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The
TENTH
AIR FORCE
1942

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PREPARED BY
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SECURITY INFORMATION

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FOREWORD

It is the desire of the President, the Secretary of War, and the Commanding General, Army Air Forces, that a solid record of the experiences of the AAF be compiled. This is one of a series of studies prepared as a “first narrative” in the projected overall history of the Army Air Forces.

The decision to make the information contained herein available for staff and operational use without delay has prevented recourse to some primary sources. Readers familiar with this subject matter are invited to contribute additional facts, interpretations, and constructive suggestions.

This study will be handled in strict compliance with AR 380-5.

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Readers are requested to forward comments and criticisms, and to this end perforated sheets, properly addressed, are appended at the back of this study.
THE NINTH AIR FORCE
1942

Prepared by
Assistant Chief of Air Staff, Intelligence
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August 1944
Maps

Air Distances, China-Burma-India Theater, frontispiece

India-China Ferry Routes; Air Service
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Bases and Targets - G/JT

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SECURITY INFORMATION
Chapter I

THE PROBLEM AND ITS SETTING

On 25 February 1942, just three days prior to the first Japanese landings in Java, Maj. Gen. Lewis H. Brereton landed by plane in India to face the third extraordinarily difficult assignment which fell to his lot in the initial stages of the war with Japan. Formerly the commander of the Far East Air Force in the Philippines, and more recently of American air units operating in the Netherlands East Indies, he now received word of his appointment as commanding general of an American air force to be established in India with a mission to prepare for offensive operations in China. Though the Tenth Air Force had been activated on 12 February 1942 at Patterson Field, Ohio, and was shortly thereafter assigned to India,¹ it was some time before even the Headquarters and Headquarters Squadron could sail from America. Meanwhile, General Brereton was promised that certain units would be shipped from Australia,² and orders were issued for all pilots and planes on route from the United States via Africa to Java to stop in India.³ These were the hurried and meager beginnings of an organization forced to operate at the end of a longer supply line than that of any other American air force, over distances within its theater that exceeded even those embraced by the bounds of the United States, and in an area possessed of few of the industrial facilities upon which air power is directly dependent.

To these difficulties of distance, and of an inhospitable climate, were added other serious complications. The national interests of two major allied powers were deeply involved in all questions of policy;
unrest among the heterogeneous peoples of India contributed its own special problems; unavoidably complicated command channels brought familiar delays and misunderstandings; pressing demands of global war and a policy of concentrating first on the defeat of Italy and Germany gave to the theater a priority so low as to force upon responsible officers a struggle to maintain, at times, even the semblance of an operating air force; and withal, frequently changing strategic situations, both general and local, called repeatedly for reconsideration of basic policy. So many and so diverse are the factors which enter into the story of the Tenth Air Force that it is well perhaps to begin at the beginning.

When Japan occupied Manchuria in 1931 China was forced to struggle alone in her resistance to Japanese aggression. The portent of this development had not been overlooked by the State Department, but the United States was neither in mood nor otherwise prepared to risk a war. It soon became clear, too, that the Asiatic policy of Britain at the time was such that no effective aid could be expected from her. Support of China, therefore, extended little beyond the so-called Stimson Doctrine, which refused recognition of Japan's seizure of Chinese territory. As the "China Incident" grew into an undeclared war and events in Europe and Africa moved relentlessly toward the conflagration of 1939, there was an increasing sentiment among Americans for a more active support of China's cause. The voluntary help provided by individuals and groups was followed early in 1941 by an extension of lend-lease aid, and this official act soon involved still further commitments. At the time all Chinese ports had been closed by Japanese action, and the only
route over which China defense supplies could reach their destination was the Burma Road, a tortuous truck route cut by Chinese coolies through the hills between Lashio and Kunming. When this route became overcrowded and it was apparent that traffic required more efficient direction, Americans were sent over for the purpose. In a further effort to strengthen Chinese resistance to the invader, an American military mission under Brig. Gen. John Nagruder reached China late in 1941 for the purpose of accomplishing an over-all study of the problems of Chinese supply. Aid for China thus stood first, historically, on the list of America's commitments in the Asiatic Theater.

When General Brereton arrived in India, American airmen had already been engaged in the defense of the Burma Road. This tenuous but vital supply route was exceedingly vulnerable to attacks by the Japanese air force, and the feeble air arm of China hopelessly inadequate for the task of its defense. The answer to this problem had been found, without too flagrant a violation of international law, by the creation of the First American Volunteer Group under the leadership of Claire L. Chennault, a retired captain of the U. S. Army Air Corps.

Chennault had served in the Aviation Section, Signal Corps Reserve, during World War I and was commissioned first lieutenant in the Air Service of the Regular Army in 1920. He became a diligent student and teacher of fighter tactics and published several articles on the subject. He was a strong advocate of formation flying and gained wide publicity for his "flying trapeze" demonstrations at various air races. When he was retired from the Army in 1937 because of defective hearing, his professional services were sought by China. Accepting an opportunity
to put his theories to test in actual combat, he became commander of
the Chinese Air Force, which fought under his leadership with appre-
ciable success despite the constant handicap of inadequate supplies and
obsolete planes. Russia had been China's chief source for the supply
of aircraft, however, and when she entered the European war in 1941
this supply was suddenly shut off. Thereafter, the Chinese Air Force
rapidly deteriorated until it could no longer be called operational. 6
Efforts to obtain aircraft in the United States met with little success
because of commitments to Britain and the insistent demands of rapidly
expanding American air arms.

Foreseeing the trend of events, Chennault had turned to the idea of
an independent air force made up of American pilots flying modern American
planes. Early in 1941 he returned to the United States to present the
arguments for the creation of such a force. The need for protection of
the Burma Road gave validity to his case but the opportunity for gaining
valuable combat experience against Japanese type aircraft was an es-
pecially persuasive consideration. 7 There was no escaping the fact that
Germany, Italy, and Russia had learned much from their participation in
the Spanish Civil War, but serious obstacles stood in the way of
American flyers playing a similar role in the Sino-Japanese struggle.
The Army, Navy, and Marine Corps, engaged in a rapid expansion of their
own air arms, were reluctant to release personnel for the purpose, and
all late model aircraft had been previously allocated to other uses.
Furthermore, it was the policy of the United States to postpone an open
break with Japan as long as possible.
Eventually, however, President Roosevelt was won over and recruitment of Army, Navy, and Marine pilots began. Enlistment was slow, since only single men were sought and they were required to resign their commissions under circumstances threatening a loss of seniority. After assurances were given that there would be no loss of seniority and that the venture was not wholly without official sanction, 100 pilots were enlisted. Ground crews were not difficult to obtain and by July 1941 the first contingent of personnel was ready to sail.

The problem of obtaining aircraft was eventually solved by securing the release of obsolescent P-40's from Sweden, to whom they had been previously allocated. In this way 100 planes, considered by both the United States and the British as unfit for anything except use in training, were obtained. To avoid a breach of international law the entire project was organized as a commercial venture. The Central Aircraft Manufacturing Corporation (CAMCO), owned by the Curtiss-Wright Corporation and the International Company of China, acted as an intermediary between the Chinese Government and the American Volunteer Group. CAMCO hired the men under a one-year contract to "operate, service and manufacture aircraft in China." A training base at Toungoo in neutral Burma was leased from the British and here in September training was begun.

In characteristic manner, Chennault had placed heavy emphasis on careful and exact training, and not until December, after America's entry into the war, was the AVG committed to battle.

The considerations which had led to these efforts for the support of China through the period preceding America's direct involvement in
the war carried even greater weight after Pearl Harbor. When the Japanese struck with surprise and effectiveness on 7 December the American concept of strategy in the Pacific had to be completely re-vamped. The Navy was so badly crippled that the Philippines were practically isolated and therefore doomed. General MacArthur's forces were inadequate to prevent enemy landings, and the Far East Air Force of General Brereton was severely crippled within 48 hours of the first Japanese attack. In less than a month it was forced to withdraw from the islands to avoid complete annihilation. The fighting which followed at Bataan and Corregidor patently was only a holding action, and a new defensive command, the American-British-Dutch-Australian Command (ABDACOM) was set up in January in the Netherlands East Indies under Gen. Sir Archibald F. Wavell, with Maj. Gen. George H. Brett of the U. S. Army Air Corps second in command. Before this organization could obtain a sufficient force for effective operations, however, Singapore had fallen on 15 February to complete a rapid Japanese conquest of Malaya. With the loss of this main bastion of the Allied position in the Far East, the East Indies themselves were doomed, and the strategic importance of Burma, India, and China to Allied plans for future operations was greatly increased. To support the continued resistance of China, with its potential bases for land-based planes operating against Japan, to hold open China's main line of supply through Burma, and to secure an essential base of operations in India became under the circumstances an urgent necessity.
Early in February Lt. Gen. Joseph W. Stilwell, former military attaché at Peiping, had been notified of his appointment as commander of U. S. Army Forces in the newly created China-Burma-India Theater and ordered to proceed immediately from the United States to that area. Assigned to his staff in the capacity of air adviser was Col. Clayton L. Bissell, experienced airman. Meanwhile, General Brereton had joined with General Brett to urge on Washington immediate action to establish air forces in both Australia and India-China, and as early as 5 February Col. Francis M. Brady (promoted to Brigadier General during February) who had served with General Brereton in the Philippines, had been sent to Burma and India for a survey of the situation. Directed to give particular attention to possible bases for the operation of heavy bombers, he reported that such operations were possible from Akyab in Burma with advanced bases at Magwe and Toungoo. Without waiting for formal orders from Washington, General Brereton himself left Java on 22 February, and after a brief stop in Australia where General Brett was shortly to assume command of U. S. Army Forces, arrived at Ceylon three days later. He was shortly followed by Brig. Gen. Earl L. Naiden, who in leaving Java acted as pilot in the evacuation of General Wavell and his staff. Generals Wavell and Brereton promptly undertook a tour of inspection in India and into Burma, and General Brereton established his headquarters at New Delhi the better to effect a necessary coordination of plans with the British.

The actual forces to be placed at General Brereton's disposal, and their deployment, remained for some time uncertain. Help was promised
from Australia and eventually from the United States. Soon after the declaration of war it had been decided by the War Department that the AVG should be inducted into the Army Air Forces, and that a group of heavy bombers would be sent to China for bombing operations against Japan.\textsuperscript{18} The immediate induction of the AVG would have provided a valuable nucleus of experienced personnel, but the project was destined to be delayed for several months and in the end resulted in no appreciable addition to the strength of the Tenth Air Force. The bomber project, somewhat like Doolittle’s celebrated Tokyo mission, was to be a special undertaking, and no provision was made either for reinforcement of personnel or replacement of aircraft.\textsuperscript{19} Called HALPRO for Col. Harry A. Halverson, who was designated as commander, the detachment assigned to the mission was actually destined to serve in the Middle rather than the Far East.

The first units to arrive in India by surface vessels were those promised from Australia. They were the 51st Pursuit Group, the 51st Air Base Group, the 9th Squadron and the 88th Reconnaissance, the last two being components of the 7th Bombardment Group, Heavy.\textsuperscript{20} The air echelon of the 88th had been en route to the Philippines on 7 December and landed in the Hawaiian Islands during the attack on Pearl Harbor, from whence they subsequently proceeded to Australia. The 51st Pursuit had originally embarked for the Philippines from San Francisco before the Pearl Harbor attack, but had then been ordered back to port. It sailed again in January with Java as its destination, but by the time of its arrival in Australia the battle for Java was almost over and orders for India were substituted. The 51st Air Base Group had left...
San Francisco on 13 January and reached Melbourne on 1 February. These units were assembled at Fremantle in Western Australia and sailed for India on 22 February in a convoy including the three transports, Hatoomba, Holbrook, and Duntrone, the old aircraft tender Langley, and the Seawitch, a United States freighter. None of the men knew their ultimate destination, and en route the Langley and the Seawitch left the convoy and headed for Java. A few days later news was received that the two ships had been sunk. Eventually, the Seawitch made her way back to Australia, but the Langley, with 32 P-40E aircraft aboard, had actually been lost. The remainder of the convoy reached Colombo, Ceylon, on 5 March, and two days later, without having left shipboard, the men again sailed for an unknown destination. On 12 March they pulled into the harbor at Karachi on the northwestern coast of India, and debarkation began.

The selection of Karachi as the port of debarkation reflected the far-reaching implications of the Japanese invasion of Burma. The fall of Singapore in mid-February had enabled the Japanese to regroup their forces and to throw greater strength into a drive for Burma. Martaban, on the west side of the Salween estuary, had been occupied on 11 February, and as reinforcements were brought up after the successful termination of the Malayan campaign, a strong attack was launched against the key port of Rangoon. This city had been under aerial bombardment since December, but the AVG and the RAF had prevented for a time the absolute paralysis of the port. By the end of February, however, it was clear that Rangoon could not be held, and that Calcutta and the Bay of Bengal were probably to be effectively closed to Allied shipping by the Japanese
advance. Hence the decision to land the American units at Karachi, although it was planned to commit them to action hundreds of miles to the east in Burma and northeastern India.

The newly arrived Americans came ashore to learn that Rangoon had been evacuated on 7 March, and that the battle for the rest of Burma was not going well. The handful of American planes and pilots already in India had been thrown into this contest on 8 March, when one LB-30 and seven B-17's had undertaken to transport a battalion of native Fusiliers from Asansol in India to Magwe. At the conclusion of this "first mission" on 13 March, the record showed that 474 troops and 29 tons of supplies had been moved into the battle area while, on the return trips, 423 civilians had been brought out of Burma. Upon its completion, the planes were returned to Karachi for patrol duties which continued into April. 24

At Karachi the Americans were immediately put to work in preparation for future operations. Trucks and aircraft were assembled and routine camp duties were performed, but efforts were directed chiefly to the inauguration of a comprehensive training program. Many of the men had been shipped without completing their training, and there were special operating problems which required emphasis. Morale was frequently low because of the lack of T/3A equipment and aircraft. The two squadrons of the 7th Bombardment Group, for instance, had arrived without their heavy bombers, and replacements for planes lost or left in Australia were not expected for several weeks. Thus it was that six B-17's, stopped en route to Java, plus the two bombers flown in by
General Brereton and his party in February constituted the entire bomber strength of the Americans in India. The 51st Pursuit Group was in a similar position. The convoy which had left Fremantle on 22 February carried 69 Kittyhawks (P-40E's), but the loss of the Langley and the diversion of the Seawitch left the group on its arrival at Karachi with a total of 10 aircraft only.

Meanwhile, General Brereton had formally assumed command of the Tenth Air Force on 5 March 1942, and at headquarters, which continued at New Delhi, attention was directed to some of the larger problems of policy. Late in March a series of conferences were held with officials of the Government of India and key officers of the RAF. Americans present at these meetings were Generals Brereton, Brady, and Naidu, together with Gen. Raymond Wheeler, Services of Supply, who early in March had been ordered from Iran to India to prepare for the supply of American forces on their arrival. When the decision had been made to place an air force in Asia, it was realized that shipping space for that theater would be limited and that a policy of living off the land would be mandatory, payments being made through reverse lend-lease. The conferences at New Delhi, therefore, dealt primarily with what materials and services the British would be required to supply and how establishment of the American force could best be accomplished.

British officialdom was quite cooperative and the conferences progressed smoothly. In April the arrival from the United States of a technical mission, headed by Henry F. Grady, for the purpose of making a comprehensive survey of the war potential of India, relieved General Brereton and his staff of part of the burden and allowed them to
concentrate on pressing matters of a more strictly military nature.\(^{31}\)

The preliminary findings of the American officers and the Grady Mission revealed a task of staggering proportions. No military unit of a size comparable to the American force projected for the China-Burma-India Theater had ever before been forced to depend upon a supply line as long as that from the United States to India. Since the normal routes of communication through the Mediterranean and Pacific were closed by enemy action shipping was forced to take routes from the east coast of the United States around South Africa, or from the west coast or Panama around the southern coast of Australia. No available sea route was less than 13,000 statute miles.\(^{32}\) Cargo ships, transports, and escort vessels were inadequate for the demands made. Submarines in the Atlantic, Pacific, and Indian oceans forced the use of convoys, and a minimum of two months was required to reach the theater from the United States.\(^{33}\) Critical needs in the Middle East and the Caucasus, together with movement of troops and supplies to other theaters, left only a small trickle of shipping for India and gave the theater a low priority on men and materiel.

A second serious handicap was the lack of available port facilities. The evacuation of Rangoon on 7 March and the resultant threat to Calcutta forced the use of ports in western India, the three largest of which were Bombay, Cochin, and Karachi. Cochin was entirely too far to the south to be considered as the American port of entry and Bombay was already overcrowded with British shipping. Therefore Karachi, although at the time not equipped to take care of a great volume of shipping, was chosen as the chief American port. Docking space in all the western
ports was inadequate to accommodate the additional tonnage made necessary by war conditions, and the importation of heavy port equipment was an urgent necessity.\textsuperscript{34} The Grady Commission reported that in April more than 200 ships were waiting at Bombay to be unloaded and that some of them had been waiting there for six weeks.\textsuperscript{35}

Had it been possible to land American forces in eastern India instead of Karachi a third important problem might have been in part averted. But with Karachi as the chief port of entry, and the center of combat activities more than a thousand miles to the eastward, maximum dependence on the Indian railroads was unavoidable. The railroad system was not highly developed, even for normal times, and by American standards was grossly inefficient. The presence of roads of four different gauges necessitated numerous extra handlings in transfers of freight from car to car.\textsuperscript{36} In eastern India cars were generally ferried over the Ganges and Brahmaputra rivers since there were only two bridges over the former and none at all over the latter.\textsuperscript{37} The entire system had been weakened by transfer of locomotives and other rolling stock to Iran,\textsuperscript{36} and the closing of the port of Calcutta added a further strain since the products of the eastern industrial centers, normally shipped by sea from Calcutta, had to be sent by rail to the west coast for export.\textsuperscript{39} Three weeks were required for passengers to go by rail from Karachi to Assam, and shipments of goods took approximately six weeks for the same journey.\textsuperscript{40} A complete breakdown seemed imminent.\textsuperscript{41}

Since in normal times the railway system handled 98 per cent of the land-borne traffic, the highway system was entirely inadequate to absorb an appreciable amount of the extra hauling necessitated by the placing
of the American force in India.\footnote{42} First class all-weather highways were not numerous and practically none were of sufficient width to accommodate heavy two-way traffic. Even the best automobile roads were poorly graded and the curves were not banked to take care of high-speed vehicles. During the rainy season in eastern India the poorer roads were impassable and many of the improved ones were rendered useless by numerous washouts.\footnote{43} Only by the use of large numbers of trucks, however, could the highways, poor as they were, bear an equitable share of the burden, and the trucks were not to be obtained.\footnote{44}

River boats normally carried a considerable volume of freight on the Ganges and Brahmaputra rivers and this means of transportation was not ignored in the planning of military operations. River boats, like rolling stock, however, had been decimated and not until replacements were supplied could river traffic be fully utilized. It was unfortunate, too, that the railroads had not been planned in such a way that the two systems could complement each other, for the main lines of railroads, particularly in the east, often paralleled the courses of the rivers.\footnote{45}

The setting up of an air transport service to aid in overcoming the problems arising out of the unsatisfactory condition of railroads, highways, and river transport was an immediate necessity. The preparation of airfields for transport planes as well as for combat aircraft involved a prodigious construction program.\footnote{46} Existing landing fields were located with a view toward commercial rather than military operation, and had neither adequate quarters for men nor installations of a nature suitable for a military air establishment. Repair and maintenance facilities which had been adequate for a limited civilian service
could not be expected to take care of combat planes. Some of the fields were too short or too lightly constructed to accommodate the speedy pursuit or heavy bombardment aircraft. In the critical region near the Burmese border, air-dromes were almost non-existent, and the small number that were serviceable had no protection from hostile air forces. In fact, in almost every instance major changes or even complete re-building of existing fields were necessary before successful operations could be anticipated. Strategic requirements also called for construction of many entirely new air-dromes.

The communications system in India, like the transportation system, was extensive but inefficient. The telegraph and telephone systems extended to practically every section of the country but the equipment and methods were far from modern. Transmission of messages which in the United States would have been accomplished in a matter of minutes frequently required several days. One American told of telegraphing for a hotel reservation and arriving before the telegram. When passing through a week later without having telegraphed for a reservation he found a room awaiting him. His original telegram had arrived after his first check-out. Mailed confirmation of telegraphic orders often arrived before the orders. General Brereton referred to the system as "rudimentary." The Americans soon learned that they would have to use radio almost exclusively and that they would have to furnish all inter-air-drome communications.

Another problem of less immediate importance, the seriousness of which could be revealed but gradually, was that of the climate. India has been fitfully described as being "too hot, too cold, too wet, too
dry." The temperature and humidity of most sections of the country were much higher than those to which American troops were accustomed, and resultant enervation threatened a reduction of efficiency and a high rate in the incidence of the many diseases which were endemic. Malaria, typhus, cholera, dysentery, and venereal diseases would present a constant danger to incoming soldiers. Excessive rainfall during the rainy seasons would retard construction of airdromes and provision of housing, while dust conditions during the dry season would present many operational problems.

The time of General Brereton and his few staff officers could not be devoted wholly to basic planning, however, for the Japanese were engaged in a relentless drive toward Mandalay, key city of central Burma. The retention of Burma was so vital to the conduct of successful military operations against the Japanese in Asia that its loss would necessitate a complete revision of the over-all strategy to be followed in the theater. Already the loss of Rangoon had denied to the Allies the only port from which supplies could be delivered by rail to the lower terminus of the Burma Road. There were no railways or good highways leading from India into Burma, but it was considered possible to transport supplies by overland trails into upper Burma and thence to China. The prospect that Burma might be completely overrun threatened the Allies with the alternatives of developing an air transport service of considerable proportions from India to China or abandoning all hope of carrying on air operations from China, with the resultant risk that the Chinese might be forced to cease resistance. An air transport system to China had already been planned but only as a supplement to the other
existing supply lines, and these plans involved the use of airdromes in
Burma. The time lag between closure of land routes across Burma and
the development of an air cargo service capable of replacing the Burma
Road would obviously be great, and it was not inconceivable that during
the interim the Chinese could be forced out of the war. Everything
possible, therefore, had to be done to stop the Japanese advance, and
General Brereton's air force, despite its pitiful state of unpreparedness,
was called upon to do its share. Its principal contribution was to trans-
port supplies and evacuate the sick and wounded.

General Stilwell, commanding the Chinese Fifth and Sixth Armies
had joined the British in the defense of Burma and on 24 March General
Brereton conferred with him at a point near the front lines. The fol-
lowing day the Japanese by-passed Toungoo and on 2 April Prome was
evacuated. The first defense line was broken and the Allied troops began
a withdrawal to the north.

General Stilwell soon found that Chinese equipment and leadership
were unequal to the task at hand and that complete coordination between
the British and the Chinese was not to be obtained. The withdrawal
turned into full retreat, and as the incessant poundings of the mobile
Japanese units continued, the retreat deteriorated into a rout. Japa-
nese air supremacy was challenged by the RAF and AVG and, although the
latter exacted a heavy toll of enemy aircraft, the air defense of the
Burma Road gradually weakened. On 26 April Lashio, southern terminal
of the Burma Road, was captured, and five days later the important rail
center at Mandalay fell.
After the fall of Mandalay the campaign was rapidly brought to a close. On 6 May Akyab, on the coast of the Bay of Bengal, was occupied, and the following day Bhamo was lost. On 8 May Myitkyina, the hub of ferry operations in Burma, was captured by the Japanese. The ground phase of the Battle of Burma was lost and for the next few weeks General Stilwell, with remnants of the Allied troops, struggled along the trails through the jungles trying to reach India. The AVG withdrew to China, and ferry operations were limited to dropping food to the retreating men.

The loss of Burma was a serious blow to all preliminary plans for air operations in the China-Burma-India Theater. All early surveys of the air cargo route to China had to be abandoned. The conception of the air transport as a supplementary service to regular supply lines was changed, and the planners were forced to think in terms of an air cargo service large enough to replace the Burma Road. Operational bases for heavy bombers would now have to be located farther to the west, thus leaving prospective targets in Indo-China, Thailand, and Malaya out of range. Fields planned as lay-back fields would have to be converted into advance bases, while former advance bases would become the targets for future missions.

Plans for ground operations were no less subject to major revisions. The possibility of combined operations by Chinese and British ground troops on a common front had been eliminated. Experience had convinced General Stilwell that the Chinese Army would have to be reorganized, re-armed, and retrained before it could become an effective fighting force. The time when an offensive against the Japanese in Asia could be undertaken was necessarily placed in the remote future.
Chapter II
THE TENTH AIR FORCE UNDER GENERAL BRERETON

When General Brereton began in March to shape his plans for the operation of the Tenth Air Force he had only the assistance of General Naiden, General Brady, and a few officers from General Stilwell's staff. The arrival of the convoy from Australia on 12 March brought the total strength of his command to 174 officers and 3036 enlisted men. He had already determined to make General Naiden his Chief of Staff, and to place General Brady in command of a base at Karachi for the reception, classification, and training of incoming personnel. He requested that Brig. Gen. Elmer E. Adler, who was at that time with the Maxwell Mission in Egypt and had previously served in Russia, be assigned to the Tenth for the purpose of establishing an Air Service Command. Some delay was experienced in securing the transfer, but on 26 April General Adler arrived, bringing with him Col. Reuben C. Hood and Capt. Gwen Atkinson. Col. Victor H. Straus was requested for G-3 and was assigned early in March. On 7 April two competent combat group leaders, Col. Caleb V. Haynes and Col. Robert L. Scott, arrived from the United States with a flight of heavy bombers and transports. Brig. Gen. Clinton W. Russell reached India the same month to assist in the organization of the air transport service. Several combat pilots of the Doolittle flight, which raided Tokyo on 13 April, remained in India after their escape through China and were assigned to the Tenth Air Force. Other officers reached the theater from time to time, and the Headquarters and Headquarters Squadron, activated in the United States, finally arrived in May.
General Brereton, fresh from a series of defeats in the Philippines and Java, was eager to mold his new force into an effective fighting unit at the earliest possible date. He was well aware of the basic difficulties confronting him, but could hardly have been prepared for the multitude of problems which arose, involving training, morale, command, and even the mission of his air force. And to complicate the situation further, there were difficulties arising from inadequate communications through the first few months of the war, and from the peculiar position of the Tenth Air Force in relation to the country in which it was to operate, that made it hard to bring the War Department to a full understanding of the predicament in which the commanding officer found himself.

There were even misunderstandings regarding the number of operational aircraft which the Tenth Air Force had at its disposal. It was known in Washington, for instance, that it had been the plan to send in the convoy from Australia 80 pursuit aircraft, and it was known that the Langley had been sunk and the Seawitch diverted to Java. But as late as 20 March it was not known that only 10 of the pursuits had reached Karachi.7 In the case of the B-17's originally intended for Java, the War Department knew that 19 had been on the way when the order was issued reassigning them to the Tenth Air Force, and thus on paper it appeared that early in March almost a complete group of heavy bombers was on hand. Actually, by the middle of March only a few of these B-17's had arrived in India.8 Later, when aircraft were being deckloaded to western Africa and ferried overland to Karachi, further misunderstandings were experienced. The War Department was not always aware of the rate of progress of planes across Africa, and often overestimated the number of planes
actually delivered in India. At times planes which were recorded in Washington as having been made available to the Tenth Air Force were strung across Africa, some wrecked irreparably, and others needing major overhauls before they could continue. Quite often, also, aircraft which successfully made the flight across Africa arrived in Karachi with engines so badly worn that they required replacement, and since spares were slow in arriving, it was sometimes weeks before newly arrived planes became operational.

Another problem was that of securing the type aircraft best suited to the requirements of the theater. General Brereton promptly recognized the desirability of using medium bombers and so advised the War Department. Limited target areas, lack of reconnaissance and photographic aircraft, and unfavorable atmospheric conditions combined to make high altitude precision bombing of questionable effectiveness, and in many cases quite impossible. Since pursuit aircraft in the theater were not able to operate over the great distances required, all bombings had to be done without escort and generally at night. Medium bombers were preferable for such operations because their speed made interception more difficult, but the original units assigned to India were equipped only with heavy bombers and pursuits, and all early requests for mediums were of necessity turned down. The requests continued, however, and an agreement was finally reached late in April by which the 7th Bombardment Group was to be changed to a composite group of two heavy and two medium squadrons.

Reconnaissance and photographic aircraft were requisite to the execution of successful bombing missions, and requests poured in to the
War Department for P-38's with the necessary equipment. They were promised as soon as they were available but the date of availability was quite indefinite. Attention was also called to the need for a superior fighter. The Tenth, like the AVG in China, was equipped with the P-40, and improvements noted in Japanese aircraft indicated that this type would not be able to hold its own for very long. Its limited altitude and low rate of climb were severe handicaps. Unfortunate experience with the P-43's and P-66's in China proved that a still better aircraft would be needed, but not until long after General Brereton left the theater were improved pursuit aircraft received.

In reporting upon the needs of his new theater and in planning the development of the Tenth Air Force, General Brereton drew heavily upon his first-hand acquaintance with the combat experience of air force units in the Philippines, Australia, and Java. He was convinced that many improvements in training and equipment were essential to future success in the air. The sudden attack by the Japanese had caught the United States with only a partially trained and poorly equipped air force; critical conditions had dictated that however limited the training or the equipment, reinforcements should be sent to the Pacific; but the unfortunate and often tragic results of this policy had led General Brereton to an insistence that personnel should be fully trained and equipped before they were sent into battle, even at the cost of delay in forwarding sorely needed reinforcements. In his appeal for better-trained personnel, and for the equipment essential to the training of men already in the theater, he cited numerous examples of the cost of insufficient training. In Australia American pursuit pilots had
averaged one accident for every 20 landings in spite of 4,000 foot runways. In Java gunners on heavy bombers had been unable to operate or maintain turrets, and one of them had actually shot away the tail of his own plane.  

General Erereton’s suggestions for improvement in the training of heavy bombardment crews included a more thorough grounding in pilotage, gunnery, bombardment, and maintenance of equipment; strong emphasis on formation flying of heavy bombers to provide a concentration of defensive fire; and the training of radio operators to double as gunners. For pursuit pilot training he recommended stress on three-point precision landings on short fields; training in simulated combat with mock engagements between planes having different degrees of speed and maneuverability; gunnery range estimation through numerous practice attacks; reinstatement of the three ship V-formation for the practice it afforded in holding formation and quickly assuming a definite position; ground school instruction in the maintenance of aircraft for emergencies when no crew chief was available; and at least a week of practical experience in the maintenance of engines and ordnance equipment on auxiliary fields having only limited personnel and no base facilities.  

