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By contrast, the Axis needed to run only the width of the Mediterranean to transport oil and other supplies to North Africa. After the occupation of the Balkan Peninsula by the Germans, Greece had become the rendezvous for large numbers of vessels laden with war supplies for Marshal Rommel's forces. Navarino Bay, situated near the southern tip of the Peloponnesus, was one of the most frequented resorts of this kind. Its excellent natural harbor was used by the Axis as a refueling base and transit point for the ships of the Mediterranean convoys, which would creep down the Greek coast, after crossing the Strait of Otranto from Brindisi or Bari, on the heel of Italy. At Navarino Bay they could await a propitious moment to dash across the Mediterranean to Benghazi, or pick up an escort off Crete, before setting out for Tobruk. Since the closing of this sea lane was essential to the Allied effort, it was against this supply line in general and its tanker components in particular that the growing strength of American heavy bombardment was directed through the summer months preceding the Libyan Campaign.

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From their Levantine bases, the American bombers also struck at port installations, warehouses, and shipping in harbors. In addition to Navarino Bay, these far-flung targets included the Corinth Canal and other places in Greece, Candia and Suda Bay in Crete, and Benghazi and Tobruk in Libya, with special trips to Mersa Matruh, Sidi Barrani, and the Bardia Road. Toward the end of the summer the bombardment to which both Tobruk and Benghazi were subjected, finally became so heavy that convoys which succeeded in running the blockade stood little chance

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of unloading their cargoes. This state of affairs eventually forced the Germans to resort to the use of air transport from Crete for supplying their armies in Egypt--a step which was reflected in the adding of Maleme Airdrome to the heavy bombers' list of targets. ¹⁰⁰

When the heavy bombers of the USAMEAF first began combat operations in the Middle East, the weather had presented no problem, for during the summer clear skies, excellent visibility, and light winds had prevailed throughout the area of operations. With the approach of autumn, however, there was need for a forecasting service which would furnish weather information to the two heavy bomber groups stationed in Palestine. The weather officers of both units planned for its establishment at the earliest practicable date. Meanwhile, the Palestine Meteorological Service and the Senior Meteorological Officer of the RAF in the Middle East gave valuable assistance by supplying climatological data. In September, when, through lack of personnel and equipment, it still seemed impossible to organize a United States weather service, the RAF moved one of its forecasting stations to Ramleh, in Palestine. As a result of repeated requests for men and material, there began to trickle in enough weather personnel and equipment for the opening of a forecast station and two observer stations in Palestine, in October. The former was attached to the 98th Bombardment Group, and the latter were placed at emergency landing fields, while the RAF station at Ramleh continued to supply weather reports to the First Provisional Group (soon the 376th Bombardment Group). ¹⁰¹

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In early September a discussion regarding the rate of employment of American heavy bombers and the kinds of target against which they should operate had shown the need for an organization that would supervise the activity of the two heavy bomber units. If these were to be used to greatest advantage, it was obvious that they should operate under mission-type orders. Inasmuch as the 98th and the First Provisional Groups made up four-fifths of the heavy bomber force in the Middle East, and American combat commanders were more experienced in the handling of these heavy bombers than were the British, it seemed fitting that the operational control of all heavy-bombardment aircraft in the theater should be placed under the commanding general of the American air force. A suggestion to this effect, and subsequent negotiations with the RAF, resulted in the activation of the Bomber Command, USAMEAF, in Cairo, on 12 October. While the command was still taking shape, its striking force was augmented by the addition of No. 160 Squadron (RAF), which also was to be stationed in the Canal area. The allocation of this British unit to the Bomber Command for operational purposes was a logical step, for the squadron was equipped with Liberators, and originally had been part of No. 159 Squadron (RAF), which had operated in the theater during the summer. The confidence shown by the commanding officer of the RAF in placing this squadron with an outstanding war record under American control was much appreciated by General Brereton, who gave assurance that all organizations of his air force would cooperate in the furtherance of their common endeavor.

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The personnel for the nuclear staff of the Bomber Command were derived from various organizations in the Middle East. Col. (soon Brig. Gen.) Patrick W. Timberlake, ¹⁰⁵ senior operational officer at General Brereton's headquarters, became commanding officer of the unit, and the small operational staff that had been working with No. 205 Group (RAF) was transferred into the Bomber Command as the A-3 Section, with Maj. Albert F. Kalberer still in charge. ¹⁰⁶ Lt. Col. Donald Keiser, who had come to the Middle East by way of the Philippines, Java, and India, ¹⁰⁷ assumed the duties of the chief of staff, while Maj. Horace M. Wade, a member of the First Provisional Group and of the former Brereton Detachment, directed the A-2 Section, and Lt. Carter Glass III, ¹⁰⁸ of the 98th Group, represented the Signal Corps. Although small, the organization had a compactness which facilitated mobility of action, and it benefited greatly from the fact that its sectional heads were drawn from operational groups and had had previous experience in working together.

Because of the nature of operations in the Middle East, it was impossible for the entire Bomber Command to operate under one roof, and consequently part of it (the commanding officer, the chief of staff, the general staff, and a few special staff officers) was stationed in Cairo, while the remainder of the staff and most of the enlisted personnel were located at Ismailia. In Cairo, the Bomber Command had offices in the same building that housed the RAF Middle East Headquarters--an arrangement which furthered the close cooperation between the two organizations. All information which pertained to the selection of targets and the planning of raids was furnished by the

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British. Every day General Timberlake consulted the Senior Air Staff Officer (RAF) regarding the objective of the next mission. Data on the target itself and its air and ground defenses were supplied by the A-2 Section. With this material in hand, A-3 prepared the details of the operation, and Signals coded and dispatched the order to the groups in Palestine. Upon completion of the mission, the Group Intelligence officers telegraphed the results to the Bomber Command, where a 24-hour watch was maintained. This report was then condensed into an operational summary, which was mimeographed and made ready for distribution early the next morning. ¹⁰⁹ Arrangements such as these enabled the two bomber groups to operate under their own control, with only strategic direction from the British. Their position was therefore somewhat different from that of the 57th Fighter and 12th Bombardment Groups which had been placed under the tactical control of the RAF.

From the time of the arrival of the Halverson Detachment in Egypt in June, the exploits of the heavy-bomber crews had attracted so much attention that there was a natural tendency to consider the part of the United States in the North African campaign as purely a heavy-bomber role. In a sense, that point of view was correct, for the Middle East had proved an excellent field for testing the effectiveness of long-range bombardment. The activities of the Flying Fortresses and Liberators represented only one aspect of the American contribution to Middle Eastern combat operations, however. While the 98th Bombardment and First Provisional Groups were carrying out missions which captured the popular imagination, the 57th Fighter Group and the 12th Bombardment

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Group, Medium, were engaged in the performance of extremely useful, but less spectacular, tasks.

The necessity for fighter pilots to acquire operational experience prior to their entrance into combat had sent the three squadrons of the 57th Fighter Group into the desert for a period of training upon their arrival in Palestine. Owing, however, to the limited time available for orientation in the theater, it had been decided, after consultation with RAF officers, that this process could be accomplished most expeditiously by having all pilots of the 57th Group fly combat missions with British and South African squadrons. ¹¹⁰ This policy for orientation was soon put into effect, for at the very end of August Marshal Rommel launched an offensive against the El Alamein line, which had been more or less stable since July. ¹¹¹ This attempt, which was to prove the last serious threat to Egypt, resulted in 5 days of hard fighting. During this engagement, P-40's of the 57th Group flew with RAF Kittyhawks furnishing fighter protection for the bomber shuttle service. The systematic escorting of one mission after another was a good introduction to combat operations, for great efficiency was achieved as the fighters joined the light bombers in a rendezvous over the field, and then accompanied them into the desert, where their attacks were directed mainly against columns of trucks bringing up gasoline and reinforcements for the striking force of enemy tanks and infantry. ¹¹²

When Allied plans for the fall offensive were being made, it was decided that the entire 57th Group should be assembled at Landing Ground 174, about 35 miles southwest of Alexandria. Here the group

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would serve as an air force reserve during the weeks of preparation, and in accordance with this plan, all units of the group were consolidated at this first American airdrome in the Western Desert on 15 September. ¹¹³

Since the 57th Group took part in only an occasional mission during the lull which followed Marshal Rommel's abortive attack on the El Alamein line, late September and early October were spent largely in training flights. Some of these were conducted by No. 239 Wing, an RAF Kittyhawk unit stationed in the neighborhood. In fact, it was from this organization that the 66th Squadron learned the value of flying in "sixes," a formation which permitted greater fluidity than the pattern of "fours" which they had flown with No. 233 Wing, and which was used by the other two squadrons of the group. Its adoption by the 66th Squadron occasioned a good deal of discussion among other members of the group, but before long this formation was generally accepted as satisfactory and proved to be one which the 66th Squadron retained ¹¹⁴ throughout the ensuing campaign.

Upon arriving in the desert, the 57th Fighter Group found that all RAF fighter units were completely mobile, and consequently every man had a place to ride. Owing to the loss of ships carrying trucks, it was only after some difficulty that the 57th Group was provided, in September, with transportation of this kind. All units of the group could then be transferred from one locality to another within 2 or 3 hours. In the absence of truck companies, a mechanic, a crew chief, even a cook, was sometimes used as a truck driver. In their spare time, after the move was completed and the airplanes were dispersed, these

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men worked on their machines. Their efficiency was shown by the fact that up to the time Benghazi was reached, not a single truck had
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been towed.

Since, for some time, the 57th Fighter Group--as well as the two heavy bombardment groups--had been operating from landing grounds in Egypt, and consequently at considerable distance from their main base in Palestine, it had been necessary for the RAF to perform much of the ground maintenance for these squadrons. The continuance of such an arrangement seemed advisable until such time as the American air force was capable of assuming this responsibility for itself. The availability of a large number of ground personnel in the combat units, however, now appeared to make possible the assumption of first-echelon maintenance. Such a step was highly desirable, in that relief from this sort of responsibility would free British personnel for the enlargement of base facilities and repair depots, for which they were especially well fitted. Meanwhile, strenuous effort was made to further the self-sufficiency of the American units and to provide personnel and materiel for RAF units giving technical assistance to the USAMEAF. Closest cooperation between the American Air Service Command and that of the RAF was maintained, especially in the forward areas, where it was sometimes difficult to separate one from the
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other.

On 6 October the 56th Squadron was attached, for operational
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purposes, to No. 239 Wing, which was prepared to go forward in the event of an advance, while the remaining two squadrons of the 57th

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Group, the 64th and 65th, formed a separate wing under the operational control of No. 211 Group of the RAF, the equivalent of an AAF wing. With the addition of other pilots to the American squadrons, it was found advisable to form a second RAF fighter-control organization, and as a result, No. 212 Group came into existence. With two mobile fighter groups in the Western Desert Command, it was now possible to transfer one of them to some other section of operations at once, if there were
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need.

The actual coordination of American tactical units with the RAF was facilitated by the activation of the U. S. Desert Air Task Force, about 2 weeks later (22 October). This force, of which General Brereton was personally in command, with Brig. Gen. Auby Strickland as his chief of staff, maintained a small staff at British Advance Air Headquarters in the Western Desert, in order that they might gain experience in the control of air forces in the field, and also might represent American interest there. At the time of its establishment, the Desert Task Force consisted of only two units--the 57th Fighter Group and the 12th Bombardment Group, which had arrived in the theater several months earlier. Although both of these units were attached to the RAF for operational purposes and took their places in its organization as wings, their orders were issued by General Brereton, on the basis of action requested by Air Vice Marshal Sir Arthur Coningham, at a daily morning conference regarding operations. This arrangement enabled the United States command to retain administrative control of its units and

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brought excellent results, for the entire British staff proved most helpful, and expressed generous appreciation of the efforts put forth by the American squadrons.
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The air phase of the Battle of Egypt opened on 20 October, with the two-fold object of gaining mastery of the air, and of softening up the enemy by harassing his lines of communications. By that time, the 57th Fighter Group had ceased to be considered a reserve. In fact, for the preceding 2 weeks much of its work had consisted of escort duty for light bombers concentrating on the destruction of airdromes at El Daba and Fuka, where the bulk of the German and Italian fighters were based, and on supply depots and troop concentrations behind the enemy lines.
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The opening assault on the El Alamein line by the ground forces of the Eighth Army, on the night of 23-24 October, introduced the second phase of the Battle of Egypt, throughout which the 57th Group furnished close cooperation by bombing and strafing army targets. It was during this second phase of the Battle of Egypt that the major portion of the German and Italian air force supporting Marshal Rommel was put out of action on the ground, partly as a result of a new type of fighter-bomber raid introduced by the 57th Group. By attacking at dawn after having flown on the deck all the way to the target, the P-40's would catch the enemy by surprise and as a consequence his grounded planes sustained severe damage from bombing and strafing.
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The third phase of the Battle of Egypt began to take shape on the morning of 3 November, when Allied reconnaissance aircraft

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reported that the volume of west-bound traffic on the coastal road
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between El Daba and Fuka indicated an enemy withdrawal. As Marshal
Rommel's army fell back, the air attack was maintained with such
intensity that a regrouping of his disorganized forces for a stand at
Fuka was out of the question. During the campaign from El Alamein
through Tripoli, the fighter-bomber played a conspicuous part. By
preventing the concentration of German forces and thus precluding the
possibility of the enemy's halting or making a counterattack, they
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also had a definite influence on ground force tactics. When,
after 5 November, Rommel's withdrawal developed into a rout, a part
of the 57th Group joined selected Spitfires and Kittyhawks in harrying
the remnants of the Axis armies in their westward flight. With
this forward movement, the 64th and 65th American units passed, for
the time being, from the operational control of No. 211 Fighter Group
to that of the recently organized No. 212 Fighter Group, while the 66th
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Squadron continued to fly with No. 239 Wing.

The group's rate of movement throughout the campaign was made
possible by the maintenance of aircraft, even under the most adverse
desert conditions. In the beginning, facilities for repair and upkeep
at the bases were very poor indeed. The depot groups had little
equipment at hand, and consequently clamored for tools and spare
parts. Large pieces, such as wings and stabilizers, could be got
from salvage, but small parts were obtained with more difficulty and
were much more likely to be lost in the sand. Improvisation was
frequently resorted to, and a great deal was learned from the British,

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who had already had considerable experience in desert warfare. Despite severe sandstorms and a shortage of materiel, the record of serviceability for the entire campaign was slightly above 72 per cent. 127

Closely associated with the work of the 57th Group was that of the 12th Bombardment Group, which had begun operations from its bases at Deversoir and Ismailia in mid-August. When Marshal Rommel launched his attack on the southern sector of the El Alamein line in late August and early September, more than a dozen planes from the various squadrons of the group were sent into the desert to cooperate with RAF and SAAF light bombers in pounding enemy tank and transport concentrations in the Deir El Ragil area. The effort of the B-25's at this stage could not be very extensive, for the strength of the detachment was only that of a token force. Yet the Mitchells operated at maximum capacity, with the loss of only one plane, and the excellence of their performance won for their crews a message of congratulation from Air Vice Marshal Coningham, the Air Officer Commanding. 128

During the pre-offensive period, the 12th Bombardment Group participated in the repeated attacks on the enemy's advanced airdromes at El Daba, Fuka, and Sidi Haneish--raids which were most effective in limiting the enemy's air effort both before and after the Eighth Army 129 launched its assault. About the middle of October, however, the 12th Group received orders to move from Deversoir and Ismailia to Landing Ground 88, which was located some 50 miles behind the front lines. Lack of transportation for the entire group necessitated the

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reduction of squadrons to 200 officers and men--a figure which allotted 15 combat crews, and an essential number of maintenance men, armorers, housekeeping personnel, and a very small headquarters to each unit. On account of the curtailment of staff, all administrative work, in both the group and the squadrons, was done at the rear base where the rest of the group remained until the end of November, when they, too, moved to Landing Ground 88.

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In the reorganization which preceded the Eighth Army's offensive on 23 October, the 12th Bombardment Group, like the 57th Fighter Group, became a part of the U. S. Desert Air Task Force. In order to facilitate operations still further, the B-25 squadrons were absorbed into the British light-bomber effort, forming, with a squadron of Baltimores, No. 232 Wing (RAF). During the Battle of El Alamein, the B-25's were employed in the light-bomber shuttle service, and flew from five to ten missions a day over the front lines. In addition to troop and truck concentrations, the targets were advanced landing fields, Mersa Matruh, and Ghazal. For most of these missions a large part of the escort was furnished by the 57th Fighter Group, and most effective protection it was, too, for during the campaign no bomber was lost through enemy fighter activity.

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The forward light-bomber control, comprising an operations officer and his assistant, an army liaison officer from the Eighth Army, and such clerks as were needed, made up the operational section of the Advanced Air Headquarters. By working with the Advanced Fighter Control of No. 211 Group, this organization brought about close

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cooperation between the two units, and, as a consequence, both fighter and bomber operations were maintained at maximum intensity. Whenever it was possible, the bombing schedule was pre-planned, for otherwise the airplanes could not be used to fullest advantage. The list of targets that the Army wished to have attacked on the following day was drawn up and sent to the Advanced Air Headquarters, which was located conveniently near the headquarters of the Eighth Army. After giving careful consideration to the matter, the operations officer decided which objectives would be bombed, and then consulted the group controller of the fighters to learn whether the necessary escort could be provided. On the basis of this conference final arrangements were made.

Each morning the Liaison Officer from the Eighth Army gave the squadron crews a complete report of the latest military situation, and told them what the Army intended to do that day. In this way, the airmen were kept informed of the exact position of the forward troops, and knew just where the most recent bomb lines were drawn. In working in such close collaboration with the Army, information of this sort was of vital importance, for in a good many instances targets were only a quarter or a half-mile in front of the British

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troops. These painstaking efforts to keep ground and air forces in touch with each other, and to acquaint them with the part which each was to play, accounted in large measure for the success of their cooperative endeavor. Within the air arm itself, good relations between the British and American forces were also fostered by the fact that the

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Western Desert Air Force usually knew what it wanted to do, and how to achieve its objective. As a result of this definiteness of purpose,
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it never indulged in useless missions.

If, in the course of the day, the Eighth Army found itself held up at some place by an enemy gun position, a tank concentration, or any other such strong-point, it would ask that a given number of bombers be sent by way of assistance. This request would come down through the Tactical Bomber Control to Group Intelligence, and then to Squadron Intelligence, which would then brief the men going on the mission. Briefings were attended by the entire crew, because it was considered essential that each member of the unit should understand the nature of the assignment. All particulars concerning the area were given, including enemy gun locations and ack-ack positions. The standard character of many operations often made the repetition of details unnecessary at each session, but the bombing speed and the bombing altitude were changed frequently, and attention was also paid to the exact pin-pointing of the target. Since the B-25 was not heavily armed, and therefore could not operate without fighter-protection, considerable emphasis was placed upon the precise altitude and time of rendezvous with the fighter planes—a precaution which was most essential, for often several bomber formations would be picking up fighter escorts in the same area, at approximately the same
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hour.

The large number of daily missions run by the 12th Bombardment Group during the Battle of El Alamein should be attributed partly to

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the efficiency of the ground echelon, which had developed a discipline comparable, in effectiveness, to that of the air echelon. In each squadron there were certain men who did nothing but refueling, and others whose duty consisted entirely in the loading of bombs. By coordinating these operations it was possible to reservice and reload a flight of planes in a remarkably short period--on occasion, as little as 23 minutes from the time of landing and taxiing to the dispersal area. That was a shorter interval than was needed to interrogate the combat crews, to brief them, and to get them back to their planes.

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The B-25's continued to cooperate with the Bostons and Balti-
mores in bombing the Axis columns until 6 November. After the

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El Alamein line had been broken through, the rapid advance of the Eighth Army soon carried the battlefield beyond the range of the B-25 bases. Since suitable targets were not again available until December, the intervening time was spent in training missions, with special emphasis on navigational flights, night landings, and aerial gunnery, for example.

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The period was a most profitable one, for, in addition, experiments were made in equipping the B-25 with wing bomb racks, a modification which enabled it to do the work of several Bostons.

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When the fighting had been carried beyond the El Agheila positions, the Mitchells moved forward and took up an estimated one-third of the medium- and light-bomber task.

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The current progress of the Egyptian campaign had given rise to the hope that the vigor of the war in North Africa might force the withdrawal of German units from Europe. Despite Soviet successes

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of the previous year, the situation on the Eastern European front was very serious indeed, for a German victory there seemed dependent upon the ability of the Nazi armies to deal a crushing blow to the Soviet Union in the course of the next 12 months. Repeated demands for a second front in Europe reflected the anxiety of her leaders, while the diversion of British and American equipment to the U.S.S.R. in the face of the urgent requirements of other areas showed the importance of that theater to the cause of the United Nations. Throughout the summer of 1942, the German drive toward the Volga and the Caucasus had loomed large in the global struggle. If successful, such a thrust probably would make possible the seizure and exploitation of the oil resources of Baku, a tempting prospect to an enemy whose need for fuel was growing steadily more acute. Strategically, too, the conquest of this region would offer major advantages. Mastery of the Black Sea, secured by a southward sweep from Rostov to the Caucasus, would open water lanes of communication, and a foothold on the land bridge between Europe and Asia would increase substantially Germany's chances of a drive through Egypt, for the domination of the Middle East.

It was to thwart plans of this sort that Mr. Churchill had agreed to send an air task force to Transcaucasia, as a complement to the Soviet effort there--an obligation which he had undertaken several months earlier. In fact, British concern over the diversion of the 33d Fighter Group, and the temporary shortage of fighter aircraft in the Middle East, had been occasioned partly by the need for meeting

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 this promise. As an American contribution to the air force for the
 Caucasus, it had been proposed that the United States furnish two units
 by the beginning of 1943--one, a transport group from the United States,
 and the other, a highly mobile, heavy bombardment group organized in
 the Middle East, in so far as possible. 142

By way of implementing this plan, General Brereton was notified
 by General Marshall before the middle of October that from surplus
 personnel, aircraft, and equipment within his command, supplemented by
 additions sufficient to complete the unit, he should create the 376th
 Heavy Bombardment Group, composed of a headquarters squadron, and four
 tactical squadrons designated 512 to 515 inclusively. 143
 The carrying
 out of this order involved the reorganization of the First Provisional
 Group, which General Brereton had hoped, for some time, to establish
 on a more permanent basis. 144

By the end of the month, the necessary
 changes had been effected, and as a consequence the 376th Group was
 activated in the early morning hours of 1 November, 145
 largely from
 the air echelons of what had been originally the Halverson and Brereton
 Detachments. Provision for the minimum number of ground crews required
 for operations had been made, however, only at the expense of other
 groups, and additional personnel would therefore be needed to remedy
 the situation. 146

The new group was commanded by Col. George F.
 McGuire, who had taken charge of the First Provisional Group soon
 after Colonel Halverson's return to the United States at the beginning
 of August. 147
 Since the combined Anglo-American air force intended

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for Transcaucasia was not to take shape for some weeks, the 376th Group continued to operate in the theater much as had the First Provisional Group, with this difference, that eventually its aircraft would consist of B-24's only. ¹⁴⁸ While this reorganization was taking place, it had been decided that a mission with joint representation should be sent from the Middle East to Moscow, in order to settle the operational role of the Anglo-American air force, and to make arrangements for the operational and logistical ¹⁴⁹ facilities needed on a front in the Caucasus.

