

ARMY AIR FORCES HISTORICAL STUDIES: No 42

RETURN TO
USAF Historical Archives
ASI/ASHAF-A)
Maxwell AFB, Ala 36112

AIR DEFENSE
— OF THE —
PANAMA CANAL
01 JANUARY 1939-7 DECEMBER 1941

DO NOT LOAN

GROUP 2

SCANNED BY ISA

AAF HISTORICAL OFFICE
HEADQUARTERS, ARMY AIR FORCES

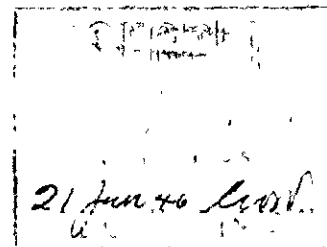
CONFIDENTIAL

0457633

6-2736, AF

CONFIDENTIAL

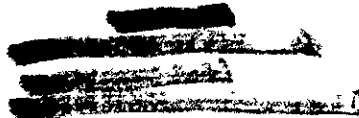
ARMY AIR FORCES HISTORICAL STUDIES: NO. 42



RETURN TO.	
Director Aerospace Studies Inst ATTN Archives Branch Maxwell AFB, Alabama	

AIR DEFENSE OF THE PANAMA CANAL

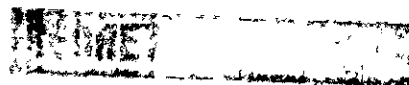
1 January 1939 to 7 December 1941



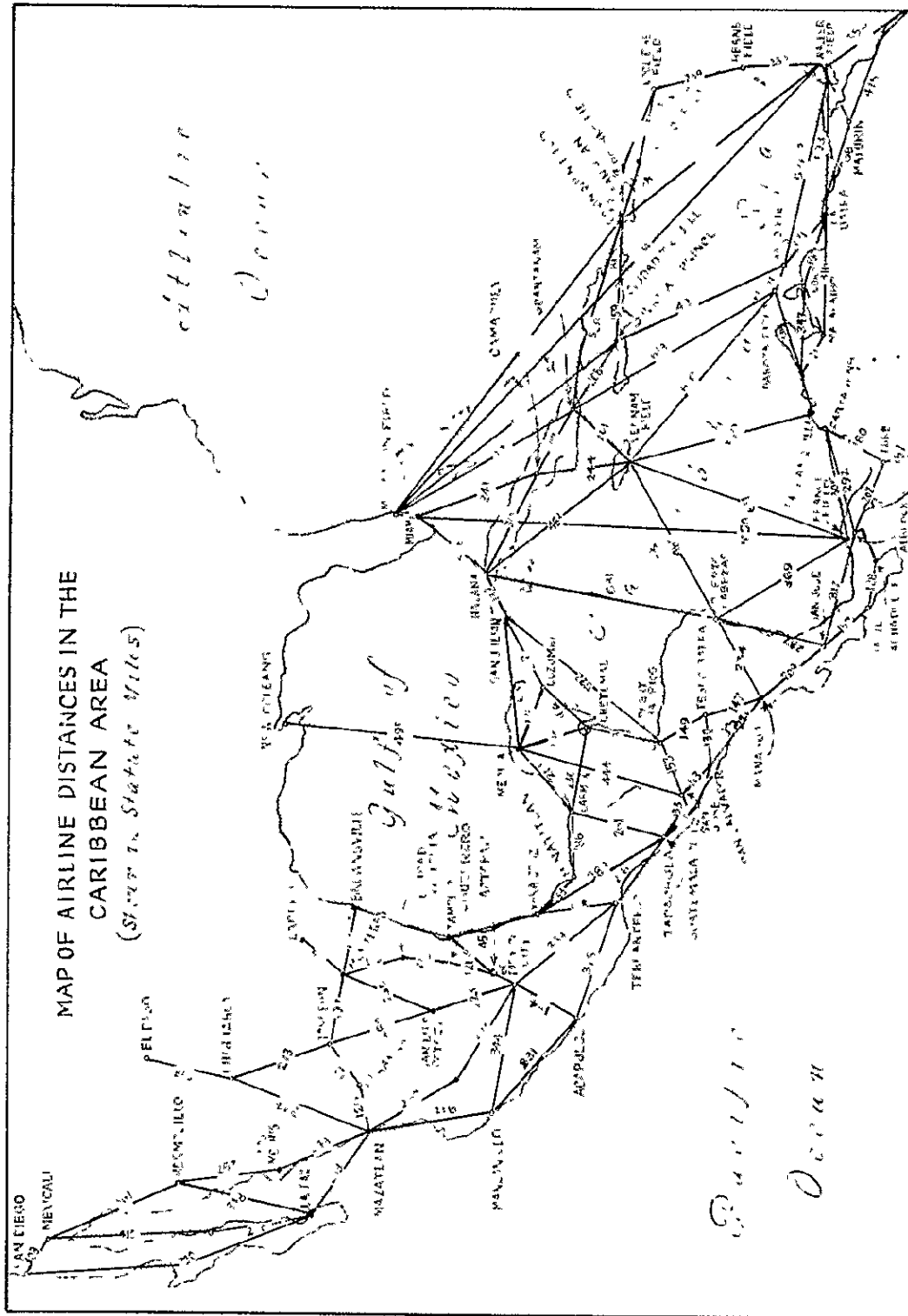
Prepared by
AFC Historical Office
January 1946

CONFIDENTIAL

0467633

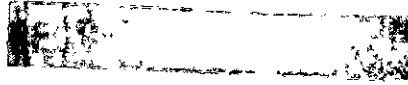


CONFIDENTIAL



CONFIDENTIAL

CONFIDENTIAL



FOREWORD

This study, prepared by Miss Kathleen Williams of the Combat Operational History Division, AAF Historical Office, has the purpose of analyzing the plans and activities that were developed during the period before Pearl Harbor for air defense of the Panama Canal. It should be read in conjunction with the History of the Sixth Air Force and other unit histories prepared in the theater, which continue the narrative for the period subsequent to 7 December 1941.

Like other AAF Historical Studies, the present narrative is subject to revision as additional materials become available. Readers are encouraged to submit information or corrections on the perforated sheets incorporated at the end of the study.

CONFIDENTIAL



CONFIDENTIAL

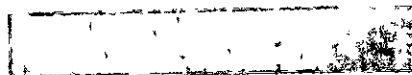
SECRET

CONTENTS

I	THE CRISIS OF ARMY AVIATION IN THE PANAMA CANAL ZONE	1
II	CANAL AIR DEFENSE, 1939	10
	Dry season operations...The France Field dilemma... General Arnold's visit to the Canal Zone...The role of Caribbean bases in Canal air defense...The begin- ning of expansion in the 19th Wing...Precautionary measures and hurried reinforcements...Status of the 19th Wing in September...Air defense of Pacific ap- proaches...Plans for France Field...Auxiliary landing fields and aircraft warning sites...Departmental re- organization...Training	
III	FINAL MONTHS OF THE 19TH WING, 1 JANUARY-20 NOVEMBER 1940 . . .	56
	Re-evaluation of Canal Air Defense...Organizational changes in the Panama Canal Department...Rio Hato... Progress in air defense of Puerto Rico...Training and operations of the 19th Wing...Renewed precautions against attack...Revision of plans for the 19th Wing... Auxiliary airfields...The end of General Bague's tour...Revision of plans for Puerto Rican aviation... Plans for other Caribbean bases...The 19th Wing under a new commander	
IV	THE PANAMA CANAL DEPARTMENT AIR FORCE AND CARIBBEAN DEFENSE, 20 NOVEMBER 1940-8 MAY 1941	123
	New units...General Andrews' conception of Canal air defense...Army-Navy coordination...Basic principles of air force employment...Policy toward Latin American aviation...Training and operations...Progress of plans for a Caribbean air force...Revised plans for Air Corps expansion...Garrisons for Caribbean bases	
V	THE CARIBBEAN AIR FORCE, 8 MAY-7 DECEMBER 1941	179
	Organization of the Caribbean Air Force...Plans for assistance to Latin American countries...Army-Navy responsibilities and relations...Conclusion	
	GLOSSARY	199
	NOTES	200
	BIBLIOGRAPHICAL NOTE	225
	INDEX	226

CONFIDENTIAL

SECRET



CONFIDENTIAL

MAPS AND CHARTS

Map of Airline Distances in the Caribbean Area Frontispiece

Following

Proposed Plan for Defense of Panama Canal, October 1939	48
Organization of the 19th Wing within the Panama Canal Department, 16 February 1940	74
Organization of the Panama Canal Department Air Force	126
Organization of the Caribbean Air Force, 26 May 1941	185
Air Facilities in the Caribbean Area, 7 December 1941	195

CONFIDENTIAL



[REDACTED]

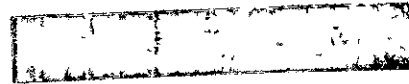
CONFIDENTIAL

Air Defense of the Panama Canal, 1 January 1939 to 7 December 1941

CONFIDENTIAL

[REDACTED]

AAFHS-42



CONFIDENTIAL

Chapter I

THE GENESIS OF ARMY AVIATION
IN THE PANAMA CANAL ZONE

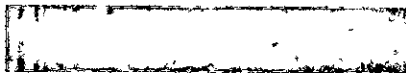
The Panama Canal, easily ranking as the most strategic waterway in the Western Hemisphere, from the date of its completion in 1914 has claimed a sizable share of U. S. defense forces. For some years those forces were primarily ground and naval, but the development of the airplane as a military weapon provided still another means of defense. It also provided any potential enemy with a new means of attacking the Canal. Long before 1939, an air assault on the locks and other vital installations was considered in American military estimates to be the most likely initial move by an enemy in the area. In 1939 the outbreak of war in Europe and the possibility of American involvement gave sudden emphasis to the necessity of stronger Canal protection and, more particularly, to the importance of air defense. Special precautionary measures were taken, and reinforcements were rushed from the United States.

The Secretary of War, reporting to the President at the end of the fiscal year 1938, stated that "We must greatly augment our air forces and our antiaircraft artillery installations in the Panama Canal Zone. The Panama Canal must be made impregnable."¹ Whether this goal was reached prior to 7 December 1941 must remain problematical, for no attack was made on the Canal. But the air arm of Zone defenses did experience a period of unprecedented peacetime expansion and the

CONFIDENTIAL



AAFHS-42



CONFIDENTIAL

2

conception of Canal defense broadened to include the entire Caribbean area.

Prior to 1939 the Air Corps had maintained in the Zone as many planes and flyers as its limited appropriations would allow. The equipment, however, was generally outmoded and was of doubtful value in protecting the Canal. Military aviation in the Zone had its beginning in March 1917 with the arrival of the 7th Aero Squadron, commanded by Capt. Henry H. Arnold. The flyers first had to provide themselves with quarters and then assemble their Curtiss and De Havilland aircraft. A level site was found near the Atlantic entrance to the Canal, and hangars were constructed on three sides of a small bay so that both sea and land planes could use the same hangars. Most of the aircraft were equipped with floats, and by mid-1918 the hydroplanes were patrolling the waters near the Atlantic entrance as well as making a number of "long-range" reconnaissance flights to the Perlas Islands, some 80 miles away.² An airfield, designated on 15 July 1918 as France Field, was constructed near the site of the "aviation camp."³

During the twenties the addition of the 20th Pursuit, 25th Bombardment, and 63d Service Squadrons resulted in formation of the 6th Composite Group, which in 1929 became the major component of the 19th Composite Wing. Increased aerial activity and the passing of years revealed several undesirable characteristics of France Field and pointed to the need for an airfield on the Pacific side of the Isthmus. The greater rainfall on the Atlantic side made France Field a sea of mud for nine months of each year; the coral runway, only 2,700 feet in length and incapable of extension, was not suitable for large or heavily-loaded



CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

3

planes; and Navy aircraft, operating from the near-by station at Coco Solo, frequently interfered with operations of aircraft based at France. A swampy site on the Pacific side of the Zone was selected for another field, and construction was begun in 1931. Though France Field continued in operation, the new Albrook Field rapidly became the center of Air Corps and commercial air activities in the area. Its location near Quarry Heights made possible a closer coordination of the 19th Wing with headquarters of the Panama Canal Department.⁴

A project for development of a number of emergency fields was initiated by Maj. Robert C. Candee in 1933 and was further advanced by Brig. Gen. George H. Brett in the years 1936 to 1938. Because of the scarcity of funds, maintenance of the landing grounds was provided by local laborers, who for a few dollars would fill ditches, mow grass, or remove large stones. There were, in addition, a number of municipal fields in the Republic of Panama, such as David, Paitilla Point, Aguadulce, Bocas del Toro, Santiago, Penonome, and Colobre. In some cases the grounds were treacherous for landing; such areas were in every sense of the word emergency fields.⁵

Three organizational changes during the thirties affected the status of Air Corps units in the Canal Zone. When in 1932 the Panama Canal Department was divided into three commands, the Atlantic and Pacific sectors and Department Troops, Army air units were placed under the latter. Two years later the 19th Composite Wing was organized within the Panama Canal Department, with wing headquarters and the 16th Pursuit Group at Albrook Field and the 6th Composite Group at France Field. In 1937 the 19th Composite Wing was reorganized as the 19th Wing, consisting

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

4

of Headquarters and Headquarters Squadron, the 6th Bombardment Group, the 16th Pursuit Group, the 15th and 16th Air Base Squadrons, and the Panama Air Depot, whose status in the command and location in the department were matters of some uncertainty.⁶

Since 1928 the air depot had been located at France Field, but in 1931 action was initiated to have the installation moved to the Pacific side of the Zone, where housing, supply facilities, and climate were more favorable. Since it was considered inadvisable at the time to request Congressional action authorizing the requisite transfer of appropriations from France to Albrook, the matter was dropped. But in the summer of 1932 the Chief of the Air Corps again pressed for transfer; the commanding general of the Panama Canal Department concurred in the recommendation, and in 1934 the Secretary of War approved the transfer. Funds were not immediately forthcoming, and three years later the commander of the 19th Wing recommended that the depot remain at France Field. The Air Corps determined to adhere to its plan for construction of the depot at Albrook Field, but 1939 found the installation still at France. For the first eight years of its existence the depot was under the jurisdiction of the commanding officer of France Field. In 1936 it became a separate command of the Panama Canal Department. The 1937 reorganization of the 19th Wing seemingly placed the depot under wing supervision, but it continued to operate as a command of the department. Personnel of the depot originally consisted of approximately 80 per cent military and 20 per cent civilian; a gradual replacement of military with civilian over a period of ten years resulted in a 50-50 ratio. The problems accompanying these trends and changes in command and location

CONFIDENTIAL

A1FHS-42

CONFIDENTIAL 5

were to continue during the expansion period of 1939-41.⁷

The ability of the 19th Wing to provide effective air defense of the Panama Canal during the thirties was, at best, questionable. Brig. Gen. George H. Brett, who arrived on 20 August 1936 to assume command of the wing, found the air unit in a "deplorable condition." In his opinion, the air force was "obsolete, antiquated and of practically no value in the defense of the Canal Zone against modern, up-to-date weapons, either ground or air." While housing and messing facilities were considered adequate and morale seemed to be high, the shortages in officer personnel and the obsolescence and lack of equipment seriously reduced the effectiveness of the unit. Officers returning to the United States at the end of their tour of duty were not being replaced rapidly enough, with the result that personnel remaining in the Zone had to perform a multiplicity of duties. Except for a small number of B-10B's, all aircraft were outmoded and obviously had been sent to the Canal Zone after having been replaced by modern aircraft in tactical units in the United States.⁸

President Roosevelt in 1935 had evinced an interest in air defense of the Canal and had requested a report from the Air Corps explaining why no modern planes were available in the Zone. The report revealed that a serious shortage of combat aircraft existed throughout the Air Corps because of a lack of sufficient appropriations for the fiscal years 1930 to 1935. The Panama Canal Department had been given a high priority in the program for supplying new and replacement aircraft to foreign departments, but new planes could not be sent to Panama without

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

6

extensive service tests in the United States to insure proper functioning. Furthermore, it was the policy of the War Department to equip the newly formed GHQ Air Force with the latest combat planes before distributing such materiel to overseas establishments.⁹

Little improvement in 19th Wing equipment was noted by Maj. Gen. Oscar Westover, Chief of the Air Corps, when he visited Panama during May 1938. The presence of B-10B's had increased the efficiency of bombardment units, but General Westover considered it imperative that at least three B-18A's be provided immediately so that training could be completed before the arrival of more B-18A's in the late fall. There was also need for more cargo planes and amphibians. The latter type plane was used for rescue purposes during training missions, which usually were over water. General Brett, who had flown over most of the United States, felt that there were no conditions in the States which could "in any way, shape, or form" approach the flying hazards experienced in Panama on normal flights.¹⁰ But planes for rescue purposes, as well as for tactical purposes, were at a premium; and they were likely to remain so for some time to come.

The tour of inspection by General Westover was of primary importance, for he investigated every phase of activity related to air defense of the Canal and many of his conclusions and recommendations bore fruit during the years 1939-41. He was convinced that all units and installations should be concentrated on the Pacific side, with the exception of one reconnaissance squadron which should remain at France Field. The presence of muck underneath the five-foot crust of earth at France indicated the inadvisability of further construction there and the wisdom

CONFIDENTIAL

AATHS-42 CONFIDENTIAL

7

of the earlier decision to relocate the air depot at Albrook Field. The depot was to be civilianized as soon as practicable after its transfer. Since there was a limit to the expansion of Albrook, it was recommended, in accordance with General Brett's suggestion, that a new airfield be developed at Bruja Point, approximately two and one-half miles west of Balboa. The land was government-owned, but part of it had been set aside for a naval radio station. Inasmuch as no similar site existed in the Canal Zone, General Westover strongly urged that the land be withdrawn from allotment to the Navy and that the entire tract be made available for construction of a field suitable for bombardment aircraft. Because a number of years would be required to complete the projected construction on the Pacific side, funds were allotted for repair of the hangars at France Field, which as a result of settling were in a dangerous state. Additional funds were also made available for completion of a gunnery and bombing range at Rio Hato.