On the subject of combat tactics, he suggested that in attacking bombers pursuit planes should either attack from two or more directions simultaneously or use decoys along with actual attacks. He warned that P-40 pilots should never engage in dog-fights with Japanese pursuits because the Japanese planes could outclimb and outmaneuver them. Hit and run tactics were urged, with the P-40 taking full advantage of superior level flight and diving speed.
General Brereton's numerous suggestions as to equipment indicated keen perception as to possible improvements. Many of the suggestions had already been adopted or were adopted soon afterward. Recommendations for improving effective operation of the B-17 included substitution of .50-caliber for .30-caliber machine guns in the nose; installation of side guns, because of frequent mechanical failures of the turret; disregard of limitations placed by Boeing on the use of side guns while the lower turret was loaded with ammunition; the addition of an interplane homing device to facilitate the reassembly of bomber units after dispersion, thus cutting down losses through straggling; and the installation of a windshield wiper to increase visibility for the pilot during heavy rains.²¹ For pursuit aircraft he urged "droppable" auxiliary tanks, and improvement of interplane radios.²²

He also suggested that all ammunition be belted before it reached the theaters of operation; that the ratio of armor-piercing ammunition be increased to aid inexperienced gunners; that explosive and incendiary ammunition for .50-caliber machine guns be developed; and that a mobile installation for air warning be developed to permit the movement of that essential defense aid from place to place either by truck or aircraft.²³

During the few weeks immediately following the arrival of the first convoy in India the morale of the men reached an extremely low point.²⁴ The situation in the Indian Ocean and adjoining waters became so critical that attacks were expected even at Karachi. Combat units were therefore held in an area which actually continued to be remote.
from the center of hostilities. Inactivity caused by shortage of aircraft took the edge off the crews and allowed them to grow stale. The training program was necessarily limited by the lack of equipment and tended to fall into a monotonous routine. The housing provided was satisfactory in itself, but the encampment was located at the edge of the Sind Desert where there were neither trees nor grass. There were breezes, but they blew in sand and dust which seemed to get into everything. Reading matter, cigarettes, beer, candies, and ordinary post exchange supplies were not obtainable. Probably the most depressing factor, however, was the absence of mail from home. Many of the men had not heard from their families since leaving the United States in December and January, and conversation centered chiefly about the time of their return home.25 These first days at Karachi remained for all an unhappy memory.

Early in April the monotony was broken, at least for members of the 9th Bombardment Squadron, by the inauguration of a series of raids which were continued up to the time of General Stirreron's departure from the theater in June. These raids could only be classified as of the nuisance type, since operations were restricted both by weather conditions and by shortages of equipment. Only the bombers were used on missions in April and probably no more than six of them were ever operational at any one time.26 Crews were selected from the 9th Squadron because of previous combat experience in the Southwest Pacific, and two missions were planned for 2 April. Operating from Asansol, near Calcutta, as an advanced base, one flight, consisting of two B-17's, was to bomb targets in the Rangoon area but one of the planes crashed
on the take-off, killing the entire crew, and the second developed mechanical trouble. The other flight, consisting of two B-17's and one LB-30, was led by General Brereton himself. During the night of 2/3 April they successfully attacked enemy shipping near Port Blair in the Andaman Islands from an altitude of 3,500 feet. Eight tons of bombs were dropped, and hits were scored on a cruiser and a transport, both of which were left burning. Intense antiaircraft fire was encountered from the ships and from batteries on the shore, and the flight was also attacked by enemy pursuits. All bombers were able to return to base, but two of the three were damaged.

The initial raid on the Andamans brought to a head the important question of General Stilwell's authority over the operations of the Tenth Air Force, and this was soon joined with an equally important question of the mission of the AAF in the CBI Theater. In a conference with the theater commander at Hagu in Burma, on 24 March, General Brereton had stated that his air force would not be ready for action for another month, and General Stilwell had directed that targets in Burma be given highest priority. He was consequently surprised to hear of the Andaman Islands raid, and immediately sent a message to General Brereton which read in part: "The possible use in Burma against enemy aviation and capabilities of your force should be reported to me immediately. It is necessary for me to know if the Tenth Air Force is prepared to operate in order that I may coordinate its action because of critical ground operations in the area." A copy of this message was sent to General Marshall, who in turn commended General Brereton for his "telling blow against the Japs," but reminded him that he was to...
operate in compliance with General Stilwell’s directions.  

The question of the mission of the Tenth Air Force had been raised during the conferences between AAF and RAF officials at Delhi late in March; but the American officers, being without specific instructions at that time, made no definite commitments. Japanese attacks on Ceylon early in April brought the question into prominence and made it expedient that some agreement be reached. The attacks were made on such a scale as to indicate that an invasion might follow. British military leaders were aware that their air forces were not capable of defending the island against a determined assault and immediately requested that American military authorities direct the Tenth Air Force to act under British supervision in an attempt to repel further attacks. General Brereton, fearing that such action might be only the first step toward placing the American units under the full control of the RAF, anxiously awaited a decision.

On 15 April General Stilwell received the following message from General Marshall: "In the Bay of Bengal and Indian Ocean area from Ceylon northward, Brereton's Air Force will be used in conformity with the British." Knowing the possible effect on the Chinese of such action, General Stilwell replied: "Request that any proposals of any nature which may be suggested by any official in Delhi which might affect operations in this theater either immediately or in the future be referred to me for comment or recommendation before final action is taken." With that he rested, and issued no orders to General Brereton. Chiang Kai-shek interpreted the proposed action as an indication that the United States, on the advice of the British, intended to give the
defense of India a higher priority than the defense of China, and expressed his strong disapproval of any such course to General Stilwell. On 21 April General Brereton received a copy of the message previously sent to General Stilwell but awaited word from the theater commander before taking any action. On 24 April he forwarded to the War Department the following paraphrase of a message received by General Wavell from the British Air Ministry: "We are fully cognizant of the serious position of India and Ceylon and from your previous messages of critical need of air striking force and long range reconnaissance... To take full use of United States units in India is the only practical method of providing you with long range striking force. Brereton should cooperate with you fully as agreed by Americans and orders are being issued instructing him to place under your strategic instruction the operation of his forces."

General Brereton, having recently received a mild reprimand for undertaking the Andamans mission without specific authorization was unwilling to place himself in a similar position again, and accordingly cabled Washington that he had no direct instructions either from General Stilwell or the War Department. He immediately received a directive from Washington to cooperate with the British as requested, to which he cabled his compliance but called attention to the fact that he was still without orders from the theater commander. General Stilwell voiced his displeasure at the procedure in a message to Washington on 29 April: "The contemplated action pertained [sic] to forces and equipment under my command and jurisdiction was taken without reference to me for recommendation or comment." He explained that
he had hesitated to take action because of the possible effect on the Chinese and to avoid any chance of friction.38

On 3 May a message arrived in Washington signed by Col. William R. Gruber, of General Stilwell's staff, stating that General Stilwell was in Burma and could not be reached, but that he himself was of the opinion that the Tenth Air Force should operate under British control only in the event of actual attack on India.39 On the same day General Brereton cabled Washington: "It is imperative that command and final decision relative to use of AAF not be passed to the British but remain with me."40 General Stilwell obviously had sent a message asking for clarification of his position, for on 5 May Washington received another message in which he acknowledged a confirmation that all American forces in the China-Burma-India Theater were still under his command. He further stated that he would issue orders to General Brereton to use the Tenth Air Force in coordination with the British, but that he would instruct him to remind the British that the Tenth Air Force remained under the American theater command.41

Immediately following this exchange Chiang Kai-Shek convinced the American authorities that the situation in China was critical. The outlook in the Indian Ocean had meanwhile greatly improved. Heavy units of the Japanese fleet were known to have left the area, and the British had on 4 May begun the occupation of Madagascar. On 24 May, therefore, General Marshall sent General Stilwell a message rescinding the action which committed the Tenth Air Force to work under RAF supervision. "The Tenth Air Force," it read, "is under your command and its employment
in the India, Burma, China region is completely at your discretion.  

A rather critical point was thus passed. The Tenth Air Force did not pass to British control, General Stilwell's authority was upheld, and the Chinese were reassured. The following day General Stilwell notified General Marshall that plans to use the Tenth Air Force for direct support of China would go into effect as soon as possible. He expressed the opinion that the British were primarily interested in the defense of India, and did not contemplate offensive action against the Japanese.  

While this question was being settled, General Brereton was still further disturbed by the fact that certain air force units contemplated for the theater were not to be under his control. In March he had requested that pursuit aircraft arriving at Karachi via Africa to reinforce the American Volunteer Group be diverted to the Tenth Air Force.  

The AVG was at the time in desperate need of aircraft, and since its continued operation was indispensable to keeping the confidence and good will of the Chinese, his request had been refused. General Brereton then suggested on 17 March that the AVG be immediately inducted into the Army Air Forces, assigned to the Tenth Air Force, and that General Chennault be recalled to active duty so that he could continue in command of the group. If such action were taken, it was his intention to transfer the entire force to eastern India and Burma.  

Induction of the AVG had already been favorably considered in Washington, but it was agreed that it should not be accomplished without the sanction of Chiang Kai-shek. The Generalissimo was reluctant to give his consent without a guarantee that American units commanded by General Chennault
would continue to operate from China. The Chinese were suspicious that
General Brereton was subject to British pressure, and feared that if an
attack on India materialized China would be left without air support.
The question was discussed frankly, and when reassured that China's
needs would not be forgotten, the Generalissimo gave his consent to the
induction, and this seemed to settle the matter.

On 10 May, however, General Brereton was informed by the War Depart-
ment that the 23d Pursuit Group, which had been selected to absorb and
take the place of the AVG in China upon its induction, would not be
assigned to the Tenth Air Force. This word came on the heels of
an order to cease "short-stopping" spare parts intended for the AVG and
refusal of his request that HALFRO be assigned to the Tenth Air
Force. He was advised that, instead, it would operate separately.
General Brereton, therefore, found himself in the anomalous position
of commanding an air force which existed almost in name only while two
combat groups were being fully equipped for independent operations in
the same theater. On 17 May General Stilwell notified the War Depart-
ment, that subject to further instructions from Washington, the Tenth
Air Force would have charge of all preparations for the reception of
HALFRO, and that HALFRO would be assigned to the Tenth Air Force upon
its arrival in the theater. He also said that the Tenth Air Force would
have control of the induction of the AVG and would have command of the
23d Pursuit Group after it absorbed the AVG. This policy was ulti-
mately to prevail, although until the actual induction of the AVG in
July, the slowly arriving elements of the 23d Group remained independent

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of the Tenth Air Force and under the direct authority of Chennault, who in April was recalled to duty in the Army and immediately promoted to Brigadier General.

Another source of embarrassment to the commander of the Tenth Air Force was the question of his relation to the projected India-China ferry. Early in March General Naiden, who later became his Chief of Staff, had been given the responsibility of planning and initiating ferrying operations, and it was understood that the Tenth Air Force had as a part of its mission the protection of the ferry route. It was General Brereton's belief that under those conditions, the ferry could be efficiently operated only if ferrying personnel and equipment were assigned to the Tenth Air Force, and on 2 March he made this request. Brig. Gen. Robert Olds, Commanding General of the Ferrying Command, opposed the action, fearing that outright assignment might result in diversion of ferrying personnel and equipment to combat units. After General Brereton had repeated his request on 9 April he received the following message of 10 April from General Marshall:

Policies relating to the movement and supply of planes will be administered throughout by the ferry system operated by central office in Washington. Control of ferry operations insofar as they are affected by military operations in India will be exercised by you. The air freight route from Sadiya to China will be for the 1st Air Force Ferrying Group and General Stilwell will control these operations.

General Stilwell had his headquarters in Chungking, and communications from there to New Delhi were carried on via Washington. Since it was obvious that he could not personally direct the ferry, General Brereton insisted that the authority be delegated to him. In a cable of
18 April he stated that chartered Pan American and Ferrying Command planes were flying over India without proper control and that American, British, and Indian authorities were being placed in an embarrassing position. He further averred that the existing system was near a breakdown and that the state of confusion could be eliminated only by placing all aircraft under a single command. The following day General Arnold undertook to clarify the matter in a message to General Stilwell which stated that General Brereton was given authority and responsibility over aircraft employed locally on the ferry route between Karachi and Calcutta, while General Stilwell would have direct control over those aircraft designated for service in China. General Stilwell was also vested with authority to change the location of operating stations and ferry control detachments in both India and China. It was further promised that an officer who fully understood all ferrying operations would be provided for General Brereton's staff. In reality, the message added little clarification to the policy already stated by General Marshall.

While the controversy was in progress personnel of the 1st Ferrying Group began arriving in the theater and operations were begun. Brig. Gen. Clinton W. Russell, who had arrived in April to direct ferrying operations, became ill and the responsibility fell again to General Naiden. By the first of April plans had been made for two commands, the Trans-India, to operate from Karachi to Dinjan, in Assam, and the Assam-Burma-China, to operate from Dinjan into Burma and eastward to Kunming. The Assam-Burma-China Command received first attention because of the necessity of getting enough supplies to China to bolster morale which
had faltered after the closing of Rangoon. Colonel Haynes, recently arrived at Karachi from the United States, was chosen as commanding officer. Col. William D. Old was dispatched to Dinjan during the first week of April to take charge of preliminary preparations and to serve as executive officer to Colonel Haynes upon the arrival of the latter. The immediate task, in addition to the routine of providing quarters and supplies for the men, was to deliver 30,000 gallons of gasoline and 500 gallons of oil to China for use by the Doolittle flyers in their planned flight from China to India after the bombing of Tokyo. Ten Pan American DC-3's from Africa were made available for the India-China cargo route, but one was damaged when it failed to locate the air field at Dinjan. The others immediately began operations. Eight thousand gallons of the gasoline were in Calcutta, and the tactical situation there was so critical that the fuel had to be moved without delay. Storage space at Dinjan was limited, and on 6 and 7 April two of the transports flew the gasoline from Calcutta to Assansol, and later delivered it via Dinjan to China. Meanwhile, the other planes carried out the remainder of the original assignment.

On 23 April Colonel Haynes, Colonel Scott, Col. M. C. Cooper, and other officers who had been assigned to the Assam-Burma-China Command arrived at Dinjan and took up their duties. The command had a plane strength of 13, all Douglas DC-3's or the Army equivalent, C-47's. Storage space and manpower were inadequate for carrying out the original plan of operating the two ferry routes separately, which involved the transfer of each cargo arriving by plane from Karachi to another plane.
bound for Burma or China. Realizing that the plan was impracticable until reinforcements arrived, Colonel Haynes often ignored it and sent Trans-India planes on into China and Assam-Burma-China planes westward to Karachi without transfer of cargo. As weeks passed without personnel or aircraft arriving for the Trans-India Command the plan for two separate commands was dropped and the title India-China Ferry was applied to the entire ferry system of the theater. The flight from Dinjan to Kunming, however, retained its identity as the Assam-Burma-China Ferry for several months.

Prospects for efficient air transport service in the immediate future were, therefore, most discouraging. The shortage of aircraft and personnel was by no means the only major handicap, for while ambitious plans were in the making for the development of airfields in upper Assam, only the one at Dinjan was completed. Two British squadrons, one transport and one pursuit, were already operating from the field and proper dispersal was almost impossible. Although barracks were under construction, the early arrivals were quartered in mud and bamboo "bashas" with dirt floors. Messing facilities were bad, and the food, while sufficient in quantity, left much to be desired in quality. The quarters were more than 10 miles from the field and ferry personnel were dependent upon the British for ground transportation.

Probably the most alarming condition was an almost total absence of defense against enemy air attack. No antiaircraft guns had been provided, and the British pursuit squadron operated without an air warning system. It was recognized that a sudden attack by Japanese raiders

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might well be disastrous, for lack of dispersion facilities left aircraft completely exposed to strafing. To prevent transports from being caught on the ground, every effort was made to get them into the air at dawn. When they arrived at the field during the day they were hastily serviced, and cargoes were speedily transferred, in order to get the planes away as rapidly as possible. The men arose at 3:30 A.M. and the normal working day was 16 hours.70

At the time of Colonel Haynes' arrival at Dinjan the Japanese were advancing toward Mandalay, and ferry pilots were called upon to carry ammunition, aviation gasoline, and supplies into Burma, and to bring out sick and wounded soldiers and civilian refugees. Mandalay fell on 1 May, and soon afterward, when it became obvious that Myitkyina and Loiwing, important points on the ferry route to China, were doomed, army pilots began to ignore the normal limits of commercial aviation as to load and altitude.71 Planes built to carry 24 passengers were often flown with more than 70. Some of the civilian pilots were at first vigorously opposed to the practice, but after seeing army pilots flying almost incredible loads above what was considered a maximum ceiling, without mishap, they revised their estimate of the capabilities of the planes and did likewise. The DC-3 soon established a reputation for dependability and durability which led at least one person familiar with its performance under adverse conditions to say, "You'll never replace the DC-3."72

During these operations all pilots were badly overworked, and both Colonel Haynes and Colonel Old took regular turns as transport pilots. In spite of the fact that the aircraft were unarmed and completely at
the mercy of enemy pursuit planes, not a plane was lost. One, approached by an unidentified aircraft, fired upon it with tommy guns, but it was never known whether the interceptor was Japanese or British. 73

As the military situation in Burma deteriorated, the entire staffs of General Stilwell and General Wavell were in danger of being captured. In a series of hairbreadth escapes the transports brought them out. 74 At the last moment General Stilwell elected to remain and "walk out" with what was left of his command. For several weeks the Ferry Command pilots dropped food and medicines to many retreating parties, but were never able to identify any one of them as that of General Stilwell. Occasional contacts were made by radio until General Stilwell on 21 May reached a village near the Burma-India border. 75 From there he went at once to Dinjan where he found Generals Wavell, Alexander, Breton, and Naiden waiting to confer with him. 76

Meanwhile, food and supplies were dropped whenever possible to other Chinese and Indian troops moving through the jungles to northern Burma in an attempt to escape capture. When it was found that the Japanese had not occupied Fort Hertz (Puteo) one of the pilots made a successful landing with a DC-3 on a strip reputed to be less than a thousand feet long, and took off with a load of disabled Ghurkas. 77 The field was often used thereafter, and the strip was eventually lengthened to render landings and take-offs less hazardous. Late in June, after the monsoon had set in, the last of the troops to escape arrived in India.

The loss of the air bases in Burma and the arrival of the heavy rains of the monsoon season brought about an almost complete cessation
of flights from Dinjan to China. On 8 June Colonel Haynes learned that he was to be transferred to China to command the bombers which were to operate as a part of the projected China Air Task Force. Colonel Old had already been ordered back to New Delhi, and when Colonel Haynes departed on 17 June Colonel Scott was left in command of the ferry. A few days later he received orders to report to Kunming to command the Julian 23d Fighter Group. Upon his departure Colonel Joplin assumed command, and continued to operate the ferry until December. 78

During the short time in which Colonel Haynes was in command, the Assam-Burma-China Ferry had engaged in many varied activities, and although the volume of freight hauled was not great, it nevertheless represented an outstanding accomplishment under the most trying of circumstances. Cargoes included passengers, gasoline, oil, bombs, ammunition, medical supplies, food, aircraft parts, an Army jeep, and two disassembled Ryan trainer aircraft. More than 1,400,000 pounds were moved eastward from Dinjan, while approximately 750,000 pounds were brought west on return trips. 79 The accomplishments of this pioneer group of pilots and transport aircraft were doubtless in a great measure responsible for the planning of the real "over the hump" service which followed, an undertaking which might otherwise have been dismissed as utterly impossible.

While these early operations of the ferry were being carried out it was clearly demonstrated that the plan to have ferrying activities directed from Chungking was entirely impracticable. Eventually, General Brereton won his point, and the 1st Ferrying Group was assigned to the Tenth Air Force. 80
While the two-fold problem of command and mission was the subject of frequent, and at times rather bitter, discussion at the higher levels of command, activities necessarily continued in the field. The all-important Air Service Command was activated on 1 May under the command of General Adler, but the only personnel immediately available to him were Colonel Hood and Captain Atkinson who had arrived with him. The 3d Air Depot Group had been assigned to the theater but was still en route, and so necessary enlisted personnel were obtained from other units of the Tenth Air Force, chiefly the 59th Material Squadron (later redesignated 59th Service Squadron). No Headquarters and Headquarters Squadron was created, the personnel normally belonging to such an organization being assigned to the Tenth Air Force and detailed to duty with the Air Service Command. On 23 May Lt. Col. Denial F. Callahan was assigned as Chief, Maintenance and Repair Division. The following day Col. Robert C. Oliver reported and was made Chief of Staff to General Adler, with Colonel Hood taking the assignment as Chief, Supply Division.

On 8 May Agra had been chosen as the most desirable location for the main depot and on 19 May negotiations with the British for allocation of the site were completed. Soon thereafter Americans arrived from Karachi to begin work. Among these was the 3d Air Depot Group which had arrived from the United States a few days earlier after a long and tedious trip of 60 days. Having on 19 March left Charleston, S. C., the convoy touched at Puerto Rico, Freetown, Capetown, and Port Elizabeth. Shore leaves were granted at the latter two stops, and the men were given a hearty welcome and excellent treatment by the inhabitants. The
journey was not all so pleasant, however, for water was short on the
trip from Freetown to Capetown, making regular bathing impossible.
During the voyage supplies of canned milk and sugar were exhausted.
The mess was generally poor, and stomach disorders were numerous and
sometimes quite severe. Morale was low at times, but after debarkation
high spirits returned. Other arrivals at this time included the
ground echelon of the 23d Pursuit Group, additional personnel of the
1st Ferrying Group, and Headquarters and Headquarters Squadron, Tenth
Air Force.

On 23 May the 3d Air Depot Group arrived at Agra and the 3d Air
Depot was established. Col. R. R. Brown was Depot Commander and Lt.
Col. Isaac Siemens was designated as Group Commander. While permanent
barracks were under construction the men lived in tents. The only
available air strip was of the fair weather type and was unusable after
a hard rain. Native workers were busily engaged in construction of an
airdrome but they had no heavy machinery and progress was slow.
Morale at Agra was never the problem it had been at Karachi a short
time before. The men were kept busy and progress on their work was
rapid enough to furnish the necessary encouragement. The mail service
had shown improvement and post exchange supplies were on hand.

The 59th Material Squadron was divided into small base units to
serve the various operating stations established in eastern India and
in China. Its headquarters was located at Allahabad, where Base Unit
Number One was stationed. Other points selected for base units were
Kunning, Agra, Dinjan-Chabua, Chakulia, and Bangalore. The Hindustan
Aircraft Ltd. plant at Bangalore was to be converted from an aircraft
manufacturing plant to a repair and overhaul depot for American-made aircraft and it was in connection with this conversion that the men sent there were to serve.  

By late June the Air Service Command was beginning to function, taking care of routine matters of receipt, storage and issue, distribution, maintenance, repair, overhaul, and salvage. Other duties requiring attention were local procurement, manufacture of certain items, and various responsibilities in connection with maintenance and repair activities which had by that time begun at the Hindustan plant at Bangalore.  

In spite of the relative impotence of his air force, General Brereton continued to strike at Japanese bases as hard and as often as his limited means would allow. On 3 April, the day following the initial raid on the Andaman Islands, six heavy bombers, again taking off from Asansol, attacked docks and warehouses at Rangoon, starting three large fires. Forty 500-pound demolition bombs and 30 incendiaries were dropped. Eleven of the demolition bombs were seen to explode in the target area. No pursuit aircraft were observed, but on the return one B-17 was lost, the cause unknown. Thus, in the first two days of operation, two of the eight heavy bombers had been lost, or 25 percent of the entire operational strength of the Tenth Air Force.  

The loss of these aircraft, and the damage suffered by others in the first raid, made it necessary to suspend operations until repairs could be made. On the night of 16 April, however, bombing missions were resumed with an attack on Rangoon harbor by six B-17's from 4,000 feet. The bombers took off from Dum Dum, near Calcutta, and
used flares to illuminate the target. Forty-two 250-pound and 300-
pound bombs were dropped, but numerous searchlights and heavy antiaircraft
fire made it difficult to estimate the results. No hostile aircraft
were encountered and all American planes returned, undamaged, to their
base.90

Again on 29 April a flight of bombers under command of Maj. Donald
Keiser hit the docks of Rangoon with 500-pound bombs. Enemy pursuits
and antiaircraft fire were encountered, but all planes returned un-
damaged. One Japanese pursuit plane was hit but was not claimed as
destroyed.91

On the nights of 5 and 6 May the bombers struck at the Mingaladon
airdrome near Rangoon. On the night of 5/6 May the attack was made
by two flights of two B-17's each, led by Lt. Willard A. Fountein and
Lt. James H. Keenan. Hits were scored on a hangar and on planes stand-
ing on the runway. The hangar was observed to be enveloped in flames
and fires were seen along the parked aircraft. It was estimated that
40 aircraft were destroyed and 25 damaged, but antiaircraft fire,
searchlights, and enemy fighters prevented accurate observation of
results. The four American planes returned undamaged.92 The following
night three flights, each consisting of one B-17, again struck out at
Mingaladon. Each plane dropped twelve 250-pound bombs. A direct hit
was made on a gasoline dump and the resultant fire was visible for
70 miles. Enemy opposition was slight though one bomber was damaged
by machine gun fire and shrapnel.93

On 9 May six B-17's attacked Rangoon docks and Kingaladon. Attempted
interception by night fighters was unsuccessful and no bombers were
damaged. Results of the bombings were not observed and no claims of damage to enemy aircraft were made. 94

The first mission of the Tenth Air Force carried out in defense of the ferry came as a result of the capture of the ferry base at Myitkyina on 8 May. Japanese pursuit planes using the Myitkyina air-drome were within easy range of Kinjan, the "heart and soul" of the ferry, and could patrol the route over which transport planes were flying to Kunming. 95 Therefore the only way in which the ferry could be given protection was by rendering the field at Myitkyina unserviceable through repeated bombings. The efforts of the bomber crews were therefore diverted from attacks on Rangoon to an attempt to neutralize this new threat. On 12 May four B-17's of the 9th Squadron, operating from Daxi, made a daylight attack on the air-drome, dropping bombs on the runways. In addition to the damage done to the runways several parked aircraft were left burning. 96 The attack was repeated two days later and hits were scored on runways and buildings. 97 After another two-day interval a third daylight attack was made by a flight of four B-17's led by Lt. Frank Deleong, the results not being observed. 98 No planes were lost on these raids, and reconnaissance after the third mission led to a report that the field was unusable and that no activities were in evidence at the air-drome. 99 The report perhaps was inaccurate, for the attacks were resumed two days later.

Targets at Rangoon were too important and the possibility of serious damage to the enemy supply line too great for the attacks there to be entirely suspended, and on the night of 25 May an attack by five B-17's was directed against objectives in that vicinity. Three
planes were to strike at Mingaladon airdrome, but one was forced to turn back before reaching the target. The remaining two planes dropped forty 100-pound bombs with unobserved results. Antiaircraft fire was heavy and numerous searchlights were in operation. Ten night fighters were encountered but they did not close in for an attack. The other flight, consisting of two bombers, dropped twelve 500-pound bombs on barges and on a power station. Antiaircraft fire damaged both planes but they were able to return to base.¹⁰⁰

On 29 May the daylight assaults on Myitkina were resumed, four planes dropping bombs from 23,000 feet, and the following day a similar attack was made. On neither occasion was enemy activity visible at the airdrome.¹⁰¹

During the first week of June the heavy bombers, so battered and worn as to be almost unflyable, made their final flights over Rangoon before the weather and a shortage of spare parts grounded the last of them.¹⁰² Five planes attacked the docks and harbor on 1 June, sinking a tanker and leaving another listing badly.¹⁰³ On 4 June two planes struck at the same targets without observing results. They were intercepted by 10 enemy fighters which destroyed one bomber and severely damaged the other. More than a month later Capt. Frank Sharp and Lt. Herbert E. Underlieh, pilot and co-pilot of the lost bomber, returned to their base, reporting that their plane had been riddled by enemy bullets. The crew had continued to fight until they were out of ammunition and then had bailed out. One member of the crew was known to have been killed and four others wounded. The survivors were believed to be prisoners of war.¹⁰⁴
For two months General Brereton had managed to carry out harassing attacks on the Rangoon area. But as time passed increasing enemy fighter resistance took its toll in battle damage and combat loss. In addition to normal deterioration, excessive dust on landing fields and in the air added greatly to the wear of engines. With the arrival of the monsoon season even ordinary flights of the crippled aircraft became hazardous. By mid-June all heavy bombers, the only type aircraft thus far used in combat by the Tenth Air Force, were grounded.\(^{105}\)

The American public was by no means aware of the limited resources of the AAF in India during the spring and summer of 1942. Communiques and news releases were vague and often misleading.\(^{106}\) When a bombing mission was reported the number of planes involved was rarely mentioned. A news release on 1 June stated that at least six types of American war planes were operating from bases in India.\(^{107}\) Actually, at that time the Tenth Air Force had less than 20 operational combat planes in all India and some of them were being used as trainers.\(^{108}\)

The fact that General Brereton had failed to build up an air force of greater striking power is by no means a reflection on him, for it would be difficult to conceive of any method which he did not use in his efforts to accomplish that end. He sent a continuous flow of requests to the War Department for men and material. He asked for an additional fighter group, a weather squadron, chemical companies and chemical warfare equipment, signal equipment and personnel, antiaircraft batteries, air warning equipment, flight surgeons, and other aid.\(^{109}\) Some were refused outright, some were promised at an undetermined date, but only a few were promised for immediate delivery.\(^{110}\)
Yet, General Brereton had reasons for optimism. His force had been increased by 22 June to 651 officers, 6 warrant officers, and 5,526 enlisted men;\textsuperscript{111} F-40 fighter aircraft brought to western Africa on the carrier Ranger and thence flown to Karachi were arriving in reassuring numbers;\textsuperscript{112} the long-desired medium bombers were slowly coming in; and spare engines for the B-17's had been promised for immediate delivery. The India-China Ferry, the Karachi Air Base, and the Air Service Command were gradually being staffed and had begun operations; the recent arrival of military observers under Col. Russell A. Osmun gave promise of a better understanding in Washington of the peculiar problems of India;\textsuperscript{113} the Headquarters and Headquarters Squadron, Tenth Air Force, had arrived at New Delhi; a decision had been reached that forces for operations in China would be assigned to the Tenth Air Force; relations between the Tenth and the theater command had been clarified; and the question of the mission of the AAF in India had been at least temporarily settled.

The tactical situation had also shown improvement. While excessive rains made operations difficult, they also furnished a measure of protection from enemy air action. The respite provided by adverse weather conditions offered an opportunity for the improvement of air warning systems and of antiaircraft defenses in Assam and the Calcutta area. There was reason to believe that with the return of operational weather at the end of the summer the heavy bombers would be ready to work in coordination with medium bombers and fighters. Japan's recent withdrawal of naval units from the Indian Ocean and the British occupation of Madagascar had removed the danger of attacks on Karachi and enabled
General Brereton to deploy more of his forces eastward toward the Burma border. The 9th Bombardment Squadron had moved to Allahabad on 27 April, and soon afterward the 7th Bombardment Group headquarters were moved to Barrackpore, near Calcutta. The 436th Bombardment Squadron (formerly the 88th Reconnaissance Squadron), moved to Allahabad on 1 June. The 51st Fighter Group was beginning to deploy, sending units to Kunming and Dinjan. The 23d Fighter Group and the 11th Bombardment Squadron (M) were assembling in China. The center of activity had definitely moved eastward and the Tenth Air Force was now more favorably established for offensive or defensive operations against the Japanese in Burma.