In the meantime, the disruption of the El Alamein line and the withdrawal of Marshal Rommel's armies early in November had forced the German bombers so far to the west that they no longer constituted a threat to Egyptian airdromes. The removal of this menace made possible the shifting of the B-17's and B-24's from the Levant to the Delta area. ¹⁵⁰ The 376th Group, the first of the bombardment units to be transferred, left Lydda on 7 November and was established 2 days later on the sandy stretches of Abu Sueir, a well-equipped desert base which the RAF had placed at its disposal. By 13 November, the 98th Group also was located in the Canal district--Group Headquarters and the 345th and 415th Squadrons having moved from Ramat David to El Kabrit, and the 343d and 344th Squadrons from St. Jean d'Acre to Fayid. About the same time, No. 160 Squadron (RAF) from Aqir ¹⁵¹ took up its station at Shandur.

Transferal of the heavy bombardment groups to Egypt automatically resulted in the decision to bring the 323d Service Group to the Canal

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area too. Since this unit was to act as an advanced depot in support of the Desert Air Task Force, a part of the group moved to the new desert base at Landing Ground 174 soon after the opening of the October offensive, and the remaining sections followed at the end of November. Support for the two heavy bombardment groups was supplied by service units which had just reached the theater. Delay in the delivery of equipment prevented these groups from beginning to function immediately, but their personnel were distributed to various stations--those of the 306th Group were assigned to the 98th Bombardment Group at Fayid and El Kabrit, and those of the 315th, to the 376th Bombardment Group at Abu Sueir. The arrival of an aviation company of military police at the same time made possible the furnishing of protection to these

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groups. Security measures were very essential, for there was always danger from sabotage, and in preceding months the lack of police had necessitated, on occasion, the use of skilled personnel for the guarding of installations. In view of the length of time required to train a mechanic, an expedient of this sort proved most uneconomical.

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The greater degree of self-sufficiency which the USAMBAF attained from day to day was attributable, in part, to its ability to take control of its own supplies, an arrangement made possible by the placing of the 26th Depot Group at Deversoir, on the Suez Canal. Despite the advantages of this location, it was understood that the choice of site for the air depot would be determined by the development of communications to the west.

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When the heavy bombers were moved to Egypt, the weather forecast

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station was transferred to Fayid, where its responsibility consisted in providing weather reports for both of the heavy bombardment groups. For purposes of observation, four stations were established at emergency landing fields in the Canal area, and from these posts weather reports were exchanged every hour during a mission. Owing, however, to the small number of surface reports received and the limited areas covered, only meager information was available to the local station. As a consequence, its forecasts lacked the accuracy required for carrying out successful raids far behind the enemy lines. In an attempt to improve the quality of these reports, a careful study of the weather charts prepared by the RAF at their central weather station in Cairo was made, and twice every day forecasts were sent to the A-3 officer of the USAMEAF, who scheduled or canceled missions accordingly. This practice brought about a substantial reduction in the number of mission failures attributable to bad weather. Until the establishment of a United States weather central at Cairo in January, the function of the forecast station at Fayid, and that of a subsidiary station soon to be located at the advance operational base near Tobruk, became one of 155 briefing crews with weather forecasts drawn up by the British in Cairo.

While these operational changes were in progress, General Brereton's administrative organization had gradually assumed fuller form. From time to time, officers had been added to his staff in recent months, and on 2 November the advance unit of an air force Headquarters and 156 Headquarters Squadron had reached Egypt. Although the AAF organizations in the theater were still operating under the designation of U. S. Army

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Middle East Air Force, orders showed the assignment of individual officers to the "Ninth Air Force." Since there was fear that the continuation of such a practice might result in confusion, the immediate activation of the air force was urged. ¹⁵⁷ This step was not accomplished until 12 November. On that day, Lt. Gen. Frank M. Andrews, who recently had replaced General Maxwell as commander of the U.S. Army Forces in the Middle East, announced the establishment of the Ninth Air Force, ¹⁵⁸ under the command of General Brereton.

Despite the fact that the new organization superseded the USAMEAF, and hence embraced all the American air forces in the Middle East, it still needed both units and equipment--a lack caused, in large measure, by the shortage of shipping facilities. Late in October, the air echelon of the 79th Fighter Group had crossed to Africa by air. After being furnished with aircraft in the theater, it reached Cairo on 2 November and promptly joined the 57th Group in the Western Desert. The ground units came by ship 10 days later. The arrival of this group and the coming of a substantial portion of the 324th Fighter Group, just before Christmas, did much to relieve the fighter situation, which had given such concern to the British in September. Although a number of units within the Ninth Air Force were below authorized strength, one of the most pronounced deficiencies was the absence of adequate administrative staffs for the commands. The Headquarters and Headquarters Squadrons of the Air Service and Fighter Commands did not reach North Africa until after the middle of December 1942 and early February 1943, respectively, while that of the Ninth Air Force itself was not complete until 22 December, when the Rear Detachment of the unit was merged with the Advance

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Echelon which had been in Cairo for almost 6 weeks. ¹⁵⁹ The Bomber Command was more fortunate. On 12 November, Brig. Gen. Patrick W. Timberlake formally assumed command of this organization after the announcement of its constitution, effective 10 November, had been confirmed on 12 November by the Headquarters of the Ninth Air Force. ¹⁶⁰ With the rescinding of this order 2 weeks later, ¹⁶¹ the actual establishment of the IX Bomber Command was delayed until 27 November. At that time elements of the former Bomber Command, USAMEAF, were merged with the Headquarters and Headquarters Squadron of the 19th Bombardment Wing, a unit which had been assigned to the Ninth Air Force ¹⁶² and redesignated Headquarters and Headquarters Squadron, IX Bomber Command, ¹⁶³ upon its arrival in the theater.

Owing to lack of men and equipment, it had not yet been possible for the Air Service Command to organize an Air Transport Section. Nevertheless, some essential war materials had been delivered by a few C-47 Douglas planes loaned to the command for this purpose. As the demands of units in the field increased, these cargo planes, from bases in the Levant, made round-trip flights approximating 1,200 miles ¹⁶⁴ a day. Despite this effort, the needs resulting from the shifting of the battle line westward from El Alamein led the British, early in November, to request that a larger number of American transport planes be brought into service. In the emergency, it was decided that as many as 40 cargo airplanes and crews could be withdrawn temporarily from General FitzGerald's command for use in operations from the Delta.

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 area. Since the transfer of these aircraft from the ATO's Africa-Middle East Wing would greatly cripple the movement of supplies between Accra and Cairo, the 316th Troop Carrier Group, then in Texas, was ordered to proceed to the Middle East. This unit, composed of Group Headquarters and four squadrons (the 36th, 37th, 44th and 45th), under the command of Col. Jerome B. McCauley, was standing in readiness to join the Anglo-American air force designed for the Caucasus. 166

This circumstance enabled it, with its 52 freight-carrying planes and a full complement of personnel, to set off for North Africa at once. Upon reaching the Gold Coast, the 44th Squadron was detained at Accra for 10 days for the performance of two special missions, but the remainder of the air echelon arrived in Egypt on 23 to 25 November 1942. The coming of these squadrons did much to relieve the transport situation in the Western Desert, for they began operations almost immediately. 167

Meanwhile, the extreme shortage of photographic films showing the activities of the Army Air Forces in the various theaters of operation had led to the organization and equipment of motion picture units.

Until such time as one of these could be made available to the Ninth Air Force, General Brereton was notified that a detachment of six cameramen, with equipment, would be dispatched to North Africa. 168

Drawn from the 2d Combat Camera Unit, this small group formed the nucleus of the 9th Combat Camera Unit, which was activated in Egypt on 30 November 1942 but operated without a headquarters section until 1 February of the following year. 169 Although Cairo was the official station of the organization, members of the unit were located throughout the Ninth Air Force, in an effort to obtain a comprehensive record

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of air activities in the theater. In a short time, it was expected that the results of this photographic work would prove valuable for operations in the field and that, in the United States, the pictures could be used to advantage for such purposes as training and public relations. As soon as the tactical situation was such that the effectiveness of combat units would not be hampered unduly, these cameramen would
170
be authorized to fly on aerial motion picture missions.

Before the end of the year, two other problems pertaining to the theater were settled. The preference of the Soviet Union for planes without crews had led to the withdrawal of the proposal for an Anglo-American air force for the Caucasus, on the ground that such an arrangement would leave well-trained squadrons without aircraft at a time
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when their services would be badly needed. It was therefore decided that the 376th Bombardment Group, if not sent to India, should remain
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in the Middle East for the present.

The second question had to do with the general problem of maintenance and repair. Owing to the zeal of Douglas mechanics, who had assisted in the erection of shop facilities and had undertaken operations with a small amount of salvaged Italian machinery and whatever hand tools were available, it had been possible to run the Gura
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depot on a limited scale for some time. Its retention by the theater Services of Supply, however, had been a matter of contention since, on principle, it was believed by the Army Air Forces that all air
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depots should come directly under the Air Service Command. In accordance with this general policy, the transfer of the Gura depot

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to the jurisdiction of the IX Air Service Command was effected on 23
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 December. Under the direction of Col. Harry S. Bishop, who had
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 recently been appointed commanding officer of the depot, its usefulness was increasing. The idea that it should function as a general depot for American supplies had been abandoned, however, for it was insufficiently staffed for such a project, and was now situated too far to the rear. Desirable as was the plan for a central distributing station, it was considered wiser under the circumstances to concentrate on the building up of an American supply and maintenance system, capable of serving American forces and of rendering support to the RAF, in an
 177
 emergency. It was General Brereton's hope that the time would not be far distant when the logistical organization would be so well developed that a strong air offensive could be conducted from North
 178
 Africa against Europe.

With this end in view, the heavy bomber groups had concentrated throughout the fall on the perfection of bombing patterns, and had succeeded in doubling the effectiveness of their attacks upon maneuvering targets.
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 The result of this increased skill was shown on 4 December 1942, when B-24's of both the 98th and 376th groups bombed shipping, dock installations, and units of the Italian fleet in the harbor of Naples. This attack marked the first of a long series of blows to be struck by American air power against Italy proper. In the logistical struggle which both sides were waging, the efforts of the Ninth Air Force hereafter would be directed not only toward preventing Axis supplies from being delivered in North Africa, but toward keeping
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 them from leaving Italian ports on the Continent.

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NOTES

Chapter I

1. CM-IN* (4-29-41), Fellers to WD, Cairo, 25 April 41. A similar view was expressed by Maj. Henry Cabot Lodge in an interview on 7 July 1942, in Libya 9910, A-2 Library.
2. Ltrs., Chief of Materiel Div., to Gen. Brett, 13 and 21 Dec. 1940, in AAG 210.68. An estimate of the usefulness of such observers in England is given in memo for AC/S, G-2 by Gen. Arnold, 15 Jan. 1941, in AAG 210.68. See also CM-IN, Chaney to WD, 26 Aug. 41, in AAG 381.3.
3. Regarding the activities of these observers and the nature of their mission, see memo for AC/S, G-2 by OCAO, 4 Oct. 1940 and telg., Gen. Brett to CG GHG AF, Langley Fld., 12 Dec. 1940, in AAG 201, Demas T. Crow; also interview with Col. Demas T. Crow, 11 May 1942, in U. S. 9000, A-2 Lib. Colonel Brower's contribution to the subject is indicated in a citation suggested in connection with the awarding of the Legion of Merit, conferred upon him posthumously. See memo for CG AAF by Brig. Gen. Edgar P. Sorensen, 25 Nov. 1943, in AAG 201, Gerald E. Brower.
4. See the President's Address before the Joint Session of the Congress, 15 Jan. 1941. See also the statement of the Secretary of State before the Foreign Affairs Committee of the House of Representatives during Public Hearings on H. R. 1776; and that of the Secretary of War before the same committee, on 16 Jan. 1941.
5. Edward R. Stettinius, Jr., Lend-Lease: Weapon for Victory, 90-92.
6. CM-IN, Fellers to WD, Cairo, 21 June 41; also his cables of 26 and 28 May 41; CM-IN, Ferrin to WD, Cairo, 21 June 41. Mr. Karl Lueder, asst. operations manager for PAA-Africa, Ltd., ascribed losses partly to the method of convoying Tomahawks and Hurricanes by the much slower Wellington. As a result, the faster planes had to throttle back and circle. They also depended exclusively on the Wellington for navigation, so that, if the latter were obliged to land, they, too, were forced down. (Memo for Chief of Naval Opns. by District Intell. Officer, 3 ND, based on an interview with Karl Lueder, 15 Oct. 1941, in Africa 9000, A-2 Lib.) This practice

* Many cables were unnumbered at this period.

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must have been modified later, for, in speaking of the ferrying of P-40's, Mr. Clark of Curtiss-Wright referred to the Tomahawks flying with Glenn Martins on the journey across Africa. (Report from Intell. Div., Office of Naval Opns., 15 Oct. 1941, based on a Report of the Middle East Aircraft Situation, with special reference to Tomahawks, made by G. B. Clark of Curtiss-Wright, 20 Aug. 1941, in U. S. 9570, A-2 Lib.) According to some observers, the number of accidents on the trans-African crossing might have been substantially reduced, if the British had organized an efficient ferry command when the route was opened. Final Report of Lt. Lewis B. Meng to AC/S, G-2, on his trip to Egypt, 3 Oct. 1941, in U. S. 9570.

7. Among the first of these officers were Lts. Lewis B. Meng and William W. Momyer, who left the United States in March 1941 and remained in the Middle East until August of that year. See their reports to AC/S, G-2, 3 and 6 Oct. 1941, in U. S. 9570. Also see ltrs., Maj. E. R. Quesada to Gen. Chaney, 18 and 22 Mar. 1941, in AAG 210.68. These men were flown across the Pacific to Egypt. According to their instructions, they were to report in Cairo to the Military Attache, who would put them in touch with the proper British authorities. It was understood that their assignment was to be with a British tactical unit. Lt. Meng's assignment was to observe operations and serve as instructor on the P-40's being furnished to the RAF. Lt. Momyer's mission consisted in rendering assistance to the RAF in the maintenance and assembly of P-40's. Evidently these men were considered under General Chaney's jurisdiction while in the Middle East, for in writing to him on 22 March 1941, Major Quesada says: "You have no doubt received warning orders on the subject of two officers and four enlisted men of your Command, who are to proceed to Cairo for the purpose of assisting the British in the maintenance of P-40's."
8. Telg. #1049, Fibern to Burns, Cairo, 1 Aug. 41.
9. Ltr., R. E. Gross (pres. of Lockheed Aircraft Corp.) to Col. J. M. Bevans (Dir. of Personnel, Hq AAF), in AAG 231. By the beginning of August 1941 there were, in the Middle East, representatives of Glenn Martin, Wright, Curtiss, Curtiss Propeller, Pratt & Whitney, and Allison. See telg. #1049, Fibern to Burns, Cairo, 1 Aug. 41. The advantage of direct communication between these representatives and their companies is well illustrated by the following example. At Port Sudan, the RAF local organization, in reporting a shortage of parts at the assembly plant there, was obliged to write, or dispatch a message to their headquarters at Khartoum, which then forwarded the request to RAF Headquarters in Cairo. From there it was sent to the U. S. Military Attache in Cairo, who, in turn, forwarded the message to the proper Army agency in Washington, where the problem was referred to the office concerned with the procurement of planes, and eventually the matter

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would come to the attention of the manufacturing company. See O.N.I. 91, "Survey of Central African Seaports and Air Routes (27 Aug. 1941-5 Jan. 1942)," 135-136.

10. CM-IN-4879 (5-18-42), Cairo to AG, AMSEG #1110, pt. 3, 17 May 42. The presence of air observers is believed to have contributed substantially to the success of the policy of standardization which the United States had adopted with respect to aircraft and equipment being sent to the British. (Memo for A/CS, G-2, by Gen. Arnold, 15 Jan. 1941, in AAG 210.68.) For adoption of the policy, see Stettinius, Lend-Lease, 50-51. Since the P-40 was the first plane toward which the Joint Aircraft Committee directed its attention, the Middle East profited by this policy.
11. Interview with Paul Carpenter of Curtiss-Wright Corp., Feb. 1942, in U. S. 9000.
12. Ltrs., Maj. E. F. Gillepie to the Curtiss-Wright Corp., 15 Aug. 1941, in AAG 000-800, Africa; to J. L. Bunce of Pratt and Whitney Aircraft Co., and to W. B. Birren, of Wright Aeronautics Corp., 22 Aug. 1941, in AAG 231. See also CM-IN, Fellers to WD, Cairo, 21 June 41.
13. Concerning the public announcement of their presence in the Middle East, see memo for Bureau of Public Relations WD by Lt. Col. Arthur I. Ennis (attached to R&R, OCAC to C/A-2, 26 Nov. 1941), in AAG 231.
14. Ltrs., Chief of Materiel Div. to Gen. Brett, 13 and 31 Dec. 1940, in AAG 210.68.
15. Msg., Adams to CO, Wright Field, Dayton, 10 Jan. 41, in AAG 201, Edwin S. Ferrin. Since the material was needed urgently, it was planned that Colonel Brower should return to the United States with the report. (Memo for Foreign Liaison Officer, G-2, by Maj. E. P. Quesada, AG Liaison Officer, 6 Feb. 1941, in AAG, 210.68). It was later decided that Colonel Brower should remain in the Middle East. Unfortunately he was killed at El Obeid, in the Anglo-Egyptian Sudan, on 20 April 1941, while ferrying to Cairo an American-made RAF plane assembled at Takoradi. Msgs., Fellers to WD, Cairo (#1863), 21 April 41; Cairo (#1879), 29 April 41, and Cairo (#1883), 1 May 41. See also Gen. Brett's letter of condolence, to Mrs. Brower, 23 April 1941, in AAG 201, Gerald E. Brower.
16. CM-OUT, Intell. Div., 2-B3 to MA, Cairo, 8 Feb. 41 (attached to R&R, 11 Feb. 1941), in AAG 210.68.
17. CM-IN, Fellers to WD, Cairo, 8 May and 9 June 41.
18. CM-IN (4-29-41), Fellers to WD, 25 April 41.

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19. The loss of British aeronautical equipment in Greece was reported as 100% of all fighter planes, 60% of all bombers, and 95% of air-force ground equipment. (CM-IN, Fellers to WD, 30 June 41.) After the fall of Crete, the British were obliged to build up their air force completely, as not more than 75 planes of all sorts and conditions are said to have been saved. (Interviews with Lts. Meng and Momyer, Air Observers in Egypt, 1 Oct. 1941, in Libya 9910, A-2 Lib.) By the end of June, the situation had taken a turn for the better. CM-IN, Fellers to WD, 30 June 41.
20. CM-IN, Gen. Lee to WD, 7 July 41; interviews with Lts. Meng and Momyer. CM-IN, Fellers to WD, Cairo, 15 June 41.
21. CM-IN, Fellers to WD, Cairo, 2 May 41.
22. In fact, the battle of Crete had revived serious discussion of the necessity of a military air arm which would have as its mission the uninterrupted, direct support of ground troops. (CM-IN, Gen. Lee to WD, London, 17 June 41, par. 5.) In recognition of this need, Mr. Churchill, in a speech of 11 June, had stated that ampler provision for this kind of cooperation was to be included in the military program. (Ibid., par. 6; CM-IN, Fellers to WD, Cairo, 4 and 14 June 41.) For Admiral Cunningham's revision of opinion regarding the value of air support, see CM-IN (6-18-41), Fellers to WD, Cairo, 15 June 41. Unless 1,000 planes were received immediately, he felt that the Middle East could not be held.
23. Owing to the distance between airports, this route was open only to long-range bombers and transports. Stettinius, Lend-Lease, 146.
24. Ibid., 145.
25. In 1940, the Cairo-Takoradi ferry route was included in the British Middle-East Command. See Military Intell. Service, WD, Notes and Lessons on Operations in the Middle East (Campaign Study No. 8, 30 Jan. 1943.) A convoy of Blenheims first used this route in September 1940. The ferrying organization was later known as the "Aircraft Delivery Unit" and included pilots of many nations—British and Dominion, Polish, Yugoslav, and Free French. RAF Middle East Review, No. 1, 97-98.
26. Ibid.; also U. S. AAF Air Route Manual Natal, Brazil, to Cairo, Egypt, 1 June 1943.
27. Maj. Geoffrey Bonnell, "Safari on Wings," Air Forces News Letter, XXV, No. 2 (March-April 1942), 1-2.
28. At first it was thought that the West African terminal should be located in the neutral zone of Liberia. However, by the ruling of

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the Attorney General that only territory contiguous to the British Isles was belligerent, Bathurst and Freetown were exempted. Memo for Chief, AAF by Maj. E. F. Gillespie, 14 Sep. 1941, 1-S-1, PAA Relations No. 1 in AFAMP Off. Services Branch.

29. Stettinius, Lend-Lease, 148. For reference to the work done in connection with Brazilian airports, see letter of Col. Willis H. Hale to Maj. Gen. H. H. Arnold, 19 Sep. 1941, in 1-S-1, PAA Relations No. 1.
30. Stettinius, Lend-Lease, 146-148. In mid-July, Mr. Frank Gledhill, vice-president of PAA, had flown to Africa to inspect stations, check installations, and survey alternate routes. Don Wharton, "Our Life Line to the East," Saturday Evening Post, 1 Aug. 1942, 19.
31. Memo for C/AAF by S/W, 12 Aug. 1941, in 1-S-1, PAA Relations No.1. See also memo for Gen. Brett by Maj. E. F. Gillespie, 22 Aug. 1941, on South Atlantic and African Ferry Service, ibid. These contracts, signed by General Brett (Chief of the Air Corps), Colonel Volandt (contracting officer for the War Dept.), representatives of Pan American Airways Inc., and members of the British Air Commission, may be grouped as follows:
 - a. Contract between the U. S. Government and the Pan American Airways Co. concerning the South Atlantic Transport Route, running from Baltimore or Miami, via Brazil, to Bathurst, British Gambia. The initial equipment was to consist of one Boeing 314 purchased from PAA (owing to Neutrality Legislation) for \$900,000, and leased to Pan American Airways, Inc. for operation.
 - b. Contract between the U. S. Government, Pan American Airways, Inc., and Pan American Airways-Africa, Ltd. relating to the trans-African transport route. Initial equipment was to be 10 DC-3's and 2 Lockheed Lodestars to be operated between Takoradi or Lagos, and Khartoum or Cairo, with a possibility of supplementary service between Takoradi and Lagos, to Bathurst. If additional equipment were necessary, it was thought that 8 other DC-3's would be available.
 - c. Contract between U. S. Government, Pan American Airways, Inc., and Pan American Air Ferries, Inc. regarding the ferrying of aircraft from the United States to the West Coast of Africa, and from there to Khartoum.
 - (1) According to current plans, Pan American Air Ferries, Inc., probably would be called upon to ferry 10 DC-2's and 2 Lockheed Lodestars for the trans-African service; 3 DC-2's, 12 Lockheed 10's, and 20 Lockheed 12's for

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the British transport service, or a total of 47 planes, to be ferried from Miami to Bathurst by the end of the year. It was estimated that approximately 20 additional aircraft (from sources not then determinable) were to be ferried across the South Atlantic, as well as 8 other DC-3's, if required for the trans-African transport service. From 1 January through 30 June, it was expected that 45 Martin bombers (B-26's) would be ferried from Baltimore to Khartoum, via Brazil and Bathurst, and possibly other aircraft as well.

