Japanese troops in Myitkyina immediately, but in time it had a tremendous effect.

The 111th Brigade landed at Chowringhee (some elements also landed at Broadway) and immediately started out. For 40 days they completely

*On May 17 I placed Special Force under Stilwell's direct orders (i.e., three brigades 77th, 111th, 14th. The 16th had been evacuated by air, exhausted by the abortive effort to capture Indaw and their long march from Ledo). Slim, op. cit., pp. 234, 239.

**At the end of May I found Stilwell bitter and Lentaigne indignant, both very understandably suffering from prolonged strain. Actually I would have been wiser to take the Chindits out then; they had shot their bolt. Slim, op. cit., pp. 243, 244.

interdicted the Japanese main supply route from Indaw to Myitkyina. History reports Japanese officers^{*} saying that the impact of the Chindits was considerable. They had to use two brigades plus their entire reserve division to counter Wingate's attacks and, of course, these troops then were not available to support the operation against Imphal, which was a significant diversion. Also, the Japanese have stated that once the Chindits were in position on the main line of supply, it made the defeat of the Japanese 18th Division inevitable. Generally that was the situation on the ground. This was a campaign between regular army organizations. Wingate's tactics were substantially those of the guerrilla; yet because he was able to put in so many men in such a short time, it approached a regular operation.

* ... immediate effects of the airborne landings on the Imphal operation were:

1. The Fifteenth Army was unable to advance its Hq toward Imphal until late April due to directing measures to contain the airborne invasion ... liaison with divisions in the Imphal operation was inadequate and resulted in alienating the division commanders from the Army Headquarters.
2. Transport of supplies to Imphal operation became very difficult ... airborne force not only cut off the LOC for the 15th and 31st Divisions, but prevented the scheduled transfer of vehicles from the Indaw-Homalin area south to the Shwebo-Kalewa road.
3. Elements of 15th Division were diverted from the Imphal operations and the 53rd Division, only reserve available to the Area Army, was involved in combatting the Wingate reserve for Imphal.
4. The 5th Air Division was forced to operate against enemy airborne units to a considerable extent, [and] was unable to render full support to the Imphal operation.

The airborne invasion also cut the supply route to the 18th Division and compounded its increasingly difficult position.... On the other hand, because the enemy airpower was absorbed in supporting the Wingate airborne landings, the crossing of the Chindwin river, in the initial phase of the Imphal offensive, was accomplished without enemy air interference. Japanese Monograph No. 134, Burma Operations Record, Headquarters United States Army, Japan, distributed by the Chief of Military History, Department of the Army, 1952, p. 149.

Command Structure

GENERAL ALISON: One of the factors that contributed tremendously to the success of our operation was the cooperation between the British forces under Wingate, particularly his staff, and our organization. We had none of the disputes or feuds going on in other parts of the theater. We in the Number 1 Air Commandos were completely integrated into the ground commander's operation and we took an active part in planning the campaign. These factors are absolutely essential to efficient air-ground combat.

Our Air Commando Group reported to General Stratemeyer, although our chain of command was never really clear because of General Marshall's letter that stated our task of supporting Wingate's Special Forces. But we had no major command problems. General Stratemeyer and his staff visited with us, and we were in close liaison.

MR. PETERSON: Could you spell out how you accomplished joint command and control with General Wingate and the Chindit forces?

GENERAL ALISON: Well, it was very primitive. First of all, we didn't try to run the strategy of the campaign at all. We had all we could do to run our own operations. We assumed that our responsibilities were: to keep the enemy air force off General Wingate's back; to create diversions and disrupt enemy communications; to plan the air assault and manage the airfields; to plan and execute the evacuation of wounded; and to provide all logistic support we could with the aircraft under our control. The main logistic support came from the Troop Carrier Command under General Don Old. When you divide your task up that way there isn't much confusion.

COMMODORE WARCUP: This "private air force" concept interests me somewhat. You talk about close collaboration with Wingate and doing what Wingate wanted, but you would agree, I suppose, that Wingate's plan was furthering the Fourteenth Army's general strategy.

GENERAL ALISON: Definitely. We weren't really a private air force.* People dubbed us that, but we actually reported to General Stratemeyer. When we explained the task we had been sent over to do, we just became an air task force assigned a specific job. Some people

* Among the anomalies of this anomalous force one of the most remarkable was the American Air Commando. The manner in which it had

were unhappy, of course. We had better equipment, personnel that were highly trained, and a priority this theater had never had before. Some people thought they were being treated badly, and they were. It was a human reaction to say, "Wingate has his own private air force." But we were in the chain of command, working very closely with General Stratemeyer and Air Marshal Baldwin.

COMMODORE WARCUP: I have forgotten, Stratemeyer was the same level as Slim?

GENERAL ALISON: Yes, he commanded Eastern Air Command, which was the combined United States Army and RAF Air Forces. The night we took off on the mission, Slim, Stratemeyer, Baldwin, and J. P. McConnell were all there to see us off.

been raised, and the fact that it was designed for Long Range Penetration work gave it the appearance of being a private air force under Wingate's command. This was not so. The Commando had orders to operate "in support" of Long Range Penetration, but throughout it was under U. S. AAF control and administration, and Wingate had no authority to command it in any way.... All air-ground operations had to be determined by committee. Surprisingly enough the cumbersome arrangement worked smoothly, and Wingate, Cochran, and Alison acted in such close accord that the impression of a private air force was continually heightened. But for all that the Americans never abdicated their independence and there was to be one, but only one, occasion when Cochran rebelled against Wingate's disregard of his right to be consulted. (Sykes, op. cit., p. 485.)

When the airstrip at Broadway was completed the RAF proposed to maintain six Spitfires there. The plan was put to Wingate who agreed but, evidently by oversight in the press of work, did not consult Cochran. Nor did the RAF. The Spitfires were flown in on the 12th. Cochran was furious, all the more so as Number 1 Air Commando, as an additional injury, [he] received instructions to transport the RAF supplies to maintain the Spitfires in fighting condition. Cochran flew from Lalaghat to Chindit Headquarters at Imphal and protested bitterly to Wingate. Before anything could be done to meet Cochran's protest, the Japanese on the 13th attacked Broadway with 30 aircraft. The Spitfires shot down four, the AA gunners another, and the attack was thoroughly beaten off. Wingate served as peacemaker to the unmollified Cochran. Sykes, op. cit., p. 523.

III. AIR ACTION IN THE CHINDIT CAMPAIGN

GENERAL ALISON: Our own unit had limited training with General Wingate's troops; there was no time for individual training. Our light planes immediately went into action in the Arakan as soon as we got them assembled, but we did have some organizational training and work with Wingate's staff.

AIR MISSIONS

Counterair

When we were in position we immediately started our squadron of P-51s to work, first on the Japanese Air Force in Central Burma, and then on the Japanese communications.

We didn't know exactly what kind of opposition to expect when we reached Burma. Had we been able to foresee the future, we could have operated in the daytime. Not knowing, we tried to inflict damage on the Japanese and then take advantage of the darkness.

Having fighters with the longest range at that time, we made repeated raids on the Japanese airfields around Mandalay. The first clash between P-51s and Zeros should have come as quite a shock to our fighter group, but fighter pilots are a peculiar breed. It didn't faze them at all. Those who had fought in fighters in Europe were contemptuous of the Japanese and the Zero. In that first contact 14 P-51s were caught by 12 Zeros. We lost two P-51s, the Japanese no Zeros, and we almost lost Cochran and a lot of other guys.