Albrook Field was naturally a center of interest for General Westover, and he made numerous observations relative to its development. He requested the wing commander to plan for an immediate construction project to relieve the housing shortage. The growth of the wing was to be geared to the progress of the housing program, for it was agreed that no additional Air Corps personnel should be sent to Panama until quarters had been provided. Albrook Field was also in need of additional weather service facilities, and General Westover proposed to assign a meteorological officer to the field in order to undertake a study of the problem. The exposed position of gasoline storage facilities

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

8

led the Chief of the Air Corps to suggest that additional storage should be located in one of the hillsides at Albrook, which would insure gravity flow and also provide a natural bombproof shelter.

In addition to the permanent installations at Albrook and France fields and the field proposed for Bruja Point, a network of emergency fields in outlying areas of Panama was regarded as necessary for both strategic and tactical purposes. General Westover pointed out to the War Department that adequate funds should be provided to maintain the fields in a condition suitable for operations by any type of aircraft.

The 19th Wing had made occasional good-will flights to Central and South American countries, and General Westover found the practice extremely valuable and worthy of repetition. The flights not only gave tangible evidence of the "Good-Neighbor Policy" but also provided excellent training for crew members. Such activities were destined to become an even greater part of 19th Wing functions.¹¹

Air defense forces in the Canal Zone were just beginning to feel "growing pains" when Brig. Gen. Herbert A. Dargue arrived in October 1938 to assume command of the 19th Wing. His two-year tour of duty came at a critical period when the turn of affairs in Europe resulted in a hurried strengthening of Canal defenses and when the entire Air Corps was undergoing a strenuous program of expansion. Nevertheless, General Dargue was well prepared for his assignment and was equal to the difficulties which were in store. He was a veteran airman, having pioneered Army use of hydroplanes in 1913. He came to the Panama Canal Department after serving four years in a command position at the

CONFIDENTIAL

AAFES-42

9


CONFIDENTIAL

Air Corps Tactical School, four years as commander of a bombardment group, and, prior to that, one year as a student at the Naval War College. In the winter of 1926-27 he led a flight of Army planes around South America. Maj. Gen. Henry H. Arnold, who became Chief of the Air Corps in the fall of 1938, described General Dargue as "a keen student of strategy" who recognized South America's importance in hemisphere defense.¹² His two years as commander of the 19th Wing were to reveal that he was likewise keenly alert to the importance of air defense of the Panama Canal.

CONFIDENTIAL


AATHS-42

CONFIDENTIAL

Chapter II

CANAL AIR DEFENSE, 1939

Adequate air defense of the Panama Canal was in 1939 a matter of growing concern to the Air Corps as well as to commanders charged directly with the responsibility. The concern manifested itself in numerous studies of the problem, in official tours of inspection, in new air bases, and in an accelerated program of construction and reinforcement. To planners in Washington, the relation of outlying Caribbean bases to Canal defense was of particular interest, while General Dargue and his staff focused their efforts on the 19th Wing and the more immediate environs of the Canal.

The 19th Wing, with an authorized strength of 1,390 enlisted men and 75 officers, was operating at reduced strength because of a lack of replacements. Units of the wing were still divided between Albrook and France fields. At Albrook were the Headquarters and Headquarters Squadron, the Base Headquarters and 15th Air Base Squadron, and the 16th Pursuit Group, which included its Headquarters and Headquarters Squadron, the 24th and 29th Pursuit Squadrons, the 44th Reconnaissance Squadron, and the 74th Attack Squadron. At France Field were the Base Headquarters and 16th Air Base Squadron, and the 6th Bombardment Group, composed of its Headquarters and Headquarters Squadron, the 25th Bombardment Squadron, and the 7th Reconnaissance Squadron. The Panama Air Depot with its 1st Depot Squadron was likewise at France Field, but it remained separate from the wing and directly under the jurisdiction of the Panama Canal Department.¹

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

11

Albrook Field, though handicapped by short runways and somewhat treacherous approaches, was being built into a major air base. Its fourth hangar was under construction and work had begun in December 1938 on a 4,700 x 250-foot concrete runway, on another runway of smaller dimensions, and on necessary taxi strips. When the main runway was opened to traffic on 17 April 1939, the radio control tower was also put into use.²

Nearly 40 emergency landing fields were scattered throughout Panama and the Canal Zone. For the most part, the grounds were badly in need of improvement, and few funds were available for the needed work. At the end of February only four outlying fields, Jaque, David, Pocrí, and Rio Hato, were suitable for use by P-26's and B-10's. General Dargue on 28 February requested \$10,000 for improvement and maintenance of 10 fields, Pocrí, La Mesa, La Chorrera, Rio Hato, Pacora, Jaque, Garachine, Mandinga, Perme, and Almirante; but the Air Corps, out of its limited funds, could allot only \$5,000 for the project. The 19th Wing was scheduled to receive newer, heavier aircraft which would be unable to operate from many of the small, rough landing grounds. In view of this prospect, and in spite of the extremely limited budget, tentative plans were made for acquiring additional sites and for returning to use fields long abandoned and now covered with heavy foliage and cement-like anthills.³

At the beginning of 1939 the 19th Wing was equipped with approximately 70 aircraft: 28 B-10B's, 14 A-17's, 24 P-26A's, and a handful of P-12E's and F's. The B-10's and P-12's were already being prepared for return to the United States for replacement. On 26 January the

CONFIDENTIAL

AAFHS-42

12

CONFIDENTIAL

first of three ferry flights left the Zone, flying 10 B-10B's to the States and returning soon after with 10 B-18's. By 12 June a total of 30 new B-18's had been delivered, 20 to the 6th Bombardment Group and 10 to the 16th Pursuit Group. The P-12's were dismantled by the air depot and shipped to the United States, to be replaced later by P-36A's. Despite their age, the P-12's were reported to be in excellent condition, and they were sent to Kelly Field, Tex., for use in the advanced flying school.⁴

Dry Season Operations

The early months of 1939 were operationally active for the 19th Wing. General Dargue and his staff took advantage of the dry season, which extended from December to May, to make survey flights for new emergency fields and to check airport facilities in Panama and neighboring countries. Squadrons at Albrook and France fields carried out routine flights, as well as cooperative missions with Army ground forces and Navy forces, military reviews for visiting officers from Guatemala and Colombia, and the usual searches for aircraft lost at sea or in the jungle.

The passage of U. S. war vessels through the Canal gave units of the wing an opportunity to test communication facilities and to provide training in the use of codes in conjunction with the naval units. On 12 January aircraft of the 7th and 44th Reconnaissance Squadrons and the 25th Bombardment Squadron initiated a three-day mission in cooperation with Navy warships which were en route to Caribbean waters for maneuvers. Reconnaissance planes reported the entry of the fleet into the Gulf of Panama and covered the vessels as they made their way to

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

13

the Pacific entrance to the Canal. At dawn on 13 and 14 January planes from the 24th and 29th Pursuit Squadrons and the 74th Attack Squadron took up the covering mission as the fleet passed through the Canal. The vessels were scheduled to remain at anchor in Limon Bay on the Atlantic coast until 19 January, when the 6th Bombardment Group at France Field was to cover the fleet to 100 miles at sea.⁵

The 19th Wing was occasionally called upon to perform special missions which were indirectly valuable for training purposes and for providing flight information on Central and South American countries over which the missions were carried out. On the night of 28 January two planes left France Field for a 3,400-mile flight to Santiago, Chile, carrying medical aid and supplies to the earthquake-stricken area. Under the command of Capt. Franklin C. Wolfe, the flight was successfully completed over an unfamiliar route, and for 10 days the two planes carried out "mercy missions" in the territory, returning to the Canal Zone on 13 February.⁶

From 13 to 28 March the wing participated in the annual maneuvers of the Panama Canal Department. General Dargue, hospitalized at the time, was able to make several trips to his post at Albrook in order to direct the Air Corps units. Maj. Gen. David L. Stone, department commander, was in charge of the maneuvers, while Maj. Gen. Ben Lear directed activities in the Pacific Sector and Brig. Gen. Richard C. Moore commanded the Atlantic Sector. According to the problem, which differed little from previous annual exercises, a "special service squadron" was reported with an aircraft carrier leaving the Galapagos Islands, 900 miles away, and advancing to attack the Canal. Land-based planes on 13 March reported

CONFIDENTIAL

AAFHS-42

~~CONFIDENTIAL~~

14

making contact with the "hostile" fleet and "bombing" the carrier 350
7
miles at sea.

Simulated attacks were made by land, sea, and air on Balboa Harbor, Miraflores and Gatun locks, and airfields in the Canal Zone. The 6th Bombardment Group, the 74th Attack Squadron, and the 44th Reconnaissance Squadron alternately represented a carrier-based force attacking the Canal and carried out defensive patrols to a distance of 125 miles over the Gulf of Panama, while the 16th Pursuit Group made defensive patrols along a line 15 miles offshore. From Coco Solo and the Perlas Islands, Patrol Wing Three operated longer-range patrols with PBY's. The maneuvers came to a close on 28 March with a final critique in the Fort Clayton
8
theater.

In attempting to formulate an adequate training program for the 19th Wing, General Dargue ran into considerable difficulty on account of the heavy demand for cooperative missions with other arms of the service. The proposed number of missions to be flown for the coast and field artillery for the next fiscal year seemed unreasonable, and in May the wing commander requested that the department set a limit of 500 hours for the year's missions. The request was made because there was apparently no limit on the number of calls that might be made for cooperative flights. General Dargue explained that the "personnel who fly these missions see no end to them. For most of the missions they get no Air Corps training. They often fly hours at a time without any apparent results being accomplished. They stay on the alert for hours and then often missions are cancelled. This work often causes a disruption of training. All of

~~CONFIDENTIAL~~

AAFHS-42

15

CONFIDENTIAL

this has seriously reacted on the morale of the personnel required to do the flying." General Dargue further explained that the majority of new officers would be inexperienced in this kind of flying and that training in safety precautions and familiarization with equipment would require a long time. The constant flying, moreover, had put a severe strain on equipment, resulting in frequent failures which could not be promptly repaired because of the small size of the air depot and the poverty of the civilian labor market.⁹

The cooperative missions included towing targets for coast artillery tracking, searchlight practice, field artillery automatic rifle practice, coast artillery and infantry machine gun fire; flying for stereoscopic observers, observation of field artillery fire, and demonstrations; spotting seacoast artillery fire; providing mass flights for tests of aircraft warning and intelligence service, flights for familiarizing ground officers with the terrain of the Canal Zone and surrounding country, and flights for simulated observation and attack during maneuvers and field exercises. On such missions the 19th Wing flew almost 1,200 hours during the fiscal year 1939, and in General Dargue's estimation only 10 per cent could be credited as training for the air units. Attempting to get some gauge on the number of hours that reasonably should be devoted to cooperative missions, General Dargue wrote to Lt. Col. Carl Spaatz in the office of the Chief of the Air Corps, explaining the "deplorable" situation in the Canal Zone. The wing commander felt that the term "cooperative mission" was hardly the term to be used, for the 19th Wing was doing all the flying as a service to the other branches. General Dargue confessed that he was "running into considerable opposition

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

16

on the part of ground commanders who have felt the Air Corps was at their beck and call."¹⁰

In requesting the department commander to put a limit on the number of hours for cooperative missions, General Dargue offered several suggestions for alleviating the difficulty: to let the ground forces use routine flights, conveniently rerouted, as "targets of opportunity"; to let the ground forces arrange their schedules so that several batteries might use a single mission; and to encourage the ground forces to make certain that they would use a mission before calling for one. General Stone tried to be helpful, but he and his staff apparently never completely understood the problem. Pointing to a lack of equipment as the reason for the wing's inability to perform all the missions requested, the department merely suggested that more B-18's with reels should be procured. The artillery, asking for more missions, was even less helpful, implying that the weather was the chief difficulty and that the flyers should learn to endure it if they could not control it. General Dargue's real problem was in getting commanders of other services in the Zone to realize that the Air Corps was undergoing expansion, that trained flyers could not be turned out in the same length of time as officers of the ground arms, and that flying missions for the artillery and infantry did not provide adequate training for crewmen.¹¹

The France Field Dilemma

The fate of France Field was a subject of much discussion during the early months of 1939, both in the Panama Canal Department and in Washington. A number of studies had been made investigating the possibility of improving the field or of building another on the Atlantic side,

CONFIDENTIAL

AAFHS-42

17

CONFIDENTIAL

but no definite plans were adopted. Late in 1938, however, when it seemed that a full three-squadron bombardment group was to be stationed there, General Dargue sought for a positive plan of action which would either replace the field or improve it to fulfill modern specifications.

On 19 January 1939, Lt. Col. William O. Butler, base commander, submitted a proposal to retain the existing site of France Field but extend the north-south runway at least 1,700 feet by diverting a small river and to raise the level of the entire field from four to 10 feet above sea-level and pave the runway with asphalt on concrete. The entire project, to cost approximately \$2,500,000, met with "unanimous approval" on the Isthmus, but the reception in Washington was unfavorable. It was still believed in some quarters that nothing would prevent the uneven settling of any flat surface in the area of France Field. Because of its cost and uncertain success, the project was not approved. Other factors, however, influenced the decision: a change in plans contemplated the removal of bombardment units from the field, and definite plans were being made for a \$17,000,000 base at Bruja Point, which would serve somewhat to replace France Field.

12

On 1 April, General Arnold wrote General Dargue of his decision regarding France Field and expressed his regret that he could not agree with the plan for improving the existing site. The Chief of the Air Corps did, however, see a place for the field in Genal defense and he stated that upon completion of the new base at Bruja Point and removal of the air depot at Albrook, France Field would be used as an auxiliary base. Any disappointment which General Dargue may have felt regarding

CONFIDENTIAL

AATHS-42

18

CONFIDENTIAL

the plans for France Field was overshadowed by the unexpected pleasure of receiving an authoritative statement on future policy for the Air Corps in the Panama Canal Department. He wrote General Arnold that he was "delighted" with the letter and that it was "the first real statement of policy in connection with the air expansion program for this Department" that he had seen since arriving for duty in Panama. He sent copies of General Arnold's communication to the commanders of Albrook and France fields and the air depot and also to General Stone, who previously had seen nothing that savored of a decision in the air expansion program for his command.¹³

General Dargue was obviously hampered by a lack of information in his attempt to make plans for the 19th Wing. He expressed to General Arnold the hope that "the time will soon come when definite information with regard to units, location, construction, and matters of this sort may be furnished so that we may get behind the various projects, push them, and act intelligently on them."¹⁴ The problem of France Field had been settled temporarily, but it was to reappear in another form before the end of the year.

Lt. Col. Francis M. Brady arrived in the Zone on 18 April to become executive and operations officer of the 19th Wing, thereby relieving General Dargue of a number of administrative details. Colonel Brady was to become the nucleus of a wing staff large enough and sufficiently experienced to guide the transformation of a small, peacetime flying unit into a large air force covering a vast section of the Western Hemisphere. General Dargue was pleased with Colonel Brady's assignment to the Panama Canal Department, and he wrote General Arnold that he hoped to fare as

CONFIDENTIAL

AAFHS-42

19

CONFIDENTIAL

well in the replacement of the depot commander and two field commanders who were scheduled for reassignment within a few months.

General Arnold's Visit to the Canal Zone

In a projected visit from General Arnold, General Dargue had the prospect of receiving definite statements on the future of the 19th Wing. The visit had to be postponed twice and General Dargue was keenly disappointed, for, as he wrote to the Chief of the Air Corps, one "should see this place to really understand it."¹⁶ From 29 to 31 May, General Arnold succeeded in carrying through his plans for the visit and, in between inspections and reviews, luncheons, receptions, and dinners, he conferred with General Dargue on the formulation of tentative plans for Air Corps expansion in the Panama Canal Department.

Some of the plans called for immediate action, while others were long-range and dependent upon War Department approval. A few of the decisions were merely restatements of plans already agreed upon, but personal reiteration by the Chief of the Air Corps gave new emphasis to the existing plans. The main decisions were as follows:

1. To increase the number of Air Corps enlisted men in the department by 1,800, at the rate of 150 a month for the fiscal year 1940, in order to bring units up to full strength: to make the 6th Bombardment and 16th Pursuit Groups three-squadron groups and to enlarge the 16th Air Base Squadron to 715 men.

2. To increase the enlisted strength by 2,000 men during the fiscal year 1941 in order to provide a total of approximately 5,300 enlisted men, organized into two bombardment groups, two pursuit groups, two reconnaissance squadrons, one corps and observation squadron, two air base

CONFIDENTIAL

A-1118-42

20

CONFIDENTIAL

squadrons (double), and a 19th Wing headquarters and headquarters squadron.

3. To increase the officer strength to approximately 600, as rapidly as construction of quarters could be accomplished.

4. To purchase ground at Rio Hato for development of an outlying landing field with facilities for temporary housing and for training one group; and to purchase ground for a limited number of other suitable outlying fields.

5. To create a new base at Bruja Point and to further the removal of the air depot from France Field to Albrook sometime in 1941, pending receipt of sufficient funds for construction of necessary buildings.

6. To consider organization of a transport squadron connected with the air depot.

7. To decentralize construction activities in order to facilitate completion of the building program, recommendations for which, based on funds available, were to be made by Headquarters 19th Wing.

8. To furnish aircraft and other equipment in line with the expansion and organization of new units.¹⁷

This statement of policy and program of action gave recognition to the importance of air power in defense of the Panama Canal. General Dargue at last had the definite information for which he had been waiting, and he had in addition the assurance of support from Brig. Gen. George V. Strong, Assistant Chief of Staff, War Plans Division, who accompanied General Arnold on the visit. But two potential obstacles loomed in the way of the program: the Panama Canal Department, which might be averse to the expansion of one of its components, and the problem of obtaining

CONFIDENTIAL

AAFHS-42

21

CONFIDENTIAL

during peacetime the necessarily large appropriations.