(2) In regard to the trans-African ferrying, it was thought that, from 1 Sep. 1941 to June 1942, 50 Blenheims and 150 pursuit ships (mostly Hurricanes with a few P-40's) per month would be ferried from Takoradi to Khartoum. According to Pan American Airways, it was believed that most of the P-40's had already been ferried.

- d. Contract between Pan American Airways-Africa, Ltd. and the British Government relating to the trans-African transport route.
- e. Contract between Pan American Ferries, Inc. and the British Government relating to the ferrying of aircraft to Africa. For the terms of the pilot's contract with FAA on the ferrying planes to the Middle East, see memo for C/AC by C/AS, AAF, 18 Oct. 1941 (attached to memo for 14 Oct. 1941, in AAG 361.) Changed conditions resulting from the entry of the United States into the war later necessitated revision of some of these contracts. For conditions at the West African assembly plants, see CM-IN, Fellers to WD, Cairo, 8 May 1941.

- 32. Don Wharton, "Our New Life Line to the East," Saturday Evening Post, 1 Aug. 1942, 19, 65-66.
- 33. Military Attaché's Report, "Trans-African Route," 12 Aug. 1942, in AFAEP, WP-III-F-12, North Africa, Bk. I; also Bonnell, "Safari on Wings."
- 34. Interview with Capt. W. H. Davidow, of FAA-Africa, Ltd., 23 Sep. 1942, in U. S. 9000.
- 35. The War Department-FAA-Africa, Ltd. contract of 12 Aug. 1941 provided for the release of an indeterminate number of AAF officers for civilian pilot service with FAA-Africa, Ltd. in Africa. Memo

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for C/AS by Lt. Col. George C. McDonald, 1 Oct. 1941, in AAG 000.71. See also par. 5 of memo for Gen. Brett by Maj. E. F. Gillespie, 22 Aug. 1941, 1-S-1, PAA Relations No. 1.

36. Interview with George Kraigher, operations manager, PAA-Africa, Ltd., 13 May 1942, in U. S. 9000. See also msg. #1606, Kirk to Dept. of State, 17 Oct. 1941.
37. CM-OUT (12-3-41), Exec. 15 A1 to AMSEG, Cairo, #191, 4 Dec. 41; AAF, AWPD to OCAC, Intell., 17 Nov. 1941, in AAG 361; Office of Sec. of War to Asst. Chief of Materiel Div., Wright Field, 16 Dec. 1941, in AAG, 686; also memo to Maj. Gen. H. H. Arnold by Maj. Gen. James H. Burns, 19 Nov. 1941, in 1-S-1, PAA Relations No. 1. The routes to these points were:
- a. Khartoum to Teheran or Ashkhabad (U.S.S.R.), via Wadi Halfa, Luxor, Cairo, Lydda (Palestine), and Habbaniyah (Iraq).
 - b. Lagos to Rangoon, via Maiduguri, El Fasher, Khartoum, Port Sudan, Bahrein, Karachi, Jodhpur, and Calcutta. See memo for Col. George by Maj. E. F. Gillespie, 29 Nov. 1941, ibid.

The extensions to Basra and Teheran were the result of plans formulated after the return of the Harriman Mission from Russia in October. Both routes had been pioneered, however. General Brett's interest in the possibility of delivering military aircraft to the Middle and Far East by way of a South Atlantic-trans-African ferry route had led him to explore the route as far east as Basra, while on his mission to Egypt. His pilot on this expedition was Lt. Col. Caleb V. Haynes, who flew a B-24 plane. Colonel Haynes's flight from Bolling Field to Basra and return lasted from 31 August to 7 October 1941. (Ltr., Gen. Brett to Gen. Marshall, 18 June 1942, attached to memo for DC/S by AFCAS, 12 July 1942, in AAG 201, George H. Brett. See also citation for the Oak Leaf Cluster, DFC, presented to Colonel Haynes, ibid. A route from Moscow to Cairo also had been explored by Lt. Louis T. Reichers about the same time. As pilot of one of the B-24's that had carried part of the Harriman Mission to Russia, he had plotted a homeward course across Africa and the South Atlantic. Pilot's Report by Lt. Louis T. Reichers [to ACFC], in Air Transport Command (1941-1942), A-3 Lib.

38. Interview with Lt. Col. M. B. Hahn at Hq. Air Service Command, 7 May 1943, in U. S. 9000.
39. Wharton, "Our Life Line to the East"; Interview with Capt. Davidow.
40. AAF, AWPD to OC/AC, Intell., 17 Nov. 1941, in AAG 361. PAA gave

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assurance to the War Department that competent personnel would be in charge of meteorological and communications facilities along the route. If its staff proved inadequate, or showed a lack of understanding regarding ACFC problems, PAA agreed that, in addition to its own personnel, those of the AAF should be stationed at African fields.

41. By 7 October 1941, more than 17 planes of commercial types had been delivered to the British in Africa by members of PAA's ferrying group. See Intercepted Correspondence, dated 7 Oct. 1941, attached to ltr., Lt. Frederick R. Merritt, Intell. Officer, AC Training Det., Coral Gables, Fla., to AC/S, A-2, 20 Oct. 1941, in Africa 9000.
42. Interview with Capt. Davidow. In an effort to increase deliveries, the British had adopted the practice of utilizing squadron pilots, for whom there were no planes at the time, to ferry equipment. (CM-IN, Fellers to WD, Cairo, 28 May 41.) Transport planes were extremely important in this theater. In September 1941, General Brett cabled to General Arnold that about 70 fighters, ready for ferrying, could not be moved from Takoradi because of the lack of transports for returning the ferry pilots. CM-IN (9-14-41), MA, Cairo, to Milid, #64, [?] Sep. 41.
43. In a letter to the Secretary of War, on 29 October 1941, the President had authorized the delivery of aircraft to any point within the African continent, by the Air Corps Ferrying Command. (ATC Chron.) Under the provisions of a presidential directive of 19 November 1941, this work had been undertaken by the Ferrying Command, both with its own personnel, and through a contract with Pan American Airways, which arranged for the return of crews to their bases after completion of the ferrying mission. The delivery of heavy aircraft to the Middle East therefore seemed assured. Ltr., S/W to Sec. of State, 25 Nov. 1941, in AAG 361; also that attached to routing sheet, 15 Dec. 1941, in Air AG 686, Southern Ferry Route; and memo for C/S by OCAC, 15 Dec. 1941, in AAG 361.
44. The first Liberator left for Cairo on 21 November 1941, but crashed at El Obeid 4 days later. The last of the five departed on 6 December. According to a prearranged plan, the crews of the first four aircraft, with the exception of the navigators, were to remain in Cairo for approximately 2 months to give the British technical instruction in the operation of LB-30-type aircraft. ATC Chron.; Temporary Duty Orders, AG to CG ACFC, 7 Nov. 1941, in AAG 210.68; and CM-IN (11-27-41), Adler to Arnold, WD #251, Cairo, 23 Nov. 41.
45. If it were not feasible to fly Baltimore planes (Glenn Martin 187's) across the South Atlantic, the British feared that there would be

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a shortage of light bombers in the Middle East during the coming winter. This concern was accentuated by curtailment in the number of Bostons (A-20's) allotted to this theater, and by delay in the shipments of Baltimores. Through lack of flying experience in Glenn Martin 187's, Pan American Airways felt itself in no position to pass judgment on the performance of these aircraft on trans-oceanic flights. The question then was referred to the Army Air Corps. After much deliberation, it was finally decided that Baltimores and other short-range aircraft could be flown over the South Atlantic route, provided an intermediate airdrome with proper radio facilities were developed by both British and American governments. For this purpose, Ascension Island was chosen. Ltr., ACFC to Air Marshal A. T. Harris (attached to R&R, OCAC to C/AAF, 11 Dec. 1941), in AAG 361. Interview with Col. John E. Upston, 27 Nov. 1942, in Ninth Air Force Evaluation (Oct. 1942-July 1943), A-2 Lib. Ltr., Gen. Arnold to Air Marshal Harris (attached to R&R, ACFC to C/AC, 9 Dec. 1941), in Air AG 686, Southern Ferry Route; also Air Marshal Harris's reply to Gen. Arnold, 15 Dec. 1941, ibid.

46. Report of Meeting of War Plans Div., Air Staff, 13 Oct. 1941, in AAG 381. See also ltr., Col. S. C. Chamberlin to Gen. Moore, 23 Dec. 1941 (attached to routing sheet, AAF, A-2 to OCAC, ACFC, 15 Jan. 1942), in Air AG 686, Southern Ferry Route.
47. Ltr., S/W to Sec. of State, n. d. (attached to routing sheet, 15 Dec. 1941). The Kano airfield was only 75 miles from the French frontier, and supposedly only 100 miles from the nearest airdrome. For comments on the vulnerability of this section of the route, see interview with Col. Demas T. Crow. 6 July 1942, in msg., Fellers to AG, AMSEG #124, Cairo, 29 Dec. 41, pts. 1-2.

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Chapter II

1. Lack of transport facilities had seriously hampered the British offensive in the Middle East. Concern over supply bases and installations for African and Iraqi commands was reflected in the railroad program then under way. Four different projects comprised this effort:
 - a. New lines were being run from Safari to Qena, and thence to the Nile Valley, by the meter-gauge railroad under construction-- a route that would serve as an outlet for Sarafi's 1,000-ton daily import capacity. This undertaking was expected to be completed by March 1942.
 - b. From the port of Aqaba, the 600 tons unloaded there daily were to be moved by motor carrier to Neqbashtar where railroad transshipment would connect with the trans-Jordan railroad, via Maan. It was estimated that this project would also be finished by March 1942.
 - c. An extension was also being laid from Matruh south to the escarpment, thence west toward the base ending at Saphia. This enterprise was to be completed in December 1941.
 - d. Contact between Syrian and Iraqi commands was being forged by a supply railroad running from Alqaim to Karbla. According to estimates made, this undertaking would cover about 15 months. In the meantime, a temporary solution to the desert supply problem was being found in air transport. Large trucks had proved quite impractical, as they cut ruts in the roads and raised a cloud of dust, which revealed the whereabouts of the caravan. Fellers to WD, Cairo, 11 Sep. 1941. See also his earlier message of 22 July 1941.
2. Stettinius, Lend-Lease, 138, 150, 291.
3. CM-IN, Fellers to WD, Cairo, 15 Aug. 41. Also report by Robert C. Gray, 23 Sep. 1941 [Gray Report] (attached to ltr., W. L. Kearney to Chief of Materiel Div., 6 Oct. 1941), in AAG 385. In the Delta area were three maintenance units designed for major over-haul work--Geneifa (Depot No. 107) and Abu Sueir (Depot No. 102) in the vicinity of the Suez Canal, and Abu Qiy (Depot No. 103), about 10 miles northeast of Alexandria. These bases, of a rather permanent character, were extremely vulnerable to attack but had been built in their present locations because (1) bases near the Canal were considered necessary for its defense; (2) power, transportation, etc. had to be available to the bases; (3) the

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British did not wish to antagonize the Egyptians by moving bases inland near centers of population. As a matter of fact, all parts of the Delta area were almost equally vulnerable to air attack. Report of G. B. Clark, Clark Report summarized in Office of Naval Intelligence F-1, 54-41 (S), 15 Oct. 1941, in A-2 Lib.

4. CM-IN (7-21-41), MO, Cairo, to MILID, #2044, 18 July 41. CM-IN, Kirk to Dept. of State [i.e., Fibern to Burns] Cairo, telg. #1050, late July 1941. The fact that, in a sense, the entire Middle East constituted an area of this sort, was to be impressed upon all mechanics sent to the theater in the future.
5. CM-IN (7-21-41), MO, Cairo, to MILID, #2044, 18 July 41.
6. Originally it had been planned that much of the maintenance and assembly work in the Delta area should be concentrated in a single large unit at Ismailia. As soon as this depot was well stocked and in operation, it became an excellent target for German bombers. After a severe attack, it had been burned, along with a large number of airplanes being erected there. When Air Vice Marshal Grahame G. Dawson took charge, his practical knowledge of war conditions led to the dispersal of all maintenance units throughout a space of about 50 miles. This system was not without disadvantages, however. Conference with Mr. Sam Irwin, Vice President of Curtiss-Wright Corporation, Foreign Representation [about 19 Jan. 1942], in Africa 9500 in A-2 Lib. Mr. Irwin left Cairo on 14 January 1942. (CM-IN, Fellers to WD, Cairo, 8 Oct. 1941.) Mr. Clark, of the Curtiss-Wright Corporation, had been greatly concerned at the reliance that the British placed upon the three large maintenance units, and at their lack of progress in setting up smaller repair and service units of a self-sufficient or mobile character. In his opinion, such a unit lost its value if it could not pack up and move (presumably by truck) 100 miles a night, in pursuit of the squadron to which it belonged. Mr. Clark had impressed upon Air Vice Marshal Dawson the need for ready transportation from dumps and assembly plants to the repair and service units and to the squadrons. This emphasis resulted in A. V. M. Dawson's request to Mr. Harriman for 15 CW-30's to be used as supporting aircraft. See Clark Report,
7. Geneifa, a base then in the process of construction, consisted of two identical areas a mile apart. (It may have been one of these that was later known as Kasfareet.) Upon completion, they were expected to overhaul 200 American engines per month, on the basis of one shift for a 4,000-man crew. By the middle of July 1941, one area was 100% complete as to buildings, 65% as to general equipment, and 10% as to special overhaul equipment. The other area was 80% complete as to buildings but was without equipment. Air Vice Marshal Dawson had asked Mr. Harriman to provide 1,200 American technicians for this base. In order to hasten the sending of

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personnel and equipment, Wing Commander Messiter had been dispatched to the United States at the beginning of August. Ibid.

8. Gray Report.

9. CM-IN (7-21-41), MO, Cairo, to MILID, #2044, 18 July 41. The main assembly base in the Delta area had been located at Abu Sueir up to this time. It was a fixed depot left from the last war, and was used for overhaul and for supplying planes to the Western Desert. Practically no precautions against air attack had been taken by the summer of 1941. Airplanes ready for delivery were not dispersed or placed in crates, and consequently they provided an ideal target for enemy bombers. On one occasion an all-night raid resulted in serious damage to aircraft, engines, and a hangar. The depot had operated under adverse conditions, however. Many of the personnel were unskilled mechanics who had had no opportunity to attend special training classes. Their tools were obsolete and inadequate, and American equipment was new to all of them, even the more skilled technicians. As a consequence, it had taken 5 or 6 days to assemble a P-40 and make it ready for combat--a situation accounting, in part, for the fact that by the late summer of 1941 there were only three squadrons of Tomahawks operating in the Western Desert. The difficulty of keeping these equipped had made the outfitting of additional units out of the question. Slowness in production later was attributed largely to poor supervision, lack of assembly procedure, and failure to train men for specialized jobs, for after the arrival of American civilian personnel, the output was increased to two P-40's a day.

The transfer of the assembly plant to Fort Sudan would improve conditions greatly, because the depot at Abu Sueir had also been responsible for giving the P-40's flown from Takoradi a thorough inspection. This examination, with modifications, frequently required 2 or 3 days, at a time when planes were badly needed at the front. With proper coordination, it was hoped that this work could be done in as few as 6 hours. The combination of an assembly plant and an overhaul base had not proved satisfactory, and individual units were recommended. With a shortage of mechanics, it had been necessary to interrupt assembly work to inspect planes coming from Takoradi--a situation resulting in loss of time and misuse of personnel. Report of Lt. William W. Momyer to AC/S, G-2, 6 Oct. 1941, in U. S. 9570; Clark Report.

10. In quest of a site for the plant, Air Vice Marshal Dawson had accompanied Mr. Clark of the Curtiss-Wright Corporation to Fort Sudan. Needs in power, space, and the like were discussed. By 15 July, 10 Tomahawks had already arrived, and hangars were on the way. In the meantime, use was to be made of an old warehouse

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in which a concrete floor could be poured. Before the end of August it was thought that the Curtiss-Wright crews would have reached Egypt, and work could be begun. (*Ibid.* See also memo for C/AS by Gen. J. H. Burns's office, 4 Sep. 1941, in AAG 686, Africa; CM-IN, Cairo to Dept. of State /i.e. Fibern to Burns/, #1261, 31 Aug. 1941. Gray Report.) All of the tools and other equipment for this particular project had been carefully drawn up and approved by the Air Ministry in London early in 1941. Shipment was supposed to have been made in the spring. By December none of them had arrived, and consequently tools and materials of various kinds had to be picked up in Eritrea or Abyssinia, or improvised locally. O.N.I. 91, "Survey of Central African Seaports and Air Routes (27 Aug. 1941-5 Jan. 1942)," 132.

11. In a letter to the Curtiss Wright Corporation (Report 6, dated Cairo, 12 Aug. 1941, and attached to ltr., N. L. Kearney to Chief of Materiel Div., 6 Oct. 1941, in AAG 385), Mr. Paul Carpenter mentions the receipt of a complete set of prints. These came, he adds, through the efforts of the Army Air Corps, who had done much to win acceptance for the Tomahawks in the Middle East. See also the Gray Report. For the reluctance of the British Air Ministry to allow operational instructions and manuals to be distributed to RAF pilots or to be shipped with the airplanes, see Conference with Mr. Sam Irwin.
12. For the difference in time required to assemble a deck-loaded Boston and a crated P-40 at the Port Sudan erection plant, see O.N.I. 91. CM-IN, Cairo to Dept. of State, telg. #1592, 15 Oct. 41.
13. Gray Report. At one service and maintenance unit Mr. Gray says that "fifth-column" tactics resulted in a serious reduction in production. When the workmen involved were given dishonorable discharges, the situation improved decidedly.
14. *Ibid.*; also memo for C/AS by Gen. Burns's office, 4 Sep. 1941, in AAG 686, Africa. (This memo contains the substance of Colonel Fibern's message to General Burns, Cairo, #1261, 31 Aug. 1941.) See also O.N.I. 91, 136.
15. Interview with Paul Carpenter, Feb. 1942, in U. S. 9000.
16. CM-IN, Gen. Lee to WD, London, 25 July 41; see also Gray Report. Lt. Lewis B. Meng reported that RAF squadrons equipped with Blenheims and Wellingtons hoped that their planes would be replaced by American bombers. Report of Lt. Meng, 3 Oct. 1941.
17. CM-IN, Fellers to WD, Cairo, 26 May 41; see also his message of 21 April 41. Various modifications in the P-40 had been found necessary. The RAF had experimented with the possibility of increasing its capacity. CM-IN, Fellers to WD, Cairo, 28 May 41.

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They had also considered it necessary to provide armor for the protection of the battery in the Tomahawk, or to install a manual switch in the cockpit, in order that the guns might operate on the generator in case the battery were damaged by a hit. The position of the battery, in the tail of the plane, made it vulnerable because of the large number of hits scored. (CM-IN, Fellers to WD, 2 May 41.) They had also recommended that, on fighter planes, there be fewer instruments for the pilot to watch. Ltr., Paul Carpenter to Curtiss-Wright Corp., 12 Aug. 1941. For other recommendations see CM-IN (7-15-41), Fellers to WD, Cairo, 13 July 1941.

18. CM-IN, Fellers to WD, Cairo, 10 May 41. By the time Lts. Meng and Momyer reached Egypt, the Marylands in use were meeting with satisfaction. There had been some criticism of this plane's short range and lack of turrets, but its high speed compensated for these disadvantages. On missions in which pilots had no fighter protection, speed was often their only means of escape. If they could reach low altitude, their pilots felt that their planes could outrun any German fighters encountered. Report of Lt. Meng.
19. CM-IN, Ferrin to WD, Cairo, 21 June 41. See also cables Fellers to WD, Cairo, 10 May 41, and Col. Cullen to WD, sgd. Fellers, 24 July 41.
20. Interviews with Lts. Meng and Momyer, 1 Oct. 1941, in Libya 9910. These officers left Egypt on 13 August 1941. By that time three squadrons were operating. Mr. Clark, in his report of 20 Aug. 1941, said that 222 Tomahawks had reached Takoradi en route to Egypt, and that about 355 had been delivered to the Middle East from all points. Accidents and enemy action had reduced the number of effective planes to 300. Fifty aircraft were being repaired and, of these, 25 probably would fly again. Since some Tomahawks had been assigned to training units, this meant that there were in the Middle East, at the time, enough P-40's to equip 4 squadrons, allotting 21 first-line and 42 reserve planes to each squadron.
21. On 25 April 1941, Major Fellers cabled to the War Department that previously 170 P-40's had been grounded because of mechanical defects. (Gray Report. CM-IN, Fellers to WD, Cairo, 26 May 41.) Before the end of the summer of 1941, the Kittyhawks had begun to reach Africa. For combat purposes, Mr. Paul Carpenter of the Curtiss-Wright Corporation considered it a much better airplane than the Tomahawk. Its superiority he attributed largely to the fact that the Kittyhawk had been evolved from actual combat experience whereas the Tomahawk was designed in peace times. See his interview of February 1942.
22. CM-IN, Fellers to War Dept., Cairo, 21 June 1941. Interview with Paul Carpenter. Lt. Meng, upon his return from Egypt, attributed

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some of the criticism of the P-40 to the fact that its flying and landing characteristics differed from those of the aircraft which the RAF had been using. For example, its brakes were manipulated by foot instead of by hand; it had a stick in place of a spade grip; and a number of its instruments were different from those in the British plane. These were relatively small matters, but the accumulation of differences had resulted in the failure of RAF pilots to feel at home in the plane. As a consequence, it was between two and three months before the British began to like the P-40. By that time, however, they were fairly enthusiastic and admitted that it was superior to the Hurricanes which the British squadrons had been using in Egypt. Among the Australians, South Africans, and New Zealanders, the P-40 had gained favor more quickly. (See Report of Lt. Meng.) It was in the Syrian campaign that the value of the American fighter plane had been recognized first. (RAF Middle East Review, No. 3, 88.) By midsummer, the P-40 was looked upon with great favor, as the following paraphrased message from Col. Moore-Brabazan, British Minister of Aircraft Production, to the Curtiss-Wright Corporation, 12 Aug. 1941, in U. S. 9570, indicates:

Air Marshal Tedder has told me of the brilliant performance of American aircraft in the Middle East, and has asked me to give you the following message: "As Air Officer Commanding in the Middle East, I send you the thanks of our fighter pilots for these grand machines, which have shown what they can do. My pilots tell me again and again how much they relish the performance, maneuverability, and range of the Tomahawk. Their successes against enemy fighters and bombers supply the proof. We can make use of all that you send us." See also ltr., Air Marshal A. T. Harris to Gen. Arnold, 25 July 1941, ibid., on the success of the Tomahawk in the Middle East.