It is true we were caught in a compromised position, dive bombing and getting ready to strafe. Our fighters were jumped from above and instead of running and trying to get to a position of advantage, they turned to fight the Zeros. When the Zero had altitude, its superior maneuverability made it a very tough opponent.

An important action not mentioned in the history books, a bit of real luck, happened shortly before the Chindits moved out. About 18 fighters returning from Mandalay ran across a large force of Japanese

aircraft assembling late in the afternoon in the Shwebo area, presumably for an attack on Imphal or our airfields. We had the radio turned on in the operations shack at Hailakandi and heard a voice say, "My God, look at that down there," and somebody else chimed in, "It's the entire Japanese Air Force."

Fortunately, we had a very able commander on the scene. Noting substantial numbers of Japanese fighters circling the airfield on which bombers were fueling from gas trucks, he ordered: "Leave the fighters alone and get the bombers." A large number of aircraft were destroyed right there. When we developed our gun camera films we saw one P-51 set fire to five Japanese bombers on one pass.

When the boys left, running low on gasoline, smoke and fires on the field obscured the targets. By the time they had landed we had our B-25s bombed up with fragmentation bombs. We couldn't dispatch them earlier because both the bomber squadron commander and his deputy commander were on the fighter mission. This was a time when you didn't have to be thoroughly standardized in a particular aircraft. You could fly anything you wanted, and we all did. As soon as he returned with the fighters, the bomber commander led six B-25s back, reaching Shwebo after dark. Smoke and haze were very heavy, but he really knew that target. The bombers went in at a thousand feet, opened their bomb doors and apparently had just the right dispersal, because fires started all over the field again.

We also alerted the RAF who sent Hurricanes, but by the time they got to Shwebo it was very dark and dense smoke concealed the target. The RAF made a post-strike reconnaissance the next day and reported over a hundred aircraft destroyed. I never confirmed that figure, but this blow, happening just before the Chindit invasion, had a tremendous impact on the Japanese Air Force, recently weakened by diversion of almost 50 per cent of its bombers to New Guinea where they were having even more trouble.

DR. KILMARX: I am interested in knowing whether the Japanese used air in any different ways than we did or utilized any techniques that were of interest to us.

GENERAL ALISON: Frankly, I saw very little Japanese air activity. I was behind the lines, and I was in and out. I spent most of my time behind the lines, but I flew missions over Burma in all of the aircraft. Only a few times were we attacked. I was flying a P-51 into Broadway, 150 miles behind the enemy lines, and I saw columns of smoke 20 or 30 miles ahead.* As I came up on the field there were two P-51s burning on the strip, and some fires back in the woods. The Japanese had hit us, and the warning had been so short that none of the P-51s got off. We also had a few RAF Spitfires and they got airborne. That was as close as I got to enemy air offensive action, although we were attacked other times.

This is just a little personal anecdote. The RAF squadron leader who was in charge of the Spitfires had fought in the Battle of Britain and over Germany. He was good, and the cockiest man in the world. "The whole Japanese Air Force is no match for me" was his attitude, which is fine for a fighter pilot, but it can be fatal.

He got in his airplane, and he and one other man got airborne. He pulled straight up with his Spitfire, one of the later Spitfires, right into the fight. Witnesses on the ground said it was amazing, he knocked down two Zeros, then he burst into flames.

It says in the history that our bases were attacked by Japanese air on March 10,** 13, 16, 17, and 18. We flew in the night of March 5. I was in and out of India during that period. I don't remember being attacked but once back at our home base.

The Japanese may have been in the area. They attacked Lalaghat once but destroyed no airplanes. They caught one of our returning C-47s in the air, full of wounded and shot it up, and some men were

*On March 13, 30 enemy fighters attacked Broadway, which was humming with activity. By that time, not only was a troop of light AA artillery in position but a flight of Spitfires...was stationed on the strip... the first time an operational airfield had been established behind the enemy. The Japanese lost...more than half their strength. Slim, op. cit., p. 232.

**The only action taken against the landings was an air attack on Chowringhee on March 10, a couple of hours after Lentaigue had marched off, leaving only derelict gliders behind him. Slim. op. cit., p. 232.

doubly wounded by the time they got on the ground.

Japanese air action against us was never completely successful because of the pressure that we, the RAF, and the rest of the Army Air Force were putting on them. Also the Japanese had their own problems in front of Imphal where requirements for air support were more than they could meet. My personal experience led me to consider their air support techniques primitive, not comparable with ours.

Interdiction

We used the B-25s in attacks on Japanese lines of communications beginning right after our arrival in the theater.

In a special effort on the day before the night glider fly-in, we cut every telephone and telegraph wire that we knew existed in North Burma. This was a rather interesting operation. The fighter squadron tied landing gear struts to cables hooked into the bomb shackles, let them drag out behind the P-51s, and took off. With this heavy hook, they could fly low across any line and pull it right out.

The squadron's deputy commander, Bob Pettit, lost his hook going out. He brought back the most beat-up P-51 you ever saw. I don't know what got into him, but repeatedly he flew his P-51 right into telephone and telegraph wires. That P-51 made an excellent wire cutter.

Reconnaissance

Soon after we began operation, we reconnoitered to establish our future landing areas. We made a flyover of proposed landing areas and took pictures. We wanted good photographs of the landing areas for the pilots to study.

From then on we didn't go near these areas until just prior to the invasion, because we did not want to alert the Japanese to our plans. We felt they would know we had gliders and would probably be anticipating a glider assault. We certainly didn't want to let them know exactly where this would occur.

All during this time we kept up a steady diversionary attack. We had no disagreements with General Wingate about our use of airpower.

He was in perfect accord with us. He didn't want any bombing in or near the areas that he was going to attack, just action to create as much confusion, damage, and diversion as possible. We purposely avoided the proposed landing spots. Maybe that is one way to tell the enemy what you are going to do but the areas were so remote that really we had no business being there anyway.

People who have written accounts of this campaign said we took pictures of the landing areas at the last minute in violation of Wingate's orders. According to my recollection, Wingate issued no such order. It had been in our minds to photograph the landing areas just prior to the operation and we got around to it awfully late. I was standing at my glider when they called me over and said, "We want you to see some pictures."*

There were the pictures of the landing areas. Piccadilly was to be our headquarters area, and we planned to go there with half of our force, 40 gliders. Forty more were to go into Broadway simultaneously.

When I looked at the photographs of Piccadilly, it appeared that somebody had put big logs there just for me. It has never been clear to me who did it. At the time we thought Japanese, but it could very easily have been Burmese teak loggers. I discounted teak loggers because the logs had been placed on the landing area in orderly rows. We held a hurried conference, with much discussion, and decided to put all 80 gliders into Broadway.** I believe we had had eight or ten assault gliders with special assault troops leading the way into each area. We decided to put all of them into Broadway. There was a salient in the landing area where the Japanese would be if they intended to ambush

*Everything was quiet as we waited for zero hour. I was standing on the airstrip with Wingate when we saw a Jeep driving furiously. American airmen jumped out and confronted us with an air photograph, still wet. It showed almost the whole clear space (of Piccadilly) obstructed by great tree trunks. This photo was a complete shock to us Long afterward we discovered it was not the Japanese who had obstructed Piccadilly but Burmese tree fellers in the ordinary course of their work. Slim, op. cit., pp. 226, 230.