The Role of Caribbean Bases in Canal Air Defense

General Arnold and his party took off from Albrook Field on the morning of 31 May to continue their tour of inspection in the Caribbean area. The War Department had recently evinced an active interest in fortifying some of the Antilles islands on the outer fringe of the approaches to the Panama Canal, and Caribbean defense was rapidly coming to be synonymous with Canal defense. General Arnold's party, which included Lt. Col. Carl Spaatz, chief of the Air Corps Plans Section, and Col. John C. H. Lee of the Corps of Engineers, paused on 1 June to survey the defensive possibilities of Trinidad and then proceeded to Puerto Rico for a three-day inspection before returning to Washington.¹⁸

In February 1939 the Air Corps had completed a study on the desirability of an air base on Trinidad and had made recommendations to the Chief of Staff on the basis of its findings. The premise of the study was the possibility of Nazi encroachment upon South American countries, particularly Brazil, and the consequences of such action in relation to security of the Panama Canal. It was noted that the avowed policies of Nazi and Fascist states called for the control or annexation of territory belonging to other nations in order to make room for surplus populations and to gain economic self-sufficiency. Should Brazil, for example, come under Nazi control, German bombers could attack the Panama Canal by operating from the northwestern part of Brazil.

With an air base on Trinidad, reasoned the Air Corps, the United States would be able to conduct air operations against an enemy in northern Brazil, while without the base no such operations could be carried out.

CONFIDENTIAL

AA7HS-42

22

CONFIDENTIAL

A Trinidad base was visualized as an important aid in air defense of the Panama Canal, for the threat of bombardment attacks against the Canal from bases in northern Brazil would be greatly reduced, if not entirely eliminated. The Air Corps therefore recommended to the Chief of Staff that "every effort be made to secure the use of a base on Trinidad," the base to possess facilities for fueling and bomb storage.¹⁹ No immediate action was taken on the matter, as the study was held in War Plans Division for consideration in connection with other studies pertaining to operations in the Western Hemisphere.²⁰

The necessity for an air base on Puerto Rico was more generally recognized and had long been advocated by the Air Corps as a logical extension of Canal defenses. In 1936 the commandant of the Air Corps Tactical School forwarded to the Chief of the Air Corps the results of discussions and studies by members of the faculty, pointing out that Puerto Rico was "a most valuable asset" of the United States insofar as national defense was concerned and that an air base should be established on the island. It was further noted that American naval policy, which was based upon the strategic mobility of a single fleet, ready to operate in either of two widely separated oceans, had as its fundamental tenet free movement through the Panama Canal and the Caribbean Sea. Since both of these links in the line of communication must be kept open, there was obviously a need for an American air base which would dominate the Caribbean and also any hostile air base which might be placed within the radius of action of bombardment aircraft. Maps and topographical information available to the faculty of the Tactical School revealed a strip of land located along the northern shore of Puerto Rico that

CONFIDENTIAL

AAFTS-42

23

CONFIDENTIAL

appeared to offer an excellent site for an air base, and it was recommended by the commandant that an aerial mosaic be made of the entire island of Puerto Rico in order to facilitate any further consideration of the island as a site for Air Corps development.²¹

The latter recommendation was not endorsed by the commander of the GHQ Air Force, because the suitability of maps and information already available to the War Department might make it unnecessary to provide an aerial mosaic of the whole of Puerto Rico. The remaining suggestions of the Tactical School, however, met with the approval of the GHQ Air Force commander, who went even further and stated that it was considered "essential that positive action be taken, by the War Department, to establish prior claim to an air base in Puerto Rico." Such an air base was regarded as "essential to the effective defense of the Panama Canal," and because such defense was the responsibility of the War Department, it was the opinion of the air force commander that every means should be taken to insure the air defense control and development of the Caribbean area by the War Department.²²

Administratively, Puerto Rico was a part of the Second Corps Area, with headquarters at Governors Island, N. Y. The area commander, Maj. Gen. Frank R. McCoy, in July 1938 summarized the problems connected with Puerto Rican defense and outlined a plan for War Department consideration. Keeping an enemy out of Caribbean waters was viewed as essentially a Navy problem, but in General McCoy's opinion the Army could "lend substantial support to the Navy" by having aircraft based on Puerto Rico. He suggested that a suitable air base and landing fields be constructed on the island but that Air Corps forces be limited to the minimum required

CONFIDENTIAL

AAHHS-42

~~CONFIDENTIAL~~

24

for maintenance and that provision be made to send combat units there when and if the situation demanded.²³

The War Department still did not render a positive decision on establishment of a Puerto Rican air base. General McCoy, however, had already written to the governor of Puerto Rico that the Army was interested in securing a landing field which was then being constructed by the island government on Isla Grande, near San Juan. One runway was in use by Pan American Airways, and it was reported that the Navy was interested in taking over the second runway. A naval board, headed by Rear Adm. Arthur J. Hepburn, was scheduled to arrive on 14 September 1938 to inspect the field. Lt. Col. John W. Wright, commanding officer of Army troops in Puerto Rico, informally warned the Office, Chief of Staff, that "The Army should get busy or the Navy will secure this field."²⁴

When this information reached the Air Corps, action was again taken to place the matter before the War Department. Both Training and Operations Division and Plans Section of the Air Corps felt that immediate steps should be taken "to include the island of Puerto Rico in the established aerial defense of the Panama Canal." It was further suggested that a study be made to determine the facilities existing and contemplated for aircraft on the island and "comprehensive plans developed for its utilization by the War Department in carrying out its mission of providing for the defense of the Canal Zone."²⁵

These recommendations were not sent to the War Department General Staff, for Plans Section learned informally on 11 October that no action had been taken on similar recommendations which had been made by the commander of the GHQ Air Force more than two years before. Early in

~~CONFIDENTIAL~~

AAFS-42

25

CONFIDENTIAL

November the Air Corps received a definite statement of War Department policy on the matter. The need for a landing field in Puerto Rico was regarded by the War Department as strictly a wartime need. In case of a war in which the Panama Canal was threatened, the GHQ Air Force could "use such facilities as are in Puerto Rico regardless of who has built them." Inasmuch as the Navy desired peacetime landing facilities in Puerto Rico and inasmuch as those facilities could be used by the Army in wartime, the War Department saw no need for the Army to construct a landing field on the island.²⁶

The Air Corps, however, did not consider the matter closed with these broad assumptions. Further investigation revealed that the field on Isla Grande was not large enough to accommodate the units which the Air Corps contemplated stationing in Puerto Rico. On the basis of this information, the War Department informed the commander of the Second Corps Area in December 1938 that no objection would be offered to turning Isla Grande over to the Navy for development, subject to reservations permitting adequate use of the facilities of the base by Air Corps units and the re-establishment of the U. S. Engineer Depot upon a suitable site on Isla Grande without additional expense to the War Department.²⁷

Still hoping to acquire suitable air base facilities, and also hoping to avoid the somewhat muddled proceedings which marked the Isla Grande incident, the Air Corps recommended in December that sites for such units as the War Department might decide to place in Puerto Rico be selected only after a careful survey of all sites by a qualified

CONFIDENTIAL

AAPHS-42

26

CONFIDENTIAL

board of officers. The War Department replied that the recommendation would be considered when a decision was reached as to stationing Air Corps units on the island.²⁸

In January 1939 there were indications that the Air Corps might soon succeed in extending the Panama Canal air defenses 1,000 miles eastward to Puerto Rico. Maj. George C. Kenney was sent to the island to make a preliminary survey of possible air base sites, and by 1 February the Chief of the Air Corps had received his first report. Other reports and a number of aerial photographs followed shortly.²⁹ Four basic assumptions guided Major Kenney's investigations: that the base would be of sufficient size to accommodate a bombardment group of three squadrons, a reconnaissance squadron, and the necessary weather service, communications, and base troops; that barracks, quarters, and other buildings would be constructed for at least 200 officers and 1,500 enlisted men; that at least three hard-surfaced runways, each 5,000 feet in length, would be required; and that the forces stationed at the base would be entirely of American troops. Major Kenney's final report revealed that the whole of Puerto Rico, the near-by islands of Mona, Culebra, and Vieques, and three of the Virgin Islands (St. Thomas, St. John, and St. Croix) had been observed and localities showing any promise had been photographed. In all, 43 sites were investigated after the first flight over these islands. Major Kenney concluded that the Punta Borinquen area was the best location in Puerto Rico for an air base, with less suitable sites existing in the vicinities of Ceiba, Ponce, and Santa Ysabel. The Virgin Islands and Culebra, Vieques, and Mona had no sites which could meet the air base requirements, although several small

CONFIDENTIAL

A1FHS-42

CONFIDENTIAL²⁷

fields might be developed for emergency use.³⁰

Following this preliminary survey the War Department early in March informed the commander of the Second Corps Area that it was definitely contemplating the establishment of an air base in Puerto Rico. According to tentative plans, a board of officers composed of representatives of the War Plans Division, the Office of the Chief of the Air Corps, and the Quartermaster General would be appointed to proceed by air to Puerto Rico in order to recommend a final selection of the site and to initiate acquisition of the land through Territorial authorities. The matter which four months earlier had been described as strictly a wartime need was now regarded as so urgent that the War Department decided to handle the question directly rather than proceeding through the Second Corps Area.³¹

A board of officers was promptly appointed and ordered to Puerto Rico for a two-week survey of the sites located by Major Kenney. The board was headed by Col. Hugo E. Pitz of the Quartermaster Corps and included Lt. Col. Joseph T. McFarney of War Plans Division, Maj. Karl S. Axtater representing the Chief of the Air Corps, and Major Kenney, who was then stationed at Mitchel Field, N. Y. The survey, which was completed on 15 April, revealed that Major Kenney's earlier findings and recommendations were satisfactory.³²

Other official visits soon followed. Maj. Gen. Delos C. Emmons, commanding general of the GHQ Air Force, left Bolling Field, D. C., on 10 May in a B-17 for a four-day inspection of the proposed sites. The plane, piloted by Col. Robert Olds, flew directly from Miami to San Juan. On 14 May the USS Nashville arrived at San Juan, bringing

CONFIDENTIAL

AAHHS-42 **CONFIDENTIAL**

28

Gen. George C. Marshall, who was en route to Brazil. The Chief of Staff and his party went up in the B-17 and inspected all the proposed sites from the air. He was reported to be "particularly impressed with the desirability of the sites selected for the main installation, as well as with the potentialities of the Island as a whole from the standpoint of available sites for auxiliary airdromes should the situation demand reinforcement by bombardment units from the States."³³

Having received official sanction of its plans for the Puerto Rican air base, the Air Corps began to study the desirability of an auxiliary airdrome at Port-au-Prince, Haiti. In July 1939, Plans Section recommended to the Chief of the Air Corps that immediate steps be taken to provide such an airdrome. General Arnold then presented the matter to War Plans Division, explaining that the establishment of an air base in Puerto Rico would result in a considerable amount of traffic along the Puerto Rican route. It was recommended that authorization be procured for the following: (1) use of the existing airport and establishment of Air Corps servicing facilities and a radio beacon, together with the necessary operating personnel, at Camaguey, Cuba; (2) similar privileges at Port-au-Prince, Haiti, along with authorization for the lease or free use of additional land in order that the landing area might be enlarged to accommodate heavy tactical aircraft; and (3) use of the emergency field in the vicinity of San Romana, Dominican Republic, with permission to enlarge the area to accommodate heavy aircraft.³⁴ These proposals, like those for Trinidad, were to encounter some delay before resulting in any action. But by mid-1939 the concept of far-flung air defense of the Panama Canal had at least gained official recognition, and the Caribbean islands were gradually emerging as potentially vital components of that defense.

CONFIDENTIAL

AAFHS-42

29

CONFIDENTIAL

The Beginning of Expansion in the 19th Wing

In the summer of 1939 the 19th Wing began to see tangible results of the expansion outlined by General Arnold in the late spring. By 12 July the program had been approved by the War Department, and the way was cleared for implementation. There was no indication that the Panama Canal Department would oppose the expansion of one of its smaller elements, for General Stone had already been converted to the necessity for air defense of the Canal. Although he was a veteran of the infantry and was soon to retire from active duty, the department commander seemingly attempted to maintain an open mind and an active interest in the air phase of his command.³⁵

Five months before General Dargue's arrival in the Zone, General Stone had had a study made by staff officers and maintenance engineers of the Panama Canal in an effort to find answers to the following questions: (1) how vulnerable to air attack are the installations of the Panama Canal Zone? (2) how much damage would be wrought by high explosive bombs of various sizes dropped on different vital elements of the Canal in terms of interruption of marine traffic? and (3) how large a hostile force would be required to put the Canal out of operation? Bombing operations were conducted at Rio Hato against a full-scale trace of one level of Miraflores locks, the bombs ranging in size from 300 to 2,000 pounds. The explosives were dropped at altitudes varying from 4,000 to 15,000 feet, depending upon weather conditions. No attempt was made to wait for the most favorable weather as it was desired that the experiment simulate actual war conditions insofar as possible. The points of impact of the various bombs were plotted and a careful estimate

CONFIDENTIAL

AAFHS-42

30

CONFIDENTIAL

was made of the probable damage that would have been inflicted on the Canal, along with an estimate of the time required for repair of the damage.

As a result of this study, it was concluded that:

(1) the installations of the Panama Canal comprised many vital elements which were then extremely vulnerable to air attack;

(2) a relatively small air force, composed of as few as 24 heavy bombers, by operating against the most vulnerable of the vital installations could completely stop marine traffic through the Canal for a period varying from a few days to several months;

(3) since the dispatch of an air force of this size was well within the capabilities of several foreign powers, it was obvious that the greatest threat to the security of the Canal was from the air;

(4) while much could be done for protection of some of the vital installations, the best insurance against destruction lay in an adequate air defense, sufficient to insure the destruction of any hostile air force before it could reach within striking distance of the Canal Zone.³⁶

Convinced of the validity of these findings, which he forwarded to the War Department in March 1939, General Stone naturally welcomed the expansion of the 19th Wing. Despite his interest, however, he lacked the technical training necessary for perfect understanding of the problems of the growing organization, and General Dargue's recommendations did not always meet with departmental approval.³⁷ The wing commander began in June, for example, to urge a reorganization of Canal air defenses. He pointed out to General Stone that the 19th Wing was charged with air defense of the Canal, and the responsibility had been construed to mean

CONFIDENTIAL

AAFTS-12 ~~CONFIDENTIAL~~

31

only that part of air defense related to operation of aircraft. Two other elements, however, were a part of the air phase of Canal protection: the aircraft warning service (which had not yet been established) and antiaircraft units. General Dargue felt that these three elements should form a coordinated combat team directed, if practicable, from one headquarters, and he recommended to General Stone a reconsideration of Canal air defenses with this end in view. He further recommended that, in connection with the proposed construction program for the Panama Canal Department, a building be erected on Diablo Hill at Albrook Field to house the headquarters of the 19th Wing, together with such elements of the other principal components of the air defense as might be considered desirable, and that the hillside building be made bombproof in order to enable the headquarters to function throughout an attack on the field.

38

Three months later General Dargue made essentially the same recommendations, but there was still no action taken to bring about a reorganization of the air defense forces. Later, in a modified form, the suggestions were to achieve concrete results, although the department seemed somewhat reluctant to make any drastic change in the organization of its components.

39

General Stone did appreciate the fact that the 19th Wing would soon be engaged in a greatly enlarged flying training program. In June he initiated action to simplify procedures for securing permission to conduct flights throughout Central America. In order to determine the obstacles that might be placed in the way of such action, General Stone arranged for General Dargue to fly to the several capitals for discussion of the

~~CONFIDENTIAL~~

AAHMS-42

CONFIDENTIAL

32

problem with American diplomatic representatives. Accompanied by his aide-de-camp, Lt. Sam Maddux, and by his executive, Colonel Brady, the wing commander took off from Albrook Field in a B-18 on 26 June, flying first to San Jose, Costa Rica. During the 10-day flight, visits were also made to Managua, Nicaragua; Guatemala City, Guatemala; San Salvador, El Salvador; and Tegucigalpa, Honduras.

In each country General Dargue discussed with the American minister or member of his staff the subject of blanket permission for flights. He acquainted these officials with plans for Air Corps expansion in the Canal Zone and with the necessity for making extended training flights from the Zone to points within a radius of 1,000 miles. General Dargue also pointed out that the flights would tend to foster Pan-American amity in keeping with the policies of the President and that the Central American countries might desire reciprocal privileges for their military aircraft. In company with the American representatives General Dargue then called on foreign officials and discussed pertinent points. In all cases, the wing commander reported, a spirit of wholehearted cooperation was shown and a desire expressed for the U. S. planes to visit almost at will.

This action of the department and wing commander met with General Arnold's approval. He informed General Dargue that he was well aware of the benefit which the Air Corps would derive, "not only from accelerating the get-away of ferry flights between Panama and the States," but also from improving the training routine by flights to the various Central American countries. From a broader point of view, the War Department would undoubtedly receive a great deal of intelligence from

CONFIDENTIAL

AAFES-42

CONFIDENTIAL

33

the flights. General Arnold's only word of caution was in regard to General Stone's willingness to arrange flights on a reciprocal basis and the possibility of disclosure of military information to foreign aviators. However, the Air Corps chief felt that the balance of information gained would be considerably in favor of the United States and that no disadvantage would result from having the foreign airmen visit in the Canal Zone. So emphatic was General Arnold's approval of the move that he was prepared to take action himself if General Stone's efforts came to naught. He informed General Dargue that, if necessary, he would recommend that the War Department initiate the proper request to the various countries looking to an arrangement whereby the United States, upon informal notification 72 hours in advance, could order Army aircraft on flights over these countries, with the privilege of landing at the usual airdromes.⁴¹ At this point the matter became subject to State Department action. General Dargue's task had been completed with the 10-day tour of Central American capitals. He could only await the outcome of diplomatic negotiations, but the delay was not injurious to the wing training program, for the rainy season was then well under way and would continue until December, curtailing much of the flying to and from the Zone.