23. CM-IN, Fellers to WD, Cairo, 28 Nov. 41.
24. Personal Observations of Gen. Ralph Royce, Military Air Attaché, on a Visit to the Middle East, a report to MID, 24 July 1941, in Africa 9000. General Royce accompanied Mr. Harriman and his party to the Middle East. Although American aviation materiel and personnel in this theater were his chief concern, he made very effort to note things of general military interest. Lt. Meng also emphasized the importance of having American instructors, detailed to Egypt, arrive before the new equipment. See his report of 3 Oct. 1941.
25. CM-IN, Ferrin to WD, Cairo, #1889, 5 May 41. See also Gray Report; Personal Observations of Gen. Royce; CM-IN, Fellers to WD, Cairo, 26 May 41. Upon his return from Egypt, Lt. Momyer reported that, in the beginning, 90% of the "crack-ups" were due to ground-looping. In 3 months, 1 squadron wrecked 28 planes in landing and lost only 3 in combat. The British attributed a great deal of this trouble

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to faulty materiel--namely, that the landing gear could not stand the strain of the heavy impact. In Lt. Momyer's opinion, the difficulty had arisen through lack of skill, or knowledge, in a normal landing (i.e., with the tail not lowered). In a cross wind, they also allowed the plane to land sideways, thus shearing off the landing gear and causing the plane to ground-loop. (See Lt. Momyer's report of 6 Oct. 1941.) In the opinion of Mr. Gray of the Curtiss-Wright Corporation, the trouble with the landing gear of Tomahawks was attributed to the faulty method of landing used by most pilots--i.e., applying the brakes while the tail of the machine was still off the ground, during a two-point landing. Gray Report.

26. Ltr., Paul Carpenter to the Curtiss-Wright Corp., Cairo, 12 Aug. 1941.
27. Although designed for mobility, the British Maintenance Command in the Middle East incurred a good deal of criticism on the ground that it lacked that very quality. On the whole, its organization, in the summer of 1941, provided for maintenance on five different levels:
 - a. Advanced Landing Ground.--Here there were only gasing, oiling, and rearming facilities for airplanes going into battle. In an emergency, minor repairs also could be made. Because of danger from bombing attacks, no airplanes spent the night on this field.
 - b. Operational Landing Ground.--This field lay about 100 miles to the rear and served as the station for an advanced squadron, which was supposed to have at its disposal 16 planes ready for combat. Here were located armorers, and a sufficient number of mechanics to take care of emergency repairs. Any piece of work requiring more than 48 hours was expected to be taken over by the Repair and Salvage Unit, but often was not. Any airplane in need of a 30- to 90-hour inspection was to be flown back to a base landing ground. Personnel were supposed to be able to clear the field in 24 hours.
 - c. Base Landing Ground.--This base was located about 200 miles behind the operational landing ground. Here modifications were made, and inspections requiring from 30 to 90 hours. Most of the mechanics, and the remaining five of the advanced squadron's planes, were stationed at this field. When a plane was sent here for repairs, one of the reserve of five was to be flown forward to take its place in the squadron. The base landing ground was expected to be mobile enough to move within 48 hours, but as a matter of fact, it had a tendency to become semi-fixed.

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d. Repair and Salvage Units (RSU).--There were several of these located between the advanced and operational landing grounds. Most of their work consisted in salvaging wrecked airplanes and transporting them back to their base. For salvage purposes, these units were equipped with a portable crane and three salvage trailer trucks like those used by comparable American units. In some cases the advanced RSU made engine repairs, if these were necessary to fly the plane out, and the rear RSU made whatever engine changes it could. On the whole, services of this kind were usually performed at the base landing ground of a squadron. Major overhaul work, however, was done at permanent maintenance or overhaul bases. Regardless of condition, airplanes were completely overhauled after having been in operation for 560 hours. Since spare parts for the P-40's were obtainable from salvage only, the work of the RSU was very important. Had more parts been available, a much larger per cent of the damaged aircraft might have been made operational.

e. Fixed Maintenance Unit (MU) or overhaul bases. Under this heading came such depots as Abu Sueir, Geneifa, and Abu Qir.

The Maintenance Command itself was located in the Middle East Headquarters in Cairo, and from this central office were issued all orders regarding technical changes and modifications. Since there was no experimental or service test station available at the time, the Maintenance Command received its instructions from the Air Ministry in London. Report of Lt. Momyer.

28. CM-IN, Brett, thru Fellers, to WD, Cairo, 22 Sep. 41; CM-IN (5-18-42), Crom to Arnold, ANSEC #1110, 17 May 42.
29. CM-IN (9-14-41), Brett to Arnold, thru MA to MILID, Cairo, #64, 22 Sep. 41. Wing Commander Messiter, who formerly had been in charge of the assembly of American planes at Geneifa, had left Egypt early in August to fill this position. (Ltr., Paul Carpenter to Mr. Horn, Cairo, 29 May 1941, attached to ltr., N. L. Kearney to Chief of Materiel Div., 6 Oct. 1941, in AAG 385.) Since he had had 5 years of experience in both tactical and maintenance units, he was considered an excellent person to serve as representative of the RAF in Washington. It was the responsibility of his office to handle all problems of priorities, procurement, equipment, and personnel. Both Air Marshals Tedder and Dawson wished Wing Commander Messiter to function under the direction of Lend-Lease. Colonel Piburn suggested that an officer from the Materiel Division be assigned to help him. See messages from Col. Piburn to Gen. Burns thru Minister Kirk to the Dept. of State, telgs. #1050, late July 41, and #1072, 4 Aug. 41. For recommendations regarding the enlargement of his duties, see General Brett's cable to WD, pt. II, 22 Sep. 41. Also CM-IN (9-14-41), Brett to Arnold, thru MA to MILID, Cairo #64, 22 Sep. 1941.

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Soon after reaching the United States, Wing Commander Messiter was placed in touch with the Defense Aid Section of the Materiel Division--an association which he found most helpful. He also spent several days at Wright Field. Upon his return to Washington, he established an office at the headquarters of the British Air Commission. Believing that freedom of independent operation would further the success of his mission, he preferred not to attach himself to this organization, or to the Defense Aid or Lend-Lease offices. Memo for C/AC by Intelligence Div. (2-B-3) 10 Sep. 1941, in AAG 450, Africa.

30. Ltr., Carpenter to Horn, Cairo, 29 May 1941, in AAG 335. See ltrs., Robert C. Gray to N. L. Kearney, Cairo, 15 Aug. and 23 Sep. 1941, IBID., CM-IN (6-19-41) MA to AC/S, G-2, Cairo #1986, 17 July 41.
31. Personal Observations of Gen. Royce; Report of Col. Harvey S. Burwell to AC/S, G-2, 31 Oct. 1941, in Africa 9000. See also later comments on a similar situation. CM-IN (5-17-42), Cairo to AGWAR, AMSEG #1110, 17 May 42.
32. The maintenance of American-manufactured equipment in Egypt as well as in England originally fell within the province of the Chaney Mission. Distance, however, made such an arrangement impracticable. Since existing conditions were unsatisfactory, General Brett had been instructed by General Arnold to draw up a complete plan of organization, and to outline the steps by which it could be accomplished. (Ltr., Gen. Arnold to Gen. Brett, 3 Oct. 1941, in AAG 334.8.) General Brett was accompanied on his mission to the Middle East by Col. Ray A. Dunn, Lt. Col. Edward M. Powers, 1st Lt. Jack W. Berry, and an aircraft crew headed by Lt. Col. Caleb V. Haynes. (Memo for AG by Gen. Arnold, 22 Aug. 1941, in AAG 210.68). According to the original plan, General Brett and his assistants were to go to London to discuss with British representatives questions pertaining to the establishment of depots in the Middle East. It was soon deemed wiser for the mission to proceed to Cairo, where it could meet with Air Marshals Dawson and Tedder. (Memos for AC/S, G-2, by Gen. Brett, 20, 27 and 28 Aug. 1941, in AAG 000-800, Africa.) After spending several weeks in this area, General Brett went to England, but returned to Cairo, on his way back to the United States, at the end of November. Ltr., John S. Winant to Gen. Arnold, 2 Dec. 1941, attached to Gen. Arnold's letter to Mr. Winant, 29 Dec. 1941, in AAG 210.68.

According to Mr. Kirk, the American Minister in Cairo, the work of the Mission in Egypt was considered of unusual effectiveness. General Brett's careful and energetic survey and his clear analysis of the situation, presented forcefully but with tact, made a deep impression upon all officials with whom he conferred. (Ltr., Mr. Cordell Hull to Mr. Henry L. Stimson, 2 Oct. 1941, attached to AG's

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letter to C/AC, 7 Oct. 1941, in AAG 201, George H. Brett.) The excellent work that he did on his mission was highly commended by Mr. Winant, the American Ambassador to Great Britain. He characterized General Brett's views as sound, and based upon exact technical knowledge and an extended study of the terrain. See Mr. Winant's letter to Gen. Arnold, mentioned in preceding paragraph.

33. CM-IN, Brett, thru Fellers, to WD, pt. 2, 22 Sep. 41.
34. Ibid., pts. 4 and 5. See also memo for Gen. Fairchild from Exec. 4-B, Materiel Div., 24 Sep. 1941, in AAG 000-800, Africa. The contract with the Douglas Company was not signed until December. (CM-CUT, Mil. Mission to MA, Cairo [for Maxwell], 10 Dec. 1941. See also ltr., Col. W. F. Volandt to Douglas Aircraft Co., 18 Dec. 1941, in AAG 000-800, Africa; Piburn to Burns, thru Kirk to Dept. of State, Cairo #1072, 4 Aug. 41.) Construction work at Gura was assigned to the Johnson, Drake, and Piper Company, a New York engineering concern. For a description of the former Italian barracks buildings at Gura, see OSS Interview (No. 11) with Mr. Franklin Gledhill and Capt. George Kraigher, 20 May 1942, in Africa 8220, A-2 Lib.; and ltr., Maj. George G. Carey, Jr. to Col. Robert Walsh, 27 May 1942, in Africa 9000 (1942-1943).
35. CM-IN, Brett to Arnold, through MA to MILID, Cairo #118, 4 Oct. 41. See also O.N.I. 96, "General Report on Eritrea, 22 July 1942," and O.N.I. 91.
36. CM-IN (11-6-41), Ferrin to Dunn, thru WD to MA, Cairo, 5 Oct. 41.
37. Telg. 1116, pt. 2 (8-12-41), Piburn to Burns, Cairo, 11 Aug. 41 attached to memo for Under Sec. of War by Maj. Edward P. Curtis, Sec. of Air Staff, 21 Aug. 1941, in AAG 450, Africa; and CM-IN, Adler to Arnold, thru Fellers to Mil. Missions, #340 (AMSEG #46), 9 Dec. 41.
38. Msg., Brett to Arnold, thru MA, Cairo, to WD, pt. 2, 22 Sep. 1941.
39. Ibid., pts. 2 and 3. The Air Depot Group supplements the work of salvage groups. It has all the equipment available to a materiel squadron of this kind, plus many additional pieces, so that it can perform higher than second-echelon maintenance. Mobile crews from a depot group are prepared to operate in the field. If, however, they find that an airplane is beyond reasonable repair there, they remove it to their shops where more extensive work can be done. Often one air depot group would serve as many as three air force combat groups. (See memo for Intell. Div., AAC, by Materiel Div., 15 Sep. 1941, in AAG 000-800 Africa.)
40. If the United States found that other projects could be undertaken,

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it was suggested that the aircraft assembly depots at Basra and Port Sudan be given third and fourth priorities respectively. (Report of MA, London, Cable #108, 23 Oct. 1941, in Africa 9000.) The British had laid the foundations for the two depots and had already sent a considerable number of personnel to both places. This circumstance did not lessen their desire to have the United States take over these projects, for their resources in technical personnel were already stretched to the limit. . . If relieved of this responsibility, RAF technical personnel could be sent forward into the battle area where they were badly needed. Ltr., Sir Charles Portal to Gen. McNarney, 18 Oct. 1941, in AG WTC file 381, Middle East. Given as a supporting document in Maj. Albert Lepawaki's "History of the Air Service Command in the European Theater of Operations."

41. CM-IN, MA to MILID, #157, Cairo, 18 Oct. 41.
42. The training school for the A-20A was to be opened in the Delta area, about mid-September. (CM-IN, Kirk to Dept. of State, telg. #1169, Cairo, 16 Aug. 41.) On 25 July 1941, a combat and maintenance crew, selected for the A-20 plane from the 3d Bombardment Group, had been scheduled to leave New York for Cairo. (Travel orders, M. S. Fairchild to Air Staff Personnel Div., 19 July 1941 (attached to Orders of 21 July 1941, to AC/S, G-2), in AAG 210.68.) The school for the Boston-3 was to begin operation in the same general area, about the same time. To assist in its establishment an Air Corps officer and six enlisted men had arrived in Cairo on 9 August and were spending the intervening period in making a tour of the district. (R&R, AWPD to A-2, 20 Aug. 1941, in AAG 210.68). A similar plan was to be followed with the shipment of other types of plane to the theater.
43. Cable, Brett to Arnold, Cairo, 13 Sep. 41, in AAG 000-800, Africa. See also msg., A-2, AAF to A-1, AAF Cairo, 13 Sep. 41; and msg., Brig. Gen. George E. Stratemeyer to CG, Air Corps Technical Training Comd., Tulsa, Okla., 17 Sep. 41, in AAG 210.68.
44. Ibid; msg., Perrin to Dunn, thru MA, Cairo, to MILID #157, 18 Oct. 41; also CM-IN, Perrin to Dunn, Cairo, #233, 12 Nov. 41.
45. R&R, OCAC, Intell. Div. to OCAC, Mil. Personnel, 30 Oct. 1941, in AAG 210.68. These men were expected to leave the United States about the middle of November. They were to be attached to the U. S. Military North African Mission. Evidently enlisted men in Egypt were also available as instructors, for, in commenting upon the school soon after its establishment, Mr. Irwin of the Curtiss-Wright Corporation referred to a teaching staff composed of three American officers and 10 technical sergeants. He reported that RAF

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mechanics were enthusiastic about the courses offered and absorbed the instruction avidly. With only limited facilities available to General Adler, he thought that it would take a long time before this instruction could have effect in any wide sense. See conference with Mr. Irwin.

46. Lawrence S. Kuter, "Air Ground Support in North Africa," Air Force, XXVI (July 1943).
47. CM-IN (9-26-41), Brett to Arnold, thru MA, Cairo, to Exec. Officer, G-2, 25 Sep. 41. See also Orders, C/AC to AG, 28 Oct. 1941, in AAG 210.68. In the spring, Colonel Fellers had reported that a Western Desert Command, under Air Marshal Tedder, was being organized by the RAF. When sufficient materiel was received, it would comprise a fighter wing, a bombardment wing, and an army cooperation wing. CM-IN (5-1-41), Fellers to WD, Cairo, 1 May 41. CM-IN (9-26-41), Brett to Arnold, thru MA, Cairo, to Exec. Officer, G-2, 25 Sep. 41.
48. Memo for C/AS, OCAC by C/AS, AAF on Middle East depot requirements, 7 Oct. 1941, in AAG 000-800, Africa. The memo states that the staff of the U.S.M.N.A. Mission could appropriately be expected to accomplish a number of the things recommended by General Brett. (Mission set up 13 Sep. 41. Ltr., President to Maxwell, GO 15, USAFIME, 13 Sep. 42.)
49. Ltr., W. C. G. Cribbett to C/AC, 31 March 1942, in AAG 381.
50. Memo for C/AAF and Chiefs of Supply Arms and Services by AG, 19 Nov. 1941, in AAG 334.8. The following branches were included: Quartermaster Corps, Signal Corps, Ordnance Dept., Corps of Engineers, Air Corps, and Medical Dept.
51. Memo for A-2 Sec., Air Staff, by Lt. Col. James G. Taylor, 6 Nov. 1941, in AAG 210.68.
52. Ltr., Gen. O. P. Echols to Asst. Chief, Materiel Div., Wright Field, 22 April 1941, in AAG 210.68 Misc.
53. Memo for Gen. Martin F. Scanlon, by Lt. Col. Jack C. Hodgson, 2 Oct. 1941, in AAG 210.68.
54. Memo for C/AAF by Brig. Gen. Sherman Miles, 13 July 1941, in AAG 210.68. See also, msg., WD to SPOBS #6, 10 Aug. 1941, and Gen. Chaney's reply on 26 Aug. 1941.
55. As a remedial measure, it had been decided in the summer of 1941 that, in all administrative relations with Allied military authorities concerning training of personnel, lend-lease, air materiel, maintenance of equipment, and exchange of information on design and methods of manufacture, the War Department would be represented in Cairo by a new mission under the supervision of Col. Harvey S. Burwell,

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then senior Air Corps officer in the theater. (Msg., AC/S, A-2 to Cairo for Col. Burwell, Cairo #31, 2 Sep. 1941; also synopsis of msg., Brett, through Fellers, to MILID, #60, Cairo, 13 Sep. 41, in AAG 210.68.) Made up of all AAF personnel on duty in Africa and the Middle East, this body was to be known as the American Air Force Delegation. (*Ibid.*). Owing to the return of Colonel Burwell to the States in October, and the formation of the United States Military North African Mission soon afterwards, this organization had a very brief existence.

For information concerning Colonel Burwell's assignment to Egypt, see memo for Foreign Liaison Officer, G-2, by Maj. E. R. Quesada, 7 May 1941, in AAG 210.68; memo for AC/S, G-2, 26 May 1941, *ibid.*; also memo of 4 May 1941, attached to memo for AC/S, G-2, 10 June 1941, *ibid.*; memo for Mr. Hopkins by Gen. Arnold, 2 July 1941, in AAG 201, Harvey S. Burwell.

56. In the fall of 1941, the War Department was said to be considering the transfer of certain matters formerly handled by the Military Attache to the Chaney Mission, which then recommended the establishment of a technical section, dealing with the modification and modernization of all military materiel, in accordance with operational requirements. Ltr., Gen. Arnold to Gen. Brett, 3 Oct. 1941, in AAG 334.8.
57. From the late fall of 1940, when the first air observers were sent to Egypt, this method had been very successfully used in the Middle East. Ltr., Gen. Arnold to Gen. Brett, 3 Oct. 1941, in AAG 334.8.
58. Msg., Gen. Brett to Gen. Arnold, thru MA, Cairo, to MILID, #69, 15 Sep. 41 (attached to memo for A-1, AAF by Col. Dunn, 22 Oct. 1941), in AAG 210.68.
59. CM-IN, Brett to Arnold, thru MA to MILID, Cairo #119, 5 Oct. 41.
60. See memo for C/AS, OCAC by C/AS, AAF, on Middle East depot requirements, 7 Oct. 1941, in AAG 000-800, Africa. General Brett's earlier suggestions had already been acted upon, for, at the direction of the Secretary of War, a cablegram was sent to him in London, stating that his recommendations had received favorable consideration, on the whole, and that a military mission headed by Brig. Gen. Russell L. Maxwell would arrive in Cairo early in November. (Memo for AG by Maj. Edward P. Curtis, 13 Oct. 1941, in 334.8.) Conversations had been held with General Maxwell and with the Chief of Engineers by the A-4 Division, with respect to some of General Brett's proposals. (*Ibid.*) For a note on the conclusion of a staff study in connection with personnel matters--military and civilian--pertaining to the air phase of the North African Mission, see memo for A-1, AAF by Col. Dunn, 22 Oct. 1941, in AAG 210.68.

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61. Memo for C/AC by Col. Ray A. Dunn, 28 Oct. 1941, attached to Orders of 30 Oct. 1941, in AAG 210.68.
62. Memo for C/AS by Col. Ray A. Dunn, 4 Nov. 1941 (attached to 1st ind., 21 Nov. 1941), in AAG 334.8.
63. Stettinius, Lend-Lease, 215 ff.
64. The British had already taken major responsibility for development of the port of Bandar Shahpur.
65. See AAG 201, Raymond A. Wheeler. According to AGO, Officers' Records Branch, per Report of Change dated 18 Dec. 1941, General Wheeler arrived in Iran on 28 November 1941.
66. Memo for C/AS by Chief of A-4, 10 Nov. 1941 (attached to 1st ind., 21 Nov. 1941), in AAG 334.8. By May 1942, Col. Eugene F. Gillespie was serving in the capacity of Air Officer of the Iranian Mission. See msg. (5-31-42), Shingler to AGWAR, #AMSIR 298, Basra, 30 May 1942.
67. R&R, AMPD, AAF to C/AS, AAF, 17 Nov. 1941, in AFAEP, III-B, Organization.
68. CM-OUT (11-6-41), WD to MA, Cairo #126, 5 Nov. 41; CM-IN, Maxwell to AG, Cairo, 4 Dec. 41. General Adler is said to have reached Cairo on 22 November 1941, according to Report of Change under that date. By 10 December 1941, the Mission included 25 officers, 23 enlisted men, and 11 civilians (exclusive of contractors' personnel). CM-IN, Fellers to Mil. Mission, sgd. Maxwell, 10 Dec. 41. Among the officers were:
- | | | |
|-------------------------------|---|---------------------|
| Brig. Gen. Russell L. Maxwell | - | Head of the Mission |
| Brig. Gen. Elmer E. Adler | - | Air Corps |
| Lt. Col. David E. Washburn | - | Signal Corps |
| Maj. R. E. Knapp | - | Corps of Engineers |
| Maj. Crawford F. Sams | - | Medical Corps |
| Maj. J. M. Colby | - | Ordnance |
| Lt. Comdr. C. T. Dickman | - | CEC |
| Lt. Col. Edwin S. Ferrin | - | Air Corps |
| Lt. Col. E. W. Piburn | - | Infantry |
69. Memo for C/AS, 28 Oct. 1941, in AFAEP, WP-III-F-12, North Africa, Bk. 1 (Oct. 1941-1 July 1943).
70. The Air Section of the Mission then included:
- | | | |
|---------------------|---|---|
| Gen. Elmer E. Adler | - | Chief, Air Section, USMNA., and Air Representative, AAF, in the Middle East |
| Maj. Reuben C. Hood | - | Supply Officer |

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Maj. Daniel F. Callahan	- Engineering Assistant
Maj. Sory Smith)	
Maj. Albert T. Wilson)	- Technical School Assistants
2d Lt. Charles E. Murray)	
1st Lt. Gwen G. Atkinson)	- Then on temporary duty in Egypt. It is recommended that they be assigned to the Mission.
	- Already on duty in Egypt, but to be transferred to the Mission.
Lt. Col. Edwin S. Perrin	
M/Sgt. Floyd J. Leonard)	
S/Sgt. Howard J. Delozier)	- Technical School Directors
S/Sgt. John C. Leseur)	
T/Sgt. Marvin B. Morton)	
Maj. John L. M. Des Islets	- Engineer, Asst. to Maj. Callahan
Maj. Robert C. Oliver	- Executive, Logistical and Tactical Matters.