Just at the time when it seemed probable that he might soon be able to begin a contest with the Japanese for air supremacy in Burma, a new turn of events contrived to undo much that General Brereton had accomplished. From the early days of the Tenth Air Force the Far East and Middle East theaters had been regarded as interdependent under a policy of the Combined Chiefs of Staff which stipulated that plans for reinforcement of these areas should remain flexible in order that British and American forces might be diverted on short notice to whichever area appeared to be in greater need. Such an occasion arose with Rommel's advance into Egypt in the fourth week of June, and on 23 June General Brereton was ordered to take all available bomber aircraft and proceed at once to the Middle East. There he was to command the American air forces which were being assembled for aid of the British. He was authorized to take with him all necessary personnel and all cargo planes required for transportation, and in addition to appropriate
whatever supplies and equipment he needed for his new air force from cargoes bound for India and China via the Middle East.\textsuperscript{116}

On 26 June General Brereton left the theater, taking with him General Adler, Colonel Strahm, and many other key officers.\textsuperscript{117} The 9th Bombardment Squadron, with the only experienced heavy bombardment crews and ground personnel in India, followed soon afterward,\textsuperscript{118} and the most dependable of the ferry pilots were selected to transport cargoes to the new theater.\textsuperscript{119} The air force in India was thus left with a crippled aerial transport system, a skeleton staff, and almost totally stripped of its already meager striking power.
Chapter III
OVER THE HUMP

When General Brereton left for the Middle East his former Chief of Staff, General Naiden, succeeded him as Commanding General of the Tenth Air Force. The most pressing of the many problems confronting him were those relating to the establishment and supply of the proposed China Air Task Force. Previous discussions between British and American authorities regarding the mission of the Tenth Air Force had revealed that while the British considered the defense of India of highest importance, the Americans placed great emphasis on air support of China. From early 1941 the United States had been committed to a policy of aid to China and the AVG had become for the Chinese the most important symbol of that policy. Induction of the AVG had been agreed upon and a promise given to Chiang Kai-shek that the United States would "continue to furnish the Chinese Sector of front against the common enemy, Japan, with a steady and increasing flow of supplies, planes and men."

General Marshall informed the Generalissimo in April that America wished to take no action which would interfere with the combat effectiveness of the AVG and that the group had been "organized for employment in China or in support of China and activation as an American Unit" would "not change this mission."

The projected China Air Task Force which was to replace the AVG in China upon the induction of the latter was to be composed of the 23d Pursuit Group and a small force of medium bombers. The AVG, upon induction, was to become a part of the 23d Group. Although it had been agreed in an administrative conference held at RAF Headquarters in Delhi
on 15 March, at which Generals Naiden and Brady were present, that the United States would be unable to operate an air force in China for at least six months. 4 4 July was set as a tentative date for induction of the AVG and the activation of the China Air Task Force. 5 It was believed that by that time the 23d could be brought near enough to authorized strength to take over the functions of the volunteer unit. The China Air Task Force, and hence the 23d Pursuit Group, was to be assigned to the Tenth Air Force, but to prevent any possible loss of efficiency prior to 4 July the units of the 23d were attached to the AVG as they arrived in China and were therefore under the control of General Chennault. 6

For a while it appeared that the induction date would mark the end of General Chennault's control over activities in China. It was General Brereton's plan to designate General Naiden as commander of the China Air Task Force, with General Chennault in charge of the fighters and Colonel Haynes the bombers. 7 This would have placed General Chennault in a relatively unimportant position, since he would have been outranked both by General Naiden and General Dissell, who was on General Stilwell's staff at Chungking. General Chennault, through his years of exceptional service, had attained great prestige in China and had exercised extensive powers. His word carried weight with the Generalissimo and Madame Chiang-Kai-shek, and with other government officials. To many of the people in unoccupied China he was an idol. 8 To have passed over him at this juncture would have been to risk their good will. General Stilwell, upon whose recommendation the ultimate decision probably rested, knew conditions in China and recommended that
General Chennault command the new task force. General Brereton's departure for the Middle East and General Mauden's assumption of the command of the Tenth Air Force opened the way for such a decision. On 28 June, two days after General Brereton left Delhi, General Stilwell announced to the press that General Chennault would remain in control of air operations against the Japanese in China. Announcement was also made that Colonel Haynes would command the bombardment unit while Colonel Scott would command the fighters.  

The induction of the AVG proved to be a perplexing problem, and the final result was something of a disappointment. When it was decided that the group would be taken into the USAAC it was hoped and expected that the transition might be made without serious loss of personnel and without greatly affecting the combat efficiency of a unit which had so well demonstrated that American airmen flying American planes could more than hold their own against the Japanese. Several weeks before 4 July, however, it became obvious that only a few of the AVG personnel would accept induction.

The AVG induction board was presided over by General Chennault and included Dr. Thomas Gentry, Surgeon of the AVG, and the following officers of the Tenth Air Force: Col. Homer Sanders, Lt. Col. Walter Urbach, Maj. Edgar J. Insigne, and Capt. Mark T. Gilkison. Several obstacles stood in the way from the outset. All of the men were weary and desired to return to the United States for a rest before beginning what might prove to be another long period of foreign service. Because of the promise to the Generalissimo that the combat effectiveness of American air units in China was not to be impaired, the board was
unable to promise immediate leaves. Some of the men were dissatisfied with the grades offered them and preferred to take remunerative positions with China National Airways or the Hindustan plant at Bangalore.\textsuperscript{11} Many of the pilots were former members of the Navy and Marine Corps and naturally preferred to return to these branches of the service. An effort was made to ascertain the Navy's policy regarding this possibility, but time was short and the board was not in a position to make commitments except for the Army. There was some resentment at the way the induction was handled and this probably affected the decision of a few of the men who otherwise might have accepted induction. After living for months without routine Army discipline, there was present among the men a definite distaste for what had come to be considered useless formality.\textsuperscript{12} Other personnel, having contracted various diseases during a long stay in Burma and China, could not pass the required physical examination. In the end, five pilots and a small number of ground men elected induction.\textsuperscript{13}

As a result, the strength of the air forces then in China was greatly reduced and there was grave danger that the decimation of General Chennault's force would give the Japanese an opportunity to strike it a crippling blow. Chinese intelligence revealed that the Japanese were planning to make attacks on American bases on the date of the dissolution of the AVG. Pilots of the 23d Fighter Group had learned something of the tactics employed by General Chennault, and Colonel Scott had actually flown as wingman in AVG combat missions in order to learn as much as possible before taking over command. The combat experience of the group, however, was not sufficient to assure its
ability to deal successfully with a serious attack by the enemy. AVG pilots who had not accepted induction were, therefore, offered special inducements to remain on duty until further replacements could arrive. Approximately 20 of them agreed. Their job was well done, and one who lost his life in this extra two weeks' tour of duty was posthumously given an Army decoration, although he was not officially a member of the armed forces of the United States. ¹⁴

The transition was therefore neither smooth nor entirely successful. Possibly it could have been more tactfully handled, but the obstacles faced by the induction board were such that it could not be held entirely responsible for the failure. Poor communications resulting in a lack of information on the exact policies to be followed were doubtless responsible in a measure. ¹⁵ On the other hand, the mental state of the men and, perhaps, the unwillingness of some of them to pass up chances for high salaried jobs in favor of Army pay and Army discipline were powerful factors.

Being an appendage of the Tenth Air Force, the China Air Task Force faced the same problems of supply, plus certain additional handicaps. The very existence of General Chennault's force was dependent upon the success of the Tenth Air Force in developing the air cargo service. And since the tonnage which could be carried over the hump was unavoidably limited, it was necessary to depart from orthodox Army practices, and to utilize to the fullest the labor and materials already at hand. To keep to a minimum the number of Americans necessary in China, normal house-keeping functions were turned over to the Chinese. A contract was arranged by which the Americans in China were to be fed
by the Chinese Far Area Service Corps, an organization which had served the AVG in the same capacity. As far as possible the food was to be obtained in China. Chinese workers who had learned much about maintenance and repair of aircraft during the time the AVG was in operation were employed in order to keep the number of American ground personnel at the lowest possible figure.\textsuperscript{16} In brief, the China Air Task Force functioned at the outset much the same as had the AVG.

The P-40 remained its standard equipment with the addition only of the B-25 medium bomber. To have brought in other types of aircraft would have complicated problems both of supply and maintenance.\textsuperscript{17} Chinese craftsmen and former AVG ground personnel were already proficient in the upkeep of the P-40 type and were thoroughly familiar with the Allison engine. While several models of the P-40 were used, many of the parts were interchangeable. This not only reduced the need of flying in spare parts but enabled maintenance and repair men to utilize former AVG equipment and shops, and to "cannibalize" unserviceable P-40's.\textsuperscript{18}

In this theater, as in many other regions during the first year of the war, Americans were forced to improvise, and in general to make the maximum use of materials at hand, regardless of how scanty and obsolete they might be.\textsuperscript{19} For several months B-25's were loaded with French, Russian, and Chinese bombs because American-made bombs were rarely available. Since these bombs did not always fit the bomb bays and racks, many modifications and adaptations were necessary. The Chinese phosphorous incendiary bomb proved so effective that it became a favorite and was preferred to American-made incendiaries.\textsuperscript{20}
In many respects the conditions in China in 1943 were similar to those in India. Mail, reading matter, and post exchange supplies were even more scarce. Cargoes were pillaged all along the supply line, and materials intended for units in China had to run the additional gauntlet across India. Hospital facilities were poor, recreational supplies were rare, and rest camps did not exist. In general, weather conditions in China were more salubrious than in India. Humidity was much lower and the heat far less oppressive. Dust was not so detrimental to operations, and rainfall was less heavy.

Morale in the China Air Task Force sometimes ebbed, but it never reached the depths experienced in Assam. Actual combat with all its accompanying activities tends to bolster morale regardless of other factors, and the units under General Chennault were almost constantly engaged in defensive or offensive missions. Relief crews were not available, and pilot fatigue became a handicap, but suspension of operations for repair and maintenance, or in moves from one base to another, provided the pilots with badly needed rest periods.

The establishment, reinforcement, and operation of the air task force in China entailed a substantial increase in the volume of supplies which had to be flown over the air cargo route from Assam to Kunming. The AVG had operated without signal, ordnance, quartermaster, engineer, and air base personnel, but these had to be furnished the task force. The fighter strength of the 23rd Group was larger than that of the AVG, and a squadron of medium bombers was included in the American forces under General Chennault. It was therefore necessary not only that China defense supplies continue to go into China but that the supplies shipped for American units be greatly increased.
Naiden had struggled with the problems involved in the establishment of the air transport service to China and was quite familiar with the inherent difficulties. To these were now added the riddle of how to build up a larger air cargo service without additional transport aircraft.

If the solution had depended only upon the increase of the number of transport planes, however, General Naiden might have had some cause for optimism. But during the months since the first surveys had been made the tactical situation had been entirely changed by the defeat in Burma, and the complexity of the transport problem was increased. As long as Lyutkyina was in friendly hands the flight from Assam to Kunming could be made at an altitude of little more than 6,000 feet. The loss of Lyutkyina not only increased the danger of Japanese attacks on ferry installations at Dinjan, but made necessary the use of a more northern line of flight over the Himalayas where peaks rise above 18,000 feet. This flight, later familiarly known as "crossing the hump," placed a greater strain on pilots and aircraft and greatly increased gasoline consumption. The sudden change in temperature from the steamy Brahmaputra valley to the sub-freezing conditions over the mountains was hard on men and planes, and especially serious was the danger of ice forming on the wings of the aircraft. From May to October the heavy rainfall of the monsoon season added to the numerous hazards and seriously handicapped the men in their routine activities on the ground. Poor visibility made blind flying necessary a great part of the time, and some of the planes were not equipped with the proper instruments. During the torrents which frequently fell unceasingly over periods of days, landing strips took on the appearance of lakes. Landings were perilous and planes which for any reason were removed from hard-surfaced
sections were likely to be hopelessly mired. The Dinjan-Kunming flight
gained the reputation of involving more hazards than any other regularly
used route of comparable distance.\(^{26}\)

Had flying conditions been ideal and had aircraft arrived in large
numbers another major obstacle would yet have remained. The single
usable field at Dinjan could not accommodate many additional planes.
Construction of other fields at Mohanbari, Chabua, and Soorkerating
(Asam) was in progress but completion was not possible before October.
Construction was far behind schedule throughout India and while air
fields for the ferry had a high priority rating, the progress was dis-
tractingly slow. It had been decided in the administrative planning
conferences with R\&F and Government of India officials in March that
the British would undertake the problem of constructing airdromes for
American use, using native labor and materials locally available. The
British had been skeptical of their ability to meet American construction
demands which included 34 airdromes in addition to other installations,
but the American officers, hoping to receive heavy machinery and labor
troops to supplement the efforts of the British, were reluctant to
make any reduction in their requirements.\(^{27}\) When aid from the United
States was not forthcoming, the British rapidly fell behind in the con-
struction schedule. Native labor, while cheap, and generally present
in sufficient numbers, was unskilled and not always dependable. Some
of the construction projects were located in sparsely populated regions
where labor was not available. In such instances transportation and
housing had to be provided before the main task was begun. The workers,
many of them women, were not strong physically, and had only hand tools
with which to work. Stones were broken laboriously by hand, and soil for gradings was moved from place to place in baskets upon the heads of the workers. In some localities coolies refused to work while rain was falling. Nearly all of them seized upon numerous religious holidays as excuses to take vacations. At times Moslem and Hindu practiced reciprocity in the observance of religious holidays, at least to the extent of staying away from work.

Any chance which General Maiden might have had to increase the flow of supplies to China to a satisfactory level during the summer months was lost by the removal of 12 transports with their crews to serve with General Brerston. Six weeks after their departure eight returned but the other four were destined to remain in the Middle East until 1943. This increased the burden on the planes remaining in India, which soon showed signs of constant use under the worst of conditions. Tires were worn out, and engines needed overhaul or outright replacement, but spares were not available. An inevitable result was frequent grounding of planes.

That morale became a major problem is not surprising. Pilots showed signs of the strain of long hours of perilous flying, but no relief crews arrived. The monotony of existence at the base in Assam became almost unbearable to the ground personnel. Though living conditions were by far the worst in the entire theater, there was little promise of early improvement. Permanent quarters were still not available. Food continued to be unsatisfactory. Hospital facilities were inadequate to meet an alarming increase of malaria and dysentery. No provision had been made for recreation. Such rest camps as were being built in India
were not available to the men at Dinjan. Reading matter, cigarettes, and toilet articles were rare, and mail deliveries were all too infrequent. The esprit de corps built up during the first weeks of ferrying operations gradually died, and apathy pervaded the personnel. When requests for means of protection from impending Japanese attacks were turned down and relief crews did not appear, morale dropped to a dangerous point. The men felt more than ever that they were "at the end of the line" and adopted the attitude that they were "illegitimate children" of the Tenth Air Force.

Meanwhile, another difficulty had added to the discontent of the ferry personnel. The 1st Ferry Group had been assigned to the Tenth Air Force over the protest of the Ferrying Command on the ground that such an assignment would result in diversion of personnel and matériel from the ferry to combat units. During the summer when combat units in India were in dire need of men and equipment, diversions from the ferry actually took place, and ferry personnel saw what they considered as their own men and equipment assigned to other units while they were forced to operate on a "shoestring."

There was good reason for the diversions, however, since the Tenth Air Force was responsible for protection of the ferry. Had not some diversions been made the 9th Bombardment Squadron might have been unable to neutralize the base at Kyitkyina after its capture by the Japanese in May. Whether diversions from the ferry to combat organizations exceeded an absolute minimum may never be fully established, but centralization of control during the critical months of 1942 seems to have proved a sound policy. To the men in Assam, however, the necessity for these diversions was not entirely understood.
Complete statistical data on the volume of freight carried from India to China during the summer months are not available, but estimates made by Air Transport Command indicate that the figures for June and July fell far below those of April and May.\textsuperscript{36} The highest estimate of projected deliveries during the monsoon period was 600 tons per month, and while there was a substantial increase in September and October the tonnages for each month were still under that figure.\textsuperscript{37}

The combat strength of the AAF in India was lower in July than at any time since late March. During the month of June an agreement had been reached between General Arnold and Air Chief Marshal Sir Arthur Portal of Great Britain on the size of the American air forces which were to serve in Asia. It was agreed that by October 1942, the force would consist of one heavy bombardment group equipped with 35 planes, one medium bombardment group equipped with 57 planes, and two fighter groups with a total of 100 planes.\textsuperscript{38} At the time of this Arnold-Portal agreement the Tenth Air Force had a paper strength of three groups: the 7th Bombardment, consisting of two heavy and two medium squadrons, the 51st Fighter Group, and the 23d Fighter Group. Had the three groups been at full strength the reinforcement would have involved sending only two heavy bombardment squadrons, two medium squadrons, and a headquarters and headquarters squadron for the medium group. None of the groups was at full strength, however, and when activities in China and the Middle East were given a higher priority than India, General Halsey found his force in India reduced to an extremely low figure.

Through May and June many of the trained personnel of the 51st Fighter Group had been used to build up the 23d, and one entire squadron,
of the three comprising the 51st, was attached to the China Air Task Force at its activation. Another small detachment from the 51st was stationed at Dinjan, while the small remnant which was left remained at Karachi awaiting aircraft and filler personnel. The 7th Bombardment Group, theoretically composed of the 9th and 436th Squadrons, Heavy, and the 11th and 22d Squadrons, Medium, had practically nothing left in India. The best of the heavy bombers went with the 9th to the Middle East and the best of the mediums were in China with the 11th. The remainder of the 7th Group was scattered from Karachi to Calcutta and was not capable of conducting operations until spare parts and personnel replacements could be received. It is clear, therefore, that the force left with General Haiden in India was powerless to operate effectively, either on the offensive or defensive.

The absence of combat aircraft in India, however, did not necessarily lighten General Haiden's work. He knew that as soon as the monsoon broke the Japanese would attempt to sever air communications between India and China. The China Air Task Force was considered equal to the task of protecting the bases around Kunming, but the defenses in upper Assam were still inadequate. He appealed for more antiaircraft batteries and requested equipment for improving the air warning system. He also repeated requests for equipment to supplement the communications system in India. Commercial telephone and telegraph had proved practically worthless and radio was not always dependable because of bad weather and enemy jamming. He proposed the establishment of a land line telephone system and requisitioned the necessary equipment. Shortage of shipping space was given as the reason for disapproval of the plan, and General Haiden was asked to make another estimate of the
equipment needed. He was informed that communications equipment and personnel were being prepared for service in the theater but that no definite commitments could yet be made. A request for a fully trained and fully equipped weather squadron to replace the provisional squadron already set up in the theater was approved, but the date of departure of the squadron from the United States was left undetermined. 41

General Haiden and Colonel Oliver, who was in charge of the Air Service Command in the absence of General Adler, attempted to clarify the situation regarding basic equipment for units in the theater. Units were still arriving from the United States without such equipment, and that of units transferred from Australia had never arrived. Eight squadrons were at one time operating with organizational equipment sufficient for only two. 42 Many lesser items could be procured locally but heavy equipment, especially motor transport, was not obtainable. 43 Colonel Oliver thoroughly reviewed for General Haiden the conditions which arose out of the current procedure, and General Haiden made a direct appeal to the War Department for shipment of all T/3A equipment in the same convoy with the organizations to which it belonged. 44

The departure of several key officers with General Brereton had left the Tenth Air Force as short-handed in the higher echelons as in the lower, and since the development of the ferry in the summer of 1942 was the outstanding current problem, General Stilwell suggested to Generals Marshall and Arnold that General Haiden be allowed to devote full time to the ferry and that Brig. Gen. Clayton L. Bissell be placed in command of the Tenth Air Force. 45 After some delay, consent was granted and on 13 August General Bissell assumed command. General Haiden had been suffering from a stomach disorder, and was soon returned...
to the United States for treatment.

At the time General Bissell assumed command of the Tenth Air Force General Brereton and the personnel who had accompanied him had not been officially relieved from duty in the China-Burma-India Theater. On 22 August General Stilwell was notified that General Adler would not be returned to the theater. One week later General Stilwell reminded General Marshall that no orders had been received regarding General Brereton or General Adler, and asked for a clarification of the status of the staff officers, combat crews, and transport crews of the Tenth Air Force then serving in the Middle East. More than two weeks afterward a message came from General Marshall stating that the staff officers would be permanently assigned to the Middle East and that orders were being issued to relieve them from duty with the Tenth. He added that the air echelon of the 9th Bombardment Squadron and the transport crews would continue on temporary duty in the Middle East, but that the ground crews would be returned to India within a month.

General Bissell made a careful survey of the staff of his air force, and as soon as he learned that the absent officers would not be returned he made an appeal for additional personnel to replace them. He decided to organize all the combat units in India into an air task force comparable to the one operating in China and to designate Colonel Haynes to command it. When the activation of the India Air Task Force should be accomplished, the Tenth Air Force would consist of the China Air Task Force under General Chennault, the India Air Task Force under Colonel Haynes, the Karachi American Air Base under General Brady, the Air Service Command under Colonel Oliver, and the India-China Ferry.
Command under Col. Robert Tate, who had succeeded General Naid in upon
his departure for the United States. The organization was well
planned, and the various units were commanded by officers of ability,
but the staffs of the commands, especially the two air task forces, were
in need of experienced staff officers.

During this effort to strengthen the organization of the Tenth Air
Force, there arose a crisis in India which threatened to wreck all the
plans for American operations in that country, and which, as months
passed, placed a multitude of obstacles in the way of the development
of American air strength in the entire theater. Agitation for political
autonomy in India had increased since the outbreak of the war in Europe.
Gandhi's "quit India" policy, and the failure of the Cripps Mission in
the early months of 1942 led to an insurrection. On 9 August, a few days
before General Bissell's assumption of command, Gandhi, Nehru, Azad
and other Congress party leaders were arrested by the British. Sporadic
riots immediately followed. Extensive damage was done to public
property and organized sabotage completely disrupted transportation
and communication in large areas by damaging railroads, bridges, tele-
graph and telephone lines, and many other public utilities. Strikes
developed to such an extent that many large construction projects came
to a standstill. British officials insisted that the situation was
not serious and that the trouble would soon blow over. As the disorders
and strikes continued over a period of weeks with little sign of
abatement, however, Americans became alarmed at the gravity of the
general political situation and its effect on the development of
necessary installations. By the end of the year conditions had
improved slightly, but the disorders had by no means ceased.
That no serious troubles involving American troops occurred is a credit both to the men and their leaders. When the first Americans arrived in India propaganda leaflets were covertly distributed to them by the natives in an effort to enlist their sympathy in the cause of Indian independence. The soldiers had been cautioned to avoid involvement in the affairs of the country, and few were inclined, whatever their sympathy for the Indians, to favor obstructionist tactics at a time when Japanese invasion of India still remained a possibility.\textsuperscript{55} The Japanese and Germans attempted to create ill feeling between the natives and the Americans by propaganda broadcasts in native languages charging that the Americans were in India to stay and would follow a policy of exploiting the country and its people.\textsuperscript{56} When rioting was at its worst many American station commanders restricted the troops to their camp area to avoid trouble.\textsuperscript{57} As a result of a "hands off" policy, unpleasant incidents were avoided and the relationship between American soldiers and the natives continued on a friendly basis.\textsuperscript{53}

The approach of the close of the monsoon season found the ferrying problem still unsolved, and Chinese officials openly expressed dissatisfaction at the results obtained. The Chinese had been apprised earlier of American plans to place 75 planes on the flight from Dinjan to Kunming but as the weeks passed without the arrival of new transports, they experienced some doubt as to the sincerity of promises given and renewed their hints that if the supply problem were not given more attention the Chinese would be compelled to cease resistance.\textsuperscript{59} General Stilwell reminded them of the limitations of air transport, and tried to convince them that the supply problem could be solved only by reopening the port of Rangoon and the Burma Road. He thus sought to use
the occasion to press home arguments in favor of a proposal previously submitted for the training of Chinese troops in India, a proposal not yet approved by the Generalissimo.60

Department officials in Washington, disturbed over the attitude of the Chinese, expressed anxiety over the apparent lack of progress in the development of the cargo route. As a possible solution, General Marshall, through General Arnold, submitted late in July for General Stilwell's consideration a plan by which the China National Airways Company (CNAO) would have full control over all flights from India to China.61 Army planes and pilots would continue to serve with CNAO planes and civilian pilots. General Stilwell believed the plan unsound and recommended that it be abandoned.62 He explained that the Chinese government owned 55 per cent of the CNAO stock and under existing law could take over the management of any corporation in China. CNAO was responsible to the Chinese Ministry of Communications which, General Stilwell believed, was more concerned with maintenance of non-essential Chinese commercial air routes than in transportation necessary to the prosecution of the war. He considered it unfair to have military personnel working beside civilians who were drawing more pay for identical work, and contended further that in combat zones military personnel should not be placed under civilian control. Finally, he maintained that such a move would be an admission that the U. S. Army Air Forces had failed and would permit CNAO to take credit for the difficult planning, organization, construction, and development which the Air Forces had already done on the Dinjan-Kunning route.63

General Stilwell considered it desirable, however, that CNAO continue to operate if its activity could be confined to the hauling...
of essential materials. Its operators were experienced and efficient, and it was thought that a competitive spirit between CNOC and the ferrying command would result in greater accomplishments by both organizations. The tendency on the part of the Chinese Ministry of Communications to engage in purely commercial activities, however, led General Stilwell to suggest that an arrangement be made with the Chinese to lease all CNOC planes to the Air Forces so that assurance could be had that they would be used only to carry essential cargoes. 64

The plan to have CNOC take over the operation of the ferry was immediately dropped as a result of General Stilwell's objections. He was then authorized to attempt to make a contract with the Generalissimo for all CNOC lend-lease transports. Authorization was also given to commission civilian pilots up through the grade of captain. He was informed that additional well-trained personnel for the transport service were not available, but that General Brereton had been directed to return all transports not urgently needed in the Middle East. 65

On 7 August General Stilwell notified the War Department that the Generalissimo had agreed in principle to the proposed transport arrangement. When no notification of final settlement followed, however, inquiry was made of General Stilwell as to whether he would recommend continued allocation of lend-lease transport aircraft to the Chinese or thought that all available transports should be delivered to the 1st Ferry Group. 66 General Stilwell replied: "I do not believe that any additional allocations of lend-lease transports should be made to the Chinese after present commitments are met. . . . Any extra transports available should be allotted to the Ferry Command to prevent the possibility of their being diverted from non-military uses."
American control of air service and Ferry Command is most important. 67

Almost two months after getting Chiang Kai-shek to agree "in principle" to the leasing of CASC transport planes to the Ferrying Command, General Stilwell was able to announce that a contract had been made. At the same time the Generalissimo had agreed to the pooling of facilities and spare parts for pursuit and transport planes and to the training of Chinese ground forces in India. The theater commander was clearly pleased with the agreements and declared: "If I were subject to nervous prostration, I would have it by now, but unless British stop us I believe we have taken at least one more step forward." 68

Meanwhile, preparations for the defense of Dinjan had not been overlooked, but little could be done to protect installations there until the air warning system was improved. The proximity of mountains to the air field indicated that radar would not be entirely effective, even if available. 69 It had been General Brereton's plan to use small independent units stationed in the hills with light radios and portable generators. After some discussion, the plan was adopted, loyal Burmese were chosen to aid the Americans, and almost every conceivable means of transportation was used to get them to their destination. 70 The journey to points well nigh inaccessible took weeks to accomplish. Some of the sites selected were in the region inhabited by Naga tribesmen, reputedly headhunters, but who proved friendly and often served as porters and guides. Others were in sections regularly patrolled by the Japanese, who occasionally made trouble. Supplies were dropped from transport planes. 71 The project was experimental and to serve effectively required considerable extension. General Haiden, convinced that the system was the only one practicable under existing conditions,
had made an appeal for more men and radio equipment. General Bissell recognized the relative ineffectiveness of this unorthodox system, but hoped that it could be sufficiently extended before the monsoon lifted. As the weather cleared, fighter patrols were kept in the air as much of the time as possible. When the appeals of Generals Brereton, Hailan, and Bissell brought no reinforcements for the air warning net, General Stilwell, stating that our stakes in Assam were heavy, warned that the monsoon was the only reason that the Japanese had not already attacked Dinjan. He requested not only that the air warning net be improved but that other reinforcements be sent into northeast India. It was his opinion that the success of the whole freight route should not be subject to a gamble.

While General Bissell was still engaged in trying to perfect his organization and to familiarize himself with the most pressing problems of the Tenth Air Force, unsatisfactory conditions in the theater were brought to the attention of the War Department by a member of the Inspector General's Department who returned from India at the close of the summer. On 11 September General Arnold cabled General Bissell that he had been informed that slowness in promotion of junior officers in the Tenth Air Force was affecting morale; that numerous second lieutenants in the theater had not been promoted although their classmates in other theaters had been advanced; and that first pilots of commercial airlines then serving on the transport service had not been promoted to captain, although the policy of the Air Forces was that such men be given that rank. He added that General Stilwell had authority to make the promotions and that they should be made before morale still further deteriorated.
General Bissell replied that notification of policy of the Air forces regarding promotions of first pilots of airlines had never reached the theater and requested authority to make such promotions regardless of T/O limitations. He asserted that promotion of second lieutenants was governed by T/O vacancies and as a general policy, six months in grade was required unless the officer had shown exceptional qualifications. He agreed that arrival of classmates of second lieutenants in the theater in grade of first lieutenant was a bad morale factor, explaining that activations in other theaters had accelerated promotions to an extent not possible in his command, and added that every time a first lieutenant arrived in India a second lieutenant was denied promotion.75

Authority was immediately granted to promote former airline first pilots but authority to advance second lieutenants beyond T/O requirements was denied.76 The War Department suggested that second lieutenants with combat experience could be returned to the United States and promoted there, a proposal arising partly from the desire to raise the level of experience in operational training units.77 General Stilwell was of the opinion that men deserving of promotion should be rewarded in the combat zone where meritorious service had been rendered rather than after their return to the Zone of the Interior.78 General Bissell did not believe the proposed action was desirable,79 and probably shared with General Stilwell a conviction that an exchange of experienced second lieutenants for inexperienced first lieutenants would be of little benefit to the combat efficiency of the air force. Fortunately, opportunities for promotion were soon provided through activation in
the theater of four bombardment squadrons.

General Arnold's cable concerning promotions was followed by a letter noting in greater detail the shortcomings of the Tenth Air Force. The report of the recent inspection indicated that many Branch Inmaterial officers were inefficient and should be reclassified; that morale was low among officers because of inequality and stagnation in the matter of promotions; that senior officers were living in comfortable quarters in town while junior officers and enlisted men lived in tents amid dust and dirt, with seniors taking no steps to correct the situation; that enlisted men were not paid regularly; that cigarettes, tobacco, and current reading material were not made available to enlisted men; that kitchens and messes were generally dirty and food improperly prepared; that many enlisted men saw their squadron officers only once a week; that no uniform method of promotion of enlisted men existed; and that morale was generally low among enlisted personnel. General Arnold concluded by stating that although it was probable that most of the deficiencies had been remedied, he would like to receive a full report. Since the letter was written about three weeks after General Bissell assumed command, the inspection evidently occurred prior to the change of command. Certainly, General Bissell could not have been responsible for the development of the conditions indicated.