**I (Slim) knew a major Japanese offensive was about to break on the Assam front, and I calculated on Wingate's operation to confuse and hamper it. There was a grave risk but not a certainty of disaster. "The operation will go on," I said.... Slim, op. cit., p. 227.

our landing, and that became our assault troops' objective.

Transport: Chindit Air Invasion and Resupply

GENERAL ALISON: I remember my own thoughts when I saw the photographs of Piccadilly. Just to show you my inexperience, I still felt that I could get into Piccadilly. Looking back now, after the trouble we actually had (at Broadway without logs), Piccadilly would have been impossible. Even if I had been able to make it in one of the first assault gliders, the ones that came after would have had just one terrible time. Wiser heads prevailed and we were all scheduled for Broadway.

The official accounts said it was decided to dispatch only 61 gliders.* I wasn't there when that decision was made. When I walked back and got into my glider we were going to put all 80 into Broadway.

It was soon apparent that flying a glider was not the easiest thing in the world. These carried 13 men, pretty big aircraft for those days, and because we thought that we could do more with them than ordinary mortals, we heavily overloaded them for the flight. Looking back, it was our inexperience, primarily my inexperience, because I not only permitted overloading my glider but accepted it as no problem at all.

We took off double, two gliders behind each C-47, two overloaded gliders, and it was too much. When we got over the mountains in turbulence at night, no lights, with relatively inexperienced pilots, we caused a lot of trouble for the C-47 pilots. The two gliders were out maybe a hundred yards behind the C-47s, one a little further back than the other. It was easily possible by just moving the gliders out to increase their drag and stall out the C-47s. We didn't have that trouble, but it was impossible to fly exact positions, particularly in turbulence. With any loss in altitude and increase in speed, you would begin to

* (Also shown in other accounts, Ed.): After a very mixed "conference" it was settled that the number of gliders should be reduced from 80 to 61 and they should all go to Broadway. Cochran rebriefed his pilots, showing himself a master of propaganda: "Say, fellers, we've got a better place to go." The first Dakota took off at 18:12, only 72 minutes behind schedule. Sykes, op. cit., p. 516.

overrun the tow plane.

When you overran, the big nylon rope pulling your glider would start playing back. You then let the rope loop over the wing, always keeping it in sight so you could prevent entanglement. Once you got up close behind the C-47, with a big loop of rope behind you, you were faced with the difficult job of getting the slack back out. If you weren't skillful, the jerk would break the rope. To avoid this, we used this technique: As soon as the loop started to form, we would skid the glider out, gradually taking out the slack and then carefully skid back into position. This maneuvering by the glider pilots made it very difficult for the C-47 pilots. Even so, we broke quite a few ropes and a number of the gliders fell en route.

We didn't plan it this way, but fortunately our route was such that the gliders broke loose and went down in locations that convinced the Japanese that this wasn't an invasion, but a glider harassment raid. When you look at the way they fell, it was just amazing; we had lost gliders at strategic points.

We had all the rank in our organization, except for Cochran, in the gliders. We felt that this contributed to morale. The first two gliders that broke their tow ropes went down right at the headquarters of the 15th Japanese Division.

One of them was a radio glider, containing three Gurkhas, five Americans--including Colonel Olson, operations officer for the Number 1 Air Commando Group--and one complete radio station. They all got out and ran. It wasn't too far to the Chindwin river. The Japanese pursued them with dogs. The three Gurkhas, better trained soldiers than our glider pilots and radio operators, went back to set the glider on fire. I don't know whether they succeeded. The Americans made it to the river, which was very wide at this point. The two that could swim escaped; the other three Americans were captured. I don't know what happened to the three Gurkhas.

The other glider that went down at 15th Division headquarters was fired on before the men could get out. It was dark, and they got out unharmed. This was a combat team, a real fine one. They went right through the middle of the Japanese, reached the Chindwin river, returned

to British lines and before long were back in combat. This was typical of most of the broken tow rope incidents.

We recognized that to fly some distance over mountainous terrain and to come in at night with no lights the glider pilots were going to have difficulties. So we worked out a technique which, in practice beforehand, worked just fine.

We put a diamond of flare pots where we wanted the gliders to touch down, its orientation giving the glider pilot an idea where we wanted him to roll out. We could shift this diamond to send pilots here and there at different angles, to reduce the confusion that we expected on the ground. But feeling that the glider pilots couldn't make a free glide at night in an actual combat landing and hit that diamond with reliability, we computed the glide ratios and distances the gliders would go when released from a certain altitude on a straight-in approach. Our assault teams placed a small, battery powered searchlight, pointed straight up to mark the release point. The transport was to fly at about 300 feet. When it crossed this searchlight beam, clearly visible to the glider pilot, he would release. Making allowances for the wind, as we had in our computations, his glider would have just the correct landing speed when he reached the diamond.

But it didn't work out in combat. When our assault units hit the ground at Broadway, our first landing spot, there was tremendous confusion. The people with the light were not able to get it far enough back, so the gliders were hitting the ground too fast, their speed accentuated because of their loads.

Although I had never flown a glider before, I figured this would be real easy. I had had them take me up and drop me in an empty glider the afternoon before the invasion. When I took off with 13 men, an aisle full of ammunition, and a bag of hand grenades so heavy that I couldn't carry it, I didn't realize what this would do to the performance of the glider. When I cut loose, no lights for the (first) assault gliders, of course, and glided down into that clearing. I pulled my glider's nose up to the attitude for what I considered to be the minimum approach speed--80 miles an hour. The glider was supposed to land at considerably less than that. Because of the overload, I

don't believe the speed dropped off five miles an hour, and we hit at about 80 miles an hour, rushing off through the boondocks. Still, I was one of the fortunate ones.

My glider's nose stopped right at the woods, and 13 extremely well-prepared, brave troops were out and in that wood before you knew it. It would have been rough on any Japanese asleep in the bushes; we expected the Japanese to be there, but fortunately they weren't. Had they been in the salient we would have been on them before they knew it.

According to my recollection, but not according to the official history, we put 47 gliders on the ground at Broadway, only three of them not damaged or a complete loss. Most damage occurred because of the unevenness of the landing area. Burmese loggers had dragged heavy teak logs across the landing area, making deep ruts that grass had grown over and covered up. When our overloaded gliders began to hit those ruts, wheels came off. The gliders with ammunition and armament inside were down on their bellies, impossible to move. We couldn't get our diamond oriented to prevent succeeding gliders from hitting the first arrivals. We had a tremendous pile-up.

We had to contend with the confusion caused by glider crashes on and around the field, and the problem of trying to get the wounded out of the wrecks at night. We had 23 killed, most of them in two gliders that missed the landing area and hit trees; about 60 were injured. After a conference with Brigadier Calvert, I told the radio-man to get off a message to stop more gliders. We weren't under attack. We had a strong force in, we had equipment. I felt that we could build a field. We just didn't want to take the chance of risking any more people.

We had two prearranged code signals, one was "pork sausage," and the other "soya link." Soya link was a synthetic sausage fed the British troops and it was terrible; "soya link" meant disaster. After

midnight we had radio trouble. In that area we encountered radio blackouts and were frequently off the air for maybe four or five hours in the early morning hours.

However, we managed to get the message "soya link" out and it was picked up by the C-47s in the air and radioed back to India. After this discouraging information and the photographs showing the blocking of Piccadilly, there was a period of about five or six hours when everybody in India thought we were under attack, and being annihilated.* There were a lot of long faces back in headquarters as it looked as though the mission had failed. The next morning as soon as we could get through we got on the radio and talked in the clear and said we were all right. They asked, "When will you have an airstrip." We said, "You can start sending in airplanes late this afternoon."