On an R&R, CCAC, Intell. to CCAC, Mil. Personnel, 30 Oct. 1941, with incls., in AAG 210.68, the name of T/Sgt. George S. Walborn is given instead of that of Sergeant Morton.

Additions were made afterwards. See memo for C/AC, by Col. Ray A. Dunn, 28 Oct. 1941, attached to Orders of 30 Oct. 1941; and Orders, Maj. Ralph E. Fischer to AG, 30 Oct. 1941, with attached ltrs.; both in AAG 210.68.

71. Memo for C/AS by Chief of A-4, 10 Nov. 1941 (attached to 1st ind., 21 Nov. 1941), in AAG 334.8; CM-IN (12-13-41), Adler to Arnold, thru Maxwell to AG, #351 AMSEG 55, Cairo, 11 Dec. 41.
72. CM-IN (2-28-42), Adler to Arnold, thru Cairo to AG, AMSEG #498, 28 Feb. 42; CM-OUT (1-17-42), S/AS to MA, Kuibyshev, #136. 17 Jan. 42. See also Air Service Command interview with Lt. Lawrence Brown, 2 Oct. 1943, in U. S. 9000.
73. Great Britain had been especially desirous of having the United States assume responsibility for the assembly plant here. Although both countries had undertaken large commitments for supplying aircraft to the U.S.S.R., the majority of these airplanes would be of American manufacture. Their erection by American personnel would clearly add to the efficiency of the plan. Ltr., Sir Charles Portal to Gen. McNarney, 18 Oct. 1941, in AG ETO file 361 and given as a supporting document in Maj. Albert Lepawski's "History of the Air Service Command in the European Theater of Operations."
74. CM-IN-5276 (4-20-42), Adler to Arnold, thru Cairo to AG, AMSEG #860, 19 April 42.

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75. Resistance had proved costly both in men and materiel. Msg., MA, Russia, to MILID (i.e., Faymonville to Spalding), #79, Kuibyshev, 21 Oct. 1941.
76. Rostov was again in Russian control by 29 November 1941.
77. Mr. Kirk, the American Minister to Egypt, urged the United States not to forget the Near East theater, while its attention was concentrated on the Orient. He also wished that consideration be given to the possibility of American units operating in North and West Africa, against the Axis. Memo for Chief of Intelligence Br. by Maj. Oliver J. Sands, Jr., 15 Dec. 1941.
78. CM-IN (4-29-41), Fellers to WD, Cairo, 25 April 41.
79. Memo for A-2, AAF by WPD, AAF, 10 Sep. 1941, in AAG 686, Air Bases, Africa.
80. CM-IN (10-6-41), Brett to Arnold, thru Fellers to MILID, #119, Cairo, 5 Oct. 41.
81. IBIA., see also memo for AC/S, WPD, by Brig. Gen. Carl Spaatz, 24 Jan. 1941. This memo is labeled as data of the RAINBOW No. 5 plan. It is a reply to a list of assumptions submitted earlier. These are attached, under 18 Dec. 1940.
82. IBIA. This stand for the independence of any U. S. Army group operating in the Middle East was one which General Chaney had taken in the summer. His argument was based on the fact that, except in questions of broad strategy and the allocation of units and major items of equipment, the British Forces in the Middle East were themselves independent. No control was exercised over them in matters pertaining to supplies, minor equipment, or tactical dispositions. Interestingly enough, he believed that the duties of any American force in the theater would be concerned mainly with distribution and technical assistance. CM-IN (8-26-41), Chaney to WD, 26 Aug. 41, in AAG 381.3. For General Brett's later insistence upon independence of United States forces, see msg., Brett to AGWAR, Java, 21 Feb. 42, and that from Thorpe to AGWAR, Java, 20 Feb. 42.
83. CM-IN (10-6-41), Brett to Arnold, thru Fellers to MILID, #119, Cairo, 5 Oct. 41.
84. For a report on the initial activities of the Air Section of the North African Mission, see memo for Gen. Arnold by Gen. Adler, 14 Dec. 1941, in U. S. 9900-9910, A-2 Lib. According to this account, the technical school was expected to open on 15 December.
85. By the middle of December 1941, General Adler reported that the

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trans-African operations of Pan American subsidiaries had been absorbed into the jurisdiction of his office, and that the activities of the Air Corps Ferrying Command in the theater had also been taken under his supervision. (*Ibid.* See also interview with Gen. Adler, 18 Jan. 1943, in U. S. 9000.) The scope of General Adler's responsibilities are suggested in a cablegram which he sent to General Arnold in February 1942, requesting authorization for the retention of two transport planes. Without them, the Air Section would be very greatly handicapped, since contact with regional commanders was essential and air transportation afforded the only satisfactory means of travel. The headquarters of the Wheeler Mission lay about 1,110 miles away, and the distances to Karachi and Takoradi were 3,000 and 3,600 miles respectively. CM-IN, Cairo to AG, AMSEG #479, 24 Feb. 42.

86. The North Pacific air lane ran from San Francisco by way of Hawaii, Midway, Wake Island, New Guinea (Port Moresby), and Australia (Darwin), to the Philippines. CM-OUT, AF 1/253, Arnold to Brereton, 15 Jan. 42. See also ATC booklet, The Air Transport Command, 5-6.

87. In the fall of 1941, before the delivery of LB-30 aircraft to the British had been undertaken, consideration was given to the West African airdromes which might serve as a terminal for the trans-Atlantic flight. It had not been thought possible to make the trip until the Bathurst airdrome was improved, or the Waterloo airport, near Freetown, Sierra Leone, was completed. By the end of November, 1,200 yards of runway would probably be ready for use at Waterloo—a length considered inadequate for heavy bombers. At that time, the Bathurst airdrome was reported as having a 1,400-yard runway, of which 700 yards were steel gird, and the remainder of rolled laterite. By the end of December, it was expected that an additional 400 yards would be available. Of the two, the British considered the Bathurst field better, because of its greater length of runway, better approaches, and superior climatic conditions. See memo for TAG by Lt. Col. W. W. Dick, 24 Oct. 1941, in AAG 686, Air Bases, Africa; Cable #1187, Lee, thru MA, to MILID, London, 24 Nov. 1941.

In January, Takoradi was not regarded as suitable for the unloading of heavy, four-engine planes, for a B-17 had been damaged in sinking through the soft-surfaced ramp there. CM-IN, Cairo to AG, #579 AMSEG 216, 13 Jan. 41.

The Pan American base at Accra, about 100 miles away, was thought to meet all requirements, however. Besides, the Pan American Company's mechanics stationed there could service U. S. equipment, and other facilities such as fuel, radio communication from ground to air, housing, et cetera, were also available. CM-IN (11-27-41), Adler to Arnold, WD #251, Cairo, 23 Nov. 1941.

The rushing of heavy bombers to the Far East necessitated provision for increased stocks of oil and gasoline along the

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ferry route since it was realized that the RAF would hesitate to reduce its supplies to the danger point. By the fastest means possible, supplies of this kind were sent from the United States to the West Coast of Africa, where they were distributed eastward to Maiduguri by BOAC and PAA agents. From Abadan to Port Sudan, additional tankers bore similar cargoes to Eastern Africa, whence the oil was transhipped westward as far as El Fasher. At all points on the air route, an attempt was made to build up a reserve of 1,000,000 gallons of 100-octane gasoline and proportionate amounts of lubricating oil. CM-IN (1-1-42), Cairo to AG, #448 AMSEG 124, Cairo, 29 Dec. 41.

88. CM-IN (1-22-42), Cairo to AG, #638 AMSEG 268, 22 Jan. 42. Every available transport plane not otherwise engaged was assigned to the movement of personnel and cargoes over the Far Eastern route. CM-OUT (2-28-42), ACFC to AMSEG, Cairo #699, 28 Feb. 1942.
89. The Air Transport Command, 5.
90. History, 19th Bombardment Group (H), App. B. See also Capt. Rowen Thomas, Earn in Battle, 38.
91. The Air Transport Command, 5-6; CM-IN (1-22-42), Cairo to AG, #638 AMSEG 268, 22 Jan. 42.
92. Memo for Col. Craig by Col. H. L. George, 29 Jan. 1942, in AFAEP, IV-1-2, Air Routes: South Atlantic, Africa, Asia; memo for C/AS by AWFD, Additional Air Routes: South America, Africa, Indian Ocean, Australia, 2 and 3 Feb. 1942, ibid. Adams to CG, USAFIA, Melbourne AF #2/241 and AF #328, 14 and 16 Feb. 1942, in AAG 580.81; memo for Col. Mosley, Foreign Div., ACFC by Brig. Gen. Robert Olds, 13 Feb. 1942, in Air AG, 686, Southern Ferry Route.
93. Msg., Brett to TAG, #465, 3 March 42.
94. CM-OUT-1931 (4-11-42), Kroner to MA Cairo, WD #799, 10 April 42; memo for Control Officer, Army Airways Communication System, Bolling Fld., by Maj. Robert M. Love, ACFC, 16 April 1942, in AAG 000-800, Africa.
95. General Brett arrived in Melbourne on 24 February 1942. Msg., Brett to AGWAR, #326, 24 Feb. 42. Msg., Emmons to AG, #1567, 6 Jan 42; Adams to Emmons, #904, 7 Jan. 42; Emmons to TAG, #2371, 20 Feb. 42.
96. General Brereton reached India on 25 February 1942, and assumed command of the Tenth Air Force on 2 March. (Msg. [3-4-42], Brereton to Arnold, AMSEG #516, Cairo, 2 March 1942.) In order to effect a necessary coordination of plans with the British, he established his headquarters in New Delhi.

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97. By 20 February 1942, plans had been completed for the delivery of B-25's for the Soviet Union, at Basra. Msg., Cairo to AG, AMSEG #456, 20 Feb. 42.
98. R&R, Gen. Arnold to Gen. Spaatz, on Conversation with Sir Charles Portal, 1 Jan. 1942, in AFAEP, WP III-A-2, Great Britain No. 1 (28 Feb. 1941-30 Apr. 1942).
99. Directive memo for AWFDP by Lt. Col. C. E. Duncan, on Combat Units and Personnel to the Near East . . . , 2 Jan. 1942, *ibid*; Comment for CG AAF, 18 Jan. 1942, in AFAEP, WP-III-Near East Overall.
100. CM-OUT (1-22-42), Adams, S/AS, to AMSEG, Cairo #435, 21 Jan. 42.
101. Comment for CG AAF, 18 Jan. 1942, in WP-III-Near East Overall.
102. Memo for C/AC by Lt. Col. John B. Cooley, on Task Forces for Britain and Cairo, 17 Jan. 1942, in AFAEP, WP-III-A-2, Great Britain, No. 1.
103. Memo by Representative of British Chiefs of Staff, on Movement of Two U. S. Pursuit Squadrons to Egypt, CCS 46, 20 Feb. 1942; R&R, AWFDP to Gen. Spaatz, on Establishment of Two U. S. Pursuit Groups in the Near East, 24 Feb. 1942, in WP-III-Near East Overall.
104. Ltr., AWFDP to Sir Charles Portal, 3 Feb. 1942, in WP-III-A-2, Great Britain, No. 1. See also memo for Gen. Arnold by Col. H. L. George, on Review of Strategic Considerations . . . , 7 Feb. 1942, *ibid*.
105. This position the British held until spring. The loss of ground which necessitated the line of defense running south from Tobruk was attributable, in part, to the withdrawal of troops and equipment to the Far East.
106. Memo by Representatives of British Chiefs of Staff, on Policy of Disposition of United States and British Air Forces, CCS 47, 22 Feb. 1942. The British were to accept responsibility for the completion of the existing program of air force expansion in the Middle East, which would enable them to give some support to Turkey, with a measure of assistance from the United States. If the strategic situation so required, the United States also was to be prepared to provide a heavy bomber force for the Middle East--from the first two heavy bomber groups allocated to the United Kingdom. Memo for Gen. Arnold, by Col. H. L. George, 7 Feb. 1942, on Review of Strategic Considerations . . . for Assignment of U. S. Heavy Bombardment Units to the Near East, in WP-III-A-2, Great Britain, No. 1.
107. Memo for AC/S, AWFDP, by Maj. Gen. Millard F. Harmon, on AAF Plans

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and Projects, 20 March 1942, in AFAEP, WP-III-B-1; memo for Gen. Arnold by O. A. Anderson (for Col. H. A. Craig), Air Units for Middle and/or Near East, 24 March 1942, in AFAEP, WP-1, General No. 2. COS 56, msg., from the Prime Minister to the President, on the Current Strategic Situation, 5 March 1942.

108. Memo for Gen. Arnold, on Cairo, 17 March 1942, in AFAEP, WP-III-F-4, Egypt.
109. CM-IN (3-20-42), MA, Cairo, to WD, 19 March 42. Colonel Fellers reported that, in the Middle East (Egypt, Palestine, Sudan), there were 2,077 planes, of which only 553 were serviceable. Seven hundred of those out of repair were said to be pursuit planes. Note to memo for Gen. Arnold by O. A. Anderson (for Col. H. A. Craig), Air Units for Middle and/or Near East, 24 March 1942, in AFAEP, WP-1, General No. 2.
110. It was understood that considerable difficulty in effecting quick repairs was being experienced in the Middle East, because of the lack of a parts-list catalogue, and failure to ship lists of parts with crates. The British had undertaken to prepare a catalogue of parts for American-manufactured aircraft. Until this publication was available, it was necessary for mechanics to use American catalogues, if any efficiency was to be achieved in the theater. Memo for Gen. Arnold by Col. H. A. Craig, 24 March 1942, in WP-III-Near East Overall, and WP-IV-C.
111. CM-OUT (2-28-42), ACFO to AMSEG, Cairo #699, 28 Feb. 42; CM-OUT-32 (3-4-42), Arnold to Brereton, #AF 3/53, 4 March 42; CM-IN (3-10-42), Wilson to AGWAR, New Delhi #68, 9 March 42.
112. This mission involved the moving of 30,000 gallons of gasoline and 500 gallons of oil to China for the use of General Doolittle's airmen. Two of the 10 DC-3's were engaged first in transferring 8,000 gallons of gasoline from Calcutta to Asansol--a task made necessary by the critical character of the tactical situation. Later this cargo was delivered to China, via Dinjan. Ltr., Mr. H. M. Bixby to Col. W. F. Vollandt, 1 April 1942, in AAG 686, Air Bases, Africa; CM-IN-7009 (4-26-42), New Delhi (i.e. Brereton) to AGWAR, #Aquila 549, 26 April 42; History of India-China Ferry Command (1942).
113. For the general situation, see msg., Adler to Arnold (thru Cairo to AG, for AMSEG), 27 Feb. 42; msg., ACFO to AMSEG, Cairo #699, 28 Feb. 42. General Wheeler's designation was that of Commanding General, SOS, U.S.A.F. in China, Burma, and India. (Msg., AG to Brig. Gen. R. A. Wheeler, AMSIR #120, 28 Feb. 42.) At the same time Maj. Gen. Lewis H. Brereton was appointed Commanding General of the American Air Forces in India. Ibid.

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114. CM-IN (3-4-42), Brereton to Arnold, AMSEG #516, Cairo, 2 March 42. At the end of February, General Adler was in India, where it was hoped that he might remain until the arrival of the Tenth Air Force. (CM-IN (2-24-42), Adler to AGO, thru Maxwell, AMSEG #476, Cairo, 24 Feb. 42; and CM-IN (2-27-42), Adler to Arnold, thru Cairo to AG, 27 Feb. 42.) His transfer was requested a few days later. (See the above cable and also CM-OUT-35 (3-5-42), Arnold to Brereton, #AF 3/89, 5 March 42; and memo for Chief, WPD, WDGS, to Gen. Arnold, 24 March 1942, in AAG 210.68, Mil. Detail.) Since his services had been eminently satisfactory, his transfer to the Indian theater was much regretted. CM-IN, (3-9-42), Maxwell to AGWAR, 8 March 42.
115. On 9 March 1942, General Adler cabled to General Arnold that he had just returned from India, where all information and plans previously prepared for General Brereton's region had been turned over to him. He himself was standing by, ready to give any further assistance that he could. (CM-IN (3-9-42), Adler to Arnold, thru Maxwell to AGWAR, #540 AMSEG, 8 March 42.) Apparently the efforts of the Air Section were quite extensive, for, on 13 March, General Maxwell requested that six enlisted men be commissioned as second lieutenants, and four as first lieutenants, in the Air Corps, because of outstanding excellence in performing duties connected with the organization of the Air Service Command in India. CM-IN (3-14-42), Maxwell to AGWAR, AMSEG #570, Cairo, 13 March 42.
116. The Tenth Air Force, 1942, AAF Historical Studies, No. 12 (Aug. 1944), 19, 82. See also History, Hqs., Tenth AF Service Command (1942).
117. Memo for C/S by Lt. Col. O. A. Anderson, acting AC/AS, ^{AWPD} 5 March 1942, on Establishment of Air Service Commands in Africa, the Near East, Middle East . . . and China, in WF-IV, Far East Overall.
118. Memo for A-4, AAF by AWP, 4 March 1942, in WF-III, Near East Overall.
119. Among the vanguard was the flight of heavy bombers and transports, which arrived in India on 7 April, under the leadership of Col. Caleb V. Haynes and Col. Robert L. Scott.
120. In all, 17 PAA pilots seem to have participated in the ferrying of these planes to China--8 in the first groups, and 9 who flew the last 9 planes to be assembled. Report No. 1 on planes for AVG and Chinese by Col. John Y. York, Jr., 6 March 1942, in AAG 450, India-China. See also CM-IN (3-18-42), Stilwell to AGWAR, #374, 18 March 42.
121. J/OCS 39/1, 14 March 1942. See also Colonel Fellers's comment, Cairo to MILID, #1149, 19 June 42.

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122. CM-IN-1794 (5-7-42), Crom to Arnold thru Cairo to AG, AMSEG #1005, 6 May 42. For Colonel Crom's responsibilities, see note 117.
123. CM-IN-3010 (5-11-42), Scott, thru Fellers, to MILID, #1031, Cairo, 10 May 42.
124. When the question of retaining Curtiss and Douglas mechanics for another three-month period had been raised in January, it was pointed out that, in the future, it would be well to terminate contracts of this kind. For a small group of civilian mechanics, there seemed to be little need. Their status presented legal and other difficulties. For any extensive projects set up later, it was recommended that military personnel be used. Since the RAF had already acquired a good deal of experience, and the Air Section was undertaking a program of technical instruction, it was doubtless thought that matters could be handled in this way. Msg., Adler to WD, #556 AMSEG 208, Cairo, 11 Jan. 42.
125. CM-IN-1834 (5-7-42), Crom for Arnold, thru Cairo to AG, #1005, 6 May 1942.
126. See the following message sent, in parts, by Col. William H. Crom to General Arnold, on 17 May, in reply to an inquiry regarding repair and maintenance (CM-OUT-690): CM-IN-4834 (5-18-42), AMSEG #1110; CM-IN-5317 (5-19-42), a corrected copy of CM-IN-4908 (5-18-42); CM-IN-4879 (5-18-42); CM-IN-4909 (5-18-42); CM-IN-4856 (5-18-42); CM-IN-4870 (5-18-42).
127. With a capacity of 73 students, the attendance by weeks was 6, 33, 54, 65. With the capacity increased to 124, the attendance was 59, 71, 71, 80. CM-IN-1776 (5-7-42), Crom to Arnold, thru Cairo to AGWAR, #1005, 6 May 42. This message is part 1 of a report based on an investigation requested on 15 April, because it had been rumored that the RAF in Egypt had not taken advantage of the American Technical School. CM-IN-2791 (4-15-42), Arnold to AMSEG, Cairo, WD #540, 15 April 42. See also msg., Maxwell to AGWAR, AMSEG #1217, Cairo, 25 May 42, concerning the continuance of training for mechanics on American equipment.
128. CM-IN-2454 (5-9-42), Crom to Arnold, thru Maxwell to AG, AMSEG #1037, Cairo, 8 May 1942. See also the reply given in AMSEG #1037 (Out), 21 May 42.
129. CM-IN (3-9-42), Adler to Arnold, thru Maxwell to AGWAR, AMSEG #540, Cairo, 8 March 42.
130. CM-IN-5276 (4-20-42), Adler to Arnold, AMSEG #860, Cairo, 19 April 1942. At the end of February, General Adler had cabled to General Arnold that Abadan, as then planned, would be ready about 1 April. CM-IN (2-28-42), AMSEG #498, 28 Feb. 42.
131. Ibid. See also CM-IN-4834 (5-18-42), Crom to Arnold, AMSEG #1110,

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- pt. 1, Cairo, 17 May 42.
132. CM-IN-5276 (4-20-42), Adler to Arnold, AMSEG #860, 19 April 42.
133. Ibid. See also CM-IN, (5-1-42), Shingler to AGWAR, AMSIR #204, Basra, 30 April 42; CM-IN-1664 (6-6-42), Shingler to AGWAR, AMSIR #308, Basra, 4 June 42.
134. For arrangements regarding the delivery of B-25's, see CM-OUT (2-20-42), AMSEG #456, 20 Feb. 42. There were to be 72 B-25's delivered to the Soviet Union at Basra. (CM-IN (3-20-42), Adler for Echols, Olds, and Arnold, AMSEG #609, Cairo, 18 March 42.) They were to be considered U.S.S.R. property upon leaving Miami. Under lend-lease agreement, no replacement was provided for any airplane assigned to a foreign nation, after it was turned over to ferry personnel, in the event that complete replacement was required. The A-200 planes, on the other hand, were regarded as property of the U.S.S.R. when they were prepared for loading at the port of embarkation. (CM-OUT 6422 (5-29-42) AFASC to AMSIR, Basra #229, 28 May 42.) By 26 March 1942, General Adler cabled to General Olds that the delivery of B-25's to the Soviet Union at Shaibah was well in hand. Deliveries were made by the ACFC pilots to the Wheeler Mission, which was the only accredited agency with whom the U.S.S.R. would deal. Assisted by 12 men from the American command, the RAF was then performing all maintenance. (CM-IN (3-26-42), Adler to Olds, AMSEG #656, Cairo, 26 March 42.) By 19 April, four B-25's had been received. CM-IN-5276 (4-20-42), Adler to Arnold, AMSEG #860, Cairo, 19 April 42.
135. CM-IN (3-20-42), Adler to Echols, Olds, and Arnold, AMSEG #609, Cairo, 18 March 42. CM-IN-0495 (5-2-42), Shingler, thru Maxwell, to AGWAR, AMSEG #972, Cairo, 1 May 42.
136. CM-IN-5276 (4-20-42), Adler to Arnold, AMSEG #860, 19 April 42. See also CM-OUT-6422 (5-29-42), AFASC to AMSIR, Basra #229, 28 May 42.
137. CM-IN-5962 (6-19-42), Crom to Arnold and Miller, thru Maxwell to AGWAR, AMSEG #1501, Cairo, 18 June 42; and reply to this message, 21 June 42. See also ltr., Gen. Arnold to Col. Eugene F. Gillespie, of the U. S. Mil. Mission to the U.S.S.R. in Teheran, 18 June 1942, with incls., in AAG 000-800, Misc., Africa.
138. CM-IN-5276 (4-20-42), Adler to Arnold, AMSEG #860, 19 April 42.
139. CM-IN (5-18-42), Crom to Arnold, AMSEG #1110, pt. 7, 17 May 42.
140. Memo for CG AAF by Col. T. J. Hanley, Jr., AC/AS, A-4, on Organization of African Theater of Operations, 12 May 1942, in WP-IV

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Far East Overall. See also Report to the CG AAF Ferrying Command, by Lt. Col. Louis S. Gimbel, 3 May 1942, in Air Transport Command Book (1941-1942), A-2 Lib.