Because of the unfavorable weather, the construction program of the 19th Wing was progressing slowly. At Bruja Point the work was primarily in the draining and grading stage, but at Albrook barracks, quarters, a hangar, various post buildings, and the project for the air depot were all begun. At Albrook, France, and Rio Hato, temporary housing received high priority, for the expected increase in personnel was contingent upon completion of quarters.⁴²

CONFIDENTIAL

AA7HS-42

34

CONFIDENTIAL

Before the end of August the commander of the Panama Canal Department was informed that the increase in strength for the 19th Wing would be even greater than originally planned. Funds for the Air Corps expansion program had been appropriated, and every effort was to be made to insure its completion by 30 June 1941. Plans now called for the 19th Wing to be augmented during the fiscal year 1940 by 2,697 enlisted men, at the rate of approximately 225 a month. This increment would raise the authorized enlisted strength of Air Corps units in the Canal Zone to 4,087. The 22d Bombardment Group (M) was scheduled to be formed in the United States and moved to Panama after completion of permanent construction at the Bruja Point air base. The enlisted strength of the group would be 786, which would make a total strength of 4,873 enlisted men in Panama. To provide the necessary services for the enlarged 19th Wing, the War Department contemplated sending 450 additional enlisted men during the fiscal years 1940 and 1941. No material increases in officer strength could be made until more officers became available at the Air Corps training center and until additional quarters were constructed in the Zone.⁴³

Information was not forwarded at this time as to the types of airplanes scheduled for the wing and their delivery dates, but the information on personnel gave General Dargue enough cause for concern. The prospect of acquiring large numbers of enlisted men, the majority of them untrained recruits, without a corresponding increase in officers was not a happy one, and General Dargue communicated his concern to General Arnold. By this time, late August, the crisis in Europe was threatening to result in war, and considerations of national defense

CONFIDENTIAL

AAPHS-42

CONFIDENTIAL

35

demanding that more attention be given to Panama Canal forces. General Arnold agreed with General Dargue that his officer strength was in a deplorable condition, and immediate action was taken to relieve a part of the shortage. The Air Corps chief explained that it was possible to take the action only because of "the recent change in policy calling for immediate augmentation of the garrison in Panama." Prior to this time the Air Corps had given first priority to the Materiel Division and the Training Center, but because of the new policy regarding Panama, plans were made to send 51 officers at once, 26 second Lieutenants to fly P-36's to the Canal Zone, and 25 additional officers to depart from New York on the transport St. Mikiel on 13 September. General Arnold also informed General Dargue that he was "having other items besides personnel checked, including equipment, planes and supplies, to make sure that your squadrons are put on a war footing, in line with the present approved plan."⁴⁴

Precautionary Measures and Hurried Reinforcements

In the several days preceding the outbreak of war in Europe, all forces in the Panama Canal Department took special precautionary measures against sabotage and sudden attack. Military guards were placed on all ships going through the Canal. In addition to the 51 Air Corps officers, other forces which included antiaircraft detachments and Air Corps enlisted men were ordered to the Zone without regard to the availability of housing; tents were to be used until temporary barracks could be built. Secretary of War Woodring, commenting on the acceleration of the Canal program, stated on 29 August that in addition to the transfer of troops, appropriate instruction had been issued which would lessen the

CONFIDENTIAL

AAFES-42

36

CONFIDENTIAL

danger of sabotage, not only of the Canal but of all installations necessary to defense of the Canal.⁴⁵

On 2 September the 19th Wing ordered France and Albrook fields to be prepared "to place in readiness the maximum available force" to search the sea lanes approaching Panama, to escort vessels within that limit, and to intercept any foreign planes flying over the Canal Zone without authorization. A combat crew roster was prepared, including every officer in the wing with the exception of the commanding general and the two base commanders, Lt. Col. Adlai H. Gilkeson of Albrook and Maj. Edwin J. House of France Field. The 16th Pursuit Group was ordered to be prepared to operate patrol or interception missions with six planes, while the 6th Bombardment Group was to be "prepared to operate on search or bombing missions the maximum number of B-18 airplanes for which personnel is available." At both Albrook and France fields light bombs, newly inspected, were stored for immediate use. Armament had already been requisitioned in August in an amount sufficient to equip with machine guns all planes in the Zone, including the obsolescent P-26A's, and all planes on order for the wing.⁴⁶

On 6 September, following the outbreak of war in Europe, the Panama Canal Zone was placed under military control. At the request of the War Department, the President issued an executive order giving General Stone exclusive authority and jurisdiction over the operation of the Canal in order to insure the security of the installation. Still more troops were ordered to the Zone, including 2,700 officers and men of the 18th Infantry Brigade. The Air Corps was unable to send any additional forces at the moment, but by this time the promised P-36's had begun to arrive.

CONFIDENTIAL

AMHS-42

CONFIDENTIAL

37

along with a few medium bombers and one cargo plane.⁴⁷ Stringent regulations for aircraft flights over the Zone were put into effect on 14 September, when an executive order created the "Canal Zone military air space reservation." The area included territorial waters within the three-mile limit off both entrances of the waterway, and the order barred all flights unless specifically authorized by either the Civil Aeronautics Authority or the State Department. It directed the use of certain prescribed routes and stipulated that all cameras must be sealed. Foreign planes were to be escorted by war planes stationed in the Canal Zone.⁴⁸

Similar precautions were being taken in Puerto Rico, which recently had been made a separate military department. Only 866 Army troops, under the command of Brig. Gen. Edmund L. Daley, were stationed on the island; but during September and early October the garrison was to be reinforced by approximately 1,500 officers and men, including anti-aircraft and coast defense troops. No Army air units could be sent immediately, although the Navy requested that the Air Corps provide the necessary reconnaissance for the island. Plans had already been made to include a reconnaissance squadron in the eventual Air Corps garrison for Puerto Rico, and General Arnold directed that a study be made to determine how soon the squadron could be organized and put into operation. General Arnold felt that it was highly desirable for the Air Corps to take over the reconnaissance function as soon as possible, and the study therefore assumed that the personnel would be housed in tents, that planes would be taken from existing units, and that no dependents of the personnel would accompany the squadron. These assumptions, of course,

CONFIDENTIAL

AAFHS-42

38

CONFIDENTIAL

were to apply only until there had been sufficient time to construct the necessary quarters at the air base.⁴⁹

While preparations were being made in the United States to organize the 27th Reconnaissance Squadron for shipment to Puerto Rico, General Daley and his air officer, Col. Fellett Bradley, were making plans for reception of the unit and for construction of quarters. Despite a "grave shortage of funds," the decision was made to proceed on the basis of existing plans, with the hope that any deficit might be covered from the contingent fund. Both General Arnold and Brig. Gen. Barton K. Yount, Assistant Chief of the Air Corps, had personally checked plans for the quarters and they agreed that while the plans were not all that could be desired, they were adequate, and that it would be unwarranted to delay construction by a revision of plans at the time. With Air Corps approval, General Daley was also seeking to obtain rights to the use of Desecheo Island, off the west coast of Puerto Rico, as a bombing range for the expected air units. It was hoped that arrangements might be completed in time for the 27th Reconnaissance Squadron to start bombing practice soon after its arrival. Early estimates placed the departure date of the squadron on or about 15 October, but the unit encountered some delay, so that it did not arrive until 5 December.⁵⁰ For the whole of 1939, Puerto Rico was without effective air defense, and the Panama Canal was defended from the air only by those units within its immediate environs.

Status of the 19th Wing in September

If an enemy attack had been made on the Canal in September 1939, the 19th Wing would have been able to provide little opposition. General

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

39

Dargue reported to the department commander on the 5th of the month that the combat effectiveness of the wing was at "a very low ebb due mainly to the lack of trained and experienced commissioned personnel." With the arrival of 51 officers from the United States, the wing would have a commissioned strength of 101, but this number was less than half of that required by the two pursuit, one bombardment, one attack, two reconnaissance, and two air base squadrons which made up the wing. The Air Corps expansion program for these same units called for approximately 290 officers and an increase in aircraft strength of approximately 50 per cent. The six tactical squadrons in September had an average of only four officers each. Not a single squadron could perform tactical missions at more than half strength without "borrowing" pilots from other units. There was a similar shortage of trained bombardiers and observers, and there were no celestial navigators. The air depot had only two officers assigned. A total of 71 tactical aircraft were either in commission or in storage at France and Ablbrook fields: 33 B-18's, 14 A-17's, and 24 P-26's. The arrival of 31 additional pursuit planes would raise the number of tactical planes to 102.⁵¹

Despite the tremendous overhead of duties that had arisen in connection with the expansion program, as well as the regular administrative duties, flying training was being "carried on intensively in an effort to correct present deficiencies." As for the enlisted personnel, there was no serious shortage in numbers but their lack of experience and training was a decided handicap to the wing's effectiveness. Daily classes and practical work were being offered, but again the program was hampered by the shortage of trained officers for instructional purposes.

CONFIDENTIAL

AAPHS-42

CONFIDENTIAL

40

In the matter of materiel, the wing was in a much better condition: aircraft, machine guns, bombsights, and stores of bombs were considered sufficient for existing units. The lack of long-range aircraft, however, seriously handicapped the air defense forces, while the absence of an aircraft warning system had an adverse effect upon the pursuit defense. In summary, General Dargue reported, the six combat squadrons were "almost wholly ineffective." The intensive training would continue, and it seemed reasonably certain to the wing commander that by January 1940 two pursuit squadrons, with a strength of 18 aircraft each, would be effective in defense of the Canal. It was hoped that by the same date two reconnaissance squadrons and one bombardment squadron might be similarly effective. This constituted the immediate objective of the wing.⁵²

Accomplishment of the objective was to depend entirely upon the training program, for no relief was in sight for the personnel shortages. On 9 September General Arnold conferred with five of his staff officers regarding the strength of the 19th Wing, and his decision was "to maintain the status quo in Panama at this time." Both personnel and aircraft were to be provided on a replacement basis. Ammunition, bombs, and other supplies being made available immediately would be sent on the basis of combat planes then in Panama.⁵³

Air Defense of Pacific Approaches

Regardless of existing shortages and the unlikelihood of any immediate increase in aircraft for the 19th Wing, General Dargue continued to seek for more suitable aircraft. He was well aware of the Canal's vulnerability from the Pacific approaches, and on 19 September

CONFIDENTIAL

AA:HS-42

~~CONFIDENTIAL~~

41

he made a somewhat unusual request for a squadron of 13 aircraft of the naval patrol type, capable of operating from water, for the use of the 19th Wing in protecting the Pacific side of the Canal. In explaining his reasons for the request to the Chief of the Air Corps, General Dargue stated that adequate Canal defense demanded that reconnaissance and bombardment aircraft cover an area at least 1,000 miles out to sea, and preferably 1,200 to 1,500 miles out. It was conceivable that aircraft carriers might approach from the Pacific and under cover of darkness reduce their distance from the Canal so that the aircraft could make a dawn attack. In such a case, it would be "exceedingly difficult" for pursuit planes and antiaircraft armament to protect the vital parts of the Canal. Therefore, according to General Dargue, the aircraft carriers should be located and attacked during the daylight hours of the preceding day, and this interception could be accomplished only by keeping the water area from approximately the 500-mile circle out to the 1,200-mile circle under thorough surveillance.⁵⁴

For this purpose a type of aircraft which could land on water was regarded as most suitable. Such planes, the wing commander suggested, could "base at the Galapagos Islands and possibly Cocos Islands where they would have an initial jump on the reconnaissance to be made." Since no suitable amphibian type was known to General Dargue, he recommended that the patrol type of Navy aircraft be furnished, as it had long range and the capacity for carrying bombs. It was believed by the wing commander that ultimately a group of three squadrons should constitute a part of the air defense forces, although only one squadron was needed for an initial service test period. General Dargue reiterated

~~CONFIDENTIAL~~

AAPHS-42

CONFIDENTIAL

42

his hope that arrangements might be made eventually for use of the Galapagos and Cocos islands as advanced bases of operation. He further went on record as believing that the "Army Air Forces for defense of the Panama Canal should be self-sufficient and not dependent upon naval forces which . . . are subject to call by the Commander-in-Chief of the Navy and would be called for the Canal Zone in a naval emergency so warranted." ⁵⁵

General Dargue's position in this matter received strong support from General Stone, who took the occasion to express to the War Department some of his own fears and beliefs regarding Canal air defense. In his estimation, two of the greatest potential threats against the Canal were, first, an attack by land-based aircraft and, second, an attack by carrier-based aircraft. The best guard against an assault by land-based planes was, of course, maintenance of good relations with the Latin American countries. Because of the Good-Neighbor Policy General Stone stated that he had no fear of any attack originating within 1,000 miles of the Canal. As to carrier-based aircraft, he had no concern for such an attack from the Caribbean area because of the natural barrier existing in the chain of islands extending from Cuba through Haiti, Puerto Rico, and the Lesser Antilles, down to Trinidad. These islands were only a potential deterrent, but General Stone expressed his belief that the chain could and would be made into an effective barrier against attack on the Canal from the Atlantic Ocean. ⁵⁶

Nature had not been so kind in the Pacific, and enemy aircraft carriers might approach the Canal from this side with only a slight

CONFIDENTIAL

AAFHS-42

43

CONFIDENTIAL

chance of detection. In General Stone's opinion, the answer to the problem was to reach out and attack such carriers during the daylight hours--to "destroy the wasps in their nests before they ever begin to fly." "his line of action called for long-range seaplanes and for bases in the Galapagos Islands, which would be the "first and primary defense of the Panama Canal." The second line of defense would then be the pursuit and attack planes and antiaircraft batteries, which in general would be somewhat handicapped by the prevailing clouds over the Canal Zone, "where weather always favors the attacker rather than the defender." The one principle to be rigidly maintained, according to General Stone, was that "we must never let any enemy aircraft get over the Canal itself."⁵⁷

The interest in the Galapagos Islands was not new. On 5 January 1939 General Stone had recommended to the War Department immediate acquisition of these islands from Ecuador and also acquisition of the Cocos Islands from Costa Rica, either by purchase or by long-term lease. But the State Department refused to consider the request on the grounds that such negotiation would not be "in the public interest." It did add, however, that any attempt by a non-American power to acquire the islands, for any use whatever, would be a matter of grave concern. Three months after the March maneuvers, which had revealed more clearly than ever the vulnerability of the Canal, General Stone again wrote the War Department, admitting that the two Latin American countries might be reluctant to sell the land but suggesting alternatively that a 999-year lease would not encroach upon any national sovereignty. He reported his

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

44

belief that acquisition of the bases was "absolutely essential for the defense of the Panama Canal." But again the proposal was rejected as being contrary to national policy. The War Department also reminded General Stone that in accordance with the Joint Defense Plan, Panama Canal, 1938, the Navy was responsible for patrol of the coastal zone and for location and attack of any forces therein. While Army air units in the Zone were to assist the Navy in accomplishment of the mission, the War Department did not deem operating airdromes on the Galapagos or Cocos islands to be essential for the purpose. ⁵⁸

As both the wing commander and the department commander frequently pointed out to the War Department, however, the naval forces were subject to call elsewhere and they could not be completely depended upon to carry out their mission in the Canal Zone. This arrangement was destined to become the subject of a mild controversy before many more months. Nor was the Galapagos-Cocos acquisition shelved by commanders in the Panama Canal Department, although the War Department position seemed to be unshakable.

On 9 October, General Dargue again wrote to the Chief of the Air Corps, summarizing the problem of air defense of the Canal's Pacific approaches. Without abandoning any of his previous contentions, the wing commander made a strong case for long-range aircraft in the Canal Zone. The necessary patrol of the area 1,200 to 1,500 miles south and west of the Zone could not be carried out by medium bombers, with which the wing was then equipped. There was no aircraft warning service as yet, and existing plans for such a service covered the water areas for only several hundred miles from the Canal. Communication facilities were meager and in many sections "absolutely nil." Under the circumstances,

CONFIDENTIAL

AAFHS-42

45


CONFIDENTIAL

air defense of the waterway might be reduced to air combat against a force of unknown size and speed, rather than the more logical interception of an attacking force many miles out to sea. General Dargue repeated his request for naval patrol bombers and for use of the Galapagos and Cocos islands, but he added a more urgent request for four-engine bombers of the land-based type. Specifically, he recommended that the 22d Bombardment Group, which was to be formed in the United States and sent to Panama, be equipped with heavy bombers, "preferably the product of the Consolidated Aircraft Corporation."⁵⁹

The Chief of the Air Corps, in reply, stated that the desirability of substituting long-range for medium-range aircraft in the current expansion plans would be studied. No change in the equipment of units, however, was recommended at that time and no recommendation could be made until after appropriations for additional heavy bombers had been obtained. The 19th Wing therefore had little hope of receiving long-range aircraft at any time within the near future. The wing likewise had little hope of ever consisting of more than the barest force required for defense of the Canal. General Dargue and his successors were to be reminded, again and again, that the concept of aviation employment in hemisphere defense envisaged "the maintenance of the minimum aircraft forces required for the defense of outlying portions and the utilization of the mobility and flexibility of the GHQ striking forces to reinforce any area where a serious threat develops."⁶⁰ Much difference of opinion arose regarding this concept as the 19th Wing rapidly approached a period when it seemed that the theory might have to be put into practice. For the time being, however, General Dargue


CONFIDENTIAL

AAFHS-42

46

CONFIDENTIAL

let the matter rest, as he was faced with a multiplicity of other problems demanding immediate attention.⁶¹

Plans for France Field

The subject of France Field again came to the fore in the fall of 1939, this time with the Navy entering the picture. Except for a few officers' quarters, there was no construction at France during most of the year. Although the Chief of the Air Corps had decided that the base would remain in use only as an auxiliary field upon completion of the Bruja Point airfield, both General Dargue and Major House, commander of the base, continued to consider various sites for a new France Field. The subject was revived in Washington, and in late August the Chief of the Air Corps recommended to the War Department that a new field be developed northeast of the existing site.⁶² A complete new station would have to be built, with initial construction requiring an estimated \$1,000,000; grading, drainage, and construction of two runways would require an estimated \$1,250,000.⁶³

Meanwhile General Dargue, aware of the prospects of at least one new runway at France, instructed Major House to begin jungle clearance of an area paralleling Rio Coco Solo in order to expedite a survey. The wing commander acknowledged at the same time that the proximity of the naval air station at Coco Solo was a serious disadvantage. Major House simultaneously sought permission to begin jungle clearance in an area which he had selected. He informed General Dargue that the Navy was making inroads in the area of France Field which it held under revokable lease and that the structures were of a permanent nature. The proposed new runway for France Field crossed part of this leased ground.