That night we had landed over 400 combat troops and part of an American engineer force. They had some small bulldozers, graders, and some mules. The next morning we were busy, we had a runway established by late afternoon, a control tower, mobile radio set, field lights, and an auxiliary powerplant in operation. By late afternoon we had an airstrip.** During the next 12 hours, we took 100 C-47s into Broadway. The buildup deep inside Burma had begun. That same night we established another landing area at Chowringhee and brought in more troops, which immediately marched out to cut the enemy supply lines.

The main fly-in of Wingate's troops,*** after the assault, was accomplished by the Troop Carrier Command, an efficient outfit.

*Just after four o'clock in the morning, the first signal from Broadway conveyed its message of disaster. So the Japanese had ambushed Broadway! Slim, op. cit., p. 229.

**Most of the engineering equipment did not arrive, but the small party of American engineers, helped by every man who could be spared, set to work. By evening a strip was fit...but only fit to take a Dakota...55 landed that night (March 6).... Slim, op. cit., p. 231.

***Between March 6 and 10, 100 glider and almost 600 Dakota sorties flew in 9000 troops and 1100 animals. In addition, the 16th Brigade had reached Aberdeen after its long march...Wingate had nearly 12,000 troops well placed, as he put it, "in the enemy's guts." Slim, op. cit., p. 231.

A little anecdote about the Broadway landing: We got all the gliders down and stretched out to get a little sleep. I was utterly exhausted. You try to cover an airfield a mile long and a half mile wide about a dozen times in a night and your legs give out. I thought, "Oh, boy, just a little bit of rest," and then another C-47 was overhead.

I yelled, "Somebody run out there and put all the lights out, I don't want him to land." I wanted him to go back to India, but this C-47 had gotten lost. That's why he was late. His C-47 low on gas, the pilot had to dump his load, one glider. Then that glider cut loose. You could hear it whistle down on the wind and then he hit the trees. You have never heard anything like a glider hitting trees, just like beating a thousand kettle drums as it goes to pieces.

We had had accidents and pile-ups on the field. At night they always look worse than they really are. We had had a few amputations right there in the mess. It was just one of those things, when you say, "Gee, I wish it was morning." and here came this last guy and I could imagine right there, 13 dead men. I called one of the fellows and said, "Go over and tell me what happened." About 45 minutes later he came back, because this was a good mile away, and I asked, "What happened?"

"Oh," he said, "It hit the trees."

I said, "How many people killed?"

He said, "Nobody."

I said, "What happened?"

"The bulldozer saved them."

This glider wasn't coming in on lights, he dropped, circled in, and overshot the field. In order to stop his glider he drove it right into the jungle, just straight in. It was black as pitch. As luck would have it he went between two trees. There must not have been six inches on either side of the fuselage. Both wings sheared and the 4200-lb bulldozer rushed forward at the pilots. But the glider's nose was hinged, with a cable attached to it, rigged over a pulley, and attached to the load. As the bulldozer rushed forward, it pulled the glider's nose up and the bulldozer shot out through the front and

into the jungle about 60 yards. The two pilots were pulled up out of the way and then dropped back into place--one of them sprained a thumb!

COLONEL ADERHOLT: I am trying to determine who prepared the landing zone inasmuch as you isolated them and didn't bomb them. Did you have a combat control team or a reconnaissance party who prepared the actual landing sites?

GENERAL ALISON: No.

COLONEL ADERHOLT: Who put up the lights?

GENERAL ALISON: The assault crews, we had eight scheduled into Broadway. We hoped to catch the Japanese completely by surprise. At night the problems of coordinating a strike on the area were rather difficult, and at first we really didn't expect the Japanese to be there. But after seeing the logs on the other field we had to be prepared. Because we discovered this just prior to the landing, we had to depend upon surprise and the strength of the assault troops to secure the landing site. We planned to put so many other people in there in such a hurry that we would overwhelm the Japanese if they were there.

GENERAL MAC CLOSKEY: Your first boys had to go in there in the dark to set the lights?

GENERAL ALISON: In the dark.

GENERAL MAC CLOSKEY: The radio equipment went in with your first glider?

GENERAL ALISON: We had two complete radio gliders, we really should have had four, but we didn't know that so many gliders were going to break their ropes.

GENERAL MAC CLOSKEY: Did you reuse any of the gliders from Broadway and Chowringhee?

GENERAL ALISON: We snatched some of them out from Chowringhee. On Broadway we took a few out, but only three were intact after the assault.

MR. PETERSON: Can you spell out some of the details of your support of these forces in there the first two or three weeks? Was this strictly air resupply into your drop zone, then overland carry?

GENERAL ALISON: The entire operation was air resupplied. The way Wingate planned, it was never contemplated that his forces would go in and immediately establish contact with other troops or set up a land line of supply. They would just go in, throw a blockade across Central Burma, and stay there and use airplanes; just like ships are used in an amphibious operation.

First you go in and do the assault, then resupply by airplane. We used C-47s over the drop zones. Our techniques were poor compared to those of today's Air Commando Group, but we were able to keep in business. We had some supply losses. The Japanese got onto our signals and we even dropped a few supplies to them.

Whenever we could, especially for troops on the march, we used the L-5 for drop. We would much rather land. Wherever we could, we tried to make an airstrip and land a C-47 or an L-5. The L-5s operated in daytime, a hundred of them flying all over Japanese territory, behind their lines, landing everywhere. The enemy just couldn't do anything about it.

They were very difficult for enemy fighters to find, particularly enemy fighters watching for P-51s above them. We rigged all of our L-5s with bomb shackles, out where the strut attaches to the wing. We could carry 250 lbs on each shackle but we trimmed that to 200, the weight of the standard drop pack that the British used.

Our principal delivery was ammunition and food. Sometimes we delivered by parachute, more often by free fall. The L-5 would fly alongside the column at about 40 miles an hour, whatever the speed of that airplane is with flaps down, about five feet off the ground and drop. The two packages hit the ground and skidded to a stop and the troops would have them. We could put in a considerable amount of supplies. These troops were mobile and they didn't want too much because they had to carry every pound on their backs. What they really wanted was frequent supply. Too much delivered at once would hinder them. Actually the L-5 became a really fine logistics airplane.

The Chindits established an interesting road block at Mawlu, cutting the railroad to Myitkyina. The local name was changed to "White City" because of the hundreds of parachutes draped among the trees.

I flew with the crews on a number of those drop missions. They were letting down in a valley almost to sea level with 6000-foot mountains around, kicking bundles out of the back of a C-47 in the most primitive fashion, with no moon and sometimes when the weather was not too good. That's why a lot of the parachutes didn't hit the drop zone.

By the time the railroad was blocked at White City and the 16th Brigade of approximately 3000 had marched into Aberdeen from Ledo, we had carried in over 9000 Chindit troops. All four brigades had air resupply and firepower support of the B-25s and P-51s.

Close Support

GENERAL ALISON: The force at White City, Wingates' original 77th Brigade, cut a bridge over a small stream at Mawlu and established a strong point on an adjacent hill where their fire covered the crossing. They entrenched on that hill and the Japanese threw themselves at this position repeatedly; they had to dislodge the 77th to get supplies to their 18th Division holding Myitkyina from Stilwell.