General Bissell replied that most of the conditions existed at the time he assumed command but that they were being corrected. His letter to General Arnold opened with a statement that the Tenth Air Force, despite the heavy criticism which it had received, was a good command, and that it might be forged into a first-rate fighting force. 
if the material necessary for operations were supplied. He asserted
that the low morale among Air Corps officers was largely the consequence
of enforced inactivity resulting from lack of aircraft and necessary
equipment. Other difficulties were attributed to poor transportation
in a theater of great distances. In a particularly forceful passage,
he pointed out that:

From the base port at Karachi to the combat units in China
is a distance greater than from San Francisco to New York.
From Karachi, supplies go by broad gauge railroad, a distance
about as far as from San Francisco to Kansas City. They
are then transshipped to water gauge and to narrow gauge
and go on a distance by rail as far as from Kansas City to
St. Louis. They are then transshipped to water and go down
the Ganges and up the Brahmaputra, a distance about equiva-
 lent to that from St. Louis to Pittsburgh. They are then
loaded on transports of the Ferrying Command in the Dihran
Area and down to Kunming—a distance greater than from
Pittsburgh to Boston. From Kunming, aviation supplies go
by air, truck, rail, bullock cart, coolie and river to
operating airdromes—a distance about equivalent from
Boston to Newfoundland. With interruption of this com-
munications system due to sabotage incident to the internal
political situation in India, you can readily appreciate that
regular supply presents difficulties.

Regarding the resentments over promotion, he repeated the reasons
for stagnation quoted above. Morale was low among enlisted men, he
said, because of an almost complete lack of mail for many months, language
difficulties in an alien land, absence of newspapers and books, lack
of feminine companionship, bad radio reception, excessive heat and
humidity, weeks of terrible dust conditions, unfamiliar foods, poor
initial housing conditions, and failure of organizational equipment to
arrive along with the troops. In spite of the fact that cigarettes and
tobacco had been requisitioned repeatedly, they had not been supplied
in sufficient quantities. Irregularity of payment to men among early
arriving units, resulting from inadequate finance arrangements, had
been a source of trouble, but the condition had long since been corrected. It was true that kitchens and messes had been dirty at the outset, the troops having been stationed on the edge of a desert during the seasonal dust storms when dust permeated everything; and food had been poor because of the use of British rations in an attempt to carry out the policy of living off the land. But this situation had been improved. Practically all officers were living under conditions comparable to those of the enlisted men. Necessary measures had been taken to correct the improper supervision and training of men which was largely due to the inexperience of officer personnel. Promotion of enlisted men was on the same basis as in other theaters. 82

Shortly afterward, General Bissell wrote General Arnold another long letter setting forth the need for improvements in much of the equipment sent to the theater. He considered the 3-17 unsatisfactory because of its high oil consumption. The basic cause was unknown but he believed that dust was at least a contributing factor. The current 8-25 model was not a good aircraft for operations in India. Lack of gasoline capacity placed severe limitation on range; the "Cash Register" bombsights were inferior and Norden sights were needed; the bomb racks were unsatisfactory, either because of faulty design or improper maintenance; and the bottom turret was not worth the weight and drag on the plane because visibility was always obscured by leaking hydraulic fluid, mud, and dirt. The P-40, which had depended so greatly upon its superior diving speed, was encountering a new type enemy fighter which was equally fast in diving. The Japanese reconnaissance planes were able to go about their work unimpeded because of the inability of the
P-40 to reach 25,000 feet. Fast-climbing fighters such as the F-47 or F-51 were especially needed in the critical region around Dinjan where the warning net did not afford enough time for the slow-climbing P-40 to gain the altitude necessary for successful interception.83

One point upon which General Bissell's report differed from previous reports by General Brereton was on the adequacy of the training received by men prior to their arrival in the theater. While General Brereton had stoutly maintained that the men sent to him were not sufficiently trained, General Bissell considered the training excellent in view of the short time available,84 an indication that substantial progress had been made in the AF training program.

A constant flow of messages from General Bissell to the War Department indicated both the variety and urgency of many needs in India. On 23 August he gave notice that though the depot at Agra was equipped to overhaul combat planes, the lack of spare parts was impeding the work. He asked also that former requisitions for skilled personnel be given attention.85 On 3 September he sent a message saying that five P-40's were out of commission awaiting parts and five B-17's were grounded while awaiting engines and hydraulic propeller governors.86 The following week he stated that the combined capacity at Agra and Bangalore for overhauling engines could be increased from the current rate of 60 per month to 200 per month in a short time if personnel, equipment, and supplies already on requisition were received.87 He followed almost immediately by asking for information on the status of the 13th Air Depot Group which had been promised the Tenth Air Force and was badly needed at Agra.83
In September General Bissell, through General Stilwell, requested authority for activation of a composite CTS squadron at Karachi to take care of the transitional training of newly graduated pilots and crews arriving for duty with the Tenth. Some of these had done practically no flying for several months prior to their arrival, and numerous crashes of combat aircraft had resulted. In spite of the fact that the need for such an organization was recognized, activation was denied because personnel and equipment could not be spared from the training program in the United States. It was then requested that eight twin-engine advanced trainers allocated to the Chinese be sent to the Tenth Air Force, and it was suggested that if the diversion were made prior to shipment it would avoid embarrassment. Addition of these aircraft to the number already in China, according to General Stilwell, would only result in added consumption of fuel stock badly needed for combat. The request had not been made directly to Chiang Kai-shek because of the certainty of its refusal. The desirability of the diversion was recognized in Washington, but it was felt that it should be done only with the consent of the Generalissimo.

The situation was meanwhile confused because of jurisdictional difficulties with our Allies. General Stilwell had already expressed dissatisfaction over affairs in China and was greatly displeased by the stories appearing in American newspapers of China's unrelenting struggle against the Japanese. He charged that they were grossly exaggerated, and that local fighting was played up as if it were a major engagement. He believed that the Government at Chungking was primarily interested in maintaining itself in power at the end of the war and was meanwhile...
trying to get the Allies to assume the entire burden of the war.\textsuperscript{93} "we are supplying the help" he asserted, "and should impose conditions that will insure its effective use."\textsuperscript{94} He had requested authority to assign lend-lease planes arriving in the theater but was told that the War Department desired that all diversions from Chinese deliveries should have the consent of the Generalsissimo so that the action could not be construed as a violation of a presidential commitment.\textsuperscript{95} As the theater commander became more alarmed over the situation, he recommended that no more aircraft be allotted to the Chinese Government until the Chinese Air Force demonstrated tactical proficiency in the use of the combat planes already in their possession.\textsuperscript{96} Meanwhile he tried to convince the Chinese that they expected too much of the transport service and that Kengpo would have to be reopened before the supply problem could be solved.\textsuperscript{97}

The British continued to ask for a more definite commitment that the Tenth Air Force would be used to defend India in case of a Japanese attempt at invasion. On 8 July General Arnold assured Air Marshal D. G. S. Evill of the British Joint Staff Mission that under the terms of the basic directive to General Stilwell the force would be available for defense of India, but that no new directive would be sent out which would in any way restrict the freedom of action of the theater commander. It was pointed out that should an attack be made on India or Ceylon, General Stilwell and General Stilwell were to confer on the question of the best possible use of the American air units.\textsuperscript{98} A memorandum from General Arnold to the Joint Chiefs of Staff, dated 13 August 1942, again declared that "The primary mission of the 10th Air Force is to support the military effort of China." It further
recalled that General Stilwell's directive provided that when in his judgment it became necessary to employ any of his forces in India or Burma, he would place them under the command of the British commander in chief for India. Also noted was the instruction of 24 May advising the theater commander that employment of the Tenth Air Force was completely subject to his decision.

Progress along other lines was gratifying. A general policy by which the U.S. Army Air Forces was to control distribution of all parts for American manufactured aircraft in all theaters where the AAF was operating supply and repair depots was established, and some duplication of effort was thus eliminated. This was an important step toward a more effective coordination of the Allied air forces in the China-Burma-India Theater. A complete theater signal plan was worked out and approved by the theater commander on 3 October and subsequently approved in general by the War Department. General Stilwell was told, however, that it would be from six months to a year before all the requirements could be satisfied, but that the War Department would take immediate steps to provide personnel and equipment for use along the ferry route and at important airfields. Action was taken also to harmonize Chinese weather facilities with those of the Tenth Air Force.

In October notice was received that more than 2,300 men had sailed from the United States for India. They included three service squadrons, two depot squadrons, the quartermaster companies, one ordnance company, seven airways detachments, and fillers for the 23d Fighter Group and the 490th and 491st Bombardment Squadrons.
equipment accompanied the troops but all other organizational equipment was to follow by freighter.\textsuperscript{101} The convoy reached India in December.

On 23 September the India-China ferry lost its first transport plane, presumably from icing.\textsuperscript{102} Some of its planes were still grounded for lack of tires,\textsuperscript{103} but construction of air fields at Lohanbari, Soocheting and Gihua had so far progressed that on 6 October General Bissell was able to inform General Arnold that the 1st Ferrying Group was prepared to operate 75 transports from India to China at any time the aircraft could be made available.\textsuperscript{104} The transfer of strategic materials from China was temporarily interrupted to allow air transportation for Chinese troops being moved to India for training.\textsuperscript{105} The question of the transports still in the Middle East was again raised on 14 October when General Bissell made another appeal for their return, stating that the crews were the best in the Tenth Air Force and were urgently needed.\textsuperscript{106} In reply, he was informed that they could not be made available until January.

As this appeal suggests, the ferrying service remained the focal point of effort by the IAF in India. It had been clear to General Bissell at the time of his assumption of command that only the monsoon prevented serious Japanese interference with ferrying activities. While the China Air Task Force effectively patrolled the eastern portion of the route, and provided necessary protection of ferry installations in China, he recognized that control of the air over northern Burma was essential to the full security of the ferry. Accordingly, he had made plans for the activation of a second task force for this purpose. Its activation as the India Air Task Force on 3 October 1942 provides one of the logical terminal dates in the history of the Tenth Air Force.
Chapter IV

EARLY OPERATIONS OF THE CHINA AIR TASK FORCE

The Tenth Air Force, despite its manifold problems, was able through the summer of 1942 to mount small but effective raids on occupied China, Indo-China, and Burma. Before the activation of the India Air Task Force the real striking power of the AAF in Asia was concentrated in the China Air Task Force under General Chennault. This was in accordance with decisions of the preceding spring to support the military effort of China.

Through the first months of its operations the China Air Task Force included the 23rd Fighter Group under Col. Robert L. Scott, the 16th Squadron (on detached service) of the 51st Fighter Group, one flight of the 9th Photo Reconnaissance Squadron, and several flights of the 11th Squadron of the 7th Bombardment Group under Col. Caleb V. Haynes. "Eagerly equipped with six B-25's and approximately 30 fighters, the newly established task force faced the strategic and tactical problem of conducting effective fighter and bomber operations along a 5,000 mile front extending from Chungking and Chengtu to the Indochina Red River in the south, the Tibetan plateau and the Salween River in the west, and the China Sea to the east. Only a few of the fighters were of a recent model. Most of them were outdated P-40's, often worn beyond safe and operational use, which had been passed down by the AVO. Operations were conducted from a number of Chinese air fields so located as to bring most of the important enemy targets in southern China within range of the B-25 and the P-40. From Hengyang,
the northernmost base, situated on the Hankow-Canton railway, it was possible to strike not only at those two important cities, but also at enemy installations and the inland waterways of central China. The base at Kwailin brought the coast of the South China Sea as well as the sea-and-air port of Hongkong within the arc of possible bombing. At Nanning, in southern China, American planes could cover the northern part of Indo-China, including the important port of Haiphong, and the great distributing point at Hanoi. Yunnanyi, in western China, and Dianjan, in Assam, gave the China Air Task Force bases from which it could guard the ferry and at the same time strike at air and supply installations in Burma.3

With few tools for the task, stern necessity made it mandatory for the CATF as it had for the AVG, to employ superior tactics or cease operations.4 During the days of the "Flying Tigers," General Chennault had successfully applied theories of pursuit which he had evolved during the early 1930's, and this experience he now brought to the service of the new task force. By R.A.F and A.A.F standards the plane of the AVG, the P-40B, rated little better than a trainer. In fact, at the time of the Rangoon serial battles in late December 1941, the Curtiss-Wright plant at Buffalo had already begun to produce "J" and "F" models of the P-40 with still newer designs on the planning boards.5 Actually it was the recognized obsolescence of the 100 Tomahawks supplied the AVG that made them available.6 By late summer of 1942, even the P-40C's assigned to the China Air Task Force were probably outclassed by the newest enemy planes. To General Chennault, however, such official condemnation of the aircraft as a whole did not remove
its distinct advantage in part. He carefully calculated its strength and weakness, compared it with a similar analysis of the Japanese plane, and drew tactical conclusions which took advantage of the P-40's ability and denied the enemy craft the use of its strong points. 7 "The pilot," said Chennault, "who can turn his advantages against the enemy's weakness will win every time." 8 Applying this principle, the leader of the "Tigers" contended that if the Japanese had the P-40 and the Americans the Zero, the Americans could still beat them. 9

The preliminary training of the American Volunteer Group had consisted of about thirty lectures followed by general discussions. 10 Making full use of diagrams which he chalked on a blackboard "like a football coach at skull practice" General Chennault gave his directions: 11

You can count on a higher top speed, faster dive and superior fire power. Japanese have a faster rate of climb, higher ceiling, and shorter radius of turn.

Japanese fighter planes were built for turning combats. If they get you into their kind of fight they are deadly. Use your superior speed and faster dive to make a pass at your opponent, get in a quick burst and then break away. You have the edge in that kind of combat. All your advantages are brought to bear on the Japanese deficiencies. Never get into a long continued turning combat. You need to sharpen your shooting eye. Nobody ever gets too good at gunnery. The more Japs you get with your first bursts, the fewer are left to jump you. Accurate gunnery saves ammunition. There is nothing worse than finding yourself in a fight with empty guns.

The Japanese engine became a favorite target for the American flyers because of its vulnerability, 12 while the P-40 Allison power plant by contrast proved its great superiority and durability. As Col. Robert L. Scott, leader of the 23d Fighter Group in China, later pointedly remarked, "The Allison engine will live on sand." 13
Daily General Chennault dinned into the ears of his students the lessons he had learned. He explained how, after luring in fighters, the Japanese would tighten a loose bomber formation in order to catch the Americans in heavy crossfire, how one of a three-plane Japanese fighter flight would invite an unsuspecting opponent by dropping out of his group while his two remaining colleagues would plant themselves on the victim's tail. By mathematical drawings he taught his flyers to judge air speed and distance, to lead their diving passes ahead of the enemy, to near a bomber with an economical burst (for ammunition was scarce) into the highly inflammable enemy gas tank. He repeatedly pointed out the Achilles heel of the Zero, a target area that included four vital parts: the engine, the gas tank, the cooling system, and the pilot. He advised angle and deflection shots, and short bursts up the fuselage from tail to nose tip. All this, he counselled, was to be done, when possible, in flight pairs to achieve concentrated fire power and tail protection. Whenever circumstances permitted, they were to dive from the sun. He took full advantage of a tendency of enemy pilots to fly "by the book." By forcing them to break their rehearsed formations and to fight according to AVG tactics, they became confused and lost. But there was little hope or help, he warned, for the American pilot he tried "to fight them according to their plans."

The remarkable record which the AVG established over Burma and China from its first aerial battle on 20 December 1941 to its inactivation on 4 July 1942 attested to the effectiveness of General Chennault's tactics and teachings. In the first test of their planes, methods, and mettle, the "Tigers" shot down four to six bombers, with
three probably destroyed, over Kunming. This was the beginning of a continuous string of victories and successful missions that ended only with the inactivation of the AVG. During its period of operation, the "Tigers" engaged in defensive and offensive combat, dive bombing, ground strafing, reconnaissance, morale missions over Chinese lines, and bomber escort. Various totals have been tabulated of enemy planes shot down; few of them agree. A figure given for bonus payments by the Chinese government indicates a total of 237 planes definitely destroyed. General Chennault publicly announced a claim of 293 enemy planes destroyed with nearly as many probables, and with the loss of only 12 American pilots from enemy action.

U. S. Army Intelligence reported in July 1942 the following
monthly figures for Japanese and AVG losses from December through May:

<table>
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<tr>
<th></th>
<th>Destroyed in Air</th>
<th>Destroyed on Ground</th>
<th>Probables in Air</th>
<th>Probables on Ground</th>
<th>Damaged in Air</th>
<th>Damaged on Ground</th>
</tr>
</thead>
</table>

Security Information
**AVG Losses**

<table>
<thead>
<tr>
<th>Month</th>
<th>In Air</th>
<th>Out of Action</th>
<th>On Ground</th>
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<tbody>
<tr>
<td>December</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>February</td>
<td>1</td>
<td>4</td>
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<td>4</td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>1</td>
<td>36</td>
<td>1</td>
</tr>
<tr>
<td>May</td>
<td>4</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>June</td>
<td>2</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>

Probably the actual number will never be exactly known because many of the planes went down unseen into the Gulf of Martaban and the Burma jungle. Only the Japanese really know the toll of planes and pilots the "Tigers" took. This much is certain, however. By its victories the AVG kept the Burma Road and its port open for almost three months after the Japanese offensive began; stopped the enemy push into southern China in the Salween gorge; cleared Japanese planes from the sky over bomb-shattered Hunan and Kwangsi provinces; gave Chungking its first relief from enemy bombing; and bolstered Chinese morale.

With the China Air Task Force General Champlin hoped to achieve even more than he had with the AVG. In a letter of 16 July 1942 to General Stilwell he indicated the full scope of his desires in the following statement of the mission of the new task force:

1. To destroy Japanese aircraft in much greater numbers than our total strength.
3. To disrupt Japanese shipping in the interior of China and off the coasts of China.
4. To damage seriously Japanese establishments and concentrations in Indo-China, Formosa, Thailand, Burma, and North China.
(5) To break the morale of the Japanese Air Force while destroying a considerable percentage of Japanese aircraft production.

Despite logistical difficulties, limited personnel, a theater of vast dimensions, rudimentary repair facilities, and conditions generally unfavorable for good morale, the mission was in no small measure accomplished.

On 2 June 1942 the first flight of 3-25's remarked for the China Air Task Force, six in number, arrived at Dinjan from Allahabad, with Maj. Gordon Leeland commanding. None of the pilots had had any experience in "flying the imp," especially during the monsoon season which was about to drench the region. Disregarding the sound advice of Colonel Haynes (then head of the Ferrying Command), and indeed, even an unfavorable weather report, Maj. Leeland completed the many preparations for the flight to Kunming and the bombing of Lashio en route. At 0600 hours the next morning, 3 June 1942, the six 3-25's took off on the first tactical mission of the 11th Bombardment Squadron ( ). Forty-five minutes out of Dinjan, terminus of the Ferry, the weather thickened just as had been predicted. The flight, however, did not turn back. Shortly after bombing the runways at Lashio, one plane became separated from the others. Immediately spotting the straggler, two Japanese fighter planes pounced upon it, killing the radio operator as he manned the guns of the lower turret. By clever maneuvering, the battered plane eluded the foe as they pressed the chase and finally managed to lisp into Kunming with dry tanks. Meanwhile the remaining five ships continued their flight through a solid cloud overcast at 10,000 feet. Unfortunately for the foremost planes, the altitude proved insufficient with a suddenness that prevented escape, a mountain loomed through the...
haze. The three leading ships, including that of Major Leland, crashed and burned. The other two, warned by the explosion, missed the mountain "by only a fraction," close enough though "to observe grass and trees through the heavy cloud." Of the two planes which avoided the tragic mishap only one reached Kunming. The other ran out of gas over Changyi (Changyi), some fifty miles north of Kunming. The crew bailed out safely and by a variety of conveyances, but mostly by foot, they reached their destination in two weeks. By this twist of fate, the projected China Air Task Force had been reduced to two B-25's, three plane crews, and 15 ground men (flown in by transport), even before it had begun to operate over China.23

The addition of six more planes (B-25's) during the next two weeks increased the plane strength of the unit to eight. Two of the aircraft, however, were inoperative, one temporarily, the other permanently. The latter had developed leaking wing tanks on the flight from Dianjan necessitating its removal from assignment and eventual cannibalization. For nearly two months parts from this ship maintained the other seven.24

Among the personnel who arrived with the new planes was Maj. William B. Basye, veteran of a B-17 outfit in the futile Java campaign, now commander of the 11th Bombardment Squadron (C). With him, he brought seven men who were the Distinguished Flying Cross for their participation in Doolittle's famed Tokyo raid. Ten maintenance men, requisitioned from India, rounded out the streamlined complement of the bomber unit.25 On 8 June 1942, General Carl Spaatz, Chief of Staff of the Tenth Air Force had informed Colonel Haynes of his assignment as head of the China Bomber Command. The New York Times on the 19th printed the following dispatch apropos of the establishment of the
new force in China: "Under the command of Colonel Caleb V. Haynes
retiring chief of the aerial ferry from India to China, U. S. bombers
will take permanent stations in China as soon as United Nations air
strength in India is considered adequate." 26

During the remainder of June, Colonel Haynes prepared for the
bombing offensive in close cooperation with Colonel Scott who busied
himself with the details of the fighter organization. As soon as the
fighter commander had the headquarters squadron at Kunming functioning
smoothly he dispatched one of his fighter squadrons under D. C. Hill
to Hengyang and the other under . . . F. Recler to Hweilin. The third
fighter squadron, commanded by Frank Schiel, was used as a training unit
for junior members of the group. 27 All three of these leaders, who
had been AVG aces, were commissioned majors upon the induction of the
AVG. Although bombers and crews were ready by the last week in June,
adverse weather conditions prevented any aerial activity beyond a few
minor reconnaissance flights. Indeed, inclement weather forced the
postponement of the proposed raid on Hankow until 1 July. 28

The early morning weather reports of that day seemed to indicate
a break in the overcast. Four B-25's, led by Major Basys and covered
by five P-40's piloted by AVG aces, flew from the advance base at
Hengyang to bomb Hankow's harbor installations. Poor visibility
caused by heavy cumulus clouds handicapped the inexperienced bombard-
ers. Although no direct hits were made, the men observed several
near-misses which might have done some damage. This was the only
mission of the month with questionable results; all other missions of
the month achieved unquestionable success. 29
Because of Hankow's importance to the inland water-ways of the Yangtse river, the following day, 2 July, four 3-25's escorted by four P-40's played a return engagement, this time with satisfactory results. By striking at this inland port, General Chennault hoped to disrupt vital shipping in the interior of China. The bombers scored on docks and warehouses while the Kittyhawks (P-40C's) swept the waterfront along the old Japanese concession. The action killed several hundred workers and ruined many lorries. Ground observers claimed the bomb concussion drove many of the Japanese sailors from their gunboats into the water.\textsuperscript{30}

For the first time, the Ico now knew how it felt "to be on the receiving end of a bombing raid" but they were not long in adjusting to the surprise and embarrassment of being attacked.\textsuperscript{31} The unexpectedness of being bombed four days before the formal activation of the China Air Task Force, however, resulted in a revision of enemy plans which had called for a raid to wipe out the American force on the day of its initiation. Hitting back in retaliation at 0230 hours, the night of 2 July 1942, the Japanese sent five medium bombers over Hengyang. By the grace of a 30-minute warning, issued by the Chinese network, all crew members slid safely into rain-rilled slit trenches or "a reasonable facsimile thereof" before the running lights of the first "Y" formation appeared. In tight and perfect formation, the hostile craft circled the Hengyang field, made their run down the landing strips but, with little credit to their marksmanship, missed the objective. All bombs fell to the right of the landing strip.\textsuperscript{32}
On 3 July 1942, Major Basye turned his attack on the large, modern, Japanese-held airstrip at Nanchang, southeast of Hankow. From this airport, the Japanese could, and undoubtedly did, launch their air attacks on the American base at Hengyang. Climbing above the overcast that "hung monsoon-like to the low hills," the lead plane discovered a large hole in the cloud bank as they neared the target. Through the hole the airstrip was clearly revealed. The five B-25's with fighter protection of four P-40's released forty 100-kilogram bombs and thirty 18-kilogram fragmentation bombs on the intersection of two runways, two hangars, and several parked aircraft. As the bombers leveled off, a voice came over the command frequency, "I see red spots and they are right over us." Six Japanese I-96's and I-97's were overhead but seemed reluctant to close in, probably because of the heavy 50-caliber cross fire. One Japanese plane did venture within range. A turret gunner stopped him as he tried to pull away. The AVG pilots "stirred it up with the Jap fighters" as the bombers started the down hill run for home at full throttle. In the skirmish, one P-40 was lost but the pilot was saved. All told, the Japanese lost two I-97's, one from fighter guns and one from a bomber turret gun, in addition to six confirmed and several probables on the ground. This was an admirable beginning toward the attainment of General Chennault's goal to destroy Japanese aircraft in much greater numbers than the total strength of the American force.33

Angered by the Hankow and Nanchang raids and perhaps a little piqued at their failure to inflict any damage in their raid on Hengyang, the enemy again struck the American base the night of 3 July. They were
less accurate than they were on the first raid over the same base. Since no American planes had contested the Japanese on either raid, Radio Tokyo, two days later, claimed boastfully that the Hengyang airport had been "wiped out." Actually the Americans were only annoyed, complaining loudly that they had to get up "at that hour of the night to see such a poor show!" Some members of the air base never found out the extent of the damage, according to the unit historian, "because they were too busy to walk that far away from the field to see the holes." 24

As a fitting celebration for Independence Day and the official activation of the China Air Task Force, the bombers shifted their targets from the north to south to strike the Tin Ho (Tien Ho) airdrome at Canton in a continuation of the policy to reduce Japanese airpower by bombing their important bases. The Tin Ho air base was even better situated for the enemy's purpose than Nanchang in that planes from the former could strike at either Hengyang or Kweilin. Knowing that the Japanese had always shown an affinity for raids on American holidays, General Chenault apparently reasoned that the Tin Ho airdrome would be left virtually unguarded while the Japanese were attacking the American bases. Five B-25's and their fighter escort bombed runways, parked aircraft and the airdrome building itself without opposition. 35

Following the bombing run the planes headed toward Kweilin, the advance base south of Hengyang, but the expected Japanese reprisal raids intended to crush the 23d Fighter Group on the day the AVG was officially disbanded delayed the landing for fifteen minutes. As the "over-confident" foe came in with new twin-engine fighters which they felt certain would defeat the American fighters, they met a surprise.
Watching, as usual, with field glasses from outside the operations cave, the General called directions over the radio. At his order, "Take 'em," the Americans dropped from the sky high above the Japanese formation. Colonel Scott felt disposed to call the engagement which followed a "massacre." When the battle was over the wrecks of 13 enemy planes were strewn over the field.36

Need for rest and maintenance broke the series of consecutive raids on 5 July, but the next day the bomber unit resumed its missions with an attack on the Canton waterfront. This marked the initial action against coastal facilities of Japanese-held China ports. Attacks on these harbors accomplished the two-fold purpose of disrupting transshipment of material both to the interior of China and to the southwest Pacific. On this occasion, British intelligence believed they had located a 4,000,000-gallon gasoline storage cache. Such a valuable objective became high priority on the target list. Unable to find the objective, however, the five bombers selected targets of opportunity. At low altitude, they kindled eight fires in the dock warehouses. Maj. D. L. Hill and his AVG flyers engaged six I-97's getting one certain and one probable. With the exception of a surface hole in the tail section of a bomber, all planes returned unharmed.37

Excluding a minor raid on 6 July in which Colonel Haynes flew a bomber on an effective sortie against a Japanese headquarters building at Tengchung, not far from the Burma border, weather, pilot fatigue, and maintenance halted major operations until the middle of July. Little resting was done, however, because dysentery broke out among the personnel at Kweilin and, as the field historian observed, there
was a "great deal of activity" at the air base, "but not of that nature as to cause damage to the enemy."²³

During the first week of July, a definite change in policy had taken place in the China Theater. Hankow, Canton, and other cities in occupied China which formerly had been immune to bombings had now been hit. Flushed with the triumphs of the first week, modest though they were, General Chennault stated boldly: "We are going deeper and deeper into China. All cities under Japanese occupation will be bombed. There will be a more active policy from now on. You can draw your own conclusions as to what will happen. The handwriting was on the wall from July 1."²⁹ He even went so far as to predict, over-optimistically it would appear, that "historians would say the tide had turned when the American Air Force went into action in China."³⁰ Chinese leaders shared his optimism and pride. T. S. Tsaiang, minister without portfolio, said that "the coming of American Air Forces to China had given a tremendous stimulus to Chinese morale, civil and military."³¹

On 16 July four B-25's under Colonel Haynes' personal command departed from Kweilin for their northern staging base at Hanyang. After lunch and a final briefing, the ships, accompanied by Major Hill's P-40's, headed once again for Hankow. This city was always a prize target because of the huge concentrations of supplies destined for the Japanese armies operating in the Hunan and Kiangsi provinces. The B-25's started their target run at 12,000 feet, discharged forty-eight 50-kilogram bombs, half incendiary and half demolition, plus 24 incendiaries which were tossed out, the back-of-the-planes. Ten fires,
their smoke seen for 30 miles, broke out among the warehouses and
wharves, and in the old Japanese concession. Chinese intelligence
afterwards reported that a supply dump in the area burned for 66
hours.\footnote{42}

Returned to Hongyang, the ships were about "half gassed" when an
alert was sounded as the signal for all ships to take off for the dis-
persal field at Lingling, on the way to Kweilin. Thirty miles from
Lingling a "terrific burst of machine gun bullets poured through and
around" one of the bombers. Seconds later, another burst, more violent
than the first, disabled the left engine and grazed the skull of the
turret gunner. As the plane rapidly lost altitude, the crew bailed
out, all of them landing safely. Some spent the night in the hut of
a poor but hospitable farmer, while the more fortunate members of the
crew were entertained by the wife of General Long, who had been saving
several cans of good old U.S.A. . . . beer for the first American
flyers she met. Taken the next morning to a railroad town 20 miles
from Lingling, the men were feted and entertained by the inhabitants
in the best Chinese style. Not until they had returned to Kweilin
did they learn that their successful assailant had been an AVG pilot
in a P-40 who had mistaken the B-25 for a twin-engine Japanese fighter.
Despite their chagrin at the loss of their ship, it pleased the crew
to think that it took six .50-caliber machine guns and two passes to
bring them down. This was the first bomber lost since the CATF began
operations in China.\footnote{43}

To confuse the Japanese and to render more direct support to the
Chinese Army, General Chenault split his force of bombers for the next
three operations. On 13 July, he sent three against the Tin Ho airdrome at Canton where they demolished a number of planes massed on the field. The following morning in answer to an urgent request of the Chinese ground forces to bomb Linchwan (Linchuan), two B-25's strung out their bombs from the center of the city to the river. For some time the Chinese had been laying siege to the city without success. Incredible as it may seem, according to the field historian, on the day after the bombing the Chinese took the city with little opposition.44

Extending the range of their air arm northeast along the Yangtse River to Kiukiang, a supply point for Nanchang and Linchwan, three B-25's damaged docks and warehouses and four P-40's strafed river junks on 20 July. The Flower Garden Hotel, a club for high-ranking Japanese officers, sustained a direct hit. Heavy casualties were reported by Chinese agents, who also described the gutting of a cotton yarn factory.45

This was the last bombing raid of the month for the Americans, but not the last aerial activity. On 30 July, in a determined effort to obliterate the China Air Task Force, the enemy sent an estimated 119 planes over the American air base at Hengyang. "The size, manifest experience and ability of the fighter group indicated that the Japanese intended to wipe out this American base,"46 For 36 hours the battle raged during which time the 23d Fighter Group accounted for 17 enemy bombers and fighters. It is particularly noteworthy that four of the hostile aircraft fell at night—the first time Japanese planes had been knocked down over China at night by U. S. Army flyers. At the end of the 36-hour ordeal, Colonel Scott's airmen had lost three planes;
no pilots.\textsuperscript{47}

In this battle the excellent warning system maintained by the Chinese had contributed largely to the success of the American fighters. Instead of surprising the Americans, the Japanese themselves had been caught unawares.