CONFIDENTIAL

AAFES-42

47

CONFIDENTIAL

Despite the clearing of the jungle, the Navy apparently did not believe that the Air Corps had plans for the area. On 28 October, Adm. Harold R. Stark requested of the Secretary of War that a considerable portion of the France Field reservation, northeast of the old runway and adjacent to the naval air station and ammunition depot, be granted the Navy Department by revokable permit "for installation of magazines and gasoline tanks pending receipt of authority for a permanent transfer." The Secretary of War had already directed that \$3,000,000 be spent on improvements for France Field, but Admiral Stark's request was granted and the land in question was transferred to the Navy. This episode marked the beginning of an extended struggle, carried on mainly by Major House, to preserve France Field as an indispensable part of Canal defenses.

64

Auxiliary Landing Fields and Aircraft Warning Sites

The auxiliary landing field project of the 19th Wing was faring somewhat better than France Field. In September the wing commander made an informal report to General Arnold, revealing the status of the project and outlining further action considered essential to the expansion program which contemplated an eventual strength of approximately 600 officers, 5,000 enlisted men, and 325 aircraft. Auxiliary fields then in the Republic of Panama fell into four categories: training base, auxiliary bases for operation, dispersion fields, and emergency landing fields. Rio Hato, with temporary housing for approximately 100 men, was being used as a training base. Additional temporary housing was being provided for 400 men, and the department was financing construction of a number of recreational buildings on the site. The

CONFIDENTIAL

AAFHS-42

48


CONFIDENTIAL

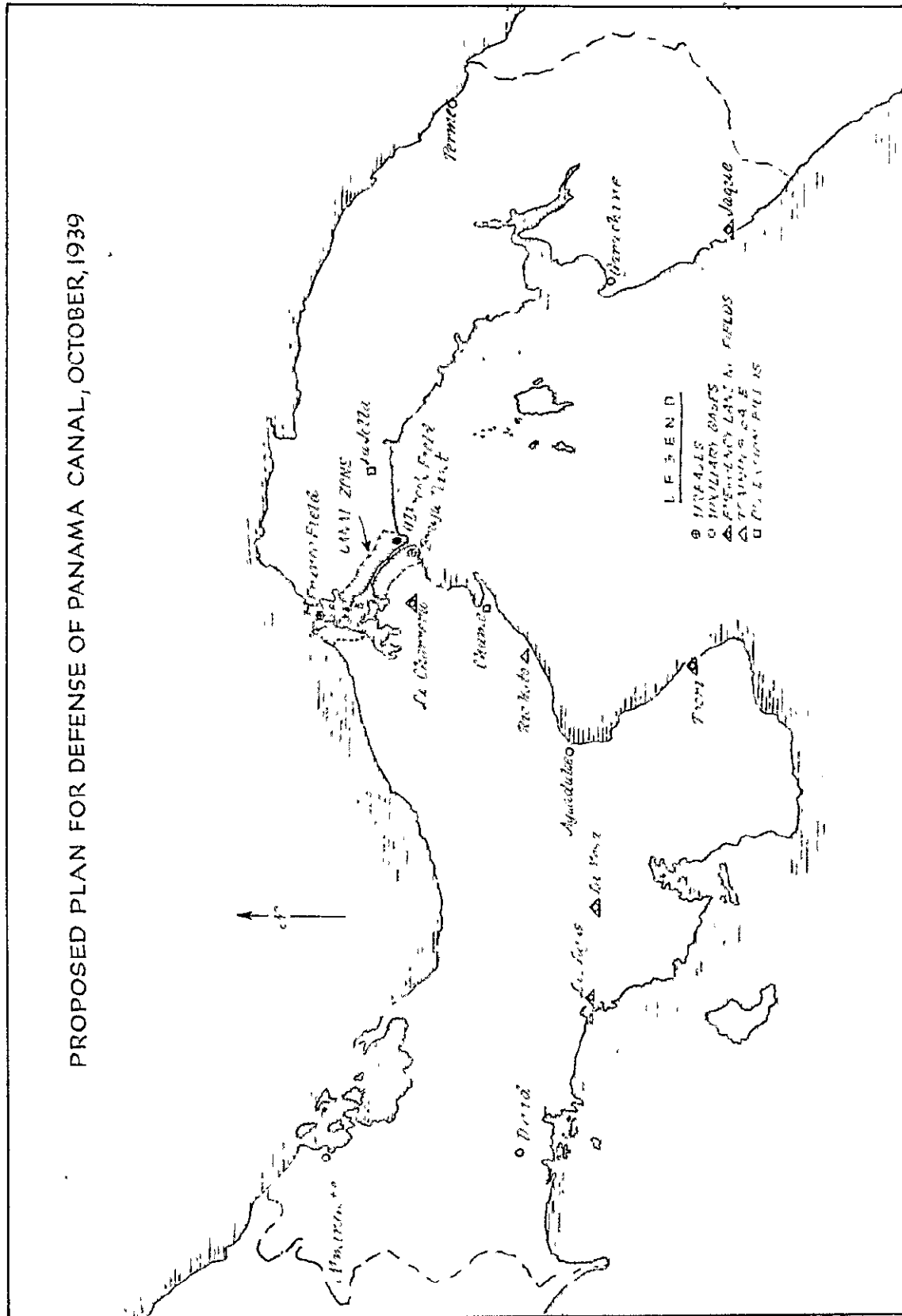
Chief of the Air Corps had authorized construction of a temporary hangar, and other plans called for two more runways and fuel storage facilities, making Rio Hato an auxiliary base for operations as well as the principal training base. Auxiliary bases for operations were also needed in the vicinity of San Miguel Bay, Pocrí, David, Almirante Bay, and Perma. Landing fields for the purpose of dispersion were needed in the vicinity of La Chorrera and La Joya (on opposite sides of the Pacific entrance of the Canal) and in one or two similar places on the Atlantic side. These dispersion fields would not require permanent detachments, and they would be suitable for use by all types of aircraft. In addition to the fields in these three categories, all of which would be available for emergency landings, several other landing grounds were needed, including Jaque, Chame, Aguadulce, La Mesa, and Las Lajas.⁶⁵

At the time of General Dargue's report to General Arnold, the auxiliary landing field project seemed to be in the air. Funds were not available to the department commander, nor was there any authority for the 19th Wing to proceed with the survey and acquisition of the 14 sites mentioned. It was "a very difficult project" and General Dargue could not foresee its completion in less than two years. The informal report of the wing commander, however, met with a favorable reception in the office of the Chief of the Air Corps and in divisions of the War Department General Staff, where it was studied "with much interest." General Arnold informed General Dargue that officers on the General Staff believed that the time was right for the project to be submitted officially with the wing commander's recommendations and an estimate of the cost.⁶⁶

CONFIDENTIAL


CONFIDENTIAL

PROPOSED PLAN FOR DEFENSE OF PANAMA CANAL, OCTOBER, 1939



CONFIDENTIAL

AAFHS-42

49

CONFIDENTIAL

The War Department seemed to be equally interested in a project for acquiring aircraft warning station sites. By 14 October a study on acquisition of land in the Republic of Panama for this purpose had received the approval of War Plans Division and other members of the General Staff and was in the office of the Chief of Staff, where it was believed the study would receive final approval without change. The paper called for a 999-year lease of land at Jaque, Cape Mala, Almirante, Pt. Armuelles, La Palma, Puerto Obaldia, and Coiba Island. Several of these sites were in close proximity to proposed auxiliary fields, a factor which would facilitate surveys of the two projects. General Dargue had already begun in mid-September to push the aircraft warning project, as funds were available not only for acquisition of sites but also for expenses incident to preliminary survey work. The 19th Wing was cooperating with the engineers in providing transportation to isolated sites, and as the work progressed the wing commander planned to make "a large number of flights carrying both personnel and equipment for them."⁶⁷

Efforts had been made several years earlier to establish an aircraft warning system in the Canal Zone, but nothing tangible had resulted from the attempts. In 1936 the department appointed a board of officers to study the problem and make specific recommendations on a five-year plan for procurement and installation. At its first meeting the board decided that since an aircraft warning service was of as much concern to the Navy as to the Army, a joint board should be formed to consider the matter. At a later meeting in 1937 the board recommended that a net be established to serve as the basis for a complete

CONFIDENTIAL

AAFHS-42

50

CONFIDENTIAL

system whenever the proper equipment was perfected; that the service be installed and kept in repair by the Signal Corps and operated by the Air Corps, with the antiaircraft artillery providing a close-in net; and that 12 specified sites be developed over a three-year period. Not until mid-1939, however, was any real survey work undertaken preliminary to establishment of the service. Despite General Dargue's belief that the service should be part of an integrated air defense command, it was placed under the department signal officer with headquarters at Quarry Heights. Surveys were rushed, experimental equipment was procured, and inauguration of the service was scheduled for 11 December 1939, initial operation to be six hours a day for test and training purposes. Only a few stations were ready for operation and lines of communication had been hastily and temporarily set up, but the foundation had been laid for an efficient aircraft warning system.⁶⁸

Departmental Reorganization and the Air Depot

As a result of the emphasis on air defense, military forces of the Panama Canal Department underwent a reorganization on 16 October 1939. All antiaircraft units were welded into one command, the Panama Provisional Coast Artillery Brigade, headed by Brig. Gen. Sanderford Jarman. Department forces were regrouped under five commands: the Atlantic Sector, the Pacific Sector, the 19th Wing, the Panama Provisional Coast Artillery Brigade (AA), and Department Troops. Removal of the 19th Wing from under the Department Troops effected no change in responsibility for the wing commander, as he was still under the department commander. But the reorganization did place the wing on a parity with the sector commands, a position which it had never before enjoyed, and gave official recognition to the air unit as a substantial part of Canal defenses.⁶⁹

CONFIDENTIAL

AAFHS-42

51

CONFIDENTIAL

Units within the 19th Wing were not affected by the change. The Panama Air Depot, however, and its 1st Depot Squadron were assigned to the wing for technical supervision. The depot, commanded by Col. Harold A. Strauss, had approximately 200 civilian employees, a similar number of enlisted men, and two air officers assigned to it. In addition to storing and issuing all Air Corps supplies and performing third echelon maintenance and repair of all aircraft in the Panama Canal Department, the depot was also acting as local supply and second echelon of maintenance and repair for France Field.⁷⁰

The expansion program of the 19th Wing was already having its effect on the depot, which was considerably undermanned and ill-prepared to meet the demands brought about by the increased amount of flying in the Zone. The old warehouses at France Field were bulging with new supplies, and buildings had not yet been constructed at Albrook Field in preparation for the transfer of the depot. The main supply warehouse was in danger of being flooded during heavy rains, and there was a hesitancy about making costly repairs in view of the impending move to Albrook. There was something of a morale problem involved in the fact that enlisted men were working side by side with civilian employees and were receiving considerably less pay for the same work. Civilian employees also had a morale problem, for they received less pay than other employees in the Panama Canal Department. This latter inequality was remedied in December 1939 when wages of the depot employees were placed on the same scale as those of department employees. The trend toward complete civilianization of the depot was continuing, and General Arnold had stated in June 1939 that the program would be completed during the fiscal

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

52

year 1941.⁷¹ Air Corps appropriations for 1940 included provisions for 36 additional depot employees, but, like the move from France to Albrook, the program was to be delayed. Despite the combined efforts of the Air Corps, the 19th Wing, and the Panama Canal Department to alleviate some of its problems, the depot was unable to function properly and to meet all the demands placed upon it during this critical period of 19th Wing expansion.⁷²

Training

It was perhaps fortunate for the air depot that the 19th Wing was unable to engage in all the flying that it was called upon to do. The War Department had directed that all regular Army units engaged in a program of intensive training during November, December, and January, but because of the shortage of commissioned personnel and the demand for cooperative missions the 19th Wing was unable to go beyond formal compliance. Ground forces in the department were still asking for cooperative missions totaling approximately 2,000 hours for the fiscal year 1940. According to Colonel Brady, compliance with the request would require an average of 300 hours per month for the remainder of the year--a minimum of four B-18's, or 33 per cent of the reconnaissance-bomber strength of the wing, flying a total of 15 hours daily. Because of the lack of sufficient flying personnel, the two bombardment squadrons and two reconnaissance squadrons could man only 13 B-18's, with partially trained crews, instead of the 36 stipulated in the table of organization.⁷³ Nevertheless, the wing still had to perform as many cooperative missions as it could manage, and its own training program suffered accordingly.

CONFIDENTIAL

AAFHS-42

53

CONFIDENTIAL

The wing's primary objective at the moment was to provide all headquarters organizations with the minimum personnel to carry out their respective missions; to organize and train the maximum number of maintenance crews, nine bombardment crews, nine reconnaissance crews, and 36 pursuit pilots; and to form from existing squadrons the nuclei of units to be activated in the department on 1 February 1940. The new units included the 37th Pursuit Group (Headquarters and Headquarters Squadron, the 29th, 30th, and 31st Pursuit Squadrons), the 43d Pursuit Squadron to augment the 16th Pursuit Group, the 3d Bombardment Squadron to augment the 6th Bombardment Group, and the 39th Observation Squadron.⁷⁴ As a necessary preliminary to accomplishment of the objective, the wing was establishing essential administrative systems and training instructors for basic schools.

With the rainy season nearing its close, flying training activities began to increase in the latter part of November. Practical exercises were arranged by the two group commanders and by General Dargue.⁷⁵ The nature of the climate and geography of Panama, however, made it imperative for the wing to seek exemption from certain phases of Air Corps policy and to take extra precautions in the training program. In December the Air Corps approved the wing's request for a waiver on night flying requirements, so that the prescribed night flying might be accomplished when and for such distances as the seasons permitted.⁷⁶ General Dargue then recommended that the specialized training of pursuit pilots be completed in the United States. The tropical weather, with its sudden, violent storms and frequent overcasts, the lack of safe emergency landing fields, and the jungle terrain all presented difficulties which did

CONFIDENTIAL

AAFHS-42

54


CONFIDENTIAL

not exist for the inexperienced pilot in the United States. It had been necessary for the 19th Wing to assign all new and inexperienced officers to B-18 units where, under the close supervision of experienced personnel, they could become familiar with local terrain and weather conditions. Only after three months of this training were pilots assigned to pursuit units. But if the influx of new pilots continued to increase and the percentage of "trained and responsible officers with three or more years of serve" continued to decrease, even this expedient would have to be curtailed and both safety and efficiency would be lowered.⁷⁷

As part of its training program, the wing participated in a series of blackouts which had been instituted on 10 October by the department commander. Precautionary measures initiated in September were still being taken throughout the Zone, while the State Department was seeking to bring about the elimination of German flyers from a commercial airline in Colombia.⁷⁸ Members of the 19th Wing were not allowed to lose sight of the possible danger to the Canal and of the importance of its defense. The sudden growth of the wing and the influx of personnel served as a reminder of these facts. On 28 December the Secretary of War announced the constitution of several new Air Corps units and the activation of several others previously on the inactive list. The units included the 22d Bombardment Group (H), the 37th Pursuit Group (I), and the 43d Pursuit Squadron (I), all to be stationed in the Canal Zone, and the 25th Bombardment Group (H), the 36th Pursuit Group (I); and the 24th Air Base Squadron, to be stationed in Puerto Rico.⁷⁹

By the end of 1939 the 19th Wing had 104 flying officers, 35 of them from the Air Reserve, and 15 additional officers from other branches


CONFIDENTIAL

AAFHS-42

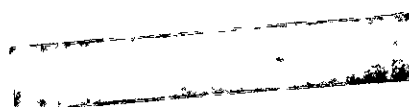

CONFIDENTIAL

55

serving with the wing. The number of enlisted men exceeded 2,000, and the number of aircraft had increased from 70 to more than 100. Definite plans for expansion in Panama had received the approval of the department. Much construction was under way, including preliminary work on the Bruja Point air base which on 1 December had been named Howard Field.⁸⁰ Wing headquarters had acquired a skeleton staff, and relations with the Panama Canal Department headquarters were on a cordial and cooperative basis.⁸¹ The year 1939 had been a busy one for Air Corps units in the Canal Zone, but the sudden burst of activity possessed inherent difficulties, some of which remained dormant until the following year.

CONFIDENTIAL


AAFHS-42



Chapter III

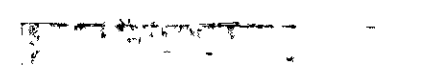
CONFIDENTIAL

FINAL MONTHS OF THE 19TH WING, 1 JANUARY-20 NOVEMBER 1940

During the early months of 1940 the whole problem of Canal air defense was re-examined by the War Department. A stream of official visitors, including President Roosevelt, General Marshall, General Arnold, and congressional comitters, inspected Canal Zone defenses, indicating somewhat the degree of interest in protection of the installation. The interest increased with the fall of France in June 1940 and with the heightened possibility of American entanglement in the European conflict. More generous appropriations soon enabled the Air Corps to revise its plans for expansion. Before the end of the year Puerto Rican air defenses had grown beyond the size originally envisaged by the Air Corps, and the 19th Wing had been transformed into an air force. This final period of the wing's existence, however, was marked by a struggle in almost every phase of air activity and by friction in relations with the Panama Canal Department.