After the first battle there, I had my first close-up of the results of infantry combat. I was quite impressed to say the least. The Japanese had occupied a small hill to protect this particular river crossing. Every Japanese on the hill had been killed by a British charge that included Gurkhas with their knives, which left things quite messy. On that particular charge, we lost some fine British officers, leading their troops with great bravery.

We complained a little bit to General Wingate that they hadn't let us put some firepower on that hill, ideally suited for napalm. But this was their first engagement. They wanted to do it themselves and they did, superbly. As for us, we just wanted tremendously to help them.

The 77th Brigade's position on the railroad was an invitation to the Japanese to stage repeated attacks, using a mixed force that wasn't too competent and that took very heavy losses.* I couldn't find this

*On March 16, destroying a Japanese detachment, the 77th Brigade established an airstrip and a stronghold near Mawlu on the Mandalay-Myitkyina railway. Thus in 11 days the Special Forces' first task was

in the history books but I was told that over 2000 Japanese dead were counted around the British position. We were in constant cooperation with them. We used familiar weapons, including the depth charge. I don't know how much damage the depth charges caused, but they must have had a terrible effect on Japanese morale.

We had an L-5 strip right beside the railroad. Our planes landed in a drainage ditch between the railroad embankment and the occupied hill; there was no preparation whatsoever. This was the dry season so we could use the drainage ditch as an airport, accommodating two or three L-5s at a time. It offered one great advantage, protection from rifle fire.

We used both P-51s and B-25s in supporting the British troops on their many offensive actions. We had practiced with the RAF ground controllers sent in with Wingate's Columns and worked out very effective communications techniques. Our B-25s were equipped with 75-mm cannons. The 75-mm aircraft cannon achieved little in other theaters but I believe we attained a high degree of success with it.

The commanders of these Chindit columns had never had air support of this kind before. I think that was fortunate, because they didn't expect us to accomplish miracles. They planned to do a lot themselves, like their first fight near Mawlu. They just went in and took that hill, not even asking for air support. But they learned.

There was a fight for a town just south of Mawlu. On the outskirts the British ran into resistance and the air-ground control action went something like this:

"You see the house about 200 yards from the gate, the one that has the red door? There is fire coming from the house, will you please get it." This was easy for the extremely accurate 75-mm. In stable air you couldn't miss a six-by-six target. Had they demanded, "Put it through the red front door," we could have done it. It was that good when you came down to point-blank range. Enemy opposition was

accomplished--the main road and rail communications to the Japanese fighting Stilwell had been cut. The enemy could not ignore this. An improvised force, never much exceeding 6000, delivered a series of ferocious assaults by day and night.... British and Gurkhas beat them back. Slim, op. cit., p. 232.

not anything to be worried about. You could get off three rounds on a run, but against no opposition it was better to wait and get up to point-blank range, poke the 75-mm right in the window and shoot it, and that's just about what we did. For such specialized targets, the 75-mm was very effective.

The Japanese brought up some heavy guns, eight of them, to shell "White City," so the P-51s and the B-25s were called in. The Japanese put those guns in an open field; I guess they couldn't get them into the forested area. Well, we made one attack on the guns and they never shot another artillery round. I don't know whether we killed all their crews and they couldn't replace them or whether it was just too expensive for them.

At Broadway we stationed fighters behind the enemy lines. We moved in gasoline and a radar set, which gave us a limited amount of warning, but occasionally we were caught on the ground.

When there were wounded to take out, the troops would scrape out a site. Three hundred feet was enough for L-5s to fly the wounded out and bring fresh men in. This was the dry season, and it was very easy to make a strip.* When a man was wounded in Burma, we picked him up during the day with an L-5, took him back to a concentration point, and that evening he would be flown back by C-47 to a general hospital in India. This surely helps a man's morale. If he were too sick to march, we would fly him out to where he could get proper medical care.

We had helicopters over there and we used them. Although the number may not be impressive, we rescued 21 men that probably couldn't have been rescued otherwise. These were test vehicles, and the people at Wright Field were afraid that the helicopters would fail in that environment, but fortunately they all held together. We had losses from foolish accidents by foolish pilots, but the helicopter performance indicated its potential in a campaign.

*When rain made it impossible to keep earth strips in action, two RAF Sunderland flying boats, called in from submarine hunting in the Indian Ocean, flew out nearly 600 casualties from Lake Indawgyi in late May.... Slim, op. cit., p. 241.

MR. PETERSON: What sort of a working relationship did you have with the commander of a ground column?

GENERAL ALISON: The ground commander received his orders from Wingate's headquarters. He had his own low frequency radio to contact Wingate's headquarters as well as VHF to talk to our aircraft. We tried to preplan air support as much as possible. Once troops were established in a place like Mawlu we could be on call in an hour or less without too much trouble. But you can bring so much more force to bear if you have a little bit of time to plan. We knew, for example, through the intelligence that Wingate's people had gathered, when the Japanese were bringing reinforcements up against them. When they arrived we were usually ready and we would just go in and work on them.

Frequently Wingate would tell his units, "I want you to take this village on such and such a date. I want you to be at that place at such and such a time. You are going to have air support." Wingate would then tell us what he wanted. We would choose the weapons which we thought most appropriate. For this kind of support the 75-mm and conventional aircraft ordnance were tremendously effective additions; it was impossible for his highly mobile ground troops to bring up this kind of armament. We had it on board and, with proper planning, available on very short notice.

When we were over the troop area, we would start talking with the RAF liaison officer marching in the column. As this was a small operation, our pilots knew most of these controllers by their first names. As a matter of fact, we could go out in L-5s and spend a day with them, so we effected a very close degree of coordination.

COLONEL ADERHOLT: What means of identification did your people use?

GENERAL ALISON: A light code, changed at regular intervals. When the Japanese got onto it, we would change it again and then we would be safe for a while. Each brigade would have a code for a certain number of drops. Then it was changed to try to prevent the enemy from getting on to what we were doing. Sometimes we dropped supplies to the Japanese.

GENERAL MAC CLOSKEY: Did you have people with these columns as they advanced, to call for dropping supplies and so on?

GENERAL ALISON: We had no people assigned directly to Wingate's columns. We had close liaison with Wingate's headquarters, a representative sitting there. However, I could pick up a telephone and talk to Wingate's Chief of Staff or Wingate himself. We would decide what had to be done, then carry it out to the best of our ability. For lack of resources in the theater prior to this time, none of the infantry troops had had this kind of backup, but we had the equipment to do it with.

GENERAL MAC CLOSKEY: After the glider operation then you went on to support them with firepower from the air?

GENERAL ALISON: I didn't realize it, but we must have just about broken the back of the Japanese Air Force with that lucky raid where we caught them on the ground, because enemy air was never a factor. I flew all over central Burma in the daytime in an unarmed UC-64. As a matter of fact, I carried Wingate behind enemy lines in this airplane. If I were going into any area where I thought I might be in any danger I would use the B-25 because of its armament. We flew the L-5 all over Burma. A few of them disappeared but so few as to be negligible.

GENERAL VOLCKMANN: Did you ever use any improvised light armament on those L-5s?

GENERAL ALISON: No.

MR. PETERSON: General, did you keep a defense cover above these columns or above your landing strips?

GENERAL ALISON: Only once or twice. We covered river crossings where the troops were terribly vulnerable. Here is where gliders really paid off. To move thousands of men, their mules and field pieces across a deep swift river, poses a problem.

We packed assault boats with outboard motors into the gliders. We'd reconnoiter, pick a sand bar and put the glider down on the sand bar. The troops would unload the assault boats, attach the motors, tie the mules on behind, and cross the river.