Aerial combat tactics for fighter planes are predicated on the necessity of being in the most advantageous position at the time of interception.\textsuperscript{48} Two factors must be present—speed of servicing\textsuperscript{49} and adequate warning. The latter element requires a complete and efficient network of listening posts. General Chennault had described such a system in several articles written at Maxwell Field during the early thirties.\textsuperscript{50} When he first arrived in China to organize his original Chinese pursuit squadrons he urged Chinese officials to establish a warning system. It was not, however, until his squadrons were almost decimated, that the Chinese leaders saw the wisdom of his plea and acquiesced. Consequently, when the AVG and the China Air Task Force arrived, they inherited the best air raid warning system in the world.\textsuperscript{51} The net consisted of two concentric circles 100 and 200 kilometers in radius, about every strategic city or air field.\textsuperscript{52} Outside the larger circle were thousands of listening posts; "a coolie sitting on a city wall, . . . a mandarin in a watch tower, a soldier in a field with a walkie-talkie. . . ." By devious means reports from these spotters reached the outer circle where they were studied and sent on to the inner ring and eventually to the plotting room in a cave or operations shack. In several places the system worked so efficiently that the Americans were able to know "when the Japanese roll their ships from
their hangars or revetments, when they start their engines, and when they take off. This robbed the Japanese of their weapon of surprise and gave the Americans the advantage of position. Besides its alerting function, the system also aided lost flyers in locating their positions. Not infrequently pilots, forced down, were found by the net and returned safely to Chinese lines, a service which alone would have made the system worth while.

General Chennault frequently laid traps for the enemy airmen, whom he seemed to understand well enough to outguess. By baiting the Japanese into attacking his air fields, the American flyers, fully warned of their coming, would intercept them directly over the field. This procedure saved gasoline, made it possible for General Chennault to direct the plan of battle by radio, and made rescue of American pilots shot down an easy matter. While the air base sustained some damage from these unfriendly visitations, still the deep enemy penetration and their disadvantageous position while concentrating on their bombing run brought heavy losses disproportionate to the damage of the fields. Coolie labor quickly repaired the field; the Japanese loss in men and planes was irreparable.

Recapitulation of the July record of the China Air Task Force reveals an encouraging beginning. The "hit and run" policy, dubbed guerrilla warfare by the Japanese, had brought excellent results in seven out of 10 missions, good returns in two, and dubious results in only one. In each instance the raids seemed to surprise the enemy and to "spread utter confusion" throughout the Japanese Air Force stationed in occupied China. Not once during all the missions had the enemy been able
to intercept successfully the American bombers. During the month the
task force lost only one B-25 but that was due to the action of an
American rather than an enemy plane. Japanese attempts at retaliation
cost the enemy approximately 23 planes; it netted them only three
American planes and no pilots. Japanese interceptors destroyed two
P-40 escorts but both pilots were saved.58 The success of the first
month’s operation was due in no small part to the ingenious escort
tactics formulated by General Chennault together with Colonels Haynes
and Scott.

On bombing missions, these leaders divided the fighter escort into
three sections. Only one of the flights remained with the bombers
until the bomb bay doors closed and the bomber commander gave assur-
ance that all was well. Generally the other two sections formed into
a fighter sweep over targets of opportunity.59 Before a mission,
General Chennault would confer with the fighter and bomber command-
er on the target and strength of force to be employed. To prevent leak-
age of information, leaders briefed their men just before the takeoff.
At that time, General Chennault would have each pilot informed as to
the exact nature of the target. The fighters took to the air first.
Plans called for the employment of eight escort planes, but available
strength rarely permitted the use of that many. The planes forming
the top cover attained tactical flexibility by cruising at 3,000 feet
over the bomber formation in two-ship elements. In moving into the
sun, the protective umbrella sometimes went as much as a half a mile
ahead of the formation. Another flight stayed one thousand feet
below the formation while the last flight was evenly divided on the
two flanks at the same level of the bomber formation. Besides this rather orthodox method of support, the 23d also developed other escort systems, among them, the "squirrel cage." In this maneuver, all elements "essayed" into the sun quarter from their respective box positions about the formation. This kept the fighters in sight of the bombers and relieved the monotony of "riding herd" on a formation of B-25's. Colonel Scott found that this type of escort gave confidence to the bombers and confused the enemy as to the number of ships employed.60

By 1 August the ships were in need of repair. When first received the equipment had not been new, and steady flying under combat conditions had hastened its deterioration. With few replacement parts and only elementary first echelon repair, crews found it almost impossible to get all the planes in the air at one time. To effect the necessary repairs, the bombers were grounded during the latter part of July and the first week in August. The respite gave Lt. Elmer Tarbox an opportunity to introduce certain modifications of the B-25. Since the first of July he had been closely studying the plane in operation, and by substituting twin .30-caliber machine guns for the bottom turret, he was able to improve the speed and flying characteristics of the plane. He also installed twin .50-caliber machine guns in the nose, arranged in such a way that they could be charged by the bombardier and fired by the pilot, who aimed the gun with a ring and bead sight. In the rear, he covered a former blind spot by placing a .30-caliber gun on a novel frame so that when the top or bottom gunner fired it, it would wobble, "spraying lead over a large area to the rear," Sketches
of these improvements were sent to the War Department for consideration. Some of them later became standard equipment. 61

The beginning of August also brought changes in General Chennault's staff. Col. Henry J. Strickland came from New Delhi to serve as adjutant general. Col. Merian C. Cooper was appointed Chief of Staff. Colonel Cooper had served with Colonel Haynes when the latter headed the Assam-Burma Ferry. 62

Colonel Scott's fighters opened the second month of aerial blows, on 4 August with a sweep on the Japanese headquarters at Linchwan. The bomb-carrying P-40's spread 12 hits over enemy barracks, headquarters buildings, and the Fu River front. Several enemy transports were sprayed with machine gun fire. 63

Between 0530 and 0630 hours the next morning, 5 August, the Japanese once again attempted to catch the Americans in their lair at Kweilin. Notified well in advance by the Chinese net the P-40's net the fox over the air base. Two Japanese ships fell from plane fire and one from ground fire. 64

On 6 August, after having waited several days for propitious weather, a formation of B-25's under Major Basye caught the enemy completely off guard at the Tin Ho airfield on the outskirts of Canton. An accurate train of bombs fell across the field catching the runways and several buildings as well as 12 light and six heavy bombers parked on the field. The close proximity of Chinese lines to the Canton airport made adequate warning almost impossible. Japanese pilots usually had too little time to get off the ground. Responsible for a part of the damage caused by this raid were six 40-pound fragmentation bombs.
carried in the back of each bomber and tossed out the camera hatch by the bottom gunner at a signal given over the interphone. Upon getting the word, the gunner pulled the pins and threw out the bombs. On this particular occasion, a military intelligence observer, riding in the back of the plane, arranged to signal the bottom gunner by kicking him. A sudden jerk of the plane caused the officer accidentally to kick the gunner ahead of time who, according to plan, immediately tossed the "frags." The crew was much provoked at this waste of precious bombs and lost little time in expressing their feelings about the incident. Several days later, however, Chinese intelligence reported the sinking of a boat load of Japanese soldiers at the time and place the bombs had inadvertently been dropped. The gunner did not receive credit for the bomb hit.65

Two days later, 8 August, the bombers struck again at Canton, this time not only at the airfields but also at the Japanese concession. The Canton area offered many good military targets, only an hour and a half in flying time from Hainan. Besides this attraction, the adventurous pilots, according to the unit historian, found stimulation in the challenge proffered by the presence of antiaircraft and large concentrations of fighter planes at the Tin Ho and White Cloud airports. They considered attacks on this area "great sport." Although generally the Japanese pilots were not alerted in time to intercept, on this raid an enemy reconnaissance plane had apparently given warning, for six I-97's and three Zeros rose in an effort to break up the American formation. The enemy thereby lost an I-97 and a Zero and probably another Zero. Friendly agents several days later relayed
the news that the Japanese had suffered greatly since being raided so many times by the U.S. Army.

On the morning of 9 August, while a part of the 23d harassed the Japanese at Lingnan in continued cooperation with the Chinese Army, five B-25's with three F-40's took off on a raid which many outsiders had declared could never be successfully undertaken. The "impossible" raid was against the important Indo-China port of Haiphong. It marked the first raid outside of China or Burma by the task force. To cover the distance, the planes had to be refueled at Nanning (Yungning), only five minutes flying time from enemy lines. Scouring about in swarms, horde of eager Chinese regassed the ships out of five-gallon tins. The combat crews stood by their ships ready for immediate departure at the moment the tanks were filled. Soon the planes were in the air winging their way southward to Haiphong. The enemy had missed an excellent opportunity to destroy a greater part of the China Air Task Force on the ground. In addition to the bomb load of the mediums, each Kittyhawk (F-403) carried four 17-kilogram fragmentation and incendiary bombs. Results were good. A 4,000-ton freighter was sunk in the harbor. Within ten minutes after the bombardiers had shouted "bombs away," the entire dock and warehouse area was ablaze. It "burned uncontrollably for three days." A traveler returning from Haiphong witnessed the raid and claimed that an explosion in three rooms of a godown (warehouse) at Canton's wharf set fire to 2,800,000 litres of gasoline and an unknown quantity of oil. Two bombs landed in the garden of a building once occupied by the Chinese Southwest Transportation Company, killing many members of the Japanese headquarters.
staff billeted there at the time. The office of the Japanese military police also received a direct hit. In a funeral service the next day, 84 coffins were counted. Casualty estimates from other sources, however, ranged from 100 to 400. The raid proved to be one of the most rewarding yet undertaken. 69

Following a favorable bombing run on Hankow the next day, 10 August, Colonel Scott led the escort to Sienia where they discovered and destroyed ammunition dumps and military warehouses. The Japanese had accumulated this material for raids on the American bases in Central China, especially Hengyang. 70 Continuing their sweeps on 11 August in what Colonel Scott called the "Battle for the Defense of Hengyang," seven P-40's circled northward hitting at Yoyang and Nan-chang southwest and southeast of Hankow. On these missions, the Americans suffered no losses but the enemy lost a ship over the Nan-chang air-drome. The offensive fighter sweeps which Colonel Scott believed to be the best way of protecting American air bases soon had to be curtailed because of the danger of losing or wearing out equipment. General Chennault, whose attitude on defense tactics differed somewhat from that of Colonel Scott, finally had to restrain the leader of the P-40's: "You either did not understand or did not receive my last radiogram to remain on the defensive. Repeat quote on the defensive unquote. Signed Chennault." 71

The necessity of carefully conserving its limited and not easily replaced equipment forced the China Air Task Force during most of its existence to operate for several weeks and then to remain inactive for a like period while repairs were made. With no relief crews, the
combat teams also needed rest after a fortnight of sustained action.

There were, however, important factors other than the maintenance of planes and battle fatigue of crews which restricted the China Air Task Force. The force would operate out of a certain base until the gasoline supply was exhausted or its supply of bombs depleted. That base then became inoperative until these requisites were slowly and laboriously replenished by aerial ferry in sufficient quantities to justify further operations. Meanwhile the task force carried on its activities from another base where supplies had been collected since the planes were last stationed there. Weather also hampered the action of the airmen. Frequent overcasts, heavy ground fog, and haze made flying difficult at best, but missions were flown if the target area was reasonably clear.72

Since no personnel was available for bomb loading, this burden fell upon the already overworked flight crews. At any hour, day or night, each one was subject to sudden orders for loading, briefing, and the mission itself. This wrought considerable hardship, especially when several missions were run in one day, including, perhaps, a flight to an advance base. A day's work might entail 15 hours flying, a few bomb loadings, and no meal between a 4:30 breakfast and supper. Moreover, at some of the advance bases, men had to be awakened at 0300 hours after getting to bed at 0200 hours, and night raids from an inconsiderate enemy sometimes robbed the flyers of this precious hour.73

During this particular two-week rest and repair period, Lt. Robert L. House of the Ordnance Section devised and installed a bomb rack to replace the old hand method of dropping fragmentation bombs. The
small compact unit, fitted into the rear of the B-25 bomb bay, held 10 bombs hanging nose down. The mechanism of the rack was so arranged that it could be manipulated by the lower gunner in the radio compartment.74

By the latter part of August when the crews had been rested and the ships reconditioned, General Chennault transferred them to Kunming in southwest China, preparatory to bombing Burma. Since 23 June 1942 the only protection afforded the aerial ferry in Burma had been that provided by two B-25's and a few fighters stationed in Oilon on detached service from Kunming. These planes had kept enemy activity at Myitkyina under close surveillance and had intermittently dropped bombs on the airfield there. Several attempts had been made to destroy docks and river shipping at Meiktila on the Irrawaddy River. The most frequent targets, however, had been railroad bridges in northern and central Burma. A few bridges had been demolished and others damaged, but the Japanese were able to reconstruct them so rapidly that the result of the 27 raids on such installations was more of an inconvenience than a deterrent.75

On 26 August, the China bombers bolstered the Burma aerial campaign by striking at Lashio, an important rail center, highway junction, and air base. Three B-25's laid their bombs on the city and airfield while the top cover peeled off and machine-gunned the scorching area. It cost the hostile fighters at least two I-97's, probably four, to challenge the American thrust.76

In order to keep the enemy guessing, Colonel Haynes changed the direction of his blows two days later and sent two evenly divided
flights of four B-25's, the largest force yet used, across the border of Indo-China to attack barracks and ammunition dumps at Hoang Su Phi and a gasoline dump at Phu Lo. Both flights achieved good results. No interception was attempted despite the fact that for the first time the bombers of the China Air Task Force flew unescorted. Undoubtedly General Chennault and Colonel Haynes had felt reasonably sure that no enemy opposition would be put in that section. 77

On 29 August, the task force again bombed Lashio. The lead flight tallied 32 hits on the airport while the second flight kindled three large fires in the warehouse area southeast of that city. 78 As the southern terminus of the famed Burma Road, Lashio handled all supplies, men, and equipment going into northeast Burma, and southwest China. Kyithyna, directly north of Lashio, was the northernmost depot of Burma and supplied Japanese troops operating in the northern extremities of Burma across to the border of India. In addition to their logistical importance, each of these cities had excellent air fields which the Japanese Air Force used as bases to attack the Assan-Burma aerial ferry. Dinjan, terminus of the ferry, was within easy bombing range of planes stationed at Kyithyna.

The first attack on Kyithyna by American bombers based in China came on the afternoon of 30 August, the day following the attack on Lashio. One flight made six direct hits on the landing strips. The second flight, as its contribution, covered the edge of town with 18 hits. The American craft reported the operation the following day with the same men and similar results. Five large fires enveloped the railroad area, storage section, and Japanese barracks. 79
During July and August, American airmen, excluding the contingent at Dinjan, had participated in approximately 23 missions on Japanese installations in occupied China, Indo-China, and Burma. They had shot down some 23 enemy planes and probably 6 more, in addition to the destruction of an estimated 30 Japanese planes on the ground, without the loss of a single bomber. Five P-40's were lost but their pilots were rescued. Besides the destruction of Japanese installations and planes by bombs and bullets, American flyers during this period had provided the first effective and widespread support the Chinese had received in five years of war with Japan.\textsuperscript{20}

Following the raids on Lashio and Kyitkina, the China bombers returned to Nangyang and Imeilin in China, leaving the Burmese operations during September and early October to the two B-25's stationed at Dinjan. The Dinjan bombers continued their work on a slightly accelerated scale during this period. They attempted to neutralize the air fields which might be used as a basis for attacks on the ferry or on installations at Dinjan, and interrupted (or interfered with) Japanese supply lines in northern and central Burma as extensively as their resources permitted. Docks and shipping at Katha and Bhamo on the Irrawaddy River, the air fields at Kyitkina and Loing, Yoguang bridge, and various railroad yards were bombed while fighter planes ranged over enemy-held territory strafing targets of opportunity. Their objectives consisted largely of truck convoys, river barges, rolling stock, and barracks.\textsuperscript{31}

In the meantime, the main part of the task force carried out its raids over occupied China. On 2 September, 22 P-40's took off for the
Poyang Lake region to harass shipping on the inland waterways in that section. At this time, the enemy was moving out Chinese rice in junks and barges, "robbing the breadbasket of China in the yearly rape of the rice." Upon reaching the lake, one flight shot up 25 heavy junks filled with enemy troops and supplies. Another flight probably destroyed seven rice-laden barges being towed through the Singtee-Hukow Channel. Colonel Scott, who led the raid, described the battle of the barges in the following way: ³²

I think they knew they were going to have lots of trouble. They had to stay in single file, nose-to-stern, for they were going through the narrow strait. We circled warily for a minute, looking the sky over for enemy fighters, then spiraled down. As soon as we got close enough to the Jap ships to see distinctly, we noticed that the seamen were jumping over the side into the water. Only a few seemed to have remained to fire the anti-aircraft guns, and Schiall and Holloway silenced most of these with their initial pass. I saw two of the boats turn sharply off course and try to run aground. . . . We'd rake the steel decks from stern to stern and then swing low to the water and come back with quartering shots from the bow. We were so low we were actually shooting up at the deck of the boats.

Railroad stations and warehouses at Yangsi were strafed and burned. Near the Huachang Peninsula, the flyers sank a launch, damaged four junks, and wrecked a locomotive with 12 freight cars loaded with trucks, artillery, and horses. At the Huanchang airbase, the headquarters building and the landing strips were caught in the fighter plane sights and suffered accordingly. ³³

On 3 September, shortly past noon, the bomber arm began the new month's activity by sending one medium bomber piloted by Major Basye on an armed reconnaissance and leaflet raid over Hanoi, west of Haiphong. This was the first time that city had been visited by the Americans. Notwithstanding fighter opposition from nine I-45's which kept up the
pursuit for 30 miles, the bomber dropped both bombs and pamphlets. A report from the Chinese Fifth Route Air Force Intelligence later asserted that large quantities of munitions and supplies as well as several buildings and seven, possibly nine, light bombers were destroyed by the lone raider.

With the exception of an unescorted and unsuccessful attack on Lungling, near the Burma border on 19 September, rest, maintenance, unfavorable weather, and inefficient Chinese meteorological reporting grounded the bombers until 25 September. On that day the weather cleared sufficiently for the ships to take advantage of the information gathered by Major Essye the first of the month. Apparently the early flight had put the enemy fighters on guard, for the four American bombers and 10 P-40's were met by 10 enemy fighters. Nevertheless six bombs hit the runway of the Gialla airbase at Hanoi. None might have struck if the racks on one of the airplanes had not jammed. This malfunction so deflected the missiles that they overshot the mark. Colonel Scott, whose flyers were on aerial guard duty, kept four planes at 1,000 feet above the B-25's, a like number 2,000 feet above, and two others still higher. All of them maneuvered in the sun. According to the flight leader, this arrangement so baffled the Japanese twin-engine fighters that they were helpless when the American P-40's started their power dive. At least nine enemy planes fell in the ensuing slaughter.

A captured French pilot who had witnessed the Hanoi raid told how the Japanese surrounded their fallen planes and "hastily painted out the rising-sun insignia of Japan and replaced it with the white star of the American Air Force." To impress the people, these trophies were then paraded...
through the countryside as an indication of Japanese invincibility.\(^8\)

Throughout the remainder of September and into the first few weeks of October, heavy enemy movements were observed along the Burna Road from Lashio to Lingling. Evidently the Japanese were getting ready to renew their attempt to cross the Salween River.\(^9\) The IJ
g had frustrated their first effort in May 1942. To disrupt this flow of men and supplies, the China bomber unit flew 11 missions in northwest Burma in support of the Chinese who were attempting to contain the enemy on the west bank of the Salween. Among the targets were the sub-
depots of Lashio, located at Tengchung, Hengshih, Hsinling, Chefung, and Lichingpo.\(^9\) On several occasions the fires and explosions seemed to be larger than those normally to be expected from the bombing of huts, thus affording reason for the conjecture that stores of some kind, probably gasoline or oil had been struck. This series of sorties brought to an end a phase in the history of the Tenth Air Force distinguished chiefly by the operations of the China Air Task Force.

The period was appropriately terminated with a tribute from the commanding general of the Eleventh Chinese Army in the following words:

I have the honour to congratulate you on the occasion of your thrilling bombing on the embattled enemies in Tengchung and Lungling. Not only our troops are encouraged and mentally fortified, but your unique performance is automatically broadcasted. With heartiest congratulations and blessings, I desire to be favored with information regarding your exciting missions frequently.\(^1\)
Chapter V

A SECOND TASK FORCE

The Japanese attempt to cross the Salween River coincided with the end of the monsoon. Active protection of the western end of the ferry, with its terminus at Dinjan, became now an urgent necessity. There was also need to support Chinese resistance along the Salween by disrupting Japanese supply lines in central and southern Burma. To command the India Air Task Force, which was activated at Dinjan on 3 October for the purpose of executing this mission, Brig. Gen. Caleb V. Haynes was selected. Recognized as one of the foremost experts on heavy bombardment at the time of his arrival in the theater the preceding April, he had since gained valuable combat experience with a medium unit in China.

The new task force included all combat organizations then in India. These were the 7th Bombardment Group (H), the 51st Fighter Group, and the recently activated 341st Bombardment Group (L). Unfortunately, all of them were far below normal strength. Of the 9th, 436th, 492d, and 493d squadrons which comprised the 7th Group, the 9th was in the Middle East, the 436th at Gaya had lost its striking power through the transfer of its better planes to General Brereton’s command, while the other two squadrons were in the cadre stage. In the 51st Fighter Group, composed of the 16th, 25th, and 26th squadrons, the 16th was with the China Air Task Force and the other two were still in training at Karachi. Of the 341st Group, including the 11th, 22d, 490th, and 491st squadrons, the 11th was with General Chennault in China, the 22d was at Karachi awaiting the arrival of aircraft, and the remaining two were still only cadres.
The operational strength of the new task force at the time of activation was therefore negligible. Deployment had not yet begun. Within a week, however, headquarters of the 51st Fighter Group and the 28th Fighter Squadron had been moved to Dinjan. The ferry was thus given a measure of protection but it was obvious that only with the return of the 9th Bombardment Squadron from the Middle East could offensive operations be undertaken. During October, contingents of the unit began to arrive, and by 3 November the entire squadron was back in India. They brought with them an excellent record of accomplishment, and valuable experience. Most important, however, was the fact that while they had left with badly worn, obsolescent B-17's, they returned flying newer B-24's, with which they had been equipped on their tour of duty with General Brereton.3

On 29 October General Stilwell received a message from General Marshall which stated that the Tenth Air Force would be relieved of the responsibility of operating the ferry. It read: "In conformity with recently announced War Department policy and to provide more efficient operations of the India-China transport line the First Ferry Group will be taken over on December 1st by AAF Air Transport Command. Col. E. H. Alexander is being designated Commanding Officer of the India-China Wing, Air Transport Command, with selected professional operator as Assistant.4" The prospect of the removal of this complicated problem of the Tenth Air Force did not relieve it of the responsibility for defense of the ferry, however, and before General Haines had time to perfect his organization and deploy his forces the long-dreaded attack on Dinjan came. For months Generals Brereton, Haines, and Bissell endeavored in vain to secure the equipment necessary for an adequate air warning system in Assam; consequently, on 29 October
flights of Japanese bombers were almost over the fields before warning was received. Three American fighters were already airborne and six others managed to take off, but the element of surprise made it impossible to throw up more than a token defense.\(^5\)

The attack obviously was planned with full information on the several air fields. Dinjan, and the newer air fields, Chabua, Mohanbari, and Sookerating, were hit, but the more important fields at Dinjan and Chabua were the only ones heavily bombed. The bombing and strafing attacks by about 100 planes were well timed, and damage was severe. The bombs were dropped from 8,000 to 12,000 feet, and the strafing was done from 100 feet. Runways and buildings were destroyed by bombs while transports and fighters were destroyed by strafings. A survey revealed that the damage, although quite heavy, was not as bad as at first believed. Five transports, 5 P-40's, and 2 P-43's were destroyed, and 4 transports and 13 fighters were badly damaged. One transport, thought to have been shot down, escaped and landed at Kunming. Enemy losses consisted of six fighters, two reconnaissance planes, and one bomber destroyed, and several other bombers damaged.\(^5\)

On the following day a number of Japanese aircraft, variously estimated at from 32 to 50, made strafing sweeps over the same area with Sookerating bearing the brunt of the attack. Again the interval between the alarm and the appearance of enemy aircraft was only four minutes, and the fighters were unable to make interception. In contrast to the first attack the damage was not great. No American aircraft were destroyed, and the only serious loss was the burning of a freight depot containing food and medical supplies intended for China. Two enemy planes were shot down by ground fire. A third attack on 23 October did little damage and
was probably largely for the purpose of reconnaissance. While attacks from Myitkyina had been considered likely and the airstrip there had been regularly reconnoitered by American aircraft, the enemy made maximum use of the element of surprise by using belly tanks to increase the range of their planes and mounting the flights from the more distant base at Lashio.

On the day of the second attack on Assam General Bissell reported that the Tenth Air Force was in heavy action with the Japanese and urged that the return of the heavy bombers still with General Brereton be hastened. Reinforcements were rushed to Assam to repel further attacks. On 23 October additional antiaircraft batteries arrived, and three days later the 25th Fighter Squadron was moved from Karachi and assigned to the field at Sockering.

Shortly after the initial attack Colonel S. M. Harrick of the Inspector General's Department, who was on a tour of inspection of the theater, pictured the plight of the ferry as follows: "More than twenty unarmed transport planes loaded with troops run from Kunming to Dinjan and return during daylight hours over extremely hazardous route. Enemy planes are patrolling the route and have attacked landing fields within the last few days and will intercept transport planes unless security measures are taken. Armed escorts should accompany ships or flights should be made at night." General Stilwell, knowing the impossibility of furnishing armed escorts and the impracticability of relying on night flying made the following comment on Colonel Harrick's report in a message to the War Department: "Undoubtedly we will have losses but I accept full responsibility for operations in this theater. We are taking all precautions..."
possible but cannot stop every time there is danger. I don't know how much Karrick has talked but he certainly is not helping morale. I am instructing him to cease further comments on operations."¹¹

Meanwhile, on 21 October the recently arrived B-24's of the India Air Task Force had carried out a mission which marked the first use of heavy bombers in China and the first strike by the AAF north of the Yangtze. A small flight of B-24's had been flown to Chentu, northwest of Chungking. Taking off during the afternoon they flew over Hopei (Hopeh) province in northern China where they attacked the Linsi mine installations of the Kailon Mining Administration near Kayeh. The primary objective was to destroy power plants and pumping stations and thereby allow the mines to become flooded. Had the mission been entirely successful a serious blow would have been struck against Japanese industry, for in peace time the mines produced 14,000 tons of coal a day. Had the mines been flooded as planned they would have been out of commission for several months and probably for an entire year. Bombs struck in the target area, but the installations were not entirely destroyed.¹²

The B-24 had not been long in proving its value in the theater. The presence of this long-range type plane gave the American forces a much wider choice of targets and thereby made it increasingly difficult for the enemy to predict where blows would fall. For several weeks, while his task force was in the process of being built up, General Haynes adopted defensive tactics with only occasional offensive missions by small flights of heavy bombers.

In China, meantime, General Chennault's task force continued its
effective operations. In October Col. Cooper worked for many hours on
detailed plans for the bombing of the important Kowloon Dock at Hongkong.
Espionage had revealed that Japanese task forces frequently put into
Hongkong on their way to Saigon and to the Solomons. Finally, after the
logistics and tactics of the projected raid had been worked out word came
that the Victoria harbor at Hongkong was packed with Japanese shipping.
In deepest secret, the flyers took off on 25 October. Flying in clear
weather at 17,200 feet, 12 B-25's, seven P-40's blanketed the entire area
of the Kowloon Peninsula west of King's Highway and from a point midway
of the Typhoon Anchorage to the southern tip of the Kowloon Peninsula.
In all, 30,000 pounds of demolition bombs and 850 kilograms of fragmentation bombs hit the area. The bombs were hardly away before the P-40's
engaged an estimated 21 enemy fighters. The leading four planes of the
23d Group employed the following tactics:13 "The leader took the fourth
plane after firing at the lead plane to turn it. Then in succession our
number two took their number three and our number three took their number
two and our last man took their one. It worked and the first four enemy
planes were shot down." The fighters eventually destroyed six and probably
seven more enemy planes. Colonel Scott himself led the individual scores
with two certains and four probables. The only American fighter pilot
forced down was later returned by the Chinese net. In addition to the
enemy planes downed by the fighters, the bombers claimed four with three
more as probables. One B-25 was destroyed and the entire crew either
killed or taken prisoners of war. This was the first bomber lost in comb-
bat with the enemy since the activation of the task force in July, a
remarkable record for almost four months of action. By superior tactics

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and gunnery the Americans had, on this raid, virtually annihilated the Japanese force, getting 30 out of an estimated 31 enemy planes, with American losses of only two, a fighter and a bomber.\textsuperscript{14}

The pounding of Hongkong continued on the night of the 25th when six B-25's without escort took off on the first night bombing mission of the China Air Task Force. The North Point Power Plant had been selected as the specific goal of the mission. The 500-pound bombs completely covered the point, easily recognized in the bright moonlight. The demolition of this plant deprived the Japanese of electricity for the shipyards where they repaired vessels damaged in the South Pacific fighting. After this succession of day and night blows, the Kowloon Dock area, according to the New York Times, presented "an awesome scene of destruction".\textsuperscript{15}

Within a few hours after the Hongkong raiders touched their wheels to the landing strip at Kweilin, three medium bombers were winging their way to Canton which had been bypassed the day and night before. The objective, a gasoline storage area at the Tia Ko airdrome, was blacked out so thoroughly that the bombers had to choose an alternate target. Once again they bombed the Japanese concession. As they turned away from the target, a bombardier counted 20 fires in an area known to be crowded with Japanese storage and dumps. Several explosions "lighted up the bomber formation as though flicked by search lights". Four enemy night fighters engaged the Americans and although one pursued the formation for a hundred miles toward Kweilin, none succeeded in damaging any of the bombers. As a consequence of the interception, however, Maj. Herbert Morgan urged that immediate steps be taken to provide exhaust dampeners. Without them
planes were readily discernible at night and, therefore, vulnerable to attack.\footnote{16}

With the Hongkong raid 35 official missions had been flown by the U. S. bomber unit of the China Air Task Force during the period 1 July to 26 October 1942. In 34 of the missions, the bombers had dropped 1832 bombs totalling 302,433 pounds. This did not include the forays by the two B-25's stationed at Dinjan.\footnote{17}

For the first three months of its existence only seven B-25's had been assigned to the Force. Not until 5 October were reinforcements received. This had increased the bomber unit to a strength of 12 B-25's, 12 six-man crews, and 40 ground men. Before October, however, the average number of planes on each mission was five bombers and five fighters. The P-40's escorted the bombers on 26 missions; six were unescorted. During these raids bombardment gunners alone accounted for five enemy planes with an equal number as probable. General Chenault, Colonel Scott, General Haynes and Lt. Col. Herbert Morgan had achieved enviable results with negligible resources.\footnote{18}

Dinjan, it will be recalled, had been attacked on 25, 26, and 28 October by Japanese aircraft stationed at Lashio. To prevent a repetition of the exploit, the China bombers bombed Lashio on 27 and 28 October. Heavy fog so obscured the field, however, that results could not be estimated. Following the bombing on 28 October, the fighters left the bombers to return unescorted and flew southwest along the rail line from Lashio to Mandalay at which point they split, one section heading north for a sweep over Shwebo and the other southwest to Pakokku.\footnote{19}
In the hope that the Lashio raids had temporarily neutralized the airfield, the task force turned to the other side of China. To close out their October missions, the 23d engaged in the first dive-bombing assault in the China Theater to be undertaken by U. S. fighter-planes. The target was again the Kwloon Docks at Hongkong which had been attacked so successfully by the mediums on 25 October. The P-40's, or "peshooters" as they were now known, obtained a direct hit on one big merchant ship and near misses on two others.\textsuperscript{20}

There was little activity of importance during the first three weeks of November. In a flurry of minor raids, the mediums dropped leaflets on Hmalin, Namson, Indaw, and Tangan deep in the Burma jungles, and bombs on Lungling near the Burma border, while the fighter group engaged 44 enemy planes over Hnum and Kwangsi provinces on 14 November.\textsuperscript{21} The first major mission of the month took place on 23 November. Nine bombers and seven P-40's flew southward from their advance southern base toward the Gulf of Tonkin for another raid on the important port of Haiphong. The night preceding the attack, General Chennault, instead of restricting his ground crew to the post, as was usual before a raid, sent them into town with instructions to spread the rumor that planes were at Kweilin for the second attack on Hongkong. He counted upon the grapevine to carry the report to the enemy. As he had foreseen, the Japanese doubled their aerial patrol over Victoria Harbor at Hongkong, according to early reports from Chinese intelligence. Meanwhile, the Americans took off for Haiphong, flew down the coast unmolested, and sank a Japanese ship of 12,000 to 15,000 tons. Two other ships, one of 6,000 to 8,000 tons and the other about 15,000 tons were badly riddled.\textsuperscript{22}
Later the same day in one of the most successful undertakings of the air war in China, six B-25's and 17 P-40's struck the Tin Ho Airdrome at Canton, leveling hangars, damaging an officer's barracks, igniting an oil storage tank, and destroying 42 planes on the ground. The raiders then flew south to wipe out a section of air installations on Sansim Island south of Canton. Two days later, 25 November, they returned to the same area, bombing shipping on the Pearl River. Precision hits were scored on two 6,000 to 8,000-ton freighters. A straddle salvo crippled a third ship.