The creation of a barrier between the department and the wing began with the arrival of a new department commander. General Stone's tour of duty was completed during the first week in January, and on 8 January a cavalry officer, Maj. Gen. Daniel Van Voorhis, assumed command for a two-year period. The interests of General Van Voorhis seem to have been concentrated chiefly in the ground forces, which were commanded by Maj. Gen. Ben Lear and Brig. Gen. Sanderford Jarman. The problems accompanying the expansion of the 19th Wing demanded, now more

CONFIDENTIAL



AAFHS-42

CONFIDENTIAL

57

than ever, close liaison with the department; but little attempt was made in this direction.¹

Re-evaluation of Canal Air Defense

One of the tasks awaiting General Van Voorhis when he took over his new command was to answer a War Department communication of 3 January which requested a thorough study of air defense requirements in the Panama Canal Department. By direction of General Marshall an Air Defense Board had been appointed in the War Department to study and make recommendations on "the question of defense from attack by air, including a clear and definite determination of the basic principles and policies to be followed by the War Department in the matter of its responsibilities and requirements for Air Defense." As a part of this study, the commander of the Panama Canal Department was asked to submit his opinions and supporting evidence as to the following:

- (1) The general problems of defense against air attack to be solved by the Panama Canal Department.
- (2) The most effective method of conducting air defense of the department. This question was to include consideration of the respective roles of bombardment and pursuit aviation, antiaircraft artillery, aircraft warning service, and negative defensive measures, and the proper organization for procuring their coordinated employment. It was to consider also the offensive and defensive action of aviation in extending, augmenting, or replacing "the limited defensive capabilities of antiaircraft weapons."
- (3) The proper types, strength, and organization of the agencies required to execute the air defense of the Panama Canal Department.

CONFIDENTIAL

AAFHS-42

58

CONFIDENTIAL

The Air Defense Board considered it essential that the problem be approached from a realistic rather than idealistic point of view. The letter to the department commander further pointed out that "We cannot hope to provide assured protection for every important objective, nor can we afford to disburse our limited means in an effort to meet all possible attacks." The needs of the department were therefore to be formulated only after a careful evaluation of the importance of the Canal, likelihood of attack, probable damage involved in an attack, probable developments prior to attack, proper integration of defense requirements with other aviation requirements, and employment of reinforcement from the United States.²

This request from the War Department comprised a large order for a commander who had headed the Panama Canal Department for only a few days, and the burden of reply naturally fell to General Dargue. His recommendations were completed in time for General Van Voorhis to discuss the subject with General Marshall during his visit to the Canal Zone, 5 to 9 February. The department commander was not content, however, to confine his discussion merely to air defense requirements. He reasoned that an increase along any one particular line of defense would indicate that some change had taken place in the estimate of the situation. If such were the case, then a coordinated study of all elements of defense would be needed. General Van Voorhis therefore analyzed the defense of the Panama Canal as a whole, viewing air defense as only one element of the problem.³

General Dargue's recommendations were sent to the department commander in the form of a memorandum dated 25 January and, in substance, they were repeated by General Van Voorhis in his conferences with

CONFIDENTIAL

AFHS-42

CONFIDENTIAL

59

General Marshall and also in the formal reply to the Air Defense Board on 12 February.⁴ The wing commander's estimate of the situation and his summary of air defense problems represented one of the most comprehensive statements made during his tour of duty in the Canal Zone. In addition to answering some of the War Department queries, he also raised a number of important questions which could be answered only by higher authority. General Dargue recognized the fact that the War Department was in a better position than he was to make an estimate of the international situation and to determine the degree of danger threatening the Panama Canal. Nevertheless, he attempted to analyze the situation on the basis of the information immediately available. He first considered the possibilities of land, sea, and air attacks on the Canal.

To General Dargue, it was hardly conceivable that land warfare of any considerable magnitude would be brought to the Canal area. It was possible, however, for a naval battle to take place near the Canal. With the increase in defenses around the Caribbean and the vulnerability of surface craft to air attack, the wing commander felt that no naval battle would take place in the Caribbean until the air defense of this area had been neutralized. As for the Pacific approaches, which had no ring of defensive islands, the situation was somewhat different. Japan was considered capable of waging a major naval battle in the Pacific, but by the time her fleet could reach the Canal so much of her naval strength would have been wasted in a long line of communications as to make her an easy prey for American naval units. General Dargue was therefore inclined to dismiss consideration of any changes in the strength and organization of the Zone's air defense forces which might

CONFIDENTIAL

AA7HS-42

60

CONFIDENTIAL

be made necessary by the danger of naval surface attack upon the Canal.

Air attacks, however, which might be independent of major surface forces, could be made from great distances, from land and sea bases. An air attack was the one thing most feared in the defense of the Canal and the one thing, outside of sabotage, which was considered most likely to happen. Such an assault would probably be made by a large force of bombers, unsupported by other aircraft, at low altitude and under cover of reduced visibility. This force would probably try to reach the objective at dusk or dawn (more likely at dawn) and drop large bombs or torpedoes directly in the water of the locks. The attacking force would be prepared to stand heavy losses and even internment in Panama or in a neighboring country. It seemed unlikely that an attack by a large air force from land bases could be organized in the western hemisphere, within striking distance of the Canal, without prior knowledge on the part of defending forces. A large force could hardly approach by water without being detected, except through some freak in the weather or similar accident. On the other hand, a single carrier or two, a tender with a number of water-based planes, or a small force of land-based planes (possibly commercial) might arrive secretly at a position with regard to the Canal so as to launch an effective air raid. It seemed to General Dargue that the most serious threat to the Panama Canal was a surprise air attack by 50 to 200 planes, under cover of reduced visibility, at a time when the U. S. fleet was using or was about to use the Canal to move from one ocean to the other.

Specific missions of the Army and Navy, as well as the joint mission, in the Panama Canal Department had been prescribed in Joint Board

CONFIDENTIAL

AAFHS-42

61

Report No. 325, 12 May 1937. The joint mission was "protection of the Panama Canal in order that it may be maintained in continuous operating condition," obviously for passage of the fleet. The Army mission was to protect the Canal against sabotage and against attacks by air, land, and sea forces. The Navy mission was to support the Army forces in protecting the Canal and to protect shipping in the coastal zones. A later report, Joint Board, No. 349, made a pertinent pronouncement, which had been incorporated in Joint Action, stating in part that "no restrictions will be placed upon the complete freedom of either service to utilize, against the enemy, the full power of all aircraft available and any and all facilities that may be necessary to make that power effective." Local defense plans charged the commanding general of the 19th Wing with the air defense of the Panama Canal. These plans also stipulated that naval patrol planes in the department would carry out distant reconnaissance, patrolling, locating, reporting, and tracking. The Army air force was to provide the offensive or striking force to destroy enemy vessels encountered. The Army was also to provide the defensive force at the Canal to meet any air attacks. This latter duty was the concern of pursuit aviation, the aircraft warning service, and antiaircraft troops.

Before discussing the conduct of air defense, General Dargue made some observations on the general problem and on means available for accomplishment. The most forceful of his observations concerned a matter which he had brought to the attention of the War Department in 1939--the uncertainty regarding the ability of naval patrol squadrons in the Canal Zone to carry out their mission. At that time Patrol Wing Three, composed of three squadrons with a total of 36 long-range aircraft, was stationed

AAFHS-42

62

CONFIDENTIAL

at Coco Solo on the Atlantic side of the Canal. As a part of the Aircraft Scouting Force, the wing operated under direct orders of the Commander in Chief of the U. S. Fleet, and not under the local Navy district commandant. The squadrons were repeatedly "sent to stations at distant points from the Canal for relatively long periods of time presumably to accomplish certain phases of their training program."⁵

Late in 1939 this matter of naval aircraft responsibility had come to the fore as "a rather disturbing question" in connection with the prospective operation of Basic War Plan, Panama Canal Department. On 22 November a conference had been held in the Canal Zone to review the joint responsibilities of Army and Navy air forces in the light of existing conditions. Rear Adm. F. H. Sadler, commandant of the Fifteenth Naval District, revealed that he had a plan for air patrol of the sea areas adjacent to the Canal, extending out "a considerable distance" into the Pacific. The commander of Patrol Wing Three, however, could give no definite assurance that the aircraft would always be available to perform the assigned patrols, since the wing was subject to call elsewhere at the discretion of the commander of the scouting force and of the commander in chief of the fleet. When this information reached War Plans Division, General Strong reviewed the situation for the director of the Navy War Plans Division, pointing out that the defense of the Canal might be jeopardized unless a definite number of long-range aircraft could be depended upon to carry out the Navy mission as set forth in the joint plan.

The Chief of Naval Operations had immediately informed the Chief of Staff that there was apparently "a misunderstanding somewhere down the

CONFIDENTIAL

AAFHS-42

63

CONFIDENTIAL

line" regarding the availability of the patrol planes stationed in the Canal Zone. In all Navy plans, he explained, this force was to be made immediately available in case of emergency to the local naval defense commander for inner and outer patrol purposes. The Chief of Naval Operations then took action to clarify the matter within the Navy. He directed the commander in chief of the fleet to make sure that the scouting force issued no instructions which would be counter to employment of the naval planes in their assigned mission in the Canal Zone. Quoting from the memorandum which he kept before him "at all times," the Navy chief explained his basic idea on joint operations of the Army and Navy:

It is the duty of the Navy to intercept an enemy approaching by sea and to defeat the enemy force before it reaches the territory of the United States.

It is the duty of the Army to prevent with its coast defense facilities the landing of enemy forces on territory belonging to the United States, and to defeat on shore any enemy forces that should succeed in landing.

Under existing plans for joint action there is no occasion for the operation of Army aircraft over the sea except in connection with the coast defense, and in my opinion any use of Army airplanes at great distances from shore should be undertaken only when requested by the Navy, and only under the direction and control of the Navy command.

This statement was also passed along to Admiral Sadler in the Canal Zone, with instruction for him to "take appropriate action to remove such misunderstanding" as might exist on this subject among local Army and Navy commanders. The 36 patrol planes were considered a minimum force, and the Navy "planned to leave these planes with the Commandant for local defense purposes unless replaced." On 2 January 1940 Admiral Sadler forwarded to the commanding general of the Panama Canal Department a copy of all correspondence which he had received on the subject from the Chief of Naval Operations, obviously feeling that he had taken the necessary action to ~~remove the misunderstanding.~~⁶

CONFIDENTIAL

AAFHS-42

64

CONFIDENTIAL

Insofar as General Dargue was concerned, however, the matter was not clarified. He pointed out to General Van Voorhis in his memorandum of 25 January that the two words, "unless replaced," typified the uncertainty surrounding the availability of the naval patrol planes for defense of the Canal. If they were to be replaced, local commanders needed to be informed as to what might be expected. There was the possibility that the naval aircraft might be taken away from the Canal Zone entirely for use of the fleet and replaced by other squadrons not necessarily trained for the specific missions encountered in Panama. General Dargue did feel that 36 planes would be an adequate number to carry out for a limited period of time the long-range reconnaissance desired over the waters on either side of the Canal. As implied in Joint Action, however, it might become desirable, as well as necessary, to augment this force with planes of the 19th Wing. It was believed that the two bombardment groups, two pursuit groups, two reconnaissance squadrons, and one observation squadron in the wing expansion program would be sufficient to meet the emergencies anticipated, although General Dargue strongly urged that the medium-range bombardment and reconnaissance aircraft be supplanted by long-range aircraft. He also recommended that a transport squadron be added to the program, as such planes were needed to handle personnel and supplies in connection with operations from outlying fields. In view of the possibility of a sudden air attack on the Canal, General Dargue felt that the principle "should be established and firmly adhered to that all of the troops necessary for the defense of the Panama Canal should be available immediately and at all times."⁷

CONFIDENTIAL

AAFHS-42

65

CONFIDENTIAL

In further analyzing the conduct of the air defense, General Dargue in his memorandum drew a clear line of distinction between offensive and defensive forces. The former, composed of long-range reconnaissance and bombardment aircraft, had the task of seeking out and destroying hostile surface and land targets. The air defense proper was conducted by the aircraft warning service, pursuit aircraft, and antiaircraft forces. Because of the great expenses of water and the lack of communications, it was imperative that a reliable aircraft warning service be established to alert the pursuit planes in order that they might intercept the attackers. Pursuit aviation of the 19th Wing normally would remain near the Canal and, more particularly, near two vital points--the Gatun Locks and dam and the combined Miraflores and Pedro Miguel Locks and dam. There were also many passive measures in the defense of the Canal, including camouflage, balloon barrages, smoke screens, blackouts, radio control, and the placing of objects such as radio towers on probable lines of approach. While some of these measures had been investigated, General Dargue felt that definite responsibility should be placed in the use of each one and that an air defense commander, directly under the department commander, should control all operations of this nature. Joint Action specified that coordination between Army and Navy forces would be secured either by mutual cooperation or by unity of command. Since the commanding general of the Panama Canal Department was responsible for defense of the Canal, General Dargue believed that all naval plans of local defense force should not only be coordinated carefully with the department commander but should also be subject to his approval, and that in an emergency the control of

CONFIDENTIAL

AAFHS-42

66

CONFIDENTIAL

air operations would be exercised much better through unity of command.

Steps which General Dargue on 25 January recommended for immediate action were as follows:

- (1) Leave the 19th Wing as organized and charge the commanding general of the wing with administration and technical control of the Panama Air Depot except as might be otherwise provided by War Department regulations.
- (2) Designate the department commander, in addition to his other duties, as air defense commander in order to coordinate the activities of the air, antiaircraft, and aircraft warning service forces.
- (3) Leave the aircraft warning service as organized until the technical apparatus could be installed to make the service effective.
- (4) Place all coast artillery troops (antiaircraft and harbor defense) under one commander, in the interests of economy of force.
- (5) Eliminate the Atlantic and Pacific sector commands.
- (6) Place a mobile force, distributed between the ends of the Canal, under one commander.
- (7) Determine the relation of the Puerto Rican Department to the defense of the Panama Canal.
- (8) Determine the responsibility of the commanding general of the Panama Canal Department with regard to the area comprised generally within the limits of Central and South America and the West Indies.
- (9) Secure from the War Department an estimate of the situation which would define more clearly the place of the Panama Canal Department in the scheme of national defense.⁸

CONFIDENTIAL

AAFH-42

67

CONFIDENTIAL

Not all of these recommendations were approved by General Van Voorhis, but most of them received favorable action within a few months.⁹ In replying on 12 February to the Air Defense Board communication, the department commander cited a pertinent statement by the Secretary of War: "Assurance of the impregnability of the inter-oceanic waterways is absolutely vital to the military security of the United States--a nation which places its initial reliance upon its naval forces." General Van Voorhis repeated General Dargue's estimate of the situation, emphasizing the danger of an air attack on the Canal and the probable swiftness of such an attack. In his summary of air defense problems the department commander discussed aircraft, anti-aircraft artillery, the aircraft warning service, and passive measures of defense as stated by the wing commander; but he went further and discussed the harbor defense, infantry, field artillery, chemical, engineering, and reconnaissance troops. Establishment of the Puerto Rican base in the Air Corps expansion program altered the seacoast defense situation to the extent that the necessity for an increase in harbor defense artillery had been considerably reduced at the Atlantic terminal of the Canal. The existing strength of four infantry regiments and the 11th Engineers was considered sufficient for the department, but the one battalion of field artillery was not. An armored car reconnaissance company was needed for security and information purposes. General Van Voorhis emphasized the fact that his re-examination of defense problems was approached from the realistic rather than the idealistic point of view and was based on the sudden and unexpected attack which would preclude the sending of reinforcements of any kind from the United States.¹⁰

CONFIDENTIAL

AAFES-43

68

CONFIDENTIAL

The estimates and recommendations of the Panama Canal Department did not meet with too favorable a reception in the Office of the Chief of the Air Corps. The basic assumption underlying all of General Dargue's reasoning on the subject was vigorously opposed by General Arnold. Writing to War Plans Division on 5 March, the Air Corps chief stated that his office did "not concur in the principle that all aircraft necessary for the defense of the Panama Canal must be available in the immediate area of the Canal Zone at all times." This principle, he declared, was in direct opposition to the approved Air Board report which adhered to the doctrine that the aviation complement of overseas garrisons should be held to the minimum required before reinforcement by air could arrive. While it was agreed that an air raid on the Panama Canal might be the "opening gun" of a war, from a realistic point of view it seemed inconceivable to the Air Corps chief that an air attack of such proportions as to be beyond the defensive capabilities of the normal garrison could be launched without the 48 hours' warning required to permit reinforcement by air. General Arnold pointed out that the strength of existing and projected air garrisons of the Panama Canal and Puerto Rican departments had been determined on the basis of immediate defense against attacks which could reasonably be expected and on the basis of early reinforcement to meet subsequent threats. Any other disposal of the means available "would jeopardize National Defense as a whole." In this connection, General Arnold did note the fact that effective and timely air reinforcement required sufficient air base facilities and quantities of supplies to accommodate the additional air units.¹¹

CONFIDENTIAL

AAFHS-42

69


CONFIDENTIAL

General Arnold did not seem to be disturbed over the reported unreliability of naval patrol planes in the Canal Zone. He was satisfied with the assurance of the Chief of Naval Operations that the planes could be depended upon to discharge the Navy mission as set forth in the joint plan. If the Army were to assume full responsibility for patrolling adjacent waters of the Pacific Ocean and the Caribbean Sea, then of course the existing and projected reconnaissance aircraft component of the Panama Canal Department would be inadequate. In view of the Navy assurances, however, General Arnold recommended that "no action be taken, for the present, in the matter of additional reconnaissance units for the Panama Canal Department."