On one occasion I spent five hours in a combat air patrol over the Irrawaddy river while elements of the 111th Brigade tried to cross. We never got them all across because of the mules' reluctance to cross rivers.

Whenever it was practical we snatched the gliders out after the boats had been reloaded. We brought gliders and boats home by this technique.

The glider snatch was accomplished using a cable and reel, something like a fishing reel. By means of a pole and hook, the aircraft cable and reel were hooked to the glider rope and the glider was snatched into the air. The boys would do it on moonless nights, how, I don't know. This was a tribute to the skill of the C-47 pilots. Fortunately, we didn't have to contend with that highly dangerous procedure very often. By day it was all right.

We handled two major river crossings with glider-borne boats bringing the airplanes in at first light, dropping the gliders, then putting P-51s over as a combat air patrol.

MR. PETERSON: Did you fly column cover to help the ground forces?

GENERAL ALISON: No, they were moving across terrain that included natural cover. They had done this before without any air cover, and they never asked for it. I think that was good, because we kept the Japanese occupied elsewhere. The airplanes never sat on the ground. We were out working with them in the vicinity and with Wingate in the choice of targets. Whenever they wanted us to create a diversion in an area, we selected the targets for Wingate, usually to his satisfaction, and went to work on them. The Japanese Air didn't have the strength to really oppose us. If they had caught a column by surprise, it would have been just by luck.

Other Aspects of Air Operations

MR. SMITH: Could we return to your very low manning level? Were you ever reinforced with any more maintenance people?

GENERAL ALISON: Yes, not a net increase, but replacements for the few that were killed and the many more that got sick. Malaria and dysentery took a bigger toll of our people than combat. According to

the history, most of the 65,000 the Japanese lost at Imphal died because of sickness, malnutrition, starvation. We took atabrine, but we still got malaria. We had so much trouble we had to replace many of our highly skilled airmen with untrained airmen fresh from the United States. When this happened, efficiency began to drop. I wasn't there, but from what I have been told by people who were, our operational effectiveness had gone down substantially after 90 days, when the operation was scheduled to end. Along in July or August most troops were withdrawn and sent down to Calcutta to recuperate.

MR. SMITH: Even when you were operating P-51s out of these improvised fields behind the lines and things like that, were you still seriously understaffed?

GENERAL ALISON: You have to understand we didn't have any substantial maintenance setup. We just flew P-51s in there fully loaded. We had small but very limited ordnance stocks in reserve. The operations were limited, but we did function behind the Japanese lines, maybe two crew chiefs for six airplanes.

As another example of our operation, for a period of about 20 days during the height of this operation we doubled the use of our C-47s simply by flying each with one pilot--the pilot and the assistant crew chief at night, the co-pilot and the crew chief in the daytime. Normally we had a pilot and co-pilot, a crew chief and an assistant crew chief for each airplane. That was the crew, and they did practically all the aircraft maintenance. We had a very small centralized maintenance shop for engine buildup, etc.

The C-47 by this time was a very reliable airplane. We had good parts levels and we were never really bothered by lack of logistics support. Our good logistic support resulted from a combination of planning by our materiel officer and support from the theater. We had a very high in-commission rate.

DR. KILMARX: I would like information on the operation of intelligence in General Wingate's forces and any interrelationships with the Fourteenth Army or other forces.

GENERAL ALISON: I don't know too much about it, just a bit more now than during the operation. I was preoccupied with the tactical

efforts of launching the invasion and giving tactical support. The strategy of the campaign I left to people who knew a lot more about it than I did. Cochran, who worked closely with Wingate, had a better feel for this than I did. Reading the history of this theater, the Southeast Asia Command had a real firm feel for what the Japanese were going to do prior to their attack, and it seems each commander had his idea of how he was going to counter this.

How they collected this information, I don't know. But somehow, when the Japanese made their main thrust into India, Mountbatten had the information he needed to move his divisions by air and to concentrate these divisions so that they would have the maximum effect against the Japanese. He had to ask for the diversion of air from other areas to meet this thrust. The Indian Army was in real trouble for a while until this was accomplished. With air, Mountbatten could move in reinforcements at will when the Japanese couldn't. It was inevitable that the Japanese would suffer a terrible defeat, and they did.

COMMENTS ON THE VALUE OF AIR ACTION

GENERAL ALISON: When General Wingate died, the Chindits were left without the man who had been their champion. Their effort was diverted to another mission, with the results that have been the subject of controversy for many years. I think it has been concluded now that their work was effective. What I saw was an Army with three dimensional mobility and a consequent advantage over one having only two dimensional mobility. Where it is practical to give an Army three dimensional mobility you gain an advantage.

I was surprised at what air mobility could do in this kind of country. At Broadway, we weren't very far from the Japanese but it took the Japanese three weeks to get to us with a patrol of about 250 men. We estimated this figure because that is how many we killed. They walked up to our strong point, went into our own foxholes and our trenches, but eventually Wingate's men killed them all.

It took our ground forces a week to walk out of that valley, over a mountain range and get to our first objective. A 20-minute ride by airplane, yet it took a week to get out and the Japanese three weeks to get in and find us.

Fortunately for us, Wingate's people were really independent. They hadn't learned to depend on airpower for everything in the world, and in that area of the world you can't get everything. Because you can't see the enemy, the time comes when the ground man has just got to be better than the ground man on the other side. But you can give your ground man a tremendous amount of support; you can make it very difficult for the enemy to reinforce, and once you get the enemy in a position where you can hit him you can really pay off.

Look at the difficulty of coming to grips with guerrillas. Maybe I'm asking the impossible, but if you develop some device to make the guerrillas stand in units of any size you can defeat them without trouble.

Fortunately, we had this device. We cut the supply lines on which the Japanese depended to live. They had no alternative. They threw in excess of one division at us. To do this, they had to put themselves into position to attack relatively small groups of British troops. This is where our air support operation really paid off. When the Japanese formed up to attack the British, and they didn't have too many choices in this particular case, then we could bring close air support to bear on them in the way it really should be done.

IV. HINDSIGHT ON AIR OPERATIONS

COLONEL LAURE: From your experience in the invasion of Burma do you think it was better to use only gliders? You could have dropped most of the people and used gliders to bring the heavy equipment.

GENERAL ALISON: That would have been the better technique. We would have liked to have had the kind of assault airplanes we have today, the C-123, for example. Looking back, it probably would have been better to use paratroops and deliver equipment in C-47s, landing gear up. We would then sacrifice half a dozen C-47s, drive the equipment out and make the airfield. Chennault, Chiang Kai-shek, and Stilwell were all crying for transport aircraft for the Hump. The C-47 was a way of life and it might have been impractical to even suggest losing some. Frankly, at the time we thought the gliders would work, and they did. Nobody had ever had much experience with gliders before.

COLONEL ADERHOLT: Since then we have made a study of World War II airborne operations. We do not yet have the devices to assemble a large airborne force. There have been too few advances made in parachutes, although the airplane is more complex, faster, and carries bigger loads. One of these days someone is going to find a better method of putting people on the ground by parachute. The limitation on the parachute has influenced every operation that we now conduct. The airplane can carry more, but we still have the problem of getting its load to the ground. We are working on some devices with the Army; they are going to be quite successful.

GENERAL VOLCKMANN: If I have the picture right, you accomplished all this support for the Chindits, every phase of it, without having highly trained Air Force pilots on the ground to direct this effort?