During this period the Chinese were trying desperately to repel an attempted enemy crossing of the Sintsiang River near Yokoh. To aid the Chinese, a series of raids were carried out on Hankow, Yokoh, and Siening. Rail lines, waterfront buildings, enemy quarters, rolling stock, railroad stations, and supply concentrations were bombed.

On 27 November, General Chennault assembled the greatest number of planes ever used in a single operation in China up to that time. In all he employed 35 planes: 10 bombers, and 23 fighters. Reversing the policy he had followed on 25 November prior to the Haiphong raid, General Chennault restricted his men to the post. Just as he had expected this caused talk in the right places. Colonel Cooper went into Kweilin and discreetly passed out the news that the main attack was ready. "Somehow he arranged for just the right information to begin its round-about journey to the Japanese. The seed had now been sown." With well-calculated deception, Colonel Scott led his fighters first toward Hankow in the north, where the Japanese expected the attack, and then headed south toward Hongkong. He described the tactics of the raid as follows,
With six fighters weaving in front we "sensed" into the sun continuously weaving. On the right flank 1,000 feet below us I had 8 fighters in two ship section echelon. To the left flank were a like number in same flight echelon but two thousand feet down. Enemy thought we were going to Hankow waited too long and we caught them and we accounted for 21 in 12 minutes. The bombers got two.

In four days, the China Air Task Force had destroyed over 60 enemy planes on the ground and in the air. While the Japanese planes were falling in this raid at the rate of two a minute, the medium bombers stormed shipping and harbor installations and sank two medium size freighters and about 100 barges. The docks and warehouses burst into flame as the incendiaries hit their mark. General Arnold was so impressed with the results of these raids that he sent the following message of congratulation to General Chennault:

You have my commendation and hearty congratulations for the remarkable succession of ably planned and brilliantly executed raids conducted against Japanese shipping, troop concentrations and gun emplacements on Nov. 25, 26 and 27. . . . Your complete success on all missions attempted and the impressiveness of your destruction of Japanese shipping has brought home to the American people the effectiveness of the air arm against surface craft and has emphasized that the Air Forces are superior to the enemy even in our most remote zone of combat. Congratulations to you and your men for a job well done.

A raid on Hon Gay and Camp Ho Fort, on 29 November, closed the month's aerial activity. During that period the China bomber unit had participated in 21 major missions on Japanese installations, including 10 in Burma and Indo-China. According to General Bissell, the American flyers sank five enemy ships of from 2,000 to 12,000 tons displacement. They damaged two 2,000-ton cargo ships and two naval vessels severely. At the cost of two American pilots, the fighter group brought down 39, possibly 52, enemy planes. Many of these planes were shot down during.
the three Japanese raids on American air bases during the month.\textsuperscript{31}

While the China Air Task Force had been earning the commendation of General Arnold the India Air Task Force had been sufficiently reinforced to broaden the scope of its activity and to begin a serious contest for air ascendancy over Burma. Successful attacks were made by small flights of heavy bombers at Rangoon on 5 and 9 November.\textsuperscript{32}

The arrival of the 25th Fighter Squadron from Karachi late in October had enabled General Haynes to use larger flights on strafing sweeps, and the development of the P-40 as a bomber had advanced so rapidly that with it quite serious damage was being inflicted upon limited targets, such as bridges.\textsuperscript{33}

On 20 November General Haynes initiated an air offensive which was destined to last for more than six months, during which heavy damage was inflicted upon the enemy in Burma and Thailand. On that day eight B-24's under the command of Col. C. F. Necrasan caught 600-700 units of rolling stock in the marshalling yards at Mandauley and dropped 40 tons of bombs in their midst. Damage to the rolling stock and to trackage was extensive and several adjacent buildings were destroyed or seriously damaged, warehouses and repair shops included.\textsuperscript{34} No air opposition was encountered and antiaircraft fire was low and ineffective.

Two days later a flight of six B-24's under Maj. Willard A. Fountain made another successful attack on the same target.\textsuperscript{35}

On 25 November nine B-24's of the 9th and 436th Squadrons, led by Colonel Necrasan, took off from Gaya and flew a round trip of 2,760 miles in a successful surprise attack on an oil refinery and power plant at Bangkok, Thailand. The enemy obviously was caught unawares and after
the attack all aircraft were able to return to their bases in India. The mission was claimed as the longest of the war to that date, and reports from eye witnesses confirmed the supposition that the surprise was complete, and that the refinery would be out of commission for a year.35

One of the major objectives of the American forces after the arrival of the long-range bombers was to restrict shipping in the Gulf of Martaban. To accomplish this end they began a regular "milk run" to Rangoon, attacking docks, warehouses, and shipping. In addition to the regularly executed attacks on Rangoon they swept southward to Port Blair in the Andaman Islands on 20 November and attacked shipping there. One naval auxiliary vessel was believed to have been sunk by near misses.37

On 11 December the attack was repeated but no hits or near misses were registered in an attack on a Japanese war vessel.38

The night after Christmas a second mission was flown to Bangkok with 12 B-34's participating. One flight of 3 planes attacked the railroad station, a second flight of 3 attacked the dock area, and a third flight of 6 aircraft bombed an arsenal and power plant. The extent of the damage was not ascertained but 24 bombs were believed to have fallen within the target areas.39

As 1942 came to a close the offensive operations of the India Air Task Force were growing in intensity, and less enemy opposition was being met. Although all bombing missions necessarily were flown without fighter escort, losses were slight. Meanwhile the P-40 fighter-bombers were continuing their harassing attacks on targets in northern and central Burma. Probably the most significant evidence of the effective-
ness of the campaign was that the Japanese failed to follow up their successful attacks of late October on installations in Assam, yet by standards of other theaters the operations were still quite insignificant. From 20 November to 31 December only 198 tons of bombs were dropped by the bombers of the entire India Air Task Force.  

Apparently unable to parry the thrusts of the American bombers, the Japanese began a counter bombing offensive late in December. Calcutta and vicinity were bombed on 20, 22, and 23 December, and Chittagong was attacked on 24 December. Docks, shipping, and airfields were major targets. Attacks on the airdromes at Dum Dum, Alipore, Fenny, and Yunnanyi possibly were indicative that the Japanese believed the American bombing missions were being flown from those fields. In an effort to forestall these counter strokes the China Air Task Force concentrated almost entirely on Japanese airfields and supply dumps in Burma during the last two weeks of December. Lashio was bombed six times, most heavily on 17, 20, 22, and 26 December. With the exception of the mission of 17 December all operations were quite successful. The fighters joined in the efforts of the bombers with sweeps on Dagi-Guoks, Wanling, Tengyueh, Mengmao, and in the last raid of the year on Magwe, 28 December.  

On 23 December General Chennault had been presented the Distinguished Service Medal for exceptionally meritorious service in a position of great responsibility as commander of the China Air Task Force. The recommendation read:

General Chennault has demonstrated keen knowledge of Japanese air tactics and techniques and though greatly outnumbered in planes and essential needs has succeeded in
protecting large portions of unoccupied China from hostile air attack and caused severe losses to the enemy. His understanding of the problems of the China theater has resulted in a high degree of good will between U.S. forces and the people of China.

Although Generals Bissell, Chennault, and Haynes had not been able to accomplish as much as they desired it would seem that they accomplished much more than could reasonably have been expected from their limited resources.

In December General Bissell was still endeavoring to perfect the organization of his air force. He protested to the War Department that no T/O for the Headquarters and Headquarters Squadron, Tenth Air Force, or Headquarters and Headquarters Squadron of the Air Service Command had ever received approval. He used in his request for approval an argument similar to that so recently used by General Arnold in his letter concerning unsatisfactory conditions in the theater—that promotions were being held up and morale was being adversely affected. 44 He urged that prompt action be taken so that seniority of capable officers of demonstrated ability would be protected and added that some of the better officers were being done serious injustice. General Stilwell fully concurred and urged immediate action. 45 The T/O for Headquarters and Headquarters Squadron, Tenth Air Force was immediately approved by cable, but no action was taken on Headquarters and Headquarters Squadron, Air Service Command. 46

One of the peculiarities of organization which General Bissell wished to eliminate concerned the 16th Fighter Squadron. This squadron was a part of the 51st Fighter Group which was based in India, but had been attached for administration and duty to the 23d Fighter Group.
of the China Air Task Force. The squadron had been stationed at Kunming for six months and seemed likely to remain there indefinitely. Both the 51st Fighter Group and the 23d Fighter Group were composed of three combat squadrons, and a direct reassignment of the squadron from one group to the other would result in giving the 23d Group four squadrons while leaving only two for the 51st. General Bissell proposed, however, that the 16th Squadron be reassigned and that two additional squadrons be activated in the theater and assigned to the 51st Group. A reserve was being built up in India at the time and General Bissell asserted that he could activate and implement the two squadrons without receiving additional personnel or aircraft from the United States. The activations were disapproved by the War Department, however, on the ground that it was necessary to have a substantial reserve to take care of the heavier losses which were certain to result as air action increased. Ultimately filler personnel and replacement aircraft in excess of current allocations would be called for, and bottoms were too badly needed elsewhere to allow an increase in shipping space for India. The transfer of the 16th Fighter Squadron was not approved since without the activation of the two new fighter squadrons the maintenance and supply system, based upon two groups of three squadrons each, would be upset. General Bissell maintained that the reassignment would simplify rather than complicate the supply system, but no action was taken.

By December the strength of the Tenth Air Force, while still somewhat short of the 252 planes projected for October in the Arnold-Portal Agreement, had grown in manpower to 1169 officers, 39 warrant officers, and 9,108 enlisted men. As additional airfields were completed the
men were rapidly deployed and requests for personnel continued. Among the most urgent requests was for ground troops to be used to guard American installations. Since the initial administrative conference in March it was understood that the British would furnish such guards, and they had assigned many Gurkhas to the task. But as the number of American installations increased they gave notice that they would not be able to provide enough troops to cover all air fields. Requests already made for ground troops were renewed by Generals Stilwell and Bissell. General Marshall suggested that the British be asked to reconsider their decision, since shipment of men to the theater for guard purposes would result in the displacement of higher priority personnel.

The substantial progress made over the preceding six months is clearly indicated by the formal report of Col. S. M. Karrick of the Inspector General's Department, which was submitted on 23 December 1942 and covered a tour of inspection including visits to Karachi, Delhi, Agra, Allahabad, Ramgarh, Gaya, Calcutta, Dinjan, and Kunming. By contrast with a similar report of the past summer, stagnation of promotion, low morale, and unsatisfactory food and quarters received no mention. The most serious faults noted were in the method of keeping lend-lease records and the inadequacy of the defense provided for the locks at Calcutta, neither of them in the province of the Tenth Air Force. Particular approval was expressed for the successful execution of the policy of living off the land. In spite of the fact that the bulk of lethal supplies was received from the United States more than 50 per cent of the total supplies for American forces had been obtained in the theater.
By the end of the year the combat units of the Tenth Air Force were deployed in eastern India and China. Headquarters of the India Air Task Force was at Barrackpore, near Calcutta, while its bombers were based in the same general region, and its fighters in Assam. The headquarters of the China Air Task Force was at Kunming, and although operations made use of several other airfields, all units claimed Kunming as their home field. Combat squadrons were at that time stationed as follows: at Gaya, the 436th and 492d Bombardment Squadrons (H); at Pandaveswar, the 9th and 493d Bombardment Squadrons, (H); at Chakalia, the 23d and 491st Bombardment Squadrons, (H); at Cndal, the 490th Bombardment Squadron, (H); at Dinjan, the 26th Fighter Squadron; at Sockerating, the 25th Fighter Squadron; at Kunming, the 11th Bombardment Squadron, (H), and the 16th, 74th, 75th, and 76th Fighter Squadrons.53

Wielding the Tenth Air Force into an organization with real offensive potentialities was seriously hampered by the increasing prevalence of the practice wherein posts and stations in intermediate theaters habitually haled air cargoes consigned to the Far East, appropriating whatever was needed. Since the freight consisted of critical supplies with priorities high enough to merit air transportation, these petty pilferings resulted in acute shortages in units actively engaged in combat. During the summer the forces in the Middle East were given authority to withhold materiel originally intended for the China-Burma-India Theater, but General Bissell made a determined effort to halt the practice. One of the worst features was that in many instances when cargoes were tempered with no notification was given either to consignor or consignee. Repeated requests for materials were met with replies that shipment had already been made. It therefore
became impossible to keep accurate records of movements of cargoes. In some instances packing was removed and not properly replaced, causing damage in reshipment. Protests did little more at this time than to direct attention to the irregularities and the possibility of serious consequences, but corrective action was later taken.\(^{55}\)

The end of 1942 did not find all the problems solved nor the Tenth Air Force prepared for extensive operations. The accomplishments of the Americans in the theater, however, were by no means negligible. The Army Service Forces had worked out a satisfactory system for the dispersion of supplies throughout the theater. The Karachi Air Base was well established as a center for the reception, classification, and training of men who arrived in India. The Air Service Command had established depots and bases across India and in China, and was gradually increasing the efficiency of its supply and maintenance of combat units. The air task forces in China and India had been able to protect the vital air transport line and at the same time take offensive action against enemy targets in Burma, China, Thailand, and Indo-China. In the realm of the intangible, too, the accomplishments were considerable. Relations between the Americans and the natives of India and China had been established on a friendly basis. The mutual distrust that existed between the Chinese and the British was slowly being minimized by the diplomacy of American military leaders. Command relations had been crystallized. Despite the comparatively modest scale on which the accomplishments of 1942 must be measured, the promise of future exploits already suggested the importance of the foundations laid during this difficult period.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAG</td>
<td>Air Adjutant General</td>
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<tr>
<td>ABDACOM</td>
<td>American-British-Dutch-Australian Command</td>
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<tr>
<td>AC/AS</td>
<td>Assistant Chief of Air Staff</td>
</tr>
<tr>
<td>AC/S</td>
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<tr>
<td>AF</td>
<td>Air Force</td>
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<td>AFAFC</td>
<td>Flight Control Command</td>
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<td>AFPDP</td>
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<td>Air Defense</td>
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<td>War Organization and Movement</td>
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<tr>
<td>AGO</td>
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<tr>
<td>ACWAR</td>
<td>Adjutant General, War Department</td>
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<tr>
<td>AMMDEL</td>
<td>American Military Mission in Delhi or General Stilwell's Hq., Rear Echelon</td>
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<tr>
<td>AMMCHSA</td>
<td>American Military Mission in China or General Stilwell's Hq., Advanced Echelon</td>
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<tr>
<td>AMOBSIN</td>
<td>American Military Observer in India</td>
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<tr>
<td>Aquila</td>
<td>Headquarters, Tenth Air Force</td>
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<tr>
<td>AS/W</td>
<td>Assistant Secretary of War</td>
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<td>Air Transport Command</td>
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<td>American Volunteer Group</td>
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<td>C/AC</td>
<td>Chief of Air Corps</td>
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<tr>
<td>CAMCO</td>
<td>Central Aircraft Manufacturing Corporation</td>
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<tr>
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<td>Chief of Air Staff</td>
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<tr>
<td>CATF</td>
<td>China Air Task Force</td>
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<tr>
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<td>China-Burma-India</td>
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<tr>
<td>CNAC</td>
<td>China National Airways Company</td>
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<td>Chief of Staff</td>
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<td>demo.</td>
<td>demolition</td>
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<td>frags</td>
<td>fragmentation bombs</td>
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<tr>
<td>G-2</td>
<td>Army Intelligence</td>
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<tr>
<td>IGD</td>
<td>Inspector General's Department</td>
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<tr>
<td>incend.</td>
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<tr>
<td>kgs.</td>
<td>kilograms</td>
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<tr>
<td>MILID</td>
<td>Military Intelligence Division</td>
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<tr>
<td>OCSR</td>
<td>Operations, Commitments, and Requirements</td>
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<td>Office of Naval Intelligence</td>
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<td>Ord.</td>
<td>Ordnance</td>
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<td>Operational Training Unit</td>
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<td>WPD</td>
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NOTES
Chapter I

1. History Headquarters Tenth Air Force (1942); memo for C/S by AAF
HQ., 20 Feb. 1942, A3-IV-D-1; India, in AG/A3, Plans; CAT-OUT-29

2. Ibid.

3. CAT-OUT (Unnumbered) (1 Mar. 42), AG/A3 to Brereton, AG 3/7,
1 Mar. 42.

4. For formation and implementation of the policy of aid to China
see: ltr., C/S to Brig. Gen. Henry B. Gage, AG, Philippine
Dept., 29 Mar. 1941, in AG 000-300, India-China; ltr., Maj. P. S.
Timberlake, Recorder, Joint Aircraft Committee, to Maj. Gen. J. H.
Burns, U. S. Army, 19 Apr. 1941, in AG 450, India-China, memo for
Chief of AAF by Maj. P. S. Timberlake, 13 July 1941, in AG 450,
India-China; ltr., R. H. Elliott, Asst. Comptroller Gen. of the
United States to J., 13 July 1941, in AG 000-300, India-China;
ltr., Lauchlin Currie to Robert A. Lovett, AS/1, 15 Aug. 1941, in
AG 000-300, India-China; memo for The Chief of Staff by Gen. John
Magruder, 13 Aug. 1941, in AG 000-300, India-China; ltr., Maj.
Gen. H. H. Arnold, Chief of AAF, to British Air Commission,
Washington, D.C., 19 Aug. 1941, in AG 000-300, India-China; memo
for C/S by Brig. Gen. L. T. Gerow, Acting C/S, J7, 26 Aug. 1941,
in AG 000-300, India-China; memo for J7, J7, by Brig. Gen.
Carl Spaatz, 16 Sep. 1941, in AG 000-300, India-China; notes on
Conference Reference Organization of China Aid Requests, sg'd. by
Maj. Carl D. Silverthorne, 16 Sep. 1941, in AG 000-300, India-
China; ltr., Robert A. Lovett, AS/3, for Air, to Capt. Richard
Alworth, c/o Mr. Lauchlin Currie, The White House, 17 Oct. 1941,
in AG 000-300, India-China; ltr., Robert A. Lovett, AS/3, for Air,
to Mr. Lauchlin Currie, The White House, 17 Oct. 1941, in AG 000-300,
India-China; radiogram, Magruder, Chungking, to C/S and J7, 8 Nov.
1941, in AG 000-300, India-China; radiogram, Col. Claire L.
Chennault to J7, 12 Nov. 1941, in AG 000-300, India-China; ltr.,
Capt. Richard Alworth to Mr. Currie, 13 Nov. 1941, in AG 000-300,
India-China; Air Study Pertaining to Proposed Reinforcement of China
with LIF Units for the Purpose of Assisting the Chinese to Resist
the Possible Japanese Attack Against Kunming, 20 Nov. 1941, in AG
000-300, India-China; memo for Gen. Spaatz, unsigned, 21 Nov.
1941, in AG 000-300, India-China; radiogram, Col. Chennault to Mr.
Currie, 21 Nov. 1941, in AG 000-300, India-China; memo for Mr.
Lauchlin Currie by Gen. Cate, Land-Lease Administration, 25 Nov.
1941, in AG 000-300, India-China; memo for C/S by Gen. Spaatz,
7/19, 3 Dec. 1941, in AG 000-300, India-China.

5. Claire L. Chennault, "Role of Defensive Pursuit," in Coast Artillery
Journal, Part I (Nov.-Dec. 1933), 411-417; Part II (Jan.-Feb. 1934),
7-11; Part III (Mar.-Apr. 1934), 57-95.


10. William Pawley and his brother, Edward, international aviation entrepreneurs, operated an assembly plant at Lohbarding, on the Burma-China border, where early Curtiss-Wright models were manufactured. After the plant was captured by the Japanese, Pawley went to Bangalore where he was associated with the Hindustan plant. Ltr., Gen. Brereton to Gen. Oliver, New Delhi, 21 Mar. 1942, in AG 400, India-China.


14. C-I: (Unnumbered) (15 Feb. 42), AG: Java to T.G., gd, Brett, 1/123, 15 Feb. 42; C-I: (Unnumbered) (20 Feb. 42), Brett to 1/123, in 311.22, Cables from Java, in I-III files.

15. C-I: (Unnumbered) (6 Mar. 42), Brereton to Arnold, 1-25 January File, AG, in 1-2 Library.


17. C-I: (Unnumbered) (2 Mar. 42), Brereton to Arnold, AG/AG, 1/123/3516, 2 Mar. 42.


20. History of 51st Service Group (1941-1942); History of Headquarters Tenth Air Force (1942).
21. Ibid.; History of 51st Service Group (1941-1942); History of 51st Fighter Group; History of 7th Bombardment Group; History of 436th Bombardment Squadron (1942).

22. C-2 (Unnumbered) (23 Mar. 42), Brereton to AG, 112, 26 Mar. 42; C-2 (Unnumbered) (19 Mar. 42), Brereton to Arnold, 129, 17 Mar. 42.

23. See note 21.


25. C-2 (Unnumbered) (2 July 42), Beiden to AG, 129, 23 July 42, 7 July 42. This condition was remedied for units which arrived in later convoys. Equipment for the 23rd Pursuit Squadron which went into action in China on 1 July was not to leave the United States until August, and even then then motor transport was not to be included. C-3 (Unnumbered) (8 July 42), Marshall to Aquila, 278, 11 July 42; History of Headquarters Tenth Air Force (1942).


27. C-2 (Unnumbered) (16 Apr. 42), Brereton to Arnold, 129.


30. Record of meeting held 22 Mar. 1942, Subject: Supplies and Services to be rendered to U.S. forces in India, forwarded as shipment 118 from 9th AF, "Papers relating to USAF in India, 1942."


32. The following are distances over routes most commonly used:

- New York to Bombay via Cape of Good Hope: 11,341 nautical miles
- New York to Karachi: 11,398 miles
- New York to Calcutta: 12,299 miles
- San Francisco to Calcutta via south Australia: 13,005 miles
- San Francisco to Bombay: 13,563 miles
- San Francisco to Karachi: 14,028 miles

(1,000 nautical miles is the approximate equivalent of 1,151 statute miles.)
33. The first convoy to go directly from the United States to India required exactly 60 days.

34. The capacity of the port at Karachi was rapidly increased by the transfer of port equipment from Iran. Storage facilities were not adequate but rainfall was so light that during a large part of the year a satisfactory outdoor storage system could be used. Maximum dispersion was essential in the case of high explosives and aviation gasoline, and sufficient space was rapidly acquired from the British. Underground storage of aviation gasoline was at first contemplated, but the exigency of the situation brought about the construction of bolted tanks above ground. As the tactical situation in the Indian Ocean improved the idea of underground storage was abandoned. C--EI--5936 (16 June 42), Meeler to Somervell, C--1965, 16 June 42; C--EI--2415 (26 Apr. 42), Aquila, 4165, FC 689, 26 Apr. 42; C--EI--6937 (20 July 42), Osman to HIRAD, 330, 20 July 42.


36. There are approximately 21,000 miles of broad gauge tracks, 16,000 miles of meter gauge, and 4,000 of the two narrower gauges. None of these is equivalent to American standard gauge. Ibid., 8; War Department Survey, 63.

37. The only permanent bridge across the Ganges east of Benares is the Hardinge Bridge, just west of Patna. Strategic Survey of North-eastern India, Research and Analysis Branch, OSS, 19 Jan. 1943.

38. More than 230 locomotives and approximately 1,100 cars of various types had been sent to the Middle East; Grady report, 9-10.

39. It was estimated that with constant shipping halt 1,620 tank cars would be needed for the Calcutta area alone, and there were only 1,500 tank cars in all India. A pipeline from Bombay to Calcutta or Allahabad seemed to be the only solution. Ibid., 8, 11-16.
40. At the time the United States entered the war the average speed of freight trains was 11 miles per hour, exclusive of stops. *War Department Survey,* 125. On the less crowded broad gauge line from Agra to Bungalows as late as 1942 it required three days to go approximately 1,000 miles. Interview with Maj. Marvin Horton, 16 Nov. 1943.


42. There were many miles of hard-surfaced roads but extreme heat followed by incessant rains caused the surfaces to disintegrate rapidly, and constant maintenance would be necessary to keep them usable. The *Grady Report* estimated that there were 93,000 miles of all-weather roads but the War Department Survey nearly a year later stated that there were only 60,000 miles. *Ibid.,* 14; *War Department Survey,* 63.

43. Intelligence Extracts, Headquarters U. S. Air Forces in India and China, 10th AF, India, 37.

44. There were less than 20,000 trucks in India and the Grady Commission estimated that a aboard of 10,000 vehicles would have to be imported. *Grady Report,* 14.

45. The *Grady Report* stated that the "rivers are not so located as to relieve the railways of much of their present burden." *Grady Report,* 5.

46. Minutes of an Administrative Planning Conference held at Air Hq. (Dhah), 15 Mar. 1942, forwarded as "Papers relating to the U.S. in India, 1942," shipment 18 from 9th AAF.


49. Interview with Maj. Marvin Horton, 16 Nov. 1943.


51. Minutes of Third Meeting of Administrative Planning Committee held at Air Hq. (Dhah) 20 Mar. 1942, forwarded as "Papers relating to U.S. in India, 1942," shipment 18 from 9th AAF.
52. The following statistics based on past 10 years show temperature, humidity, and rainfall for the monsoon months in northeast and northwest India: 0.°E. to 3097 (12 May 42), 0.°W. to 1600, 9. May 42.

<table>
<thead>
<tr>
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<th>NORTHWEST INDIA</th>
<th>NORTEAST INDIA</th>
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<tbody>
<tr>
<td></td>
<td>T.F.</td>
<td>HUMIDITY</td>
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<tr>
<td></td>
<td>max.</td>
<td>min.</td>
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<tr>
<td>May</td>
<td>93.1</td>
<td>75.0</td>
</tr>
<tr>
<td>June</td>
<td>99.8</td>
<td>77.3</td>
</tr>
<tr>
<td>July</td>
<td>88.7</td>
<td>77.5</td>
</tr>
<tr>
<td>Aug.</td>
<td>88.2</td>
<td>77.6</td>
</tr>
<tr>
<td>Sep.</td>
<td>88.6</td>
<td>76.7</td>
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These are averages for extensive areas. In Assam the rainfall per year is much higher than for northeast India as a whole.

53. On the Lacho road project when one was asked about progress during the monsoon the stock reply was, "well, we lost only a quarter of a mile yesterday." William Durkin in New York Times, 10 Nov. 1943. At one point in Assam the rainfall for a year was almost 1,000 inches. War Department Survey, 55.

54. Dust in the Karachi-Lahore region often rose to an altitude of 15,000 feet and was described as being worse than the dust bowl of the United States. Interview with C. J. Harper and L. E. McAlister, Allison representatives, 16 Aug. 1943; interview with Col. G. H. Hardt, 15 July 1943. Gen. Brereton soon recommended that engines replacements for India be doubled since engines were going bad at twice the normal rate. He later said that the greatest handicap in bombing Rangoon was excessive consumption of oil resulting from dust. C.-E.5789 (22 Apr. 42), Brereton to A.G.H.R., Aquila 456, 22 Apr. 42; C.-E.5789 (3 May 42), Brereton to A.G.H.R., Aquila 777, 5 May 42; C.-E.5789 (13 Apr. 42), Brereton to A.G.H.R., Aquila 335, 13 Apr. 42; interview with Col. Homer L. Sanders, June 1943.

55. Of the operations at Toungoo Gen. Stilwell said: "Operations at Toungoo hampered by breakdown of transport, delay in supplies, rotten communications, sabotage by natives and politics in the Army. These troubles fade into insignificance in comparison to the lethargy, incompetence, and disregard of orders amounting to disobedience on the part of division and army commanders. Unfortunately my power stops for short of shooting. A fine chance for a blow at the gaps was ruined by craven obstruction by above mentioned commanders. They let me down completely by a chicken-hearted imitation of an attack, by promising which to the British I got the latter to make a general attack. Am afraid I have now lost face with the British... Under existing conditions I cannot remain in command of the Fifth and Sixth Armies without being stung for Chinese, who can bypass me for anything they want to do and then blame me for the results."
confidence in Chinese soldier who requires only equipment and leadership to be equal of anyone." C-7-L-0262 (1 Apr. 42), Stilwell to LCR, 20 AUG 43, 432, 1 Apr. 42.