141. Late in December 1941, the Air Corps Ferrying Command had been reorganized into General Headquarters, and Domestic and Foreign Divisions, later called Wings. (See GO No. 3, 30 Dec. 1941.) The Foreign Division, in turn, was subdivided into sectors. Of these, two were located in Africa. The West African Sector included the stations at Freetown, Monrovia, Takoradi, Accra, Lagos, and Kano, with Accra as the point of control. From headquarters at Khartoum, the officer in charge of the East African Sector directed ACFC activities from El Fasher to Karachi, along the route running by way of Cairo, Baghdad, and Basra, as well as along that extending across southern Arabia to India. See GO No. 2, Hq. Foreign Division, ACFC, 15 Jan. 1942. For a fuller discussion, see AAF Historical Studies, No. 33, Administrative History of the Ferrying Command, 29 May 1941-30 June 1942.
142. CM-OUT (2-12-42), ACFC to AMSEG, Cairo #580, 11 Feb. 42. See also paraphrase of ltr., Lt. Gen. P. G. Kemp to CG, Foreign Div., dated 11 Feb. 1942, in ATC Central Files; and CM-OUT (2-21-42), Olds to Adler, thru ACFC to AMSEG, Cairo #650, 21 Feb. 42. For General Adler's assumption of duties connected with PAA and ACFC operations in Africa, see n. 85, Chap. II.
143. CM-OUT (2-8-42), Arnold to Adler, thru ANPD to AMSEG, Cairo #556, 8 Feb. 42. See also AGO letter 160 (2-15-42) MSC-D-M 18 Feb. 1942, on closing out overseas contracts etc. For the termination of the contract on 15 Dec. 1942, see Historical Report, 1202d AAF Base Unit, CAFD-ATC, 30 Jan. 1942-30 June 1944.
144. CM-OUT-2059 (4-11-42), Marshall to Maxwell, AMSEG, WD #525, 11 April 42. See also ltr., AG 323.2 AAF Ferrying Command (5-29-42) MO-F-M, 6 June 1942.
145. Memo for CG AAF, by Col. T. J. Hanley, 12 May 1942, on Organization of African Theater of Operations, in WF-IV-Far East Overall.
146. For a detailed outline of General FitzGerald's duties, see R&R Brig. Gen. H. L. George to Brig. Gen. Shepler W. FitzGerald, 15 June 1942, Letter of Instructions, in AFAEP, 1-C, Assignments, Bk. 2 (1 Jan-31 Dec. 1942).
147. For General FitzGerald's departure from Bolling Field on 16 June 1942, see Report of Change of Station under that date. The time of his arrival in Accra and his formal assumption of the AAF Ferrying Command on 27 June 1942 are given in Historical Report, 1202d AAF Base Unit.

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By letter AG 320.2 (6-13-42) MS-E.M., 16 June 1942, on Command in the Africa-Middle East theater, General FitzGerald also was assigned to duty as Commanding General U. S. Army Forces in Central Africa (USAFICA), a newly created command with headquarters initially at Accra. With the exception of personnel of the AAF Ferrying Command (see paragraph 2 of the above letter), this command included all U. S. Army troops and installations in Gambia, Sierra Leone, Liberia, the Gold Coast Colony, Nigeria, French Equatorial Africa, the Belgian Congo, Uganda, Kenya, Italian Somaliland, Tanganyika, and Madagascar.

For General FitzGerald's assignment to the USAFICA command [in addition to his duties as Commanding General, Africa-Middle East Wing, AAF Ferrying Command], see msg., Ulio to MILOBSERVER, Accra, WD #60, 17 June 42. For his letter of instructions countersigned by Brig. Gen. T. T. Handy for AC/S, OPD, and signed by Gen. G. C. Marshall, 20 June 1942, see AFAEP, 1-C, Assignments, Bk. 2 (1 Jan.-31 Dec. 1942).

148. With the checking of Field Marshal Rommel's advance in February, activities dwindled to a series of harassing operations. A month of heavy sandstorms checked operations from the middle of April to the middle of May. Soon thereafter, while the British were contemplating an attack, General Rommel launched an offensive of his own. In its early stages, operations were favorable to the British. On 26 May, however, the German forces swept around the southern flank of the British defenses at Bir Hacheim, and drove behind them northward toward the coast, between El Gazala and Tobruk. On 13 June, British forces were drawn into an ambush. Of 300 tanks in action, 230 were lost—without a corresponding damage to the enemy. That day marked a turning point in the campaign.
149. CM-IN-7847 (6-24-42), Alexandria (Rockwell) to OPNAV 222010, NCR 0353, 23 June 42.
150. CM-OUT-1493 (6-6-42), OPD to MA, Cairo #875, 5 June 42.
151. For a review of the various British and American plans setting forth methods by which reinforcements might be moved to the Middle East, see COS 84, Item 1, on U. S. Reinforcements for the Middle East.
152. The Memorandum for Agreement between General Arnold, Rear Admiral Towers, and Air Chief Marshal Portal, on 21 June 1942, was not seen by the author. For its adoption, however, see COS 61/1, on Aircraft Situation in the United Nations, 2 July 1942. According to the Arnold-Slessor-Towers agreement, six fighter groups were allocated to the Middle East in September 1942. See COS 61/1 18 Sep. 1942. The possibility of using American civilians in Egypt for maintenance was investigated, in the hope of furthering plans for the arrival

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- of American units. CM-OUT-5421 (6-23-42), AFABI to AMSEG, Cairo #1112, 22 June 42.
153. CCS 87/2, 10 July 1942, on Shipping Implications of Proposed Air Force Deployment, Sec. 1. See also CCS 87/1 (24 June) and CCS 87 (30 June), for additional material on shipping arrangements.
154. J/CCS 39/1, 14 March 1942. See also CM-IN-1149 (6-19-42), Fellers to WD, 19 June 42.
155. CM-OUT-5700 (6-23-42), Marshall to Stilwell, New Delhi #618, 23 June 42. Owing to lack of engines, a critical maintenance situation existed in India at the time. (Msg., (6-21-42) Adler to AFASC, thru Brereton to AGWAR, Aquila #2151, New Delhi, 20 June 42. See also CM-IN-7957 (6-24-42), no signature, Aquila #2311, 24 June 42.) Only 10 bombers could be assembled at the moment. Of these 7 were to depart at once, and the remaining 3 would follow as soon as they were made ready. As engines and other equipment became available, additional planes would be forwarded, too. (CM-IN-8183 (6-25-42), New Delhi to AGWAR, #Aquila 2319, 25 June 42.) In all, 18 combat planes seem to have been transferred to the Middle East—11 B-17E's, 6 B-24D's, and 1 LB-30. (CM-IN-11508 (8-30-42), New Delhi to AGWAR, Aquila #4359, 29 Aug. 42—corrected copy of CM-IN-11266 (8-30-42).) General Brereton was notified early in July that he was authorized to obtain bombs from India, if the situation demanded such action. CM-OUT-2279 (7-9-42), CG, AMMISCA, New Delhi, #62, 8 July 42.
156. A minimum staff and the combat crews comprised a total of 60 officers and approximately 165 enlisted men. Ibid. Actually the number of enlisted men may have been only 160 (139 from the 9th Bombardment Squadron, and 21 airplane and engine mechanics from the 436th Bombardment Squadron). CM-OUT-5534 (9-16-42), OPD, thru Marshall, to Maxwell, AMSME #839, Cairo, 16 Sep. 42.
157. CM-OUT-6566 (6-26-42), AFADS to AMSEG #1154, for Brereton and Stilwell, 25 June 42; also CM-IN-3426 (7-10-42), Cairo to AG, AMSME #168, 9 July 42.
158. CM-IN-8183 (6-25-42), New Delhi to AGWAR, Aquila #2319, 25 June 42.
159. CM-OUT-4189 (6-17-42), Ulic to AMSEG, Cairo, WD #1066, 17 June 1942; ltr., AG 320.2 (6-13-42) MS-B.M., dated 16 June 1942, on Command in African Middle Eastern Theater. According to the instructions of this letter, the U. S. Army Forces in the Middle East as a command included military jurisdiction over all U. S. Army troops and installations in Egypt, such parts of Libya as were occupied by forces of the United Nations, Anglo-Egyptian Sudan, Abyssinia, Eritrea, British Somaliland, Syria, Palestine, Trans-Jordan, Arabia,

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Turkey, Iraq, and Iran--with two exceptions (noted in paragraphs 2 and 3 of the letter). The first of these exceptions pertained to the activities and facilities of the AAF Ferrying Command, exclusive of the security measures and combat emergencies authorized by letter, AG 322.2, AAF Ferrying Command (5-29-42) MO-F-M, 6 June 1942. The second exception had to do with the Special Mission of Maj. Gen. John N. Greely in Iran--an agency operating directly under the War Department.

160. CM-IN-7222 (6-22-42), Maxwell to SFLM, thru Cairo to AGWAR, AMSME #6, 22 June 42. General Maxwell believed that the creation of this new command would clarify the status of various semi-dependent groups and activities which British Headquarters in the Middle East already looked to him to control and administer. Among these, he mentioned students at British schools, observers with tactical units gaining combat experience, and the special liaison duties of the military attaché in Cairo. The dissemination of war information and the collection of strategic data by detached semimilitary agencies were activities causing considerable concern to responsible British officials. Undoubtedly it would soon be necessary to define their relationship to the new command. (CM-IN-5598 (6-17-42), Maxwell to Marshall, thru Cairo to AG, AMSEG #1494, 17 June 42.) Colonel Hodges, an engineer already in the theater, was designated as acting chief of the U.S. Military North African Mission on 19 June 1942. CM-IN-7035 (6-22-42), Cairo to AGWAR AMSEG #1533, 21 June 42.
161. CM-IN-1903 (6-29-42) Cairo to AG, AMSME #36, 29 June 42.
162. GO No. 4, USAFIME, 28 June 42. See also CM-IN-9610 (6-29-42), Cairo to AG, AMSME #35, 29 June 42; and GO No. 1, USAMEAF, 28 June 42.
163. CM-OUT-5701 (6-23-42), OPD to AMSEG, Cairo #1118, 23 June 42.
164. AG ltr. 320.2 (6-26-42) MS-AFACT, dated 27 June 1942, "9th Air Force," and ltr., Maj. Gen. Ulio to CG USAFIME, 27 June 1942. When the organization of the Ninth Air Force was first undertaken in January 1942, it was destined for North Ireland. (Ltr., AAG to CG AFCC, 9 Jan. 1942, attached to R&R, A-3, AAF to AAG, 9 Jan. 1942, in Air AG 320.2, 9th AF.) The groups to comprise the Air Force were: 31st and 54th Pursuit (I), 46th Bombardment (L), 12th Bombardment (M), and 67th Observation. (Memo for CG AFCC, by Col. W. W. Dick, 10 Jan. 1942, *ibid.*) Before it was scheduled for movement overseas, the adoption of project BOLERO changed the strategic plans for the British Isles. The air task force was therefore dismembered, and its combat units widely scattered. In the transfer, the 12th Bombardment Group was assigned to Egypt in the summer of 1942. (See Chap. III of this study, and AAFRE-2.)

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Meanwhile, however, the Headquarters and Headquarters Squadron, 5th Air Support Command, had been redesignated Headquarters and Headquarters Squadron, Ninth Air Force, by AG letter 320.2 (4-5-42) MR-M-AF of 8 April 1942. This unit was later transferred to Bolling Field, Washington, D.C., in preparation for service overseas. (Memo to CG 3d AF by Brig. Gen. Hume Peabody, Dir. of War Organization and Movement, 4 July 1942.) On 15 April 1942 the composition of the Ninth Air Force was reported as consisting of two bombardment groups (one medium and one light) and two fighter groups (single engine). See Comment #2, 22 April 1943, R&R, Stat. Control to AC/AS, Plans, in AFAMP, WP-III-B-1.

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Chapter III

1. This Advance Echelon was to make plans and arrange for the control, operation, basing, and supply of the Ninth Air Force. Ltr., Maj. Gen. James A. Ulio to CG USAFIME, 27 June 1942, in AFIMI, 9th AF file. At that time the tentative plan of organization for the Ninth Air Force included:

Air Force Headquarters (Special)

One heavy bombardment group

Air echelon moving

Ground echelon sailing about 15 July 1942

Two medium bombardment groups

(air echelon moving)

One group (ground echelon sailing about 15 July

One group scheduled to move during October 1942

Fighter Command (Special)

Six fighter groups

(air echelon moving)

One group (ground echelon sailing about 15 July

One group scheduled to be moved during October 1942

Two groups scheduled to be moved during December 1942

Two groups scheduled to be moved during March 1942

Air Service Command Headquarters (Special)

Two air depot groups

One group to be moved during September 1942

One group to be moved during March 1942

Five air service groups

One group to sail about 15 July 1942

One group to be moved during October 1942

Two groups to be moved during December 1942

One group to be moved during March 1942

2. CM-OUT-6204 (6-25-42), OPD to AMSME, Cairo #1136, 24 June 42.
3. CM-IN-9515 (6-29-42), Cairo to AG, AMSME #34, 29 June 42.
4. CM-IN-9942 (6-30-42), Cairo to AG (Brereton to Marshall and Arnold), 29 June 42.
5. See the reference to a directive of 2 June 1942 (CM-OUT, AMSME #4), attached to CM-IN (7-10-42), Brereton for Arnold, thru Maxwell to AGWAR, AMSME #176, 11 July 42, in Cable Log Book, under that date, AFIMI files.
6. CM-IN-0044 (7-1-42), Cairo to AG (Brereton to Marshall), AMSME #46, 30 June 42.
7. The Air Service Command, U. S. Army Middle East Air Force, was activated on 28 June 1942, by General Orders No. 2, Headquarters.

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- U. S. Army Middle East Air Force, Cairo, Egypt. In addition to his regular duties, General Adler served as General Maxwell's Staff Air Officer, a position which he filled very ably. Of the services which he rendered, General Maxwell was most appreciative. Ltr., Maxwell to CG USAMEAF, 6 Oct. 1942, in 9th AF file.
8. See CM-IN (7-4-42), Brereton to Marshall and Arnold, thru Maxwell to WD, AMSME #62, Cairo, 3 July 42, in Cable Log Book.
 9. By the middle of July, General Brereton reported that all available officers of the Air Section of the former Maxwell Mission had been absorbed into General Adler's Air Service Command. See msg. (7-17-42), Brereton to Arnold, AMSME #281, Cairo, 16 July 42.
 10. See interview with Gen. Elmer E. Adler, 18 Jan. 1943, in U. S. 9000. It had been suggested in June that personnel be furnished to implement the Advance Echelon of the Middle East Air Force. Among the officers requested for this assignment were Cols. Patrick W. Timberlake, Aubrey C. Strickland, J. G. Moore, Truman H. Landon, and Wycliffe Steele, and Maj. G. H. Bennell. According to the plan at the time, Colonel Moore would be placed on temporary duty with the Ninth Air Force, but remained in Washington to implement the rest of the staff, and to act as liaison officer with the USAMEAF until the complete staff and headquarters squadron had been arranged for. (Memo, AFDOF by AFCAS, 24 June 1942, in Air AG 320.2, 9th AF). By the middle of July, General Brereton was in urgent need of officer assistants for his operational staff. He therefore requested that two Air Corps officers as assistants in the G-3 section, two officers as assistants in the G-2 section, and one officer for public relations be sent to Egypt as soon as possible. These men were to have had experience in the staff work of the organization concerned. Eventually they would be assigned to the Ninth Air Force Headquarters, upon its arrival in the theater. CM-IN-5915 (7-17-42), Brereton to Arnold, thru Maxwell, AMSME #281, Cairo, 16 July 42.
 11. The 7th Bombardment Group had been General Brereton's basic combat unit in India.
 12. Administrative History, Ninth Air Force. The Rear Echelon and Command Post of the 9th Bombardment Squadron arrived at Lydda from Allahabad, India, on 3 July 1942. For a personal account of the flight from India, by an officer who joined the group at Lydda a few days later, see Born in Battle, by Capt. Rowen Thomas, 151 ff.
 13. Maj. Frank O. Haile, Desert Campaign, 2.
 14. For the original traveling orders of the Halverson Detachment from the United States to the designated theater of operations, see memo for TAG by Col. O. S. Ferson, 17 April 1942, in AAG 373 G. For later instructions, see memo for Dir. of War Organization and Movement by Brig. Gen. L. S. Kuter, 15 May 1942.

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15. CM-OUT-2175 (6-10-42), AMSEG #990, 10 June 42. For an early report on the Ploesti mission, see CM-IN-4509 (6-14-42), Halverson to CG AAF, 13 June 42; CM-IN-5246 (6-17-42), Maxwell to Marshall, thru Cairo to AGWAR, AMSEG #1472, Cairo, 16 June 42. See also AAFRH-3.
16. CM-IN-5593 (6-18-42), Halverson to CG AAF, Accra (from Fayid), 15 June 42.
17. CM-IN-5576 (6-17-42), Halverson to CG AAF, AMSEG #1481, 17 June 42; CM-IN-7576 (6-23-42), Cron to Arnold, thru Hodges to AGWAR, Cairo #1550, 23 June 42.
18. CM-IN-6008 (6-19-42), Fellers to WD, Cairo #1154, 17 June 42. Memo for the President by AFAEP (Anderson), 15 May 1942, in AFAEP, WP-IV-C-1, China Bk. 1 (Sep. 1941-Dec. 1942). CM-OUT-4477 (6-18-42), Marshall to Maxwell, 18 June 42.
19. CM-OUT-3990 (6-17-42), AFCAS to Halverson, Cairo #1053, 17 June 42; also CM-OUT-3989 (6-17-42), AFCAS to Maxwell, thru AFMAG to AMSEG, Cairo #1054, 17 June 42. In a previous message, General Maxwell had said that the experience of the Halpro Mission in the Middle East had demonstrated the unsoundness of sending small combat groups to that theater without giving orders to the unit commanders to report either to British authorities or to him. CM-IN-5246 (6-17-42), Maxwell to Marshall, AMSEG #1472, Cairo, 16 June 42.
20. CM-IN-7465 (6-23-42), Maxwell to Arnold, AMSME #8, Cairo, 22 June 42; CM-OUT-3989 (6-17-42), AFCAS to Maxwell, thru AFMAG to AMSEG, Cairo #1054, 17 June 42. See also IX Bomber Command file.
21. RAF Middle East Review No. 1 (May-Dec. 1942).
22. CM-IN-7461 (6-23-42), Halverson to Arnold, Cairo, 23 June 42; CM-IN-8413 (6-26-42), Cairo to AGWAR, AMSME #18, 25 June 42.
23. CM-IN-8653 (6-26-42), Cairo to AGWAR, AMSME #22, 26 June 42; CM-IN-9236 (6-28-42), Cairo to AGWAR, AMSME #28, 27 June 42.
24. Russell Hill, Desert Conquest, 79 ff.
25. CM-OUT-4477 (6-18-42), Marshall to Maxwell, WD #1079, 18 June 42.
26. The Detachment arrived there on 30 June 1942. See Administrative History, Ninth Air Force.
27. CM-IN-0305 (7-1-42), Maxwell to AGWAR, AMSME #55, 1 July 42.

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28. CM-IN-1253 (7-4-42), Brereton, thru Maxwell, to Marshall and Arnold, AMSME #62, Cairo, 3 July 42. At the time, the strength of the enemy air force was estimated as follows:
- In Africa - 180 fighters and 120 bombers (including ME-109, ME-110, Ju-87, and Ju-88 planes)
 - In Greece - 15 Ju-88's and 25 HE-88's, plus 50 assorted seaplanes and flying boats
 - In Crete - 70 Ju-88's, 10 ME-109's
 - In Sicily - 130 Ju-88's and 30 ME-109's

The British aircraft available numbered: 72 medium, 42 torpedo, and 172 light bombers; 297 fighters, 8 twin-engine fighters, and 30 night-fighters (SE); 88 reconnaissance; and 45 miscellaneous planes.

General Brereton's aircraft included: 14 B-24's and 4 B-17's with several bombers of each type en route from India. For the exact number of planes sent from India to the Middle East by 4 July 1942, see messages from Karachi, Aquila #2549 (1 July) and #2711 (4 July).

29. CM-OUT-0162 (7-1-42), Marshall to Maxwell, for Brereton and Fitzgerald, Cairo #1234, 1 July 42; CM-IN-1253 (7-4-42), Brereton to Marshall and Arnold, AMSME #62, Cairo, 3 July 42.
30. CM-IN-9160 (6-28-42), Carey to Arnold, thru Palmer to WD, Nairobi #72, 27 June 42; CM-IN-1238 (6-5-42), Maxwell to AGWAR, AMSEB #1321, Cairo, 4 June 42.
31. CM-IN-6184 (7-18-42), Maxwell to AGWAR, for Adler, AMSME #294, Cairo, 17 July 42. Other deficiencies here were shortage of organizational equipment and shortage of motor transportation.
32. CM-IN-8650 (6-26-42), Cairo to AG (Maxwell to Marshall), AMSME #17, 25 June 42; CM-OUT-0162 (7-1-42), Marshall to Maxwell, for Brereton and Fitzgerald, Cairo #1234, 1 July 42; CM-IN-1253 (7-4-42), Brereton to Marshall and Arnold, AMSME #62, 3 July 42.
33. Memo for Gen. Arnold by Col. C. A. Anderson, "Air Movement from Cairo," dated 29 June 1942, in AFAMP, WP-III-F-4, Egypt.
34. GO No. 3, Hq. USAMEAF, Cairo, 17 July 1942.
35. Administrative History, Ninth Air Force.
36. Memo to CG USAAFIME, by Gen. Adler, 5 July 1942, in 9th AF file.
37. IX Bomber Command file; Morgan, History of the IX Bomber Command, 3.
38. Halle, Desert Campaign, 2; History, 57th Fighter Group (1 July 1942-23 Jan. 1943).

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39. U. S. Navy, Reel A-431 (51950), Ranger. Administrative History, Ninth Air Force. The two accounts of the trip differ slightly as to the immediate destination of the planes, and the time of the arrival of the carrier off the African coast. The naval record states that the planes were launched on July 17, when the ship was off Accra. The Administrative History gives the date as July 19, and says that the planes landed at Lagos. On its former errand of a similar kind in April, the Ranger made the crossing in 19 days (21 April-10 May), and the planes were flown from the carrier to Accra.