GENERAL ALISON: Yes.

COLONEL ADERHOLT: I would like to comment on that. We now have the term, "air guide." Any man on the ground who can make contact with the aircraft can call for an air strike. He then immediately becomes an air guide to advise the pilot on the obstructions, the preferred line of flight, any armament that might be brought to play, and then

the pilot, of course, has the option to choose his attack tactics. We find it works O.K., but it did require a change in policy. In wars where you have a lot of people you can afford to put forward air controllers with infantry, but where you have many small teams you can't.

GENERAL ALISON: It would be a waste of manpower. In this operation, each column had an RAF pilot with it. This was not necessary, because we had a pretty good understanding of each other's business. It was, of course, helpful to have an air officer on the ground as adviser to the brigade commander.

GENERAL VOLCKMANN: That was at brigade level. I think it is a great stride forward to recognize that you don't have to have a highly trained pilot on the ground in front of every platoon to direct air operations.

COLONEL ADERHOLT: The Korean operation showed the need for specialized training of both ground and air forces for close air support. As a result we activated at Southern Pines a joint Army-Navy-Air Force air-ground school. It concerns itself primarily with close air support and interdiction. It has been moved to the Special Air Warfare Center and is staffed jointly. In addition to that, at Fort Bragg we conduct a one-week course for all students. They get firepower demonstrations and basic training in the use and control of airplanes in close support. I think we have come closer together and we do have these two schools.

COMMODORE WARCUP: From what you said, is there anything new compared to World War II techniques?

COLONEL ADERHOLT: There isn't anything really new. We have just gotten around doing it the proper way, really. We had never adequately trained for it.

GENERAL ALISON: At the Special Warfare Center they have improved techniques, Commodore, techniques of air drop and some very interesting new techniques of resupply. I have seen them operate, and although they are using much of the same equipment, they have made real strides in improving techniques and in working with the Army Special Forces.

COLONEL ADERHOLT: The big problem was getting everyone acquainted across the board. From what has come up in this symposium about air capabilities and limitations, we all agree that the airplane cannot

provide all the answers. So at this joint school we teach the limitations as well as the capabilities.

GENERAL ALISON: Commenting on that, in talking to Army people, I try to explain that there are a lot of things that airplanes can't do, that you shouldn't even try to use them that way. There are just a lot of things they can't do nearly as well as the man on the ground can do them.

GENERAL VOLCKMANN: It is an easy "out" for the man on the ground to call for air in cases where it is not appropriate. We see that happen every day. I don't even have to be in South Vietnam, for example, to know what is going on. What you say is very true. There are limitations on air. Sometimes, particularly in counterinsurgency operations, misuse of air does more damage than good. I have seen that happen.

COLONEL ADERHOLT: I have read numerous declassified reports of OSS operations in the Burma area. I would like to know what coordination there was with the OSS, if you would care to comment.

GENERAL ALISON: Coordination was not as good as it should have been. As a matter of fact, in reading the history, the coordination between the Army and the OSS and their native Kachin Rangers was never as good as it should have been.

Stilwell ordered the Marauders to establish and hold a roadblock in the northern part of the Hukawng Valley.* Merrill argued for a wider envelopment, to which Stilwell agreed, but made Merrill split his troops. History indicates that the information that had been gathered by the OSS and the Kachin Rangers probably could have produced a major victory, trapping far more of the Japanese 18th Division than were actually defeated in the action in the Hukawng Valley.

COLONEL ADERHOLT: I point this out for two reasons. One, there have been several books written by people who highlight the use of the

*Area in the upper Chindwin watershed. Ed.

L-5s by the OSS. Two, this points up control, which confronts us again today throughout the counterinsurgency role. I fear the lack of a really joint operation. We find ourselves with two or three organizations operating in the guerrilla role in the collection of intelligence. I think we should come to a truly unified, joint type of operation.

V. OBSERVATIONS ABOUT FUTURE OPERATIONS

GENERAL MAC CLOSKEY: This has been most interesting and informative. I know official histories do not cover a great deal you have contributed today. Colonel Reinhardt, would you care to summarize this?

COLONEL REINHARDT: I will try, General. Certainly this has been a highly enlightening and generally exciting case history in which each of the many items seems to require examination and study in the light of (a) hindsight and (b) technological progress. From such study we may determine how to apply these old and valid lessons to modern conditions, and best of all if we can, to the future.

To me, this is a boost for the immutable principles of war, which have fallen somewhat into discredit these days. Into these principles we should integrate the changes in weaponry, equipment, and techniques according to that ancient phrase, "depending upon the situation."

Finally, this session suggests to me that General Alison's basic techniques, as drawn from scores of incidents, may be as simple as they are vital. Morale, training, human quality, and common sense go a long way to produce effective tactics, but we still need to lean upon the experienced, professional logistician. That may be because the tactical side of war is certainly more an art than a science, and we like to have the scientists backing us up in the logistics field. But I don't think you can apply any computer to get the kind of answers that the General has been suggesting today.

GENERAL ALISON: You can't go through one of these campaigns without thinking, "What did I learn and how might this be applied in the future?" Yet there are pitfalls if we think, "This is the pattern of the future."

I am not particularly worried about enemy air in the future because we know how to cope with it. Traditionally, this is primary doctrine, clear the air of any enemy airplanes. I have some concern about close support. As I have told you, we didn't have serious ground fire or enemy air attack to worry about in this operation.

But in the years that have passed we have seen the development of surface-to-air missiles. They still leave much to be desired, but there may be surface-to-air missiles that in particular situations would make an operation like ours absolutely impossible. Technological advancements are taking place that may make us change our tactics tremendously.

I believe many have not given enough thought to the impact that anti-aircraft weaponry can have on operations of this kind in the future. They say, sure we can take losses--but they do not appreciate the way losses can accumulate in ground support operations. Simple arithmetic tells us that we cannot sustain even a one per cent per sortie loss rate. Assuming replacements and three sorties a day, a loss rate of only one per cent per sortie would call for replacing the entire force in approximately one month. For those accustomed to thinking of much higher loss rates (but at a lower flying rate), this comes as a surprise. But this is what can happen with improved surface-to-air weapons.

We have never had to face this kind of opposition from the ground. Suppose the infantryman gets a weapon he can carry and that can impose this kind of loss. The day he does, this whole operation that we discussed has to take on a different character. We would have to use different tactics, and there are tactics we can develop.

Looking back at our operation, the thing that we contributed most to the campaign was not close air support. It was mobility.* We gave three-dimensional mobility to an army that previously had barely had two-dimensional mobility in the worst kind of terrain. Operations that would have required several months we were able to do in several days.

Review of what we did in the past should serve as a useful guide to what we can do in the future. In the context of advancing technology it should also give us valuable information on things we may not be able to accomplish, thereby saving us time and effort.

* What the B-29 was to strategic planning in the Pacific, the transport was to tactical operations in Burma. Matloff, op. cit., p. 447.

The traditional objectives of air power remain in limited war, although we may improve our techniques for accomplishing them. It goes without saying that we must deny the enemy the ability to attack our forces freely from the air and that we must have a capability to harass his movement and supply through air interdiction. These capabilities are essential if we are to create an environment in which our surface forces can be decisive.

Concurrently, we must prepare for and provide air support of our surface forces. In this area it is my opinion that technology now makes it possible to add a new capability.