57. History of India-China Ferry Command (1942).
Chapter II

1. CI-IN (Unnumbered) (23 Mar. 42), Brereton to AG-OIR, Aquila 125, 29 Mar. 42.

2. Interview with Brig. Gen. Clinton L. Russell, 4 June 1942; CI-IN (Unnumbered) (2 Mar. 42), Brereton to Arnold, AAF 516, 2 Mar. 42.


4. Ibid.; History of Tenth Air Force Service Command (1942); CI-IN (Unnumbered) (2 Mar. 42), Brereton to Arnold, AAF 516, 2 Mar. 42; CI-OUT-35, (5 Mar. 42), Arnold to Brereton, AAF 3/39, 5 Mar. 42.

5. Ibid.


7. CI-OUT-57 (20 Mar. 42), Ulio to Brereton, AAF AC 165, 20 Mar. 42.

8. It has been found that there is an inclination on the part of men in active theaters to minimize actual strength, particularly the number of operational aircraft. The absence of formal aircraft status reports from the China-Burma-India Theater during the early months of 1942 makes it almost impossible to ascertain the exact number of planes available for use at any specified date.

9. A report on the movement of 69 P-40's deck-loaded on the Ranger and flown across Africa in June 1942 reveals the haste with which such actions were being taken at that time and some of the resulting confusion. Some of the pilots were sent on the project because they were not wanted in the organization to which they were assigned, and there was no time for a thorough briefing of. Many had very little flying time on P-40 type aircraft. Some of the planes were in poor mechanical condition and the armament was inferior. The planes were loaded on the Ranger at Casablanca and the planes flown off the deck when off shore near Khartoum. All planes took off safely from the carrier although practically none of the pilots had ever taken off from a carrier before. On the flight across Africa poor navigation caused two convoy to get lost and resulted in the loss of nine planes. By 19 June only 50 of the planes had been delivered to Karachi. Some of the other planes were later repaired along the way and reached India. Report on P-40 Mission, Special Project 137, by Lt. Col. John S. Burd, 19 June 1942, in History of Headquarters Tenth Air Force (1942).

10. CI-IN-2/60 (3 June 42), Brereton to AG-OIR, Aquila 1724, 3 June 42.
11. C.-I. 70 (4 Mar. 42), Brereton to A.G. 244, Aquila 64, 4 Mar. 42; C.-I. (Unnumbered) (26 Mar. 42), Brereton to Arnold, Aquila 1, 23 Mar. 42; C.-I. (Unnumbered) (26 Mar. 42), Brereton to A.G. 244, Aquila 131, 23 Mar. 42.


14. C.-I. (Unnumbered) (4 Mar. 42), Brereton to A.G. 244, Aquila 64, 4 Mar. 42; C.-I. (Unnumbered) (29 Apr. 42), Brereton to Arnold, Aquila 633, 29 Apr. 42.

15. C.-I. 7025 (26 Apr. 42), Brereton to A.G. 244, Aquila 351, 26 Apr. 42; C.-I. 4901 (13 May 42), Brereton to A.G. 244, Aquila 693, 18 May 42. The P-39 was then considered superior to the P-40 in everything except maneuverability. Report by Lt. Col. B. D. Harper to OS, USAF, 14 May 1942, in A.G. 244, Methods-TRAIN Conducting TRAIN. Because of gas tank leakage and resultant fires all P-43's received by the Chinese were grounded until the defect could be remedied. It was with one of these grounded planes that Col. Scott attempted to protect the ferry route in Burma. Colonel Scott said of the P-43: "but their fuel tanks had developed leaks, and then you added to that the fact that the turbo was underneath the rear of the fuselage, the greatest fire hazard in the world was born." Scott, Cod is Co-Pilot, 39.


17. C.-I. (Unnumbered) (30 Mar. 42), Brereton to A.G. 244, Aquila 5, 31 Mar. 42.


20. Similar views had already been expressed by General Brereton and General Elliott from Java and by General Patch of the American Military Mission to China. It will be noted that these views were expressed by General Patch of the American Volunteer Group during the training period in Burma some months earlier. Col. Homer L. Sanders of the 1st Pursuit Group had gone to Calcutta during March to study the tactics used by the AVG; C.-I. (Unnumbered) (30 Mar. 42), Brereton to A.G. 244, Aquila 5, 31 Mar. 42; interview with Col. Homer L. Sanders (Air Room), June 1943.
21. CM-IN (Unnumbered) (17 Feb. 42), ABDACOM to AGWAR, #37 DX, 17 Feb. 42; CM-IN (Unnumbered) (20 Mar. 42), Brereton to AGWAR, #Aquile 5, 31 Mar. 42.

22. CM-IN (Unnumbered) (19 Feb. 42), ABDACOM to AGWAR, #17, 19 Feb. 42; CM-IN (Unnumbered) (15 Mar. 42), Brereton to Arnold, #Aquile 8, 13 Mar. 42.

23. CM-IN (Unnumbered) (17 Mar. 42), Brereton to Arnold, #Aquile 88, 16 Mar. 42.


26. Ibid.


28. Ibid. The raid was unusual because of the fact that it was personally led by a major general. This appears to have been the first American air action of the war conducted by a general officer.

29. CM-OUT-0947 (6 Apr. 42), Marshall to Brereton, #113, 6 Apr. 42.

30. Ibid.

31. Before the final decision was made to place the air force in India the higher ranking American officers in the Southwest Pacific had agreed that the new theater should be under an American commander and that air activities by the American force should not be under Royal Air Force control. When General Brereton arrived in India he was informed that his mission was to prepare for operations in China under the direction of General Stilwell. When the fall of Rangoon precluded operations in China, he continued operations in India and Burma and there was no official change in the mission. When the question arose at Delhi, General Brereton suggested that a final decision be postponed since he had received no full instructions concerning the activities of his air force. CM-IN (Unnumbered) (20 Feb. 42), Java to AGWAR, #2, 20 Feb. 42; CM-IN-72 (21 Feb. 42), ABDACOM to AGWAR, #492, 21 Feb. 42; CM-OUT (Unnumbered) (26 Feb. 42), Arnold to Brereton, #AF 2/473, 26 Feb. 42; minutes of second meeting of the Administrative Planning Committee held 22 Mar. 1942 at Air Hq. (Delhi); forwarded as "Papers relating to USAAF in India (1942)," in shipment #18 from 9th AF; memo for G/S by AAF Hq., 20 Feb. 1942, in WP-IV-D-4 India, Off. Services Div., AC/AS, Plans; ltr., Gen. Arnold to Col. Hayes, 21 Feb. 1942, in WP-IV-D-4 India, Off. Services Div., AC/AS, Plans; ltr., Gen. Brereton to Gen. Arnold, 6 Mar. 1942, in AAG 210.66, Military Detail.

32. CM-IN-7661 (29 Apr. 42), Stilwell to AGWAR, #ANHUSCA 610, 29 Apr. 42.
33. General Stilwell and others in Chungking continued to warn the War Department of the suspicion and distrust that the Chinese felt toward the British. C-EL-4540 (17 Apr. 42), Stillwell to SCOR, (by LGa. 62, 16 Apr. 42); C-EL-54903 (18 Apr. 42), Stillwell to SCOR, (by LGa. 54, 13 Apr. 42).

34. C-OUT-3919 (21 Apr. 42), Marshall to Aquila, 192, 20 Apr. 42.

35. C-EL-5405 (24 Apr. 42), Brereton to SCOR, Aquila 496, 24 Apr. 42.

36. Ibid.

37. C-EL-6746 (25 Apr. 42), Brereton to SCOR, Aquila 541, 25 Apr. 42.

38. C-EL-5601 (29 Apr. 42), Stillwell to SCOR, (by LGa. 610, 29 Apr. 42).

39. C-EL-5335 (3 May 42), Gruver to SCOR, (by LGa. 630, 2 May 42).

40. C-EL-2699 (3 May 42), Brereton to SCOR, Aquila 736, 3 May 42.

41. C-EL-1395 (5 May 42), Stillwell to SCOR, Aquila 24, 5 May 42.

42. C-OUT-5022 (24 May 42), Marshall to Stillwell, 1713, 24 May 42.

43. C-EL-7097 (30 May 42), Stillwell to Marshall, (by LGa. 1361, 25 May 42).

44. C-EL: (Unnumbered) (17 Jun. 42), Brereton to Arnold, Aquila 38, 17 Jun. 42.


46. C-EL: (Unnumbered) (23 Jun. 42), Brereton to SCOR, Aquila 131, 23 Jun. 42.

47. President Roosevelt had approved the ladation as early as 18 December 1941 contingent upon the approval of the Generalissimo. Memo for AS/J., John J. McCloy, from Brig. Gen. Gordon P. Saville, Dir. of Air Defense, in UFO 300-2, China, Burma, India.

49. C.-IL-2309 (6 May 42), Breerton to ACIN, Aquila 736, 3 May 42;
C.-OUT-507 (10 May 42), Marshall to Aquila, 732, 10 May 42.

50. C.-OUT-1676 (4 May 42), Marshall to Breerton, 723, 3 May 42.

51. C.-IL-5952 (21 Apr. 42), Breerton to ACIN, 423, 21 Apr. 42.

52. C.-OUT (Unnumbered) (23 Apr. 42), Marshall to Aquila, 220,
23 Apr. 42.

53. C.-IL-7244 (23 May 42), Stillwell to ACIN, ACBSCA 72, 31 May 42.
General Breerton was later told by General Marshall that Malpro
would be assigned to the Tenth Air Force, but gave no indication
as to when the assignment would be made. C.-OUT-4614 (19 June 42),
Marshall to Stillwell and Breerton, 594, 19 June 42.

54. RG 24, Gen. George, IIAC, to AC/CI, CZA, 14 June 1943, in IIAC 683.2,
Visits.

55. C.-IL-3672 (10 Apr. 42), Breerton to ACIN, Aquila 239, 9 Apr. 42.

56. C.-OUT (Unnumbered) (10 Apr. 42), Marshall to Breerton, 128,
10 Apr. 42.


58. C.-IL-4990 (19 Apr. 42), Breerton to Arnold, 393, 18 Apr. 42.

59. C.-OUT-195 (21 Apr. 42), Arnold to Stillwell, IAC 631, 19 Apr. 42.

60. Ltr., Brig. Gen. C. V. Keyes to Lt. Col. Samuel T. Moore, historian,
10th AF, 20 Apr. 1943, in History of India-China Ferry Command
(1942).

61. Colonel Old is not to be confused with Gen. Robert Olds of the
Ferry Command. Colonel Keyes has been told by General Arnold
that he would command a bombardment group in India and was some-
what disappointed at his first assignment. Ltr., Gen. Arnold to
AC/A3, Flies.

62. History of India-China Ferry Command (1942); C.-IL-7009 (26 Apr.
42), Breerton to ACIN, Aquila 549, 26 Apr. 42.

63. The Tenth Air Force historian states that two planes were lost when
they failed to locate the field at Dinjan. General Keyes says
that one made a forced landing in a dry river bed and was flown
out by Major Joplin. Colonel Scott describes the place where
Major Joplin made the take-off as a rice paddy. It would appear,
however, that all 10 of the aircraft were used in subsequent
operations. History of India-China Ferry Command (1942); Ltr.,
Brig. Gen. Keyes to Col. Moore, 20 Apr. 1943, in History of India-
China Ferry Command (1942); Scott, God is by Co-Pilots, 88.
64. History of India-China Ferry Command (1942).

65. C-IC and R.F were operating planes out of Dinjan at the same time but were not included in this figure; ibid.


67. Ibid.

68. Ibid.

69. C-W-2701 (9 June 43), Brereton to AGISR, Aquila 1700, 9 June 43.

70. In addition to regular duty, some of the men served as guards to prevent sabotage of the aircraft. Ltr., Gen. Haynes to Col. Moore, 20 Apr. 1943, in History of India-China Ferry Command (1942); ltr., Capt. A. T. Boyer to Col. Robert F. Tate, 6 May 1942, in British Empire 5940, ink-2 Library.

71. The civilian airline pilots were accustomed to carrying a load of 2,500 pounds. Army pilots were flying 6,000 pounds into Dinjan and 5,000 pounds into China. A compromise of 4,000 pounds was reached for the flight to China, but Colonel Haynes flew 7,200 pounds eastward and a CIC pilot brought 6,920 pounds from Kunming to Dinjan. Colonel Haynes states that one plane hauled 75 passengers out of Burma and Colonel Scott cites a case of 74 being hauled in one load. Ltr., Gen. Haynes to Lt. Col. Moore, 20 Apr. 1943, in History of India-China Ferry Command (1942); Scott, God Is My Co-Pilot, 116.

72. Interview with Albert S. Nelson, Bendix Representative, 29 June 1943; C-IC (Unnumbered) (19 May 42), Aquila to AGISR, 21135, 18 May 42.


74. Ibid.; Scott, God Is My Co-Pilot, 105; Golden, Retreat with Stilwell, 244.

75. C-W-2821 (10 May 42), AICISR to AGISR, #3, 10 May 42; C-W-3536 (13 May 42), Aquila to AGISR, (Unnumbered), 13 May 42.

76. Of his experience General Stilwell said: "To be run out of Burma was a humiliating experience and the inadequacy of my efforts to prevent it is keenly felt by me." C-W-7262 (26 May 42), Stilwell to AGISR, AICISR 62, 26 May 42.

77. C-W-5639 (21 June 42), Brereton to Arnold, Aquila 2172, 20 June 42; ltr., Gen. Haynes to Col. Moore, 20 Apr. 1943, in History of India-China Ferry Command (1942); Scott, God Is My Co-Pilot.

79. See Appendix.

80. The 1st Ferrying Group was assigned to the Tenth Air Force according to 46-370.2 (17 Apr. 1942) to Commanding General, Air Service Command, Tenth Air Force and Air Corps Technical Training Command. It cannot be said when General Brereton received notification of this assignment.


82. Ibid.

83. History of 57th Service Squadron (1940-1942)

84. Ltr. for G/0-35 by Col. H. A. Craig, 4 Apr. 1942, in AG 321.9-2a; G-401-99 (2 Apr. 42), Arnold to Brereton, 18 Apr. 42, 2 Apr. 42.


86. History of 57th Service Squadron (1940-42); History of Headquarters, Tenth Air Force Service Command (1942).

87. Ltr., Brereton to Air Marshal Sir E. S. G. Peirse, 1 May 1942; ltr., Peirse to Brereton, 17 May 1942, both in History of Tenth Air Force Service Command (1942).


89. l-2 Summary File, 7 Apr. 1942.

90. Ibid., 13 Apr. 1942; G-III-4533 (17 Apr. 42), Brereton to Arnold, Aquila 256, 17 Apr. 42.

91. l-2 Summary File, 2 May 1942.

92. Ibid., 5 May 1942; G-I-1663 (6 May 42), Brereton to A.G, Aquila 754, 6 May 42.

93. l-2 Summary File, 6 May 1942; G-I-1703 (7 May 42), Brereton to A.G, Aquila 514, 7 May 42.

94. l-2 Summary File, 9 May 1942.

95. G-I-4078 (13 July 42), Peirse to A.G, Aquila 2134 L, 17 July 42.

96. l-2 Summary File, 12 May 1942.

97. Ibid., 14 May 1942.
98. Ibid., 17 May 1942.

99. Ibid., 27 May 1942.

100. Ibid., 29 May 1942; C'-E-6353 (29 May 42), Aqulia to A.G.A., 1407, 29 May 42.

101. A-2 Summary File, 30 May 1942; C'-E-7196 (30 May 42), Aqulia to A.G.A., 1476, 30 May 42.

102. General Brereton was probably exaggerating when he stated that all the heavy bombers were out of commission when orders came for him to take them to the middle east most of the planes were flown out. They were certainly not in first-class combat condition, but it is extremely doubtful if they could have been made flyable in such a short time. C'-E-2666 (9 June 42), Brereton to Arnold, Aqulia 1755, 9 June 42; C'-E-4475 (14 June 42), Brereton to A.G.A., Aqulia 1922, 14 June 42; C'-E-2639 (21 June 42), Brereton to Arnold, Aqulia 2172, 21 June 42.

103. A-2 Summary File, 1 June 1942; C'-E-6293 (1 June 42), Aqulia to A.G.A., 1503, 1 June 42.


105. See note 102.

106. An intelligence officer reported that despite glowing reports from New Delhi, our heavy bombers "have not slowed enemy operations in Burma." A-2 Summary File, 30 May 1942. Expressions like "a number of bombs were dropped," "many fires," "burning fiercely," "visible for 100 miles," "large explosions," "left in flames," appeared with regularity in communiques and news releases. On one occasion the New York Times stated that the flights of B-17's had carried out a mission. In reality each flight consisted of one B-17. New York Times, 6, 7, 9, and 19 Apr. 1942, 5, 6, 9, and 29 May 1942, 1 June 1942.

107. This same news story stated that the air force in India was growing daily and indicated that the Seventh Air Force was ready to undertake three major efforts: to establish in aerial supply route to China; to drive the Japanese out of Burma; and to launch a large scale air offensive against the Japanese from India. Ibid., 1 June 1942.


109. C'-E-6955 (26 Apr. 42), Brereton to A.G.A., Aqulia 534, 26 Apr. 42; C'-E-6074 (19 June 42), Brereton to A.G.A., Aqulia 2052, 19 June 42; C'-E-5965 (7 June 42), Brereton to A.G.A., Aqulia 1673, 6 June 42.

111. OJT-7202 (22 June 42), Brereton to AG/R, Aquila 2112, 22 June 42.


113. OJT-OUT (Unnumbered) (11 Mar. 42), AG/R to Aquila, 41, 11 Mar. 42; OJT-3494 (3 June 42), Genun to MILDA, 221, 3 June 42.

114. OSS 39/1, Relation of Merchant Shipping Losses to Prosecution of War, 11 Mar. 1942.

115. OJT-OUT-5700 (23 June 42), Marshall to Brereton, 612, 23 June 42.

116. OJT-OUT-4411 (19 June 42), Marshall to Brereton, 531, 19 June 42; OJT-OUT-6563 (26 June 42), Arnold to Brereton, 643, 25 June 42; OJT-OUT-2279 (9 July 42), Arnold to Stillwell, 62, 3 July 42.

117. OJT-OUT-3133 (25 June 42), Brereton to Marshall, Aquila 2319, 25 June 42.

118. History of 9th Bombardment Squadron (1942).

119. OJT-OUT-05337 (14 Oct. 42), Bissell to AG/R, Aquila 5935, 14 Oct. 42.
Chapter III

1. Eq. 10th AF, CO 15, 26 June 1942; C-IN-3793 (25 June 42), Naden to AG SRC, A/2332, 26 June 42.


3. C-425-CO/6 (1 Apr. 42), Marshall to Brereton, 93, 1 Apr. 42.

4. Minutes of an administrative planning conference held at Air HQ, Delhi, 15 Mar. 1942, forwarded to "Papers relating to the U.A.F. in India, 1942," in shipment 18 from 9th AF.

5. C-89-CO/9 (5 Apr. 42), ADSC to AG SR, 442, 2 Apr. 42.

6. Ibid.; C-89-CO/11 (8 June 42), ADSC to AG SR, 331, 17 June 42; C-LI-7624 (28 May 42), Stillwell to AG-1, ADSC, 73, 27 May 42.


8. The men with whom General Chennault came into contact were unanimous in the opinion that he was an excellent leader and that the men who served under him respected and admired him. General Bissell said: "Chennault and others have done wonders with very little but they cannot do the impossible." C-IN-3794 (19 May 42), Bissell to AG-3R, 3AD, Stillwell, ADSC, 707, 19 May 42. Lt. Col. John Allison, who later served with General Chennault said: "It was a pleasure to serve under Chennault. He knew the Japanese, and he saved lives by his experience." Interview with Lt. Col. John Allison, 3 July 1943. Col. H. Bacon, ex-C3 Flight Leader gave credit for much of the success of the 173 to Chennault's inspiration, lectures, and training. Interview with H. R. Bacon, 22 Apr. 1943. Maj. L. J. Soward, who had served in the Spanish Civil War before going to China said: "We (Chennault) is probably one of the fathers of American Pursuit Tactics. . . . The Japanese are now more cautious in dealing with Chennault." Interview with Major Soward, 21 Mar. 1943. Col. H. C. Cooper who served as Chief of Staff of the China Air Task Force said: "Chennault has the complete confidence of his men and they do not question his decisions as they feel no into going to him." (See by Col. Cooper in Gen. Johnson's staff meeting, 23 Dec. 1942, and by Maj. H. C. Lint, in JAC 237, Conference. Maj. Larvin Norton said: "I've talked with a lot of men who are pilots to highest ranking officers and all the men served under Chennault speak of him with the highest respect. . . . The Chinese think that he is practically Jesus Christ himself. . . . It's simply marvelous that one man can command the respect and thoughts of so many." Interview with Maj. Norton, 19 Nov. 1942. Col. L. R. Lander said: "The success of the AVG was largely due to the tactical genius of Gen.
Chennault. In my opinion he is one of the best air leaders in the world. He has perfect sense of timing, and he knows the Japanese psychology." Tnk: by Col. L. E. McCord, Ord. Dept., 12 Feb. 1943, in US 6000, Interviews and Statements, in 2 Library. Col. Honor L. Sanders, former commander of 51st Fighter Group, said: "He (Chennault) had the full support of the men under him—the boys all swear by him." Interview with Col. Sanders, June 1943.


11. The record of the AVG was indeed remarkable. While official figures are not available, all statistics which have been compiled indicate that the Americans exacted a heavy toll of enemy aircraft and pilots while suffering comparatively light losses. The flimsy construction of the early models of Japanese aircraft and their lack of self-sealing tanks led to the deaths of many pilots who otherwise might have been able to parachute to safety. The F-40 was sturdy and had self-sealing tanks. Most of the pilots of F-40's which were shot down were able to bail out and return to battle. Damages were paid for the destruction of 237 Japanese aircraft, and General Chennault estimated that 293 were destroyed. Meanwhile American losses in planes and men was quite low. Only 23 planes were destroyed by the Japanese in aerial combat, and only 12 pilots lost their lives as a result of enemy action. C.S.I.-1753 (6 July 42), Changsha to L.G.A., p. 251, 6 July 42. See also summaries in Kots, 17th General Chennault, and Belcher, The Flying Tigers.


13. Pilots who accepted commissions in China were John G. Bright, David L. Hill, Edward F. Sector, and Frank Scholz, Jr., who were made majors, and Charles W. Sayre who became a captain. Many others joined the air arm after returning to the United States and some have made outstanding records. Former AVG pilots Gregory Boyington and James M. Howard are outstanding examples. Lt. Gen. Arnold to Gen. Chennault, 6 Nov. 1942, in A.A. 312.1, Letters, Operations, Letters.


17. "The maintenance of aircraft now employed there is sustained only with the greatest difficulty and any change in type of aircraft, even in part, would increase the supply problem practically 100%."


19. Ibid.


21. C.-I-11-5539 (21 June 42), Brereton to Arnold, Aquila 2172, 20 June 42.


23. Interview with W. Bouchard, Pratt and Whitney representative, 3 Apr. 1943.

24. C.-I-11-2318 (12 June 42), Brereton to MG, Aquila 1807, 12 June 42; C.-I-11-4007 (11 Aug. 42), Stillwell to MG, Aquila 3776 E, 11 Aug. 42.

25. War Department Survey, 55; General Bissell referred to Assam as "the rainiest place in the world." Tillman Oursin, newspaper correspondent, reported that 50 inches of rainfall were recorded there in June 1943, and that on 22 September 1943, seven inches came down. New York Times, 10 Nov. 1943.

26. Approximately 80 per cent of decorations given to men of AFC have been to men of the India-China Wing. J. Frandsen Jones, "Down Road of the Air," Plane Talk, Mar. 1944, 18. (Continued by Historical Section, AFC.)

27. Minutes of meeting held in War Dept. Corn. Room, 21 Mar. 1942, forwarded as "Papers relating to the U.S. in India, 1942," in shipment 14, 2, from 9th AF; Minutes of second meeting of the Administrative Planning Corn. held 22 Mar. at Air MQ., in 1942; C.-I-1-0573 (3 May 42), Brereton to MG, Aquila 696, 2 May 42.

28. Interview with Col. G. B. MacLair, 15 July 1943.
29. Ibid.
32. Interview with R. M. Bouchard, 3 Apr. 1943.
34. Ibid.
35. Ibid.
36. "The India-China Jing to 31 May 1943," prepared by Historical Section, AG.
37. Ibid.
40. C-IN-5539 (21 June 42), Stilwell to AG, 20 May 1059, 12 Aug. 42.
41. C-IN-6958 (24 June 42), Beaton to Arnold, Aquila 218, 21 June 42.
42. Interview with Col. Arben C. Hood, 27 Apr. 1943; C-IN-4892 (10 Aug. 42), Maedon to Arnold and Somervell, Aquila 3357 F, 13 Aug. 42; C-IN-5749 (14 Oct. 42), Bissell to AG, Aquila 597 L, 14 Oct. 42.
43. Interview with Col. G. H. McCord, 14 July 1943; C-IN-4933 (6 Aug. 42), Maedon to AG, Aquila 1641, 5 Aug. 42.
44. C-IN-4892 (14 Aug. 42), Maedon to Arnold and Somervell, Aquila 3357 F, 12 Aug. 42; C-IN-2537 (23 July 42), Maedon to AG, Aquila 2314, 23 July 42.
45. C-OIR-4745 (17 July 42), Arnold to Stilwell, AG 1020, 17 July 42; C-IN-7331 (21 July 42), Stilwell to Arnold, AIL 825, 20 July 42; C-OIR-1097 (4 Aug. 42), Marshall to Stilwell, AIL 1138, 4 Aug. 42; C-OIR-4739 (15 Aug. 42), Marshall to Stilwell, AIL 1110, 15 Aug. 42; C-IN-7476 (20 Aug. 42), Bissell to AG, Aquila 400 6 0, 19 Aug. 42; Eq. 10th L, CO 260, 16 Aug. 1942.
47. C.-II-11424 (30 Aug. 42), Stillwell to Marshall, 3155. 64, 23 Aug. 42.

48. The following is a list of staff officers from the Tenth Air Force and their assignments with the Ninth Air Force:

- Maj. Gen. Lucien J. Adler, Air Service Commander
- Col. Victor H. Straka, Chief of Staff
- Maj. Lewis M. Robbs, Aide-de-Camp
- Lt. Col. J. E. Nelson, CO, 12th Bombardment Group
- Lt. Col. C. V. Whitney, ASU, G-2
- Maj. Richard H. Foster, Surgeon, Air Service Command
- Capt. David H. Mixon, Communications Officer, Air Service Command
- 1st Lt. Joseph T. Johnson, Adjutant Hq. Flight
- 1st Lt. John L. Felton, Aide-de-Camp

See C.-II (Unpublished) (13 Sep. 42), Maxwell to AG Hq., 13 Sep. 42; C.-II-5557 (17 Aug. 42), Marshall to Stillwell, 1313, 16 Aug. 42.

49. C.-II-10369 (25 Sep. 42), Bissell to AG Hq., Aquila 5130 L, 24 Sep. 42.

50. Ibid.

51. History of India-China Joint Command (1942).

52. C.-II-3197 (9 Aug. 42), Doovan to Sec. of State, 521, 9 Aug. 42.


54. C.-II-5537 (17 July 42), Obany to III, 300332, 365, 15 July 42; C.-II-5554 (16 July 42), Obany to III, 300332, 16 July 42; C.-II-5559 (13 July 42), Obany to III, 300332, 17 July 42; C.-II-1983 (14 Aug. 42), Obany to III, 300332, 13 Aug. 42; C.-II-3509 (23 Aug. 42), Stillwell to AG Hq., 300332, 21 Aug. 42; C.-II-3507 (27 Aug. 42), Stillwell to Marshal, 300332, 29 Aug. 42; Report on Hindustan Plant, signed by Col. Frederick D. Sharp, 653, 2 Nov. 1942, based on interview with B. D. Faller, British Embassy (Indi) 9505.


56. Tenth Air Force, Intelligence Summaries.


59. The following is a typical example of the method used by Chiang Kai-Shek to bring pressure: "Generalissimo has received information from Washington to the effect that the 30 transports with 4 engines were to have been substituted for 2 engine transports for the air freight service were not to be made available. Is this correct? If so Generalissimo states the result of failure to maintain effective communications between China and the outside world would have most serious effect on China's future prosecution of the war. Generalissimo requests reply." CI-III-5722 (21 May 42), Bissell to A/GA/NA, A/ISSA 720, 21 May 42; CI-III-6551 (20 June 42), Wheeler to A/GA/NA, A/ISSA 347, 19 June 42.

60. Approval of General Stillwell's plan to train Chinese ground troops in India was granted late in September. CI-III-1025 (21 Sep. 42), Stillwell to Stimson and Marshall, A/ISSA 1177, 22 Sep. 42; CI-III-10732 (25 Sep. 42), Stillwell to Arnold and Marshall, A/ISSA 1182, 26 Sep. 42.

61. CI-OUT-7035 (25 July 42), Arnold to Stillwell, A/GA 1070, 24 July 42.

62. CI-III-0617 (2 Aug. 42), Stillwell to Arnold and Marshall, A/ISSA 113, 1 Aug. 42.

63. Ibid.

64. Ibid.; CI-III-7377 (21 July 42), Stillwell to A/GA/NA, A/ISSA 960, 19 July 42.

65. CI-OUT-1354 (5 Aug. 42), Marshall to Stillwell, A/GA 1141, 5 Aug. 42.

66. CI-III-2433 (7 Aug. 42), Stillwell to A/GA/NA, A/ISSA 1036, 7 Aug. 42; CI-OUT-0069 (1 Sep. 42), Bissell to Stillwell, A/GA/NA 3, 31 Aug. 42.


68. CI-III-10253 (24 Sep. 42), Stillwell to Stimson and Marshall, A/ISSA 1177, 22 Sep. 42.


70. CI-III-4430 (12 Aug. 42), Stillwell to A/GA/NA, A/ISSA 1059, 12 Aug. 42.

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71. CI-21-6073 (13 July 42), Nidaen to HC:NA, Aquila 3134 L, 17 July 42.

72. CI-21-2375 (7 July 42), Nidaen to HC:NA, Aquila 2325, 7 July 42.

73. CI-21-4430 (12 Aug. 42), Stilwell to HC:NA, A1161, 1059, 12 Aug. 42.

74. CI-OUT-3982 (12 Sep. 42), Arnold to Bissell, A1359, 11 Sep. 42.

75. CI-21-12106 (23 Sep. 42), Bissell to HC:NA, Aquila 5209, 25 Sep. 42.

76. CI-OUT-3376 (30 Sep. 42), Marshall to Bissell, A155, 29 Sep. 42.

77. Ibid.

78. CI-21-3349 (3 Oct. 42), Stilwell to Marshall, A1161, 1230, 6 Oct. 42.

79. CI-21-2127 (5 Oct. 42), Bissell to HC:NA, Aquila 5519 C, 5 Oct. 42.


84. Ibid.

85. CI-21-2276 (24 Aug. 42), Bissell to HC:NA, Aquila 4141 XP, 23 Aug. 42.

86. CI-21-3241 (3 Sep. 42), Bissell to HC:NA, Aquila 4665 X3, 3 Sep. 42.

87. CI-21-5954 (16 Sep. 42), Bissell to HC:NA, Aquila 1889, 15 Sep. 42.

88. CI-21-7259 (17 Sep. 42), Bissell to HC:NA, Aquila 1959, 17 Sep. 42.

89. CI-21-7408 (13 Sep. 42), Stilwell to HC:NA, A1152, 1152, 16 Sep. 42.

90. CI-OUT-7059 (21 Sep. 42), Marshall to Stilwell, 41, 19 Sep. 42.

91. CI-21-84653 (11 Oct. 42), Stilwell to HC:NA, Aquila 908, 9 Oct. 42.


94. C'I-II-0433 (2 Aug. 42), Stilwell to MACJ, C'INC 1005, 1 Aug. 42.


96. C'I-III-05/12 (13 Oct. 42), Stilwell to MACJ, C'INC 1255, 13 Oct. 42.


100. C'I-III-3699 (3 Oct. 42), Bissell to MACJ, Aquila 5601 A, 7 Oct. 42; C'I-III-09913 (10 Oct. 42), Stilwell to MACJ, C'I INC 1240, 9 Oct. 42; C'IOUT-0785 (21 Nov. 42), Marshall to Stilwell, 1705, 20 Nov. 42; C'I-III-09035 (12 Oct. 42), Bissell to MACJ, Aquila 5330 A, 11 Oct. 42.