According to the report of a naval pilot, the P-40's took off from the ship in an amazing fashion. They would rush down the deck and then disappear, as they went over the end of the carrier. To the great relief of the spectators, they would come safely into view again, far ahead of the ship. Although they dropped so close to the water that their propwash made a wake like that of a speedboat, every plane was able to rise. Howard Mingos, American Heroes of the War in the Air (New York, 1943), I, 368. The 57th Group doubtless profited from the experience of the pilots who had delivered the P-40's in April. See "Report on the P-40 Mission, Special Project 157." by Lt. Col. John E. Barr, 19 June 1942, in History of Headquarters, Tenth Air Force, 1942. See also ltr., Gen. Arnold to Adm. King, with incl., 19 June 1942, in AAG 000-800, Africa.

40. History, 57th Fighter Group.
41. Mingos, American Heroes of the War in the Air, I, 368.
42. Administrative History, Ninth Air Force.
43. History, 57th Fighter Group; interview with Col. Frank Mears, 10 Aug. 1943, in U. S. 9000.
44. IVIA; Administrative History, Ninth Air Force. According to some accounts the squadrons were scattered for training just before the arrival of the ground crews.
45. Secret radiogram, Arnold to Brereton, 25 June 42.
46. For a study of the day-by-day missions of the heavy bombers up to this time, see Analysis of Missions by A-2, in AVIHI files.
47. CM-IN-0246 (7-1-42), Crom to Arnold and AFRUEB, thru Cairo to AG, ANSEG #1629, 1 July 42.
48. Memo for CG ASC, by Brig. Gen. Muir S. Fairchild, 11 June 1942, with 1st ind., in WP-III-Near East Overall. By early July, it had been decided that the vicinity of Accra would be a good

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location for the 8th Mobile Depot Group--a plan which was later approved. Memo to CG AAF by Col. Clements McMullen, Chief, Overseas Div., ASC, 2 July 1942, in AAG 450, Africa. See also the note at the bottom of the above memo.

49. AWPB, Division Digest, 29 June 1942, in Air AG files.
50. Administrative History, Ninth Air Force.
51. Memo for CG ASC by Brig. Gen. Muir S. Fairchild, 11 June 1942, in WF-III-Near East Overall.
52. Administrative History, Ninth Air Force. According to Capt. Rowan Thomas, the 98th Group had 40 B-24's. Born in Battle, 171.
53. Morgan, History of IX Bomber Command, 3.
54. See n. 164, Chap. II.
55. History, 12th Bombardment Gp.; Administrative History, Ninth Air Force.
56. History, 12th Bombardment Gp.; interview with Col. Curtis R. Low, 23 July 1943, in U. S. 9000; RAF Middle East Review, No. 1, 28. When it was found that the B-25's were unsatisfactory for night missions because of the lack of flame dampeners, steps were taken immediately to correct this defect. By the middle of October, the first shipments of flame dampeners were on their way to Egypt. (See CM-OUT-6466 (9-19-42), AFASC to Brereton, 18 Sep. 42; and cables from same office to Brereton, CM-OUT-7183 (9-21-42), 21 Sep. 42, and CM-OUT-7714 (9-23-42), 23 Sep. 42.) In the meantime, it is possible that dampeners of local manufacture were used.
57. Administrative History, Ninth Air Force.
58. Until the arrival of the 306th and 315th Service Groups about 1 November, the 323d was the only service group in this area. (Ltr., Brereton to Arnold, 21 Nov. 1942, in 9th AF file.) Behind Palestine, in the direction of Basra, an advance depot had been planned for supply and maintenance soon after General Brereton's arrival. It was to be manned temporarily by American manufacturers' representatives and personnel from Basra (Cedar) and Gura. (CM-IN-1253 (7-4-42), Brereton to Marshall and Arnold, AMSME #62, 3 July 42). For the legal right, in terms of the Douglas contract, to detach Gura personnel for temporary service in other places, see CM-OUT-1083 (9-3-42), Marshall to Cairo, AMSME #661, 3 Sep. 42.

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59. Ltr., Brereton to Arnold, 21 Nov. 1942, in 9th AF file. General Upston's comment on the geographical disadvantage of the location probably applies to a later period. Extracts from an interview with Brig. Gen. John E. Upston, 8 Dec. 1942, "Observations of Air Force Activities in the Middle East, October 1-18," in U. S. 9000.
60. Ltr., Brereton to Arnold, 21 Nov. 1942.
61. CM-IN-10306 (7-30-42), Brereton and Adler to Arnold, AMSME #442, Cairo, 29 July 42.
62. CM-OUT-6999 (7-24-42), A-4 to AMSEG, Cairo #1399, 24 July 42.
63. IBID.; CM-IN-1123 (8-4-42), Cairo to AGWAR, AMSME #513, 3 Aug. 42.
64. CM-IN-6184 (7-18-42), Maxwell to AGWAR, AMSME #294, Cairo, 17 July 42. See also ltr., Brereton to Arnold, 21 Nov. 1942.
65. CM-IN-3759 (7-11-42), Maxwell to AGWAR, AMSME #173, Cairo, 10 July 42.
66. Note appended to CM-IN-3422 (7-10-42), Maxwell to AGWAR, AMSME #154, Cairo, 9 July 42.
67. CM-IN-5030 (7-15-42), Maxwell to AGWAR, AMSME #230, Cairo, 14 July 42; also CM-IN-6184 (7-18-42), Maxwell to AGWAR, AMSME #294, Cairo, 17 July 42.
68. CM-OUT-6257 (9-18-42), Arnold to Cairo, AMSME #878, 18 Sep. 42; see also R&R, AFACT to AFADS, 29 Sep. 1942, in AAG 686, Air Base, Africa.
69. CM-OUT-1781 (6-8-42), AFASO to Maxwell and Crom, thru AFMAG to AMSEG, Cairo WD #977, 8 June 42; CM-IN-10306 (7-30-42), Cairo to AG, AMSME #442, Cairo, 29 July 42. See also memo for Gen. Stratemeyer by Brig. Gen. T. J. Hanley, n.d., AFAEP, WP-V, Middle East; prepared cable, Air Staff, A-4, thru Marshall, to Brereton, 1 Oct. 42, in AFAEP, WP-V, Middle East.
70. In August Vice Marshal Graham Dawson had written to Mr. Averill Harriman regarding the importance of maintenance, repair, and salvage in the Middle East. He deplored the lack of a unified command for the American air effort there. In obtaining supplies, he considered the direct link of the Ferrying Command with the United States a great advantage, and thought that the bombardment groups might suffer thereby. He therefore proposed the establishment of regional service commands, in support of operations within their boundaries.

Projects like Gura and Abadan, and perhaps the air transport base at Accra, he envisaged as being directly under a general headquarters and controlled by an air officer experienced in maintenance and supply. At general headquarters, he hoped that

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there would be a major general with whom he could work, so that the entire maintenance organization supporting the air forces of both countries might be developed as a common organization, with appropriate British and American sections, not overlapping, but with appropriate direction toward the common aim. Owing to the welcome arrival of AAF units, the maintenance and supply division of the RAF was then bearing an additional load. In view of the length of time needed to develop an American organization of a similar sort, he thought that close cooperation and coordination of effort were especially essential. For General Arnold's comments, see ltr., Arnold to Brereton, 23 Oct. 1942, and inclosures, in AAG 381.

71. CM-IN-1123 (8-4-42), Cairo to AGWAR, AMSME #513, 3 Aug. 42.
72. CM-IN-7056 (8-19-42), Cairo to AGWAR, AMSME #763, 18 Aug. 42;
CM-IN-7646 (8-21-42), Cairo to AG, AMSME #789, Cairo, 19 Aug. 42;
CM-OUT-6413 (8-20-42), OPD (Marshall) to AMSME #489, Cairo, 20 Aug. 42.
73. CM-IN-0356 (8-1-42), Cairo to AGWAR, AMSME #481, 1 Aug. 42.
74. On 18 August 1942, General Brereton cabled that, aside from Tenth Air Force personnel, the following officers were available for assignment to the headquarters and service command of the Ninth Air Force. For current duties, their assignments would, of course, be with the USAFIME. The list ran as follows:

Air Force Headquarters

Maj. L. L. Long	Asst. Adj. Gen.
Lt. Col. R. M. Baughey	Public Relations
Col. Sory Smith	G-1
Maj. G. G. Finch	Asst. G-3
1st Lt. A. Parlato	Asst. G-2
Col. W. E. Steele	G-4
Brig. Gen. A. C. Strickland	Fighter Command
Maj. F. G. Thomas	Asst. G-3
Maj. H. F. Turner	Antiaircraft Artillery Officer
Lt. Col. John E. Roberts	Surgeon
Col. P. W. Timberlake	G-3
Col. W. H. Crom	G-2
Lt. Col. A. W. Schofield	Special Projects Officer
Lt. Col. C. M. Seehach	Act. Adj. Gen. (Inf.)

Air Service Command

Capt. R. G. Snyder	Asst. Engineering Officer
2d Lt. D. E. Doddridge	Finance Officer
Maj. H. F. Damon	Engineering Officer
Capt. H. E. Baton	Asst. Supply, Purchasing and Contracting Officer

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Lt. Col. H. W. Pennington	Materiel Officer
Maj. J. B. Rogers	Hq. Commandant
2d Lt. W. S. Moore	Q. M. Officer
Maj. L. B. Ocomb	Supply Officer
Lt. Col. G. H. Bonnell	Asst. Executive
1st Lt. S. M. Frank	Ordnance Officer
1st Lt. M. J. Goodman	Engineering Corps Officer

With the exception of General Strickland, and Colonels Timberlake, Crom, and Seebach, the rest of these personnel had had practically no prior staff duty, General Brereton adds. By this time, however, they were quite familiar with their duties. Under the guidance of General Adler and Colonel Strahm they were receiving full support from the Allied staffs with whom they dealt. It was General Brereton's hope that this staff might remain as listed. Msg., Brereton to Marshall, thru Maxwell to AG, AMSME #789, Cairo, 18 Aug. 42. See 9th AF file.

75. The number of men on detached service from the Tenth Air Force was given as 90 officers and 350 enlisted men. CM-IN-11508 (8-30-42), New Delhi to AGWAR, Aquila #4359, 29 Aug. 42--a corrected copy of CM-IN-11266 (8-30-42).
76. CM-IN-11424 (8-30-42), Stilwell to Marshall, AMMISCA #64, 28 Aug. 42.
77. The names of the 15 officers who made up this group, and the offices which they then held on General Brereton's USAAFIME staff, are given below:

Brig. Gen. Elmer E. Adler - Air Service Commander
 Col. Victor H. Strahm - Chief of Staff
 Maj. Lewis E. Hobbs - Aide-de-Camp
 Lt. Col. Edward N. Backus - Commanding Officer, 12th Bombardment Group
 Lt. Col. Cornelius V. Whitney - Asst. G-2
 Maj. Richard K. Pierce - Surgeon, Air Service Command
 1st Lt. Joseph T. Johnson - Adj. Hq. Flight
 1st Lt. John E. Felton - Aide-de-Camp
 Capt. David H. Likes - Communications Officer, Air Service Command
 1st Lt. Lawrence F. Converse)
 1st Lt. James L. Goodwin)
 1st Lt. Robert E. Ahlin)
 1st Lt. Harry W. Hopp) - Assigned to Hq. Squadron
 1st Lt. Paul H. Roth)
 1st Lt. Jens H. Hansen)

The six last-named officers were crew members of three transports retained in the Middle East for supply and ferry purposes. See CM-IN (9-19-42), Maxwell to AGWAR (Brereton to Arnold), AMSME #1398.

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Cairo, 18 Sep. 42, and msg., Brereton to AFPMP, AMSME #1553, Cairo, 26 Sep. 42, in 9th AF misc. papers, 23 July 1942-26 Aug. 1943. For the authorization of their assignment to the Ninth Air Force, see memo for CG 9th AF by Maj. Gen. Thomas T. Handy, 10 Sep. 1942, attached to Orders of 24 Oct. 1942, in AAG 210.68.

For assignment of General Brereton to the Ninth Air Force, see CM-OUT-5599 (9-17-42), AFPMP to AMSME, Cairo #842, 16 Sep. 42; and comment #2, 22 April 1943, R&R, Stat. Control to AC/AS, Plans, in AFAEP, WP-III-B-1, AAF No. 5.

78. CM-OUT-5534 (9-16-42), OPD, thru Marshall, to Maxwell, AMSME #839, Cairo, 16 Sep. 42. See also msg., Marshall to Brereton, AMSME #1221, 11 Oct. 42, in 9th AF misc. papers, 23 July 1942-26 Aug. 1943.
79. CM-OUT-5534 (9-16-42), OPD, thru Marshall, to Maxwell, AMSME #839, Cairo, 16 Sep. 42. Of the 160 enlisted men who accompanied General Brereton to Egypt, 142 were returned. Owing to a shortage of personnel, it was agreed that the other 18 should be retained in the Middle East to maintain 10 B-17's until ground personnel should arrive from the United States to relieve them. By January they were still there, and inasmuch as no relief was in sight General Brereton suggested that the matter of their transfer be dropped. Msg., Brereton to Arnold, AMSME #4090, 20 Jan. 43, in 9th AF misc. papers, 23 July 1942-26 Aug. 1943.
80. Msg., Brereton, thru Maxwell, to Bissell, 12 Oct. 42; msg., Marshall to Brereton, AMSME #1221, 11 Oct. 42; and msg., Brereton to Bissell, AMSME #182-Q, 23 Oct. 42. Ibid.
81. In a conversation with the President at the end of July 1942, Col. Bonner Fellers, who had just returned from Egypt, made an eloquent appeal for immediate reinforcement of the Middle East. Mr. Roosevelt then conferred with General Arnold, on the evening of 30 July. As a result, a study of the feasibility of augmenting AAF participation in operations there was initiated. See memo for AC/S, Operations Div., on Augmentation of Air Forces in the Middle East, 1 Aug. 1942, in AFAEP, WP-III-C-4, Western Russia. At the time, the following U. S. units and planes were in the Middle East:

Heavy Bombardment:

Commitments through OPD: One group of 35 planes, with a reserve of 17 (total, 52)

Present situation: One group (98th) was in the theater or en route, with 9 planes on hand, 26 en route, and 8 being prepared. (total, 43). This was 9 short of the 52 required.

The 9th Squadron from India was, however, in the Middle East, with 27 planes on hand, and 3 en route. (total, 30). Attrition for the 98th Group was figured at 10 planes per month, or 28 per cent.

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~~RESTRICTED~~Medium bombardment:

Commitments through OPD: Two groups of 57 planes each, with a reserve of 28 planes each. (Total, 170 planes for the two groups.)

Present situation: One group (12th) in the theater or en route, with 5 planes on hand, 34 en route, and 34 being prepared (total, 73). This was 12 planes short of the required 85. Attrition for the 12th Group was figured at 13 planes a month, or 22 per cent.

Additional groups: A second group was scheduled for December 1942.

Fighter:

Commitments through OPD: Six groups of 80 planes each, with a reserve of 40 planes each (50 per cent). (Total of 720 planes for the six groups.)

Present situation: One group (57th) was then in the theater or en route with 50 planes on hand, 19 en route, and 76 being prepared to go in August (total, 145). This was 25 planes over the 120 required for each group. Attrition for the 57th Group was figured at 16 planes a month, or 20 per cent.

Additional groups: At the time, the schedule of shipments allocated one additional group in October, two in December, and two in March. If a revision of schedule were possible, it was hoped that these additional groups could be placed in the theater at an earlier date.

82. This group had originally been intended for Task Force BRITAIN. See memo for C/AC by Lt. Col. John B. Cooley, on Task Forces for Britain and Cairo, 17 Jan. 1942, in AFAEP, WP-III-A-2, Great Britain No. 1 (2 Feb. 1941-30 April 1942).
83. Memo for Gen. Arnold by GCS, 5 Sep. 1942, in Air AG 152.1, BOLERO; JCS 101, on Immediate Allocation of the 33d Pursuit Group, 8 Sep. 1942, in AFAEP, J/GCS Div., 370.5, 33d Pursuit Group (9-9-42).
84. Ltr., Lt. Gen. Arnold to Air Marshal D.C.S. Evill, 9 Sep. 1942, ibid.
85. Ltr., Air Marshal Evill, through Air Comdr. S. C. Strafford, to Lt. Gen. Arnold, 10 Sep. 1942, ibid.
86. CM-IN-8195 (9-19-42), Eisenhower to Marshall, London, #2396, 19 Sep. 42; memo for Reps. of British Chiefs of Staff, 21 Sep. 1942, ibid.
87. GCS 112 and 112/1, 22 Sep. 1942, on Immediate Allocation of the 33d Pursuit Group, ibid. For a fuller discussion of the whole problem see AAFRH-5.

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88. CM-OUT-7145 (9-21-42), Marshall to AMSME, Cairo, #914, 21 Sep. 42; CM-OUT-8214 (9-24-42), Lt. Col. William F. McKee to AMSME, Cairo #957, 23 Sep. 42; and History, 79th Fighter Gp., 1943.
89. CM-OUT-8214 (9-24-42), Lt. Col. William F. McKee to AMSME, Cairo #957, 23 Sep. 42; CM-IN-8214 (9-24-42), Brereton to Arnold, AMSME #1702, Cairo, 5 Oct. 42.
90. Ltr., Air Marshal John C. Dill to Gen. Marshall, 27 Sep. 1942, in AFAEP, WP-V, Middle East.
91. Ibid.
92. CM-OUT-2368 (7-9-42), Marshall to AMSME, WD #32, A-3, 8 July 1942, ibid.
93. Memo for Record (concerning WD #32, 8 July 1942), ibid.; memo for Gen. Stratemeyer by Brig. Gen. T. J. Hanley, Jr., n.d., ibid.
94. R&R, AFACT (thru Col. Robert W. Harper) to AFOAS, 26 Sep. 1942, on Pooling of P-40 Airplanes in the Middle East, ibid.
95. Memo for Gen. Stratemeyer by Brig. Gen. T. J. Hanley, Jr., n.d., ibid.
96. Msg., AAF, A-4 Div. (thru Marshall) to AMSME (for Brereton), 1 Oct. 1942, ibid.
97. Ltr., O/S to Sir John Dill, rewritten 6 Oct. 1942, ibid.
98. Morgan, History of the IX Bomber Command, 3.
99. Through British Reconnaissance and Intelligence, the Allies were kept aware of these movements, and no convoy could hope to remain undiscovered for long. Upon detection, experts would calculate the rate of travel and plot the probable course. This information was then flashed to the American bomber groups, and within a few hours their planes would be on the way. For details of the operations of the 98th Bombardment and First Provisional Groups working in conjunction with the RAF units holding Malta, see ibid.; interview with G/C J. W. Merer of the RAF, 5 May 1942, in U. S. 9000; and Thomas, Born in Battle, 222 ff; interview with Lt. Col. Horace M. Wade, 23 June 1943, in U. S. 9000. For memorandum of Mr. Harriman's talk with General Brereton, August 1942, see R&R, Arnold to Stratemeyer, 13 Sep. 1942, with incl., in Air AG 370.2.
100. Between 6 September and 23 October, the heavy bombers flew 120 sorties. Of these, about 80 were made against Benghazi, to which much of the Axis shipping had been diverted as a result of raids upon Tobruk. The most important attack was made by RAF and USAAF

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Liberators, on the night of 22-23 September. Owing to the blowing up of a large merchant vessel lying alongside one of the main piers, the unloading capacity of the port was seriously impaired for several weeks. (RAF Middle East Review, No. 1, 37.) Four sharp raids were directed against Maleme between 21 October and 1 November (21/22, 29, 30/31 Oct. and 1 Nov.) 1942. Summary of cables, Brereton to Arnold, Cairo, #526-#530, 4 Aug. 42. In-closure attached to note, AFDAS to AFAMEP, 11 Aug. 1942, in WP-III, Near East Overall.

101. History, Weather Sec., IX Bomber Command. See A-2 collection in 9th AF file.
102. The question under discussion was whether Tobruk should be attacked, or whether the heavy-bomber effort should be conserved for more important targets expected in the near future. For the details of the controversy, see memo for CG USAMEAF by Col. P. W. Timberlake, 7 Sep. 1942, 9th AF misc. papers, 18 July 1942-17 Aug. 1943.
103. The command was established by the authority contained in radiogram #AF 773, dated 12 Oct. 1942. Administrative History, Ninth Air Force.
104. Memo for AOA-in-C, RAF Hq., Middle East by Gen. Adler, 28 Oct. 1942, in 9th AF file; CM-IN-2757 (11-7-42), Brereton to Arnold, thru Cairo to AG, ANSME #2369, 6 Nov. 42. Formal operational control was delegated to the IX Bomber Command on 2 Nov. 1942. Hq. USAMEAF, GO No. 7, 2 Nov. 1942.
105. According to Orders of 25 June 1942, Colonel Timberlake was to be "Commanding Officer of the Advanced Echelon of the USAMEAF, with Headquarters in Cairo." See AAG 301 files. He became a brigadier general on 1 November 1942.
106. Morgan, History of the IX Bomber Command; interview with Lt. Col. Horace M. Wade.
107. Colonel Keiser was an extremely valuable member of General Timberlake's staff. His death at Ismailia a few months later was a great loss. See CM-IN-5651 (12-13-42), Brereton to Arnold, thru Andrews to AGWAR, ANSME #3165, Cairo, 13 Dec. 42.
108. Morgan, History of the IX Bomber Command.
109. Ibid.
110. On flights in which the American pilots were included, these veteran squadrons used a V-formation of three echelons--the lower echelon, the support, and the reserve or topcover, a position assigned to the USAAF fighters, whose duty it was to

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protect the lower echelon from enemy fighters. This arrangement enabled them to move freely and to ward off marauders fairly easily. As the group gained experience, its airmen were moved down through the echelons to more difficult assignments, until, with the acquisition of self-confidence, they became capable of operating by themselves. Col. Arthur G. Salisbury, Record of Combat Activities of the 57th Fighter Group (1 July 1942-23 Jan. 1943), in 9th AF file; interview with Col. Frank Mears.

111. If the Allied air attacks upon Axis lines of communications had not proved so effective, the offensive would have been begun a week earlier. According to the original plan it was to have been opened on 25 August, in order to take advantage of the period of full moon. RAF Middle East Review, No. 1, 25.
112. Maj. Peter R. Chandler, History of the 66th Fighter Group. This MS. was loaned to the Historical Division through the courtesy of Major Chandler. See also Capt. Hubert L. Allensworth, History of the 57th Fighter Group. In the course of this battle, the P-40's carried out 145 sorties on bomber-escort duty and acquitted themselves well, for, even during the most intensive operations, not a single escorted bomber was lost. RAF Middle East Review, No. 1, 96.
113. It had been agreed that the British would furnish antiaircraft protection and a telephone exchange for the group at this field. (History, 57th Fighter Group). The field itself was 1,500 yards square, and therefore large enough for 12 planes to take off together. Although landings were always made into the wind, it was possible for the entire group of 36 planes to be got into the air within a few minutes by dispatching 12 at a time, in 3 different directions, regardless of the wind. Interview with Col. Frank Mears.
114. Chandler, History of the 66th Fighter Group.
115. Interview with Col. Frank Mears.
116. Memo for AFACT by AFADS, 5 Oct. 1942, attached to memo for AFADS by AFAEP, 13 Oct. 1942, in WP-III-Near East Overall; memo to CG 9th AF by Brig. Gen. T. J. Hanley, Jr., 10 Oct. 1942, in Air AG 320.2, 9th AF. Meanwhile rumors regarding the failure of AAF and RAF agencies to work in complete harmony had reached General Arnold. Fortunately these reports were without foundation, and probably originated among fifth columnists. CM-OUT-09256 (10-28-42), AFADS to CG USAFIME, #1526, 27 Oct. 42; CM-IN-13127 (10-31-42), Cairo to AG AMSME 2235, 30 Oct. 42.
117. The 66th Squadron did not rejoin the other two squadrons of the 57th Group until Belandah Landing Ground was reached some weeks later. History, 57th Fighter Group.