I am speaking of air mobility. This is not a new element of warfare; however, technology now makes possible an increased effectiveness in this area that can well be the difference between winning or losing in countries where surface transportation is primitive or subject to easy destruction. Mao, in his military writings, speaks of trading space for time in early stages of insurgent operations. Air transport of men and weapons, with its capability of reducing space to manageable proportions, can deny insurgents this privilege.

We have heard recently some discussion of developing slower flying, maneuverable combat aircraft. I would like to issue a warning. I have pointed out earlier my belief that even small losses per sortie in aircraft doing close support will be unacceptable for reasons of cost effectiveness. I am sure this will happen to slow flying combat aircraft and eventually will happen to high performance jets. However, the advantage of massive and quick reaction with aerial firepower must not be lost. To answer this need I think we should look to the development of improved stand-off weapons for close support. If we are successful in these developments it is conceivable that these weapons can be carried by transports and fired from the security of friendly areas. Such developments might considerably increase our capability to perform close air support.

In order of priority for the development of air capabilities in limited war I would list:

1. Command and control organization and techniques to ensure employment of large numbers of aircraft in the battle areas without

losing the advantages of mobility. Aircraft lose their effectiveness when decision-making and communication problems prevent fast reaction. The lack of a command and control net to transmit to the airman the decisions he needs nullifies the beautiful mobility, speed, and fast reaction of airpower.

2. Development of a related family of air transports for the movement of men, supplies, and weapons.

3. Development of stand-off weapons for close air support.

Appendix

BIOGRAPHIC SKETCHES OF PRINCIPAL PARTICIPANTS NOT ON ACTIVE DUTY WITH
U.S. ARMED FORCES

Major General John R. Alison, USAFR, was the deputy commander of the 1st Air Commando Force, which supported the Chindit Forces in Burma in 1944. He received his commission in the Air Corps Reserve in 1937, served with U.S. missions in England and the Soviet Union, and commanded a fighter squadron under General Claire Chennault in China before helping to organize the Air Commandos. Following the Burma campaign, he took part in the Luzon and Okinawa campaigns. His current Reserve assignment is as Assistant to the Commander, 15th Air Force. A former Assistant Secretary of Commerce, General Alison is an Air Force Association National Director, and a Vice President of the Northrop Corporation.

Colonel Bernard L. Anderson, USAFR, was a staff officer of the Far East Air Force on Bataan prior to the war. Following surrender to the Japanese, Anderson escaped and began guerrilla operations, commanding the U.S.-Filipino guerrilla forces in Central and Southern Luzon from June 1942 until the liberation. He remained on duty in the Philippines until 1948, when he became an executive in a Philippine industry. He was awarded the Distinguished Service Cross and the Philippine Republic's Legion of Honor, degree of Commander.

Colonel Augusto L. Jurado, PAF, is a veteran of 15 years of combat on Luzon, beginning in December 1941 and extending through the anti-Huk campaign. He is a graduate of the Philippine Military Academy (1938), Flying School (1939), U.S. Air Command and Staff School (1952), and Strategic Intelligence Course (1957). He is a former Assistant Chief of Staff, J-3, Philippine Armed Forces, and is currently the Air Attaché in Washington. He holds the Distinguished Unit Badge with two Oak Leaf Clusters (United States) and the Presidential Citation Badge (Republic of the Philippines).

Colonel René Laure, French Army, commanded the brigade (operational and administrative control) of Adrar in the Western Sahara (1957 and 1958) and the brigade of Bone in Eastern Algeria in 1959. He is a graduate of the Ecole Speciale Militaire, Saint-Cyr, and of the Army War College. During World War II he was in charge of the "Indochina Section" in "Force 136," Calcutta, and later, assumed command of guerrilla forces in Upper Laos. He has served 25 years overseas, in Africa and Asia. He is assigned to the French Delegation to NATO in Washington.

Brigadier General Monro MacCloskey, USAF (Ret.), organized and commanded the first U.S. AAF Heavy Bomber Squadron (and later Group) to engage in night supply dropping operations behind enemy lines in Northern Italy, the Balkans, and Southern Europe from Bases in North Africa and Italy. He has served as Chief of the Reserve and National Guard Division in Air Force Headquarters, and, upon graduation from the National War College in 1948, was named Chief of the Air Intelligence Policy Division, USAF Headquarters. He was Air Attaché in Paris from 1949 to 1952, after which he was appointed Commander of the Air Resupply and Communications Service of the Military Air Transport Service. Prior to his retirement he commanded the 28th Air Division. Among decorations awarded to him by the United States, France, and Morocco are the Silver Star, the Distinguished Flying Cross, the Legion of Merit, the French Legion of Honor, Degrees of Commander and Officer, and Croix de Guerre with Gold Stars and with Palms.

Lieutenant Colonel Jose M. Tinio, P. A., headed the Special Projects Division of the National Intelligence Coordinating Agency from its inception in 1949 and subsequently became Deputy Coordinator of the NICA. He is a graduate of the University of the Philippines, and began his military career with the ROTC at the University. He escaped from the Bataan Death March and became the intelligence officer of the I Corps, President Quezon's own guerrillas. After the anti-Huk campaign, he served as Deputy Assistant Chief of Staff, G-2, Headquarters, Philippine Army. He has completed several intelligence courses in the Philippines and the United States, and is currently serving with the Philippine Embassy in Washington. Among his decorations are the Purple Heart with Oak Leaf Cluster (United States), Anti-dissident Campaign Ribbon and Military Merit Medal (Philippines), and the Legion of Honor (Vietnam).

Squadron Leader A. Twigg, RAF, was a Flight Commander on No. 33 Fighter Squadron in Malaya during 1950 and 1951. Since then his duties have included tours with the joint Helicopter Experimental Unit and, as Commanding Officer, with No. 225 Helicopter Squadron. He is presently serving on the RAF staff of the British Defence staffs, Washington.

Colonel Napoleon D. Valeriano, P.A., commanded the 7th Battalion Combat Team in its very effective operations against the Huks, and subsequently became military assistant to President Magsaysay. He is a graduate of the Philippine Military Academy and the U.S. Cavalry School. He served with the guerrillas on Luzon during World War II. He has also been Commander of the Presidential Guards Battalion, Secretary to the Philippine National Security Council, National Security Coordinator for the Philippines, and Philippine Military Representative to the SEATO Secretariat. He is co-author of Counter-guerrilla Operations: Lessons from the Philippines.

Brigadier General Russell W. Volckmann, USA (Ret.), commanded the U.S. Armed Forces in the Philippines, North Luzon, from 1942 through the liberation in 1945. He is a West Point graduate, and was in command of the 11th Infantry (Philippine Army). He escaped from Bataan after the surrender and joined the guerrilla forces, rising to their command in North Luzon. After World War II he attended the Armed Forces Staff College and the National War College. After graduation he became Assistant Commander of the 82nd Airborne Division. He is the author of Field Manual 31-20, Combatting Guerrilla Forces, and Field Manual 31-21, Organization and Conduct of Guerrilla Forces, as well as the book, We Remained, which is his account of three years behind the enemy lines in the Philippines. He holds the Distinguished Service Cross.

Air Commodore P. E. Warcup, C.B.E., RAF, commanded the RAF at Kuala Lumpur, 1957-59. He is a graduate of the RAF College, Cranwell, the Joint Services Staff College, and the Imperial Defence College. He was an RAF test pilot at the outbreak of World War II, and was a prisoner of war in Germany from 1940 to 1945. He is currently the Assistant Commandant, RAF Staff College.