102. C'I-III-12734 (29 Sep. 42), Bissell to Arnold, Aquila 5331 A, 29 Sep. 42.

103. C'I-II-05200 (13 Oct. 42), Bissell to Arnold, Aquila 5304 A, 12 Oct. 42.

104. C'I-II-2030 (7 Oct. 42), Bissell to Arnold, Aquila 5565 A, 6 Oct. 42.


106. C'I-III-05937 (14 Oct. 42), Bissell to MACJ, Aquila 5935, 14 Oct. 42.
Chapter IV

1. Available records show that on 1 July 1942 there were seven B-25's and 70 P-40's in China. One B-25 was lost during the month leaving operational strength at six. Of the 70 P-40's approximately 55 were those used by the AVG and as the AVG never had more than 13 fighters operational at any one time it would seem that the operational fighter strength of the new task force was about 30.

2. Interview with Col. Robert L. Scott, 20 Apr. 1943.

3. See endpaper.


6. Hots, With Chennault, 94. See also McCollum, Flying Tigers, 43.

7. Interview with Col. Homer L. Rams, June 1943. See also Greenlaw, Luck and the Tigers, 64.


10. Interview with Flight Leader H. D. Bacon, AVG, 22 Apr. 1942.


13. Interview with Col. Robert L. Scott, 30 Apr. 1943.

14. "The Chennault is probably one of the fathers of American Pursuit Tactics... Chennault considers Poole to be the father of pursuit formation and tactics and affectionately his greatest pupil." Interview with Col. J. J. Barler, 24 Nov. 1943.

15. Hots, With Chennault, 116-117.


19. Ibid., 211.
weekly under 7 and 8 July 1942 lists 250 Japanese planes destroyed.

21. C-31-1753 (6 July 42), From Champaing and Hayer, 6 July 42.

22. Lt. Gen. Chennault to Stillwell, 16 July 1942, in 4-IV-3-1,
China, Off. Services Div., AD/OS, Plans.

23. History of 341st Bombardment Group (1942-1942); History of 11th
Bombardment Squadron (4 May 1942 to 31 May 1943); History of India-
China Ferry Command (1942).


25. History of 11th Bombardment Squadron. Following are the men
decorated for their part in the Doolittle Flight: Capt. Everett
H. Holstrom, 1st Lt. Lucian H. Youngblood, 1stLt. Clayton E.
Carpenter, 1st Lt. Horace D. Crouch, 1/Sgt. Edvin V. Horton, Jr.,
Bombardment Group.


27. Scott, God Is My Co-Pilot, 159.


29. History of China Air Task Force; C-31-331 (7 July 42), Maiden to
L.A.M., Aquila 237 b, 3 July 42; Communiqué, 7 July 1942; Intell.
Summaries, 10th AF, June-Sep. 1942.

30. History of China Air Task Force; Intell. Summaries, 10th AF;
Communique, 7 July 1942.

31. History of 11th Bombardment Squadron.

32. Ibid.

33. Ibid.; History of China Air Task Force; Intell. Summaries, 10th AF;
C-31-2337 2 (8 July 42), Maiden to L.A.M., Aquila 237 b, 3 July 42.

34. History of 11th Bombardment Squadron; History of China Air Task
Force; Intell. Summaries, 10th AF; C-31-331 (8 July 42), Maiden
to L.A.M., Aquila 237 b, 3 July 42.

35. History of China Air Task Force; History of 11th Bombardment
Squadron; Intell. Summaries, 10th AF; Communiqué, 7 July 1942.


37. History of China Air Task Force; C-31-3535 (10 July 42), Maiden
to L.A.M., Aquila 2924, 10 July 42.

SECURITY INFORMATION
38. History of 11th Bombardment Squadron.


40. Ibid., 11 July 1942, 4.


42. History of China Air Task Force; History of 341st Bombardment Group; G.-H-7306 (21 July 42), Aquila from Malaysia, Aquila 3216, 21 July 42; Communiqué, 11 July 1942.

43. History of 11th Bombardment Squadron.

44. Ibid.; History of China Air Task Force; Intell. Summary, 10th AF; Communiqué, 21 July 1942; G.-H-7393 (21 July 42), Maiden to Mak., Aquila 3231, 21 July 42. According to two unit historians, the Japanese withdrew from Linchwen at this time. If this is true, the enemy must have retaken the city on or before 9 August 1942 because the China Air Task Force again attacked the city on that date.


46. Ibid., 4 Aug. 1942.

47. Ibid., 2 Aug. 1942.


49. Since speed was so necessary in servicing planes during combat, the ground crews of the AVG had adopted or devised ingenious techniques and machines requiring a minimum of men to accomplish a maximum of work with the least amount of equipment in the shortest possible time. For each squadron of the AVG, the mechanics had equipped three motor trucks as mobile servicing units. One truck, manned by armorers, facilitated the cleaning, repairing and loading of nose and wing guns. Another refueled the ships. The third, a mobile counterpart of a machine shop, repaired engines and fuselage. The last equally vital, carried oxygen equipment. By constant practice the mobile servicing units had achieved a coordinated performance as smoothly executed as the close formation flying of their well-trained colleagues on aerial dress parade. From rovetments safely dispersed around the edge of the air field the trucks would rove swiftly to their appointed places even before the planes stopped rolling. With few exceptions, they were serviced and back in the air before the next wave of enemy planes came over. Usually this gave the mechanics an hour's grace. During the January aerial offensive the ground crews kept the planes in the air for as many as eight battles in a single day, never offering either bombardier or strafing a sitting target on the ground. (See also General Champlin, 176-177.)

51. Interview with Col. Robert L. Scott, 30 Apr. 1943.

52. Ibid.

53. Scott, Cod is in Co-Pilot, 163.

54. Ibid., 164; Interview with Col. Robert L. Scott, 30 Apr. 1943.

55. Kots, 11th General Channult, 183.

56. Scott, Cod is in Co-Pilot, 165.


58. History of China Air Task Force.


60. Ibid.

61. History of 11th Bombardment Squadron: 1-1-1-1-13 (14 July 42), New Delhi to India, Aquila 3095, 14 July 42; Daily Summary, 15 July 1942, Asiatic Theater.


63. Ibid., 5 Aug. 1942.

64. Ibid., 6 Aug. 1942.

65. History of 11th Bombardment Squadron; History of China Air Task Force; 6-1-1-3723 (11 Aug. 42), Haiden to Delhi, Aquila 3773, 11 Aug. 42.

66. Ibid.


68. History of 11th Bombardment Squadron.

69. Ibid.; History of China Air Task Force; 6-1-1-4704 (13 Aug. 42), Haiden to Delhi, Aquila 3351, 13 Aug. 42; Communiqué, 11 Aug. 1942.

71. Scott, 6th 1st Co-Pilot, 197; C-T-5534 (15 Aug. 42), Maiden to
15 Aug. 42, M.O.T., 13 and 14 Aug. 1942.

72. History of 11th Bombardment Squadron.

73. Ibid.

74. Ibid., 11.

75. C-T-5534 (10 July 42), Maiden to 15 Aug. 42, Aquila 2937, 10 July 42;
C-T-3404 (23 July 42), Maiden to 15 Aug. 42, Aquila 2934, 24 July 42;
C-T-10369 (31 July 42), Maiden to 31 Aug. 42, Aquila 2495, 31 July 42;
C-T-2759 (9 Aug. 42), Maiden to 30 Aug. 42, Aquila 3717, 3 Aug. 42;
C-T-3253 (9 Aug. 42), Maiden to 30 Aug. 42, Aquila 3775, 9 Aug. 42.

76. C-T-3253 (1 Sep. 42), From Delhi to Malacca, 10 JST, 16 Sep. 42.

77. History of China Air Task Force; Comunicas, 1 Sep. 1942.

78. History of China Air Task Force; Comunicas, 1 Sep. 1942.

79. History of China Air Task Force; Comunicas, 1 and 2 Sep. 1942.


81. History of Headquarters, Tenth Air Force (1942); History of Head-
quarters, India Air Task Force (1942); History of 21st Bombardment
Group; C-T-8723 (17 Oct. 42), Bissell to AQ J, Aquila 6911, 17 Oct. 42;
C-T-3493 (20 Oct. 42), Bissell to AQ L, Aquila 6916, 20 Oct. 42.

82. Scott, 6th 1st Co-Pilot, 305; C-T-4197 (11 Sep. 42), Bissell
to AQ L, Aquila 4724, 10 Sep. 42; Comunicas, 5 Sep. 1942.

83. C-T-4197 (11 Sep. 42), Bissell to AQ L, Aquila 4724 3, 10 Sep.
42; Comunicas, 5 Sep. 42.

84. History of China Air Task Force; History of 341st Bombardment Group.

85. History of China Air Task Force.

86. Ibid.; C-T-12937 (23 Sep. 42), Bissell to AQ J, Aquila 5507 4,
23 Sep. 42; Comunicas, 27 Sep. 42.

87. Report on Embassy Tours and Night Flyer Tactics for China Air Task

88. Scott, 6th 1st Co-Pilot, 25.

89. Ibid., 26.

90. C-T-03599 (9 Oct. 42), Bissell to AQ J, Aquila 5606 5, 7 Oct. 42;
C-T-3493 (2 Oct. 42), Bissell to AQ L, Aquila 5613 4, 8 Oct. 42.

91. History of China Air Task Force.


3. History of 7th Bombardment Group (1942); History of 9th Bombardment Squadron (1942).


   42; History of 51st Fighter Group; History of Headquarters, Tenth 
   Air Force (1942); History of Headquarters, India Air Task Force (1942).

   42; C.-L.-11590 (27 Oct. 42), Marshall to G.O.4, Aquila 6436, 
   27 Oct. 42; History of 51st Fighter Group.

7. Ibid.; C.-L.-11122 (26 Oct. 42), Marshall to G.O.4, Aquila 6405 A., 
   26 Oct. 42.


   Oct. 42.

10. C.-E.-8397 (1 Nov. 42), Stilwell to G.O.4, Am. B-4, 80, 31 Oct. 42.

11. Ibid.

   1942) in History of 436th Bombardment Squadron (1942-31 May 1943) 
   gives the flight schedule for five B-32's for a mission against 
   Linsy under date of 20 Oct. Maj. L. R. Pennell by GO .11, F.3, 
   10th A.F. (27 Feb. 1943) was awarded the Silver Star for participation 
   "On October 21, 1942, ... as squadron commander, in a bombing 
   mission against the main power plant installations of the enemy 
   at Linsy, Henan Province, China," Major Pennell had previously 
   been awarded the Ninth Air Force for a special mission in 
   China.

13. Report on Bomber Escorts and Night Fighter Tactics for China Air 


15. History of China Air Task Force.

16. Ibid.
17. The number and type of bombs and their respective weights are given in the History of the China Air Task Force as follows:

<table>
<thead>
<tr>
<th>No. of Bombs</th>
<th>Type</th>
<th>Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>173</td>
<td>U.S. 1-43 500-lb Demo</td>
<td>86,000 lbs.</td>
</tr>
<tr>
<td>21</td>
<td>U.S. 1-50 100-lb Demo</td>
<td>2,400 lbs.</td>
</tr>
<tr>
<td>20</td>
<td>250-Kilogram Demo.</td>
<td>5,000 kgs.</td>
</tr>
<tr>
<td>523</td>
<td>100-Kilogram Demo.</td>
<td>59,300 kgs.</td>
</tr>
<tr>
<td>103</td>
<td>50-Kilogram Demo.</td>
<td>5,400 kgs.</td>
</tr>
<tr>
<td>10</td>
<td>100-lb. Incend. Clusters</td>
<td>1,000 kgs.</td>
</tr>
<tr>
<td>164</td>
<td>50-Kilogram Incendiary</td>
<td>8,900 kgs.</td>
</tr>
<tr>
<td>36</td>
<td>50-lb. Comb. Demo.-Incend.</td>
<td>1,300 kgs.</td>
</tr>
<tr>
<td>696</td>
<td>15-Kilogram Frag.</td>
<td>3,000 kgs.</td>
</tr>
<tr>
<td>70</td>
<td>15-Kilogram Frag.</td>
<td>1,050 kgs.</td>
</tr>
</tbody>
</table>

18. Ibid.


20. C:C:13271 (1 Nov. 42), Bissell to Arnold, Aquila 6624 3 960 1, 1 Nov. 42; Comuniqué, 3 Nov. 1942.


22. C:C:13224 (24 Nov. 42), Bissell to Arnold, Aquila 7666 4, 24 Nov. 42; Comuniqué, 24 and 26 Nov. 42; Scott, God Is My Co-Pilot, 241-42.

23. C:C:13272 (25 Nov. 42), Bissell to Arnold, Aquila 7705 1, 25 Nov. 42; Comuniqué, 26 Nov. 1942.

24. C:C:13285 (27 Nov. 42), Bissell to Arnold, Aquila 8886 27 Nov. 42; New York Times, 27 Nov. 1942, 29.


27. C:C:13273 (23 Nov. 42), Bissell to Arnold, Aquila 7866 E, 23 Nov. 42; New York Times, 30 Nov. 1942.


29. C:C:13273 (2 Dec. 42), Arnold to Chennault, :1771, 3 Dec. 42.

30. C:C:1 (1 Dec. 42), Bissell to SC 1, Aquila 3929, 30 Nov. 42.

31. Ibid., Nov 9, 10 Dec. 1942, 9.
22. C-X-3331 (3 Nov. 42), Bissell to Aquila 7232, 13 Nov. 42; C-X-3331 (10 Nov. 42), Bissell to Aquila 713, 10 Nov. 42; C-X-3331 (11 Nov. 42), Bissell to Aquila 713, 11 Nov. 42; History of Headquarters, India Air Task Force.

23. Ibid.; C-X-5226 (12 Nov. 42), Bissell to Aquila 7232, Aquila 7232; C-X-5240 (17 Nov. 42), Bissell to Aquila 8233, 18 Nov. 42.

24. C-X-9075 (21 Nov. 42), Bissell to Aquila 7531, 21 Nov. 42; History of 44th Bombardment Squadron (1942); History of Headquarters, India Air Task Force (1942).

25. Ibid.; C-X-10302 (23 Nov. 42), Bissell to Aquila 7642, Aquila 7642, 24 Nov. 42.

26. C-X-12031 (23 Nov. 42), Bissell to Aquila 7730, Aquila 7730, 23 Nov. 42; C-X-12031 (23 Nov. 42), Bissell to Aquila 7730, 23 Nov. 42; C-X-13149 (2 Dec. 42), Bissell to Aquila 7720, 3 Dec. 42; History of Headquarters, India Air Task Force (1942).

27. Ibid.; J-X-12515 (1 Dec. 42), Bissell to Aquila 8232, Aquila 8232, 4 Dec. 42; C-X-1623 (4 Dec. 42), Bissell to Aquila 3152, 4 Dec. 42.

33. History of Headquarters, India Air Task Force (1942); C-X-6246 (13 Dec. 42), Bissell to Aquila 3526, 13 Dec. 43.

39. History of 84th Bombardment Squadron; History of 9th Bombardment Squadron; History of Headquarters, India Air Task Force (1942); C-X-32302 (31 Dec. 42), Bissell to Aquila 9236, 31 Dec. 42.

40. History of 234 Bombardment Squadron. The following table of targets attacked by the India Air Task Force from 20 November through 31 December is included in History of Headquarters, India Air Task Force (1942):

<table>
<thead>
<tr>
<th>Target</th>
<th>Times Hit</th>
<th>Planes 2-24</th>
<th>Planes 2-25</th>
<th>Bombs Dropped (Round)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandaun</td>
<td>3</td>
<td>14</td>
<td>25</td>
<td>25,000</td>
</tr>
<tr>
<td>Fort Killa</td>
<td>3</td>
<td>12</td>
<td>0</td>
<td>44,000</td>
</tr>
<tr>
<td>Klangen</td>
<td>6</td>
<td>39</td>
<td>0</td>
<td>17,000</td>
</tr>
<tr>
<td>Jemsoh</td>
<td>2</td>
<td>21</td>
<td>0</td>
<td>58,000</td>
</tr>
<tr>
<td>Kyahum Junction</td>
<td>3</td>
<td>6</td>
<td>12</td>
<td>35,000</td>
</tr>
<tr>
<td>Yojems</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>9,000</td>
</tr>
<tr>
<td>Shimo</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>9,000</td>
</tr>
<tr>
<td>Lin Eiadon</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>8,100</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>19</strong></td>
<td><strong>101</strong></td>
<td><strong>20</strong></td>
<td><strong>355,100</strong></td>
</tr>
</tbody>
</table>


SECURITY INFORMATION!
1. C-1 - 1677 (2 Dec. 42), Bissell to MC, Aquila 8030, 5 Dec. 42;
C-1 - 7435 (13 Dec. 42), Bissell to MC, Aquila 5705, 13 Dec. 42;
C-1 - 8834 (20 Dec. 42), Bissell to MC, Aquila 8753, 20 Dec. 42;
C-1 - 7746 (22 Dec. 42), Bissell to MC, Aquila 8359, 22 Dec. 42;
C-1 - 11470 (27 Dec. 42), Bissell to MC, Aquila 9021, 27 Dec. 42;
C-1 - 12602 (30 Dec. 42), Bissell to MC, Aquila 9114, 30 Dec. 42;
C-1 - 336 (30 Dec. 42), Bissell to MC, Aquila 9131, 30 Dec. 42;
Communications, 22, 29, and 30 Dec. 1942.

43. C-1 - 3591 (23 Nov. 42), Changting to MC, Aquila 1142, 14 Dec. 42.
44. C-1 - 2539 (6 Dec. 42), Bissell to MC, Aquila 3150, 6 Dec. 42.
45. C-1 - 5189 (19 Dec. 42), Stillwell to MC, Aquila 235, 17 Dec. 42.
46. C-1 - 1324 (5 Jan. 43), Marshall to Bissell, Aquila 2076, 2 Jan. 43.
47. C - 1 - 5990 (23 Nov. 42), Bissell to MC, Aquila 7607, 23 Nov. 42.
48. C-1 - 1854 (15 Dec. 42), Marshall to Bissell, Aquila 6021, 13 Dec. 42;
C-1 - 5523 (16 Dec. 42), Marshall to Bissell, Aquila 6735, 15 Dec. 42.
49. C-1 - 3729 (9 Dec. 42), Bissell to MC, Aquila 235, 9 Dec. 42.
50. C-1 - 10117 (22 Jan. 43), Bissell to MC, Aquila 3123, 3 Dec. 42.
51. C-1 - 10375 (31 Dec. 42), Marshall to Stillwell, Aquila 3293, 31 Dec. 42;
C-1 - 17 (1 Jan. 43), Marshall to Stillwell, Aquila 1201, 29 Dec. 42.
53. Station List, 10th A3, 7 Jan. 1943, in MAC 500-4, India-China.
54. Interview with Robert A. Macalister, 20 July 1943; C-1 - 2391 (7 Dec. 42), Bissell to George, Aquila 3237, 6 Dec. 42;
C-1 - 3144 (10 Dec. 42), Arnold to Bissell, 12 Dec. 1942; C-1 - 5144 (12 Dec. 42), Bissell to George, Aquila 3703, 11 Dec. 42.
BIBLIOGRAPHY

War Department Files

AAF Classified Files (cited AAF with decimal).
The most valuable material was found in 000-900 India-China and
312.1 Operations Letter.
000-300 India-China
061 Maps, India-China
201 General Clayton L. Bissell
201 General Lewis H. Brereton
201 General Claire L. Chennault
201 General Caleb V. Haynes
201 General Earl L. Rudder
210.2 Promotion
210.68 Assignment Officers
210.68 Foreign Detail
210.68 Military Detail
250.1 A Conduct-Norale
300 A India-China
312.1 A Classes of Correspondence (Operations Letters)
312.1 B Classes of Correspondence (Operations Letters)
312.1 C Classes of Correspondence (Operations Letters)
312.1 D Classes of Correspondence (Operations Letters)
312.1 E Classes of Correspondence (Operations Letters)
312.1 F Classes of Correspondence (Operations Letters)
319.1 Logs
319.1 Reports Daily
319.1-8 A Statistical Reports
319.1-8 B Statistical Reports
321.9-2 A Organization of Air Corps
322 Air Force
327 A Conferences
351 India-China
385 Methods-Manners Conducting War
400 India-China
400 Misc. India-China
450 India-China
452.1 India-China
452 J Airplanes General
600.1 India-China
680.2 A Visits
680.2 B Visits
680.2 C Visits
686 India-China

Message Files.
Extensive use was made of cable and radio messages for the period
December 1941-January 1943. All messages cited in this study are
filed in the AAF Message Center and/or Archives, Historical Division,
AG/AS, Intelligence. Use was also made of the A-2 Summary Files in
the Records Branch, Collection Division, AO/AS, Intelligence (cited
A-2 Library).

Intelligence Reports.
Daily and Weekly Intelligence Reports from the Tenth Air Force were
thoroughly searched. These files, in the Records Branch, Collection
Division, AO/AS, Intelligence, are incomplete for 1942.

Office of the Assistant Chief of Air Staff, Plans.
Especially useful were the files of the Combined and Joint Staff
Division, Office Services Division, and the Asiatic Theater Section.

Unit Records Branch, AO/AS, Operations, Commitments, and Requirements,
Tenth Air Force Files.
These files were valuable for indicating troop movements and
unit locations, changes of designation, and personnel strength.
Records for the Tenth Air Force during 1942, however, are not
complete.

Aircraft Status Ledgers, Training and Operations Branch of Statistical
Control.
These files are helpful in ascertaining the number of aircraft
on hand at regular intervals. There is no way, however, of
determining the condition of the aircraft and the data must be
used with caution.

Unit Histories

Unit histories for the following organizations are filed in the Archives
of the Historical Division, AO/AS, Intelligence, except as noted.

China Air Task Force
11th Bombardment Squadron
436th Bombardment Squadron (1942)
51st Fighter Group
51st Service Group (1941–1942)
59th Service Squadron (1941–1942)
Headquarters and Headquarters Squadron, 7th Bombardment Group (1942)
Headquarters and Headquarters Squadron, Tenth Air Force
Headquarters, India Air Task Force (1942)
Headquarters, Tenth Air Force (1942)
Headquarters, Tenth Air Force Service Command (1942)
India-China Ferry Command (1942)
9th Bombardment Squadron (1942)
7th Bombardment Group (1942)
Tenth Air Force Service Command (1942)
The India-China Wing to 31 May 1943 (Filed in Air Transport Command,
Historical Section)
341st Bombardment Group (1942–1943)
3rd Air Depot (1942)
22nd Bombardment Squadron
USAF, India-Burma Sector, China-Burma-India Theater.
Orders

General Orders, Headquarters Tenth Air Force, New Delhi, filed in the Archives of the Historical Division, AC/AS, Intelligence:

No. 1  5 March 1942
No. 3  10 April 1942
No. 4  15 April 1942
No. 7  3 May 1942
No. 8  6 May 1942
No. 13  22 June 1942
No. 14  25 June 1942
No. 15  26 June 1942
No. 16  15 July 1942
No. 19  14 August 1942
No. 20  18 August 1942
No. 22  3 September 1942
No. 28  7 October 1942
No. 32  27 October 1942

Interviews

The following interviews, except as noted, are filed under United States 9000, Interviews and Statements, in Records Branch, Collection Division, AC/AS, Intelligence:

Bacon, N. R. (ex-AVG), 22 April 1942.
Bouchard, R. N., Pratt and Whitney representative, 3 April 1943.
Holloway, Col. B. E., 16 November 1943.
Hood, Col. Reuben C., 27 April 1943.
MacGaird, Col. B. E., 12 February 1943.
MacGaird, Col. G. H., 15 July 1943.
Morton, Maj. Marvin, 16 November 1943.
Nelson, Albert E., Bendix representative, 24 June 1943.
Parson, George L., (ex-AVG) 28 August 1942.
Sanders, Col. Homer L., June 1943.
Schaetzle, Col. George E., 29 November 1943.
Scott, Col. Robert L., 30 April 1943.
Snow, Col. C. A., 15 May 1944. (Unrecorded, with author)
Communiques

Official communiques, as reprinted in the New York Times, offered helpful supplementary information.

Special Reports

The following reports made by men from combat theaters were valuable:


Report on Hindustan Plant, signed by Col. Frederick L. Sharp, GSO, based on interview with W. D. Pawley, 2 November 1942. In British Empire (India) 9505, Records Branch, AC/AS, Intelligence.


Minutes of Meetings

The following records of meetings held at Delhi early in 1942 regarding basic plans for the American Forces in Asia are included in shipment #16 from Ninth Air Force, Archives, Historical Division. These were particularly valuable in studying basic policies to be followed by the Tenth Air Force in the first year of the war.

Minutes of an Administrative Planning Conference held at Air Headquarters, (Delhi), 15 March 1942.

Minutes of Second Meeting of the Administrative Planning Committee held at Air Headquarters, (Delhi), 22 March 1942.

Record of Meeting held 22 March 1942, subject: Supplies and Services to be rendered to USA Forces in India.

Minutes of Third Meeting of Administrative Planning Committee held at Air Headquarters, (Delhi), 20 March 1942.
Special Studies

Certain special studies gave valuable information regarding the general situation in the China-Burma-India theater at the time the United States was engaged in establishing an air force in the theater. Among the most useful were:


- Road Transport from Western India to Calcutta and Assam. British Empire Section Report No. 5, 9 March 1942.

- Strategic Survey of Northeastern India. Office of Strategic Services, Research and Analysis Branch, 19 January 1943.


Newspapers and Periodicals


Books

Belden, Jack, Retreat With Stilwell. Alfred Knopf, New York, 1943


Scott, Robert L., Jr., God Is My Co-Pilot. Charles Scribner's Sons, New York, 1943
Stowe, Leland, They Shall Not Sleep. Alfred Knopf, New York, 1944
Thomas, Rowan T., Born in Battle. Winston, New York, 1944

Phampletes


Appendix 2 - Summary of Operations of Assam-Burma-China Ferry Command, 8 April-14 June 1942

PASSENGERS AND FREIGHT CARRIED EASTWARDS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>208 Passengers</td>
<td>34,600 lbs</td>
</tr>
<tr>
<td>30,000 gallons of gasoline (100 octane)</td>
<td>840,000 lbs</td>
</tr>
<tr>
<td>500 gallons of oil</td>
<td>4,000 lbs</td>
</tr>
<tr>
<td>525,000 rounds of Bren gun ammunition</td>
<td>35,280 lbs</td>
</tr>
<tr>
<td>480,625 rounds of .50-caliber ammunition</td>
<td>192,595 lbs</td>
</tr>
<tr>
<td>.30-caliber ammunition</td>
<td>6,552 lbs</td>
</tr>
<tr>
<td>Empty primed 12-gauge shotgun shells</td>
<td>33,712 lbs</td>
</tr>
<tr>
<td>Bren guns and tripods</td>
<td>8,850 lbs</td>
</tr>
<tr>
<td>Incendiary bombs</td>
<td>16,000 lbs</td>
</tr>
<tr>
<td>Signal Corps equipment</td>
<td>3,000 lbs</td>
</tr>
<tr>
<td>1 Army Jeep</td>
<td>3,250 lbs</td>
</tr>
<tr>
<td>2 Ryan airplanes</td>
<td>4,600 lbs</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>2,525 lbs</td>
</tr>
<tr>
<td>C-47 spare parts</td>
<td>3,455 lbs</td>
</tr>
<tr>
<td>P-40 spare parts and equipment for AVG</td>
<td>88,823 lbs</td>
</tr>
<tr>
<td>Medical supplies</td>
<td>14,327 lbs</td>
</tr>
<tr>
<td>Halpro Project equipment</td>
<td>25,726 lbs</td>
</tr>
<tr>
<td>Food</td>
<td>76,475 lbs</td>
</tr>
<tr>
<td>Cigarettes for the AVG's</td>
<td>4,180 lbs</td>
</tr>
<tr>
<td>Post exchange stores for Gen. Stilwell</td>
<td>4,000 lbs</td>
</tr>
<tr>
<td><strong>TOTAL WEIGHT PASSENGERS AND FREIGHT</strong></td>
<td><strong>1,401,950 lbs</strong></td>
</tr>
</tbody>
</table>

PASSENGERS AND FREIGHT CARRIED WESTWARDS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
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<tr>
<td>4,303 Passengers</td>
<td>647,150 lbs</td>
</tr>
<tr>
<td>Tungsten ore</td>
<td>17,240 lbs</td>
</tr>
<tr>
<td>Tin</td>
<td>55,716 lbs</td>
</tr>
<tr>
<td>Bombs to the RAF at Tezpur</td>
<td>5,000 lbs</td>
</tr>
<tr>
<td>Equipment to the RAF at Tezpur</td>
<td>600 lbs</td>
</tr>
<tr>
<td>Engine assemblies</td>
<td>4,500 lbs</td>
</tr>
<tr>
<td>Medical supplies for the RAF at Dinjan</td>
<td>200 lbs</td>
</tr>
<tr>
<td>Bombs for Dinjan (12)</td>
<td>420 lbs</td>
</tr>
<tr>
<td><strong>TOTAL WEIGHT OF PASSENGERS AND FREIGHT</strong></td>
<td><strong>758,826 lbs</strong></td>
</tr>
</tbody>
</table>

## Tenth Air Force Strength Reports

**As Transmitted by Cable Messages**

<table>
<thead>
<tr>
<th>Date</th>
<th>Officers</th>
<th>Warrant Officers</th>
<th>Enlisted Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 April 1942</td>
<td>227</td>
<td>3</td>
<td>3080</td>
</tr>
<tr>
<td>8 May 1942</td>
<td>265</td>
<td></td>
<td>3103</td>
</tr>
<tr>
<td>14 May 1942</td>
<td>270</td>
<td></td>
<td>3117</td>
</tr>
<tr>
<td>22 June 1942</td>
<td>582</td>
<td>5</td>
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* Based on report of Lt. Col. Herbert Morgan, Jr., operations officer, China Air Task Force, 6 Feb. 1943, in 14th AF Combat Reports, Evaluations, Strategic Doctrine, Records Branch, AG/AS, Intelligence.
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