For a number of reasons, the Air Corps did not favorably consider General Dargue's recommendation that medium-range bombardment and reconnaissance aircraft in the Panama Canal Department be replaced with long-range aircraft. The approved Air Board report stated as a requirement for the Panama Canal Department, "bombardment aviation with a 1,000-mile tactical operating radius and a minimum 2,000-pound bomb load capacity." The report also prescribed, as general characteristics of medium bombardment aircraft, a minimum tactical operating radius of 1,000 miles and a minimum bomb capacity of 2,000 pounds. A few planes possessing these characteristics were provided in the current program, but they were needed by heavy bombardment units until such time as heavy bombers could be procured. In the meantime, the aircraft available for assignment to medium bombardment units would have a tactical operating radius of approximately 650 miles with a normal bomb load. General Arnold admitted that this performance fell short of the prescribed


CONFIDENTIAL

AIFHS-42

70

CONFIDENTIAL

bombardment aviation requirements of the Panama Canal Department, but, as he noted, the same condition existed in other strategic areas. A second reason for rejecting General Dargue's proposal lay in the improved air defense of the eastern Caribbean. The Chief of the Air Corps pointed out that a major function of the Puerto Rican air garrison was defense of the Panama Canal. A heavy bombardment group would become a part of that garrison "in the near future," and its aircraft could cover a greater area along the important northern coast of South America than could the same aircraft stationed in Panama. In the third place, General Arnold stated that both the Panama and the Puerto Rican air garrisons would be reinforced from appropriate units of the GHQ Air Force in the event of hostilities in which the threat to the Panama Canal was greater than the threat against other vital areas.

A negative answer was given also to General Dargue's request for a transport squadron. There was no transport squadron set up in the expansion program for the Panama Canal Department and, while General Arnold recognized the convenience which such a unit might afford, he did not consider the need in the department to be sufficiently urgent to warrant diversion of personnel and aircraft from other activities. In mid-January the 19th Wing had 33 B-18's and one C-29, and it appeared that these aircraft would have to continue to provide the necessary transport service in the Canal Zone. No cargo planes were scheduled for transfer to the Panama Canal Department during the fiscal year 1940. All available C-33's and C-39's had been allocated to transport squadrons in the United States, and even these units would be required to fill out their quota with B-18's. Since the War Department had approved an Air Corps recommendation that the status quo of aircraft in Panama be

CONFIDENTIAL

AAFHS-42

71

CONFIDENTIAL

maintained for the rest of the fiscal year, the 19th Wing had no prospects of immediate relief in its air transportation problems.¹²

On 17 April 1940, War Plans Division summarized the various reactions of headquarters offices to the defense recommendations made by General Van Voorhis. The division agreed, in general, with the basic assumptions and conclusions of the commanding general of the Panama Canal Department, but it also concurred with the views of the Chief of the Air Corps, agreeing that no change should be made at that time in either the numbers or types of aircraft scheduled for the Canal Zone. Increases were recommended, however, in antiaircraft materiel and field artillery forces, and the proposal to provide an armored reconnaissance company was viewed with favor. This latter unit and a bombproof command post were to be made the subjects of further study before any action was taken. On 20 April 1940 General Marshall approved the recommendations of War Plans Division, thereby closing the door to any immediate changes in air defense forces for the Panama Canal Department.¹³

Air defense of the Canal continued to be a matter of interest to the War Department, and no lid was placed on speculations and suggestions as to future organization of the defending forces. During his visit to the Zone in February the Chief of Staff gained certain impressions which were to bear fruit more than a year later. Accompanied by Brig. Gen. George H. Brett, chief of the Air Corps Materiel Division, General Marshall arrived at Albrook Field in a B-17 on the afternoon of 5 February.¹⁴ During the next four days the Chief of Staff inspected Canal defenses, spending much of his time in a B-18. Another bomber, carrying General Van Voorhis, and one carrying General Brett were included on all inspection

CONFIDENTIAL

AATFS-42

CONFIDENTIAL

72

tours, with General Dargue piloting one of the planes. After conferring with Panama Canal Department officials, General Marshall proceeded to Puerto Rico, via Maracaibo, Venezuela.¹⁵ One of the most significant results of the tour was General Marshall's statement to General Brett that he felt "the air defense of Puerto Rico and Panama may, probably, be a combined effort instead of a joint effort." It appeared that the Air Corps might be asked for a recommendation on any possibility of a change in the air plan for defense of the Caribbean area, and General Arnold directed Plans Division to prepare a study on the subject for submission to him at the earliest possible date. Before the Puerto Rican Department had been created, a proposal to include Puerto Rico in the Panama Canal Department was considered and then rejected, the chief reason for rejection being communications difficulties.¹⁶ After General Marshall's visit, however, the subject was revived and it received much attention during the remainder of 1940. It was primarily a matter of long-range planning and a matter for War Department action in the final analysis. Air commanders in the Caribbean, whether aware of the trend or not, were more concerned with the immediate situation.

Organizational Changes in the Panama Canal Department

During the early months of 1940 a number of organizational changes took place within the 19th Wing and the Panama Canal Department. Changes in the former were results of the Air Corps expansion program and had been expected since mid-1939. Changes in the department, however, were somewhat sudden, though organizational shifts might logically have been expected with the arrival of a new commander.

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

73

On 27 January all Air Corps units in the Canal Zone took on more exact designations, effective as of 6 December 1939. The 6th Bombardment Group became the 6th Bombardment Group (M), and the 16th Pursuit Group became the 16th Pursuit Group (I). Corresponding changes were made in the squadrons of the two groups. The 7th and 44th Reconnaissance Squadrons became the 7th and 44th Reconnaissance Squadrons (M/R). The 74th Attack Squadron was redesignated as a medium bombardment squadron, and the two air base squadrons added "(2-Gp)" to their designations.¹⁷

On 1 February 1940 the 43d Pursuit Squadron (I) was constituted in the Canal Zone and assigned to the 16th Pursuit Group. The 37th Pursuit Group (I), composed of Headquarters and Headquarters Squadron and the 28th, 30th, and 31st Squadrons, was constituted and assigned to Albrook Field. Activation was ordered for the 3d Bombardment Squadron (M), to be assigned to the 6th Bombardment Group, and the 39th Observation Squadron (O&D), both units to be stationed at France Field.¹⁸ Since no observation planes were available, the 39th Squadron began its operations with A-17's, pending the arrival of O-47A's. Personnel for the new units were provided by squadrons already in the Canal Zone. Morale of the enlisted men was reported to be exceptionally high inasmuch as many of the men received increased grades or ratings in the shift.¹⁹

By mid-February General Van Voorhis was ready to order a reorganization of the entire Panama Canal Department. The relationship between the antiaircraft brigade which General Stone had created in October 1939 and the harbor defense appeared to be unsatisfactory to General Van Voorhis. Although the separate antiaircraft brigade "unquestionably

CONFIDENTIAL

AATES-42

74

CONFIDENTIAL

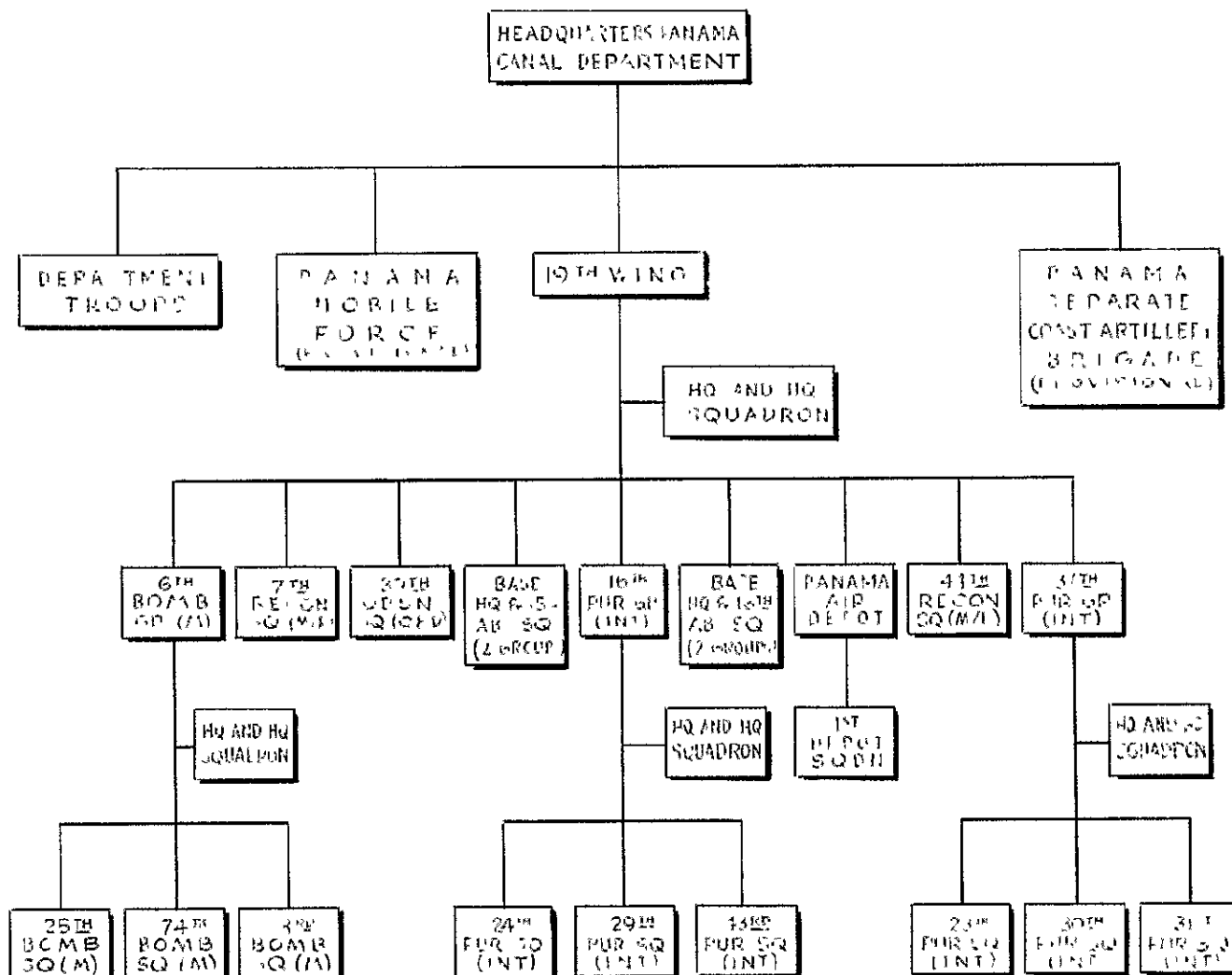
tended toward more technical and tactical supervision and coordination," the harbor defense artillery was still under sector commanders. This arrangement precluded the assignment of dual missions within the coast artillery and thus hampered efforts toward economy of force. On 16 February, therefore, all artillery forces were merged into the Panama Separate Coast Artillery Brigade (Provisional) in order to "insure more closely supervised training essential to the development of technical and tactical employment."²⁰ Since the elimination of these forces from sector control would leave only mobile troops in the sectors, the Panama Mobile Force (Provisional) was organized and the two sector commands abolished.²¹ The mobile force was to be used in guarding the locks and other vital installations and in meeting hostile land attacks.

The reorganization followed "the modern practice of functional lines," and successful operation was to depend on close coordination of all elements of the garrison. Maj. Gen. Ben Lear was placed in command of the mobile force, which included infantry, field artillery, chemical, and supply troops. Brig. Gen. Sanderford Jarman headed the coast artillery brigade, which was reported to be the largest and most heavily armed artillery organization in the Army.²² The 19th Wing and Department Troops (consisting of service units, military police, and the like) made up the remaining two commands in the Panama Canal Department. The order of 16 February which effected the reorganization also assigned the Panama Air Depot to the 19th Wing and charged the commanding general of the wing with "the conduct of Army air operations and installations for the defense of the Panama Canal." The order, in addition, designated the wing commander as the tactical and technical advisor to the department commander on the employment of military and naval aviation.²³

CONFIDENTIAL

CONFIDENTIAL

ORGANIZATION OF THE 19TH WING WITHIN THE PANAMA CANAL DEPARTMENT 16 FEBRUARY 1940



CONFIDENTIAL

AAFES-42

CONFIDENTIAL

75

The latter assignment was in keeping with department tradition, but it was not a satisfactory arrangement. As early as 1918 the senior Air Corps officer in the Canal Zone had been designated Department Air Officer to serve as advisor to the department commander. The duty remained a nominal function until June 1933, when an air office was opened at Quarry Heights, convenient to department headquarters. Four years later General Brett closed the office, for the wing's progress was almost static, there were few air matters which concerned higher headquarters, and General Brett had to maintain duplicate files and divide his time between the offices at Quarry Heights and at Albrook. For the next three years the department continued to designate the wing commander as Air Officer, but the weight of duties placed upon the wing commander under the Air Corps expansion made it almost impossible for him to operate in the dual function. General Dargue found a constant conflict between the tactical and administrative demands on his time. In his opinion a wing commander was purely a tactical commander, while an air officer was a technical advisor and administrative officer. A further difficulty lay in the fact that department headquarters and wing headquarters were in different locations. At this stage of 19th Wing development there was need for close contact and coordination with the department; the arrival of a new department commander in the Canal Zone who was unacquainted with the problems of an expanding air force made the need still more urgent. But nothing was done to better the situation, and the wing consequently suffered in its relations with the department.²⁴

Rio Hato

The controversy surrounding Rio Hato provides a graphic illustration of the divergent and irreconcilable interests of the 19th Wing and

CONFIDENTIAL

AIFES-42

CONFIDENTIAL

76

the Panama Canal Department. The conflict brought no credit to either organization, although the wing ultimately achieved victory. While the department revealed more clearly than ever before its faulty understanding of wing needs, the wing "was guilty of disregarding direct commands and of an arrogance little becoming to a subordinate organization."²⁵

The Air Corps did not have prior interest in Rio Hato, for the site came into use in 1916 as a disciplinary camp of the Panama Canal Department. In 1924 the camp was enlarged, and with the acquisition of permanent troops it became an artillery range.²⁶ The 6th Bombardment Group in March 1931 encamped at Rio Hato during its annual field exercises, and three years later the wing began to "look on the area with an acquisitive eye." Maj. R. L. Walsh, then commanding the 16th Pursuit Group, recommended to Lt. Col. W. C. McChord, wing commander, that the landing field at Rio Hato be considered as a base of operations for ground and aerial gunnery and for field maneuvers. The area had numerous advantages: it was free from malarial mosquitoes, it was not heavily wooded, and its land was only slightly rolling. Located just 65 miles from Albrook Field, it had much less rainfall than the Canal Zone and was accessible by water and by the Panama National Highway. Furthermore, the owner of most of the land in the vicinity offered the wing free use of his property.²⁷

The wing accepted the offer of more land and in 1934, with the permission of the department, started laying out bombing and gunnery ranges, maintaining two landing fields, and erecting inexpensive frame barracks and storehouses. As the strategic importance of Rio Hato

CONFIDENTIAL

AAHHS-42

CONFIDENTIAL

77

became more obvious, the wing began to lease more land in the vicinity, although by 1936 the owner of the property was asking a high price. During the fiscal year 1938 the wing spent approximately \$6,500 on routing maintenance, gravel walks, and minor construction at Rio Hato--more than had been spent on any Air Corps installation in the department except France and Albrook during any one year. By this time Rio Hato had become virtually essential to military air operations in Panama. The 1939 appropriations for wing construction included \$85,250 for temporary construction there, to be accomplished by the 11th Engineers with the general supervision and approval of the 19th Wing commander.

Other interests began to be attracted to Rio Hato, and in early 1939 General Stone proposed that studies be made for a department recreation center and camp adjacent to the landing field. As a member of a board formed to consider the project, General Dargatzidis previously opposed the idea, but his objections were overruled.²⁸ On 5 January 1940, only two days before relinquishing command of the Panama Canal Department, General Stone ordered Maj. Frederic F. Frech of the Engineers to draw up initial plans for the camp. The recreation center was intended to be nothing more than an adjunct to the main reservation, and General Stone specified: "It will not interfere with the Air Field in any way and it will be developed as a separate entity." On the surface, the project seemed to entail no difficulties for the 19th Wing; and as a further assurance that the field would be used primarily for Air Corps purposes, Rio Hato was made a sub-post of Albrook Field.

Problems of command, however, arose soon after Major Frech departed for Rio Hato. A battery of the 73d Coast Artillery, sent to Rio Hato

CONFIDENTIAL

ALFHS-42

CONFIDENTIAL

78

in January to prepare it for training purposes and construction, soon ran afoul of Air Corps troops already there and interfered in some manner with the wing program for Rio Hato. On 3 February General Dargue asked that the new site be operated and administered by the department but that all plans be coordinated with the Albrook Field commander, who was in charge of the sub-post. General Van Voorhis, however, had a different solution: on 19 April he severed Rio Hato's official connection with the Air Corps and directed that it be operated as a sub-post of Quarry Heights. This order was followed by another which created the Department Training Center, embracing all areas and installations at Rio Hato. The new organization, coordinating the training of all branches of the department, supposedly was to effect a sweeping economy of training facilities and administrative personnel. But the 19th Wing did not find the arrangement altogether satisfactory, even though a few Air Corps officers were assigned to administrative positions at Rio Hato. Because the original development had been accomplished with Air Corps funds and because the nature of air training required large tracts of land, the wing naturally expected to use a greater part of the area. Furthermore, the grounds had been leased with the understanding that they would be used for Air Corps purposes only, and the lessor had reason to complain when the coast artillery began to build an encampment near his commercial establishment.

Relations between the wing and the training center were difficult and sometimes unpleasant. The center was under the command of an infantry officer, Col. Harry J. Keeley, whose approval was necessary for all matters, even those which concerned only wing operations, construction,

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

79

and personnel. While his approval was usually given, the procedure was a source of delay and annoyance. The commander of the training center, moreover, was in a position to issue orders to wing officers and men who were also under Air Corps orders. Finally, wing personnel were carrying out almost all the maintenance functions at Rio Hato. General Dargue made a series of recommendations to Colonel Keeley, to the end that Air Corps personnel, facilities, and installations might be used by the 19th Wing. As a close friend of the wing commander, Colonel Keeley attempted to comply with many of the requests and without departmental interference the situation improved for the air forces.

But Colonel Keeley was approaching the end of his tour in Panama, and General Dargue undertook to have the status of Rio Hato fully clarified and settled before a change of command which might bring in an officer lacking complete understanding of the problem. He reviewed for General Van Voorhis the accomplishments and difficulties of the previous few months and the prospects for the year ahead, and requested that "the present status of the Department Training Center be changed to Rio Hato Field as a sub-post of Albrook Field," with Col. Charles B. Oldfield as commanding officer. The recommendations were "not favorably considered," and General Van Voorhis expressed his displeasure at the conduct of affairs, stating his failure to understand why "matters pertaining to organization and administration of that Post were not taken up with these headquarters."