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118. RAF Middle East Review, No. 1, 37.
119. Ibid.; Administrative History, Ninth Air Force; General Brereton, "Direct Air-Support in the Libyan Desert (Oct. 19-Nov. 8, 1942)," 27-28; memorandum of Mr. Harriman's talk with Gen. Arnold, attached to R&R, Gen. Arnold to Gen. Stratemyer, 13 Sep. 1942, in Air AG 370.2.
120. These operations constituted the first real test of the effectiveness of the fighter-bomber, which was relatively new at the time. Having developed the German experiment systematically, the British found their improvement most satisfactory, for as soon as the plane had dropped its bombs, it could resume its fighter role and either strafe ground troops or attack any Stukas which might be in the vicinity. Hill, Desert Conquest, 117.
121. In readiness for the Eighth Army's fall offensive, a number of P-40's had been equipped with bomb racks. In a short time, these American fighter-bombers were making dozens of sorties daily, either in company with Allied squadrons, or in American formations, for the tempo of the attack had increased as the day of the Army's offensive approached. (RAF Middle East Review, No. 1, 29, 96) During the first period of the offensive itself, the 57th Group is credited with one-tenth of the total number of sorties flown by the Desert Air Force. Salisbury, Record of Combat Activities of the 57th Fighter Group (1 July 1942-23 Jan. 1943).
122. Missions were flown so continuously that as soon as planes could be serviced after one trip, they took off on another. In the course of these weeks, the group flew one-sixth of all the sorties flown by the Desert Air Force and, during this and the preceding period, scored approximately 40 per cent of its aerial victories. (Ibid.) According to RAF reports, the individual record of the group for the last 3 weeks of October is impressive, for the P-40's carried out 500 sorties on bomber escort duty, 260 on bombing and strafing, 170 on offensive sweeps, and 30 on defensive patrol. RAF Middle East Review, No. 1, 96.
123. The first of these missions was the raid on Fuka in the early morning of 27 October (Allensworth, History of the 57th Fighter Group). The effectiveness of this and other similar early-morning raids by the group, was reflected in the size of the enemy's retaliatory missions. At the beginning of the period, 2 substantial formations, comprising from 15 to 30 German planes, could be expected in the course of the day. These gradually dwindled to half that number, with one mission in the forenoon and one in the afternoon. Then the visits were made at longer

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intervals, and finally almost ceased. Never again in the Battle of Egypt or in the ensuing Libyan campaign was the Axis air force a serious contender for control of the air. The explanation for the decreasing fighter strength appeared later when the 57th Group passed the airdromes which the enemy had been using and found there were many of his planes grounded because of unserviceability. Interview with Col. Frank Mears.

124. In order to destroy this movement, the Desert Air Force quickly organized a shuttle service for fighter-bomber attacks, with the result that by dusk transport vehicles were seen burning along the entire stretch of road from Ghazal to Fuca. Thrown into confusion by the havoc inflicted upon his army, Marshal Rommel found it impossible to hold his lines extending southward from Ghazal. Salisbury, Record of Combat Activities of the 57th Fighter Group.
125. Ibid.
126. Ibid.; Administrative History, Ninth Air Force. The placing of the American fighters in the vanguard of the pursuing Allied air force was recognition of the good work which the 57th Group had done. In the following weeks it was to give an equally good account of itself, as it moved across the desert. In close cooperation with the Eighth Army, fighters of the group went forward to occupy new landing grounds almost as soon as the retreating forces had abandoned them. The rapidity of its advance was greatly facilitated by the division of the ground echelon into two groups, labeled "A" and "B." As the Army progressed, "A" party would proceed to the new landing ground and when ready for operations would signal to "B" party. The aircraft would then go forward to the new field, and "B" party either would join "A" party or would leapfrog over it to a landing ground nearer the front. In this way the tempo of the advance was maintained, and the planes were kept in continuous operation. Salisbury, Record of Combat Activities of the 57th Fighter Group.
127. Ibid.; interview with Lt. Col. Geoffrey H. Bonnell, 7 May 1943, in U. S. 9000.
128. CM-IN-1518 (9-4-42), Cairo to AG, ANSME #1096, 3 Sep. 42; also interview with Col. Curtis R. Low. Association with the Boston and Baltimores of the RAF and SAAF led the 12th Bombardment Group to adopt their method of pattern-bombing, which had been developed by Air Marshal Coningham. Finding that each 250-lb. British bomb had a destructive radius of about 50 yards, he had arranged the formation in such a way that, by the spreading out of the airplanes, the bombs would fall about 100 yards apart. The signal for bombing was given by the opening of the lead bombardier's doors--and was

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followed most promptly, in order to insure the success of the mission. While pattern bombing was sometimes used to destroy enemy strongholds, or to neutralize areas that Marshal Rommel might employ to advantage, its chief virtue lay in the swiftness with which it broke up enemy concentrations, and so prevented counterattacks. (Ibid.; Hill, Desert Conquest, 172 ff.) For a discussion of the style developed by the 12th Bombardment Group, see interview with Capt. R. M. Lower, 17 Sep. 1943; History, 12th Bombardment Gp.; interview with Col. Curtis Low.

129. It was on a raid to Sidi Hanshish, on 13-14 September, that Col. Charles Goodrich, the commanding officer of the 12th Group, fell into the hands of the enemy and was made a prisoner of war, after his plane had been shot down behind the Axis lines. Lt. Col. Curtis R. Low took charge of the group for a few days until Lt. Col. Edward N. Backus assumed command on 16 September 1942.
130. Administrative History, Ninth Air Force; History, 12th Bombardment Gp. By 18 October, "A" and "B" parties and the air echelon had reached Landing Ground 88. The personnel consisted of men drawn from Headquarters, and the 82d, 83d, and 434th Squadrons.
131. RAF Middle East Review, No. 1, 37.
132. History, 12th Bombardment Gp.; interview with Col. Curtis R. Low.
133. Ibid. The number of fighters furnishing the escort varied from 6 to 24, depending upon the size of the bomber formation. Interview with Capt. R. M. Lower.
134. Chandler, History of the 66th Fighter Squadron.
135. Interviews with Col. Curtis R. Low and Capt. R. M. Lower.
136. Ibid.
137. Before and during the El Alamein offensive, the B-25's shouldered approximately one-fifth of the load given to medium and light bombardment. Desert Campaign, 3.
138. History, 12th Bombardment Gp.
139. Ltr., William C. Carr to Frank H. Lyons, 20 Nov. 1942, in Counter-Intelligence Communications, 1000-1499, #1392. Mr. Carr, who was the field service representative of North American Aviation, Inc., in North Africa, states that with bombs carried on the wings, the B-25 was capable of doing the work of four Bostons. The first B-25C to be equipped with such bomb racks in this theater was flown by the commanding officer and a senior pilot

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on 9 November 1942. This was not the only modification which the B-25 was to undergo, because in the same letter Mr. Carr mentions the fact that the lower turrets were to be removed from all planes of this kind in the North African area. He also speaks of the request of upper turret gunners for more protection. Ibid.

140. Desert Campaign, 3.
141. Memo for Chief, Strategy and Policy Gp. by Cols. F. N. Roberts and Joseph Smith, 3 Sep. 1942, on Proposed Anglo-American Air Force for Operation in the Caucasian Area, in AFAEP, WP-III-C-4, Western Russia. Ltr., Sir John Dill to Gen. Marshall, 27 Sep. 1942, attached to R&R from Brig. Gen. O. A. Anderson, 4 Oct. 1942, in WPD-III-Near East Overall. Ltr., Air Marshall D. C. S. Evill to Lt. Gen. H. H. Arnold, 12 Oct. 1942, in AFAEP, WP-III-A-2, Great Britain, No. 2, Insert 1A.
142. Memo for CG AAF by Brig. Gen. O. A. Anderson, 7 Oct. 1942, on Air Units for Transcaucasia, WPD-III-C-4, Western Russia. Several months earlier a study on bases and targets within range of the Caucasus and southern Russia had been received from AFABI. It was given careful consideration with a view to ascertaining whether bombing operations from this sector would be feasible and profitable. (AAF, Plans Div. Division Digest, 2 June 1942.) About the same time a study on transportation in this area was made by A-2. (Ibid., 16 June 1942.) The British contingent was to include 9 fighter squadrons, 3 light bomber, and 2 medium squadrons. Ltr., Air Marshal Evill to Lt. Gen. Arnold, 12 Oct. 1942, in WPD-III-A-2, Great Britain, No. 2. For basic logistical services or support, the United States was to have no responsibility. Ltr., Gen. Arnold to Air Marshal Evill, 2 Nov. 1942, ibid.
143. Msg., Marshall to Brereton, AMSME #1231, 11 Oct. 1942, in 9th AF file. See also ltr., Gen. Arnold to Air Marshal Evill, 12 Oct. 1942, and memo for Gen. Arnold from Gen. Anderson, 2 Nov. 1942, ibid.
144. Ltr., Gen. Arnold to Air Marshal Evill, 12 Oct. 1942, ibid. In September, General Brereton had sought to establish the First Provisional Group on a more permanent basis. With this end in view, he recommended that the unit be given a tactical designation and number and a formal table of organization. Ltr., Gen. Brereton to Gen. Stratemyer, 7 Sep. 1942, in AAG 201, Lewis H. Brereton.
145. Activated as of 2400 L.T., 31 October 1942. (Msg., Brereton to AFAAF, thru Maxwell to AG, AMSME #2266, 1 Nov. 42.) The date is often given as 1 November, however. Msg., Brereton to Arnold, AMSME #4090, 20 Jan. 43.

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146. CM-IN-4090 (11-10-42), Brereton to AFPMP, thru Cairo to AG, AMSME #2434, 9 Nov. 42. For the enthusiasm with which the 513th Bombardment Squadron received the news of the activation of the 376th Bombardment Group, see Captain Thomas' account (p. 255) in Born in Battle. Up to this time, the squadron had been a part of the 9th Bombardment Squadron, on loan from Tenth Air Force. In recognition of its new status, the unit immediately sought to acquire insignia. The design was inspired by the circumstances of the moment, and the past experience of some of its members who had served in the Philippine and Java campaigns. A circle drawn on a heraldic background indicated that the squadron was bombing its way around the world. Three bombs, with yellow nose to the center, and streaks of lightning, signified its bombardment of all of the Axis partners--Japanese, Germans, and Italians. Over this, ran the emblazoned legend "Born in Battle," a phrase which gave the title to Captain Thomas' book.
147. Morgan, History of the IX Bomber Command. For Colonel Halverson's return to the United States, see msg., Brereton to AG, AMSME #514, 3 Aug. 42. Under the most trying conditions, Halverson had done an excellent piece of work, said General Brereton.
148. Msg., Marshall to Brereton, AMSME #1221, 11 Oct. 42. The 513th Bombardment Squadron had been equipped with B-17's.
149. Memo for Joint U. S. Staff Planners by Sec. of JCS, 13 Oct. 1942, in J/CCS Div., 370.5, Caucasus (10-5-42). Air Marshal Drummond was designated as head of this Anglo-American Mission to Russia. (See memo for CCS by Reps. of British Chiefs of Staff, on Dispatch of U. S. British Air Contingent to the Caucasus, C.C.S. 122, 14 Nov. 1942, ibid.) The representative for the War Department was Brig. Gen. Elmer E. Adler. It was suggested that a representative from the Bomber Command, USAFIME, and one from the Persian Gulf Service Command be included. (Msg., OPD to CG USAFIME, 24 Oct. 1942, ibid. See also CM-OUT-06148 (10-19-42), OPD to CG USAFIME, #1376, 18 Oct. 42.) About this time it was decided that upon completion of his mission to the Soviet Union and suitable indoctrination of his replacement, Col. Robert Kauch, General Adler should return to the United States. CM-OUT-2972 (11-9-42), Ullo to CG USAFIME, #1722, 9 Nov. 42.
150. Morgan, History of IX Bomber Command; Administrative History, Ninth Air Force.
151. IBID.; also ltr., Gen. Brereton to Gen. Arnold, 21 Nov. 1942, in 9th AF file.
152. The 975th Military Police Company (Avn) reached the Middle East on 31 October 1942. Two officers and 51 enlisted men, less detachments, were attached to the 98th Bombardment Group at Fayid,

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Egypt, by 10 November, and on the same date 2 officers, and 49 enlisted men were assigned to the 376th Bombardment Group at Abu Sueir. Administrative History, Ninth Air Force.

153. Ibid.; also CM-OUT-9005 (9-27-42), AFASC, thru Stratemyer, to AMSME, Cairo, #996, 26 Sep. 42.
154. Ltr., Brereton to Arnold, 21 Nov. 1942, 9th AF file.
155. History of the Weather Section, IX Bomber Command.
156. Administrative History, Ninth Air Force.
157. CM-IN-1902 (11-5-42), Cairo to AG, AMSME #2308, 4 Nov. 42.
158. GO No. 23, Hq. USAFIME, dated Cairo, 12 Nov. 1942, pursuant to instructions contained in letter AG 320.2 (6-26-42) MS-AFACT, dated 27 June 1942, "9th Air Force," and WD radiogram AMSME #1735, dated 10 Nov. 42 [i.e., CM-OUT-3188 (11-10-42), Arnold to CG USAFIME, 10 Nov. 42]. See also GO No. 1, Hq. Ninth U. S. Air Force, Cairo, dated 12 Nov. 1942, announcing the activation of the Ninth Air Force, comprising all U. S. AAF units in the Middle East theater. It also dissolved the Headquarters Squadron, United States Army Middle East Air Force, and confirmed the activation by the War Department of Headquarters Squadron, Ninth Air Force. The Air Service Command, United States Army Middle East Air Force was dissolved and the IX Air Service Command, Ninth Air Force was announced as activated by Section II of the same general order.
159. Administrative History, Ninth Air Force.
160. GO No. 1, sec. III, Hq. 9th AF, dated 12 Nov. 1942.
161. Pursuant to the authority contained in WD Radio 1991, dated 25 Nov. 1942, sec. III of GO No. 1, Hq. 9th AF, was rescinded by GO No. 3, sec. II, of the same office, dated 27 Nov. 1942.
162. GO #24, par. 1, Hq. USAFIME, dated 14 Nov. 1942.
163. GO #3, sec. I, Hq. 9th AF, dated 27 Nov. 1942. See also CM-OUT-8032 (11-25-42), OPD, thru Marshall, to CG USAFIME, #1991, 25 Nov. 42.
164. Desert Campaign, 32-33.
165. CM-OUT-2787 (11-9-42), Marshall to Andrews, Cairo #1713, 9 Nov. 42.
166. Ibid. See also Administrative History, Ninth Air Force.

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167. Historical Background of the 316th Troop Carrier Group to 12 Aug. 1943. Group Headquarters and the 36th and 37th Squadrons reached Deversoir, Egypt, on 23 and 24 November 1942. The 45th arrived at Ismailia on 25 November. Owing to the detention of the 44th Squadron at Accra for the carrying out of two missions to Leopoldville in the Belgian Congo, this unit did not reach its station at Ismailia until 4 December. The ground echelon came by ship, and consequently did not arrive in the Middle East until 1 February 1943. Operations, however, were begun on 23 November. (Ibid.) For arrangements regarding ground support for this unit, see CM-IN-5280 (11-12-42), Cairo to AGWAR, AMSME #2489, 12 Nov. 42.
168. Directive, Gen. Arnold to CG 9th AF, 9 Nov. 1942, attached to [Maj. John E. Felton], Organizational History of the 9th Combat Camera Unit, dated 4 June 1943. The unit was designated in Washington on 21 November 1942. (See AG 320.2, ltrs. of 14 and 21 Nov. 1942.) Its activation was announced by GO No. 4, Hq. 9th AF, 30 Nov. 1942. Accompanying authority was a directive from CG AAF, dated 10 Nov. 1942, entitled "Motion Picture Coverage of Army Air Forces Activities in Combat Theaters," and the directive of 9 Nov. 1942, already cited.
169. Soon after its arrival in Egypt on 1 February 1943, the Headquarters, 9th Combat Camera Unit was merged with detachments already in the field. See GO No. 10, USAFIME, dated 6 Feb. 1943.
170. Administrative History, Ninth Air Force. See also Brief Historical Record of the 9th Combat Camera Unit, dated 24 May 1943, and CM-OUT-7908 (12-23-42), Arnold to Brereton for Greenwald #2493, 22 Dec. 42.
171. JCS, 46th Meeting, 15 Dec. 1942, Item 10, in J/CCS Div., 370.5, Caucasus (10-5-42). See also CM-IN-8629 (12-20-42), Boswell (Moscow) to MILID, #150, 19 Dec. 42. Reasons for the unwillingness of the Soviet Government to accept the proposal as offered are given in CM-IN-11066 (11-26-42), Adler to Marshall and Andrews, thru Moscow to WD, Moscow #124, 25 Nov. 1942; and CM-IN-2607 (12-6-42), Cairo (Andrews) to AGWAR, AMSME #2971, 4 Dec. 42. Meanwhile a study of the operational maps of Caucasus areas had revealed many airdromes suitable for heavy-bomber planes. If, for any reason, aircraft only had been given, it was suggested that authority be reserved to use these fields as advance bases for raids against such targets of mutual interest as Roumanian oil centers and German lines of communication to Eastern Europe, CM-IN-12335 (11-29-42), Adler to Marshall and Andrews, Moscow #125, 27 Nov. 42.
172. CM-OUT-2295 (1-7-43), Marshall to CG USAFIME, AMSME #2739, 7 Jan. 43; and CM-IN-11370 (1-23-43), Brereton to Arnold and Marshall, thru Cairo to AGWAR, AMSME #4090, 20 Jan. 43.

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173. Interviews with Brig. Gen. John E. Upston, 27 Nov. and 8 Dec. 1942. A report for the week ending 8 Nov. 1942 listed the following Douglas Aircraft employees at Gura:
- Americans--1933
 - Americans on loan--149
 - Natives--1169
 - Italians--421

The status of the building program in percentages was:

- Power house--27 (new installations)
- Barracks--95
- Hospital--95
- Laundry, bakery, and warehouses--95
- Recreation--88
- General shops--86
- Gasoline storage--74

CM-IN-5820 (11-13-42), Bishop, via Speck, to CG AAF, AMGAD #67, Asmara, 11 Nov. 42.

174. Ltr., Gen. Arnold to Gen. Brereton, 23 Oct. 1942 with incl., in AAG 381. See also Col. John E. Upston's "Observations of Air Force Activities in the Middle East, 1-15 Oct. 1942," attached to R&R, 20 Jan. 1943, in AAG 300, Africa; and ltr., Andrews to Arnold, 22 Nov. 1942, attached to Gen. Arnold's reply, 19 Dec. 1942, in AAG 312.
175. Administrative History, Ninth Air Force.
176. Interviews with Brig. Gen. John E. Upston.
177. Ltr., Gen. Brereton to Gen. Arnold, 21 Nov. 1942, in 9th AF file.
178. Sustained direct action against targets in southern Europe had been included in a list of major strategic objectives which General Brereton had drawn up in the summer. See Summary of Cables 526 to 530 inclusive, Brereton to Arnold, 4 Aug. 1942, attached to memo for AFDAS by AFAP, 11 Aug. 1942, in WP-III-Near East Overall.
179. CM-IN-11356 (11-26-42), Brereton to Arnold, thru Cairo to AGWAR, AMSME #2769, 25 Nov. 42.
180. CM-IN-2538 (12-6-42), Brereton to Arnold, thru Andrews to AGWAR, AMSME #2984, Cairo, 5 Dec. 42. After 4 December 1942, the missions of the 98th Bombardment Group were largely to Sicily and Italy. See interview with Maj. Thomas T. Omohundro, about 21 May 1943, in U. S. 9000.

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GLOSSARY

AAG	Air Adjutant General
ABDA	American-British-Dutch-Australian Command
ACFC	Air Corps Ferrying Command
AC/S	Assistant Chief of Staff
AFAAP	AC/AS, Administration and Personnel
AFABI	AC/AS, Intelligence
AFACT	AC/AS, Operations and Training
AFADS	AC/AS, Materiel and Supply
AFAEP	AC/AS, Plans
AFAMC	Air Materiel Command
AFASC	Air Service Command
AFATC	Air Transport Command
AFCAS	Chief of Air Staff
AFCC	Air Force Combat Command
AFDAS	Deputy Chief of Air Staff
AFDOP	Director of Personnel
AFIHI	Historical Division, AC/AS, Intelligence
AFMAG	Air Adjutant General
AFPMP	Military Personnel Division
AFRDB	Director of Bombardment
AFROM	Director of War Organization and Movement
AG (TAG)	} Adjutant General, War Department
AGWAR	
AMEW	Africa-Middle East Wing
AMGAD	Gura Air Depot
AMMISCA	American Military Mission in China
AMSEG	Depot headquarters, Asmara
AMSIR	American Mission in Iran (Basra)
AMSME	American Military Mission, Middle East
AOC	Air Officer Commanding
Aquila	Tenth Air Force Headquarters
AWPD	Air War Plans Division
BOAC	British Overseas Airways Corporation
CCS	Combined Chiefs of Staff
DAO	Defense Aid Office
GO	General Orders
JCS	Joint Chiefs of Staff (of the United States)

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LATI	Linhas Aereas Transcontinentaes Italianas
MA	Military Attache
MILID	Military Intelligence Division, War Department
MO	Military Observer
NEI	Netherlands East Indies
OC&R	Operations, Commitments, & Requirements
ONI	Office of Naval Intelligence
OPD	Operations Division, War Department General Staff
OPM	Office of Production Management
OSS	Office of Strategic Services
PAA	Pan American Airways
SAAF	South African Air Force
SAS	Secretary of the Air Staff
SOS	Services of Supply
SPOBS	Special Military Observers Group
T/BA	Table of Basic Allowances
TCC	Troop Carrier Command
USAAFIME	United States Army Air Forces in the Middle East
USAFIME	United States Army Forces in the Middle East
USAMEAF	United States Army Middle East Air Force
USMNAM	United States Military North African Mission
WDGS	War Department General Staff
WPD	War Plans Division, War Department General Staff

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BIBLIOGRAPHICAL STATEMENT

Documents used in the preparation of this study consist of a variety of official papers; reports; letters, memos, and other forms of Army correspondence; recorded interviews; orders; cable and radio messages; unit histories; and a few printed sources (e.g., recent articles and books pertaining to operations in North Africa).

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