General Dargue continued to propose measures designed to relieve the 19th Wing of duties imposed by other branches of the service at Rio Hato, but his recommendations were for the most part disregarded

CONFIDENTIAL

AFHS-42

80

CONFIDENTIAL

by the department commander. Obvious injustices were sometimes allowed to continue despite Air Corps protests. The 15th Air Base Squadron, for example, was operating a mess for its own personnel stationed at Rio Hato, but it soon found itself feeding many more troops from the ground forces. Furthermore, engineer and artillery organizations began to monopolize air transportation from the Canal Zone, without regard for the needs of the 19th Wing. As for financial accounting, the Air Corps inevitably came out on the little end. When it became necessary to build a dock to accommodate barges supplying all troops and installations, \$25,000 was diverted from Air Corps funds which had been appropriated for construction of a temporary hanger. No satisfactory explanation could be given for the expenditure of \$35,250 appropriated the year before; and as 1940 progressed, Air Corps funds decreased without a corresponding increase in Air Corps construction.

The root of the trouble lay in the fact that General Van Voorhis considered Rio Hato as a departmental undertaking and not as a project in which the Air Corps had major interest. It was something of a surprise to him when the Air Corps refused to approve his request for \$575,000 which was not to be used entirely for air force personnel at Rio Hato. General Van Voorhis informed the War Department that Rio Hato was not an independent Air Corps station, but a center for the training of all branches of the service. He indicated that the amount requested was largely for the purpose of accommodating additional personnel of the 19th Wing, but he also stated that "certain other troops could and would utilize in part these facilities." Before the end of 1940 he again submitted his request for the appropriation, "the source from which it comes being immaterial" to him.²⁹

CONFIDENTIAL

AAMHS-42

CONFIDENTIAL⁸¹

Throughout the extended controversy over Rio Hato the 19th Wing exhibited a growing independent attitude toward the Panama Canal Department. Regardless of what Rio Hato might be designated by the department, the wing continued to view it as an Air Corps installation. General Dargue insisted that it be continued essentially as a sub-post of Albrook Field, with an Air Corps officer in charge of Air Corps troops. The commander of the training center, on the other hand, was "never quite sure of his position, whether it was above, below, or parallel to that of the commanding officer of the Air Corps troops" stationed at the training center. Appointment of Lt. Col. Calvin E. Griffin from the 19th Wing as commander of the training center finally brought some relief, but the measure merely "avoided the problem without solving it." The controversy was to continue until 1942, when the Department Training Center was disbanded and the 19th Wing resumed control of Rio Hato.

30

Progress in Air Defense of Puerto Rico

Nothing comparable to the departmental difficulties of the 19th Wing existed in the Puerto Rican Department, for air defense of this Canal outpost was in a much more elementary stage. The 27th Reconnaissance Squadron, which had arrived in December 1939, was undergoing training at the new Army air base, Borinquen Field. During the last two weeks of January 1940 the squadron participated in a maneuver which included all ground forces of the department and a few naval units. At the conclusion of General Marshall's two-day inspection on 12 February, six B-13A's of the 27th Squadron provided escort for the general's hop to Miami. The squadron then began aerial gunnery practice, with two B-13A's towing targets and two more bombers firing at the targets.

31

CONFIDENTIAL

AAFHS-42

82

CONFIDENTIAL

It was contemplated by General Daley, the Puerto Rican Department commander, that Air Corps units to be stationed on the island would "operate on independent reconnaissance and bombardment missions to the eastward over the Atlantic, and on tasks against enemy air bases and ships in the Caribbean area and in South America."³² By mid-February sites for auxiliary airdromes on Puerto Rico had been tentatively selected near Mayaguez, Arecibo, Dorado, Caguas, Ceiba, Guayama, Ponce, and the Puerto Rican General Depot near San Juan.³³ Informal negotiations were under way to determine whether or not the insular government would acquire the necessary land for these auxiliary airdromes, grade the runways, and transfer the title of the land to the federal government without cost, leaving primary control and surfacing of the runways to be undertaken by the War Department. Permanent installations were not proposed for any of the auxiliary airdromes except at the general depot. Only surfaced runways, parking areas, and communication facilities were contemplated at other fields, with the supply of ammunition, gasoline, and oil to be accomplished by means of railroad or motor vehicle. The airdrome at Ceiba, easternmost of the sites, would be suitable for pursuit aircraft only.

On 8 February General Daley recommended that the War Department establish an auxiliary airdrome on the island of St. Croix, the easternmost possession of the United States. He pointed out three advantages: (1) the radius of reconnaissance and bombardment aviation would be extended 175 miles to the east from Forinquen Field, the nearest operating base, and 110 miles to the east from the general depot airfield at San Juan, the nearest auxiliary airdrome on Puerto Rico; (2) surveillance of the passages to the Caribbean through the barrier islands

CONFIDENTIAL

AAHHS-42

CONFIDENTIAL

83

from the Anegada Passage south would be considerably facilitated; and (3) the limited auxiliary airdrome capacity of the Puerto Rican area would be augmented.³⁴ The Chief of the Air Corps agreed with General Daley that an airdrome on St. Croix "would greatly promote the defense of the Caribbean area," but in view of the limited funds available he could not approve all the facilities and installations recommended by the department commander. The \$2,238,000 indicated in the estimates was "needed by the Air Corps worse at other permanent installations."³⁵

The auxiliary airdrome project, however, was still in the making. Also in preparation by General Daley was the entire Puerto Rican Defense Project. The relation of this new department of Army defense to the Panama Canal Department had not yet been clearly defined, although it was generally understood that the two were complementary. During the first week of March General Daley, accompanied by his air officer, Colonel Bradley, and by Maj. Eugene T. Conway, C.A.C., paid a flying visit to the Canal Zone in order to confer with General Van Voorhis "on the defense of the Canal and of the Caribbean."³⁶ The visit was probably made in an effort to coordinate the Puerto Rican Defense Project with that of the Panama Canal, for it was noted by Plans Division of the Air Corps on 14 March that the project was still being drawn up by General Daley. In mid-1939, when the War Department first directed the development of a Puerto Rican defense project, the Joint Board had not defined the mission of Army and Navy forces which were to be stationed in the area. Pending action by the Joint Board, the War Department directed General Daley to base his planning upon the assumption that "Japan, Germany, and Italy acting in concert is considered the only

CONFIDENTIAL

AAFHE-42

84

CONFIDENTIAL

probable enemy," and on assumptions and missions recommended by the Joint Planning Committee. The committee recommended that the Puerto Rico-Virgin Islands area and its coastal zone be specifically delimited: that the land area include "all of the island possessions of the United States pertaining to Puerto Rico and the Virgin Islands and that the coastal zone include the water areas included between the 17th and 20th parallels of latitude and between the eastern meridian of longitude of Anegada Passage, and the western meridian of longitude of Mona Passage, exclusive of foreign territorial waters."³⁷

The recommended Army mission indicated that Puerto Rico, Culebra, Vieques, and the Virgin Islands should be held secure, at least against attack by hostile raiding forces. But, as the War Department informed General Daley, it was highly improbable that sufficient units could be provided in time of peace to carry out the mission as stated. An Air Board report on defense requirements of Puerto Rico had stated that while the organic air elements of the peace garrison should contain "only those units essential to the operation of this base as a defense element covering the rim of the Caribbean and assuring the retention of Puerto Rico itself, the base should be so designed as to permit its expansion to serve as our major outpost in air operations to the south."³⁸ Such statements as these were guiding General Daley and his subordinates in formation of the Puerto Rican Defense Project. As for Plans Division of the Air Corps, it was proceeding on the assumption that the normal Army mission of the Puerto Rican Department garrison was as follows:

(1) The mission of the ground forces and air "defense forces" is limited to defense of Puerto Rico and adjacent islands against seizure by belligerent powers and the local defense of bases thereat.

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

85

(2) The mission of the air "striking forces" is general in nature and includes strategic defense of the continental United States, as well as of Puerto Rico and the Panama Canal.³⁹

By the end of March the Puerto Rican Department air officer, Colonel Bradley, had made several changes in the auxiliary airfield project. He also had submitted to the Air Corps a list of requirements considered "the minimum which will enable the peace-time air force already allocated to Puerto Rico, plus the force recommended as augmentation in time of war, to fulfill their mission." General Arnold had suggested on 12 March that a reduction might be made in the 702 acres planned for addition to Borinquen Field. Colonel Bradley, however, again recommended that the entire plot be acquired, as it was to be used for the Puerto Rican Air Depot, for a bombing and gunnery range by a pursuit group, and for a firing range by antiaircraft and other security forces. In addition to the auxiliary fields previously recommended for St. Croix and Fort Miles, seven other sites had been selected from about 100 possible sites examined from the air and from 45 studied on the ground. The seven recommended for approval and development were near Mayaguez, Arecibo, Dorado, Vega Baja, Salinas, Santa Ysabel, and Juana Diaz. Each field would contain about 53 acres and was to have a single runway 4,000 feet in length, with the exception of the Dorado runway which would be only 3,000 feet long. All fields except Dorado could be extended to 5,000 or 6,000 feet. Colonel Bradley had hoped that the insular government would acquire the land for these fields, but it was unable to do so. The total estimated cost of the land was approximately \$141,000, including the site near Dorado which would be donated without cost and the one at Juana Diaz which could be secured at low cost. All seven fields would require fencing,

CONFIDENTIAL

AATHS-42

~~CONFIDENTIAL~~

86

grading, hard-surfacing, and other improvements costing an additional \$1,500,000. Colonel Bradley urged that these fields be developed during peacetime in order to "permit war readiness of the Puerto Rican air force."⁴⁰

General Arnold Directed Plans Division to study Colonel Bradley's letter "very carefully with a view of determining whether we should commit ourselves to the extent of \$1,500,000 when we know of the curtailments which will undoubtedly take place in the '41 appropriations as well as future ones." The Chief of the Air Corps was convinced of the necessity for auxiliary landing fields in Puerto Rico, but he believed that "they should be timed so they will meet with the least opposition."⁴¹ On 23 April, Plans recommended that the \$100,000 tentatively set up for acquisition of land at Hamilton Field, Calif., be diverted to the purchase of auxiliary landing fields in Puerto Rico in the following order of priority: Mayaguez, Salinas, Juana Diaz, Dorado, Santa Ysabel, Arecibo, and Vega B. The recommendation was approved by the Chief of the Air Corps, and on 5 June the War Department notified General Dacey that the seven auxiliary airdromes were "approved for inclusion in the Puerto Rican Defense Project."⁴² An important hurdle had been cleared in the race to assure adequate air defense of Puerto Rico, gateway to the Caribbean.

Training and Operations of the 19th Wing

Under the pressure of expansion the 19th Wing was running into numerous difficulties, and General Dargue felt the need of a personal conference with General Arnold in order to "take up matters that demand attention."⁴³ When a proposed trip of the Chief of the Air Corps to the

~~CONFIDENTIAL~~

AAFHS-42

CONFIDENTIAL

87

Canal Zone had to be postponed in March, General Dargue, accompanied by his operations officer, Lt. Col. W. S. Gravely, flew to Washington and Wright Field, spending the first two weeks of April in conference with Air Corps officials.⁴⁴ So vital was the issue of Canal air defense and so rapid were the shifts in Air Corps plans that within a month General Arnold had flown to Panama and Puerto Rico for further discussions. The problems of inexperienced personnel, activation of new units, lack of modern equipment, delays in construction, and impediments in the training program were undoubtedly items on the agenda of these meetings. The difficulty experienced in cooperative missions during the previous year had either disappeared or, under pressure from General Van Voorhis, had been silenced. On 10 April a wing operations memorandum ordered that first priority be given by all elements of the 19th Wing, including the Panama Air Depot, "to the successful accomplishment of the towing missions for the Panama Separate Coast Artillery Brigade (Provisional) scheduled at Rio Hato for the remainder of the training year."⁴⁵

There were numerous other demands upon the aircraft of the 19th Wing. In addition to such routine missions as freight and passenger runs to Rio Hato and other outlying sites, photographic flights, demonstrations for visitors, and reviews, the wing carried out an increasing number of cross-country flights. Trips were made to Costa Rica, Nicaragua, Honduras, El Salvador, Guatemala, Colombia, Ecuador, Peru, Venezuela, Puerto Rico, and Dominican Republic, Haiti, and Cuba. These flights, accomplished by "the maximum possible of officer and enlisted personnel," served to familiarize the personnel with the Caribbean area and with facilities which they might expect to use in the event of war.⁴⁶ Before

CONFIDENTIAL

AAEHS-42

86

CONFIDENTIAL

the end of summer the 10th Wing was scheduling regular monthly flights over four different routes. The first proceeded around the Caribbean in a counterclockwise direction, with stops at Barranquilla, La Guaira, Borinquen Field, Haiti, Cuba, and Miami. The second took crews to points in Colombia, including Cartagena, Medellin, Bogota, and Cali. The third proceeded down the west coast of South America as far as Lima, with stops en route at Guayaquil, Talara, and Chiclayo. The fourth covered the Central American capitals, with the exception of Mexico City.⁴⁷

These flights to Central and South America revealed "the general unsuitability of airdrome and airway facilities," and General Dargue on 30 May brought the matter to the attention of the War Department. He reported that aircraft of the 19th Wing had occasionally become mired; many runways were too short for safe operation of fully loaded aircraft; there was no weather reporting service; almost no communication facilities existed except those operated by commercial airlines; and servicing facilities were rudimentary and slow. General Dargue concluded that if effective operation of military aircraft was to be secured in furthering the policy of hemisphere defense, "strategically located airdromes and facilities throughout Central and South America must be improved." He recommended a thorough investigation and action to develop such facilities as might be necessary for hemisphere defense "to serve as operating bases or intermediate servicing points and permit the rapid movement and operation of U. S. military aircraft."⁴⁸ On 30 July, The Adjutant General informed the Panama Canal Department that the War and Navy Departments had jointly initiated steps to have airways facilities in

CONFIDENTIAL

AAFHS-40

~~CONFIDENTIAL~~

89

Central and South America developed by Pan American Airways, Inc. No improvement of facilities on the west coast of South America was contemplated at that time, but construction at other locations was scheduled to begin in approximately 30 days.⁴⁹

While the Central and South American flights were undertaken largely for training purposes, they were also designed to foster Latin American good will. Chile, Peru, and Ecuador sometimes requested an air mission from the Canal Zone in order to observe the latest developments and to ask advice on their military aviation. Since the outbreak of war in Europe, the influence of Italy and Germany in Latin American aviation had been decreasing rapidly, with a corresponding increase of American influence, so that it was becoming possible for the United States to direct the growth of aviation in the south. Obviously, it was more expedient for the United States to work through commercial airlines than through its own military forces.⁵⁰ The 19th Wing had been encountering some difficulty in making flights to other countries because of the necessity of going through diplomatic channels. But in June 1940 the War Department succeeded in arranging blanket entrance for specified numbers of planes which would leave the Zone at the same time each month and follow predetermined routes. Arrangements were later made for the Panama Canal Department to deal directly with the country concerned for clearances. This step, however, was advantageous only for peacetime training flights; still remaining was the question of obtaining clearances which would facilitate emergency operations.⁵¹

The 19th Wing was occasionally called upon to participate in special projects which contributed little to its training program. At the request of the Panama Canal governor, Clarence S. Ridley, an experimental bombing

~~CONFIDENTIAL~~

AAFHS-42

CONFIDENTIAL

90

project was undertaken in April. Its purpose was partly to test the destructive properties of 1,100-pound demolition bombs, but primarily to test the strength of a reinforced-concrete structure proposed for protection of vital points of the Canal. The governor had appealed to Air Corps Headquarters for aid in the project, and he succeeded in having the experimental B-15 sent to the Zone and also in having the 19th Wing's ammunition allowance increased for the year. General Dargue seems to have had little enthusiasm for the idea, apparently feeling that a direct hit on a structure 15 feet square was unlikely from a very high altitude and that at most only three crews from the 19th Wing would receive any training benefit.

On 10 April Maj. Caleb V. Haynes and Capt. Curtis E. LeMay piloted the Boeing XB-15, the only plane of its kind in the Air Corps, from Langley Field, Va., to Albrook Field in 14 hours and 45 minutes with an overnight stop at Miami.⁵³ For three weeks the visiting crew spent an average of four hours a day in bombing the target. During periods when the B-15 was undergoing maintenance, the personnel used a B-12 of the 19th Wing or a B-17 which had been sent to the Zone in connection with the project. Flying conditions were none too satisfactory, and the crew stayed "on the alert daily from dawn until dark prepared to take advantage of every favorable break in the weather." Despite these conditions the flyers managed to score three direct hits from altitudes of 4,000 to 10,000 feet. At the end of three weeks the B-15 returned to the United States. Governor Ridley, however, was not entirely satisfied with the results, and B-18's from France Field were ordered to continue the testing with another shipment of bombs. After a total expenditure of 300 bombs,

CONFIDENTIAL

AKTHB-12

91

no further hits were obtained, and testing of the concrete structure was completed by mechanical detonation of explosives on the ground. Insofar as the 13th Wing was concerned, the project had resulted merely in "a waste of service facilities, planes, bombs and time."⁵³

Special projects and other interruptions notwithstanding, the wing was still carrying on its training program. Further pressure came on 17 May when the Chief of the Air Corps informed General Dargue that "the much more critical and serious state of conditions throughout the world" necessitated a stepping-up of the whole expansion program. "The time has come," said General Arnold, "when we must have permanent combat crews for all our planes." To this end, he directed General Dargue to bend every effort toward immediate training of all personnel in order that tactical organizations might be available for service as soon as possible. Within three weeks the wing announced its training objective: a trained combat crew for every combat airplane, a trained maintenance crew for every plane, trained personnel for all ground activities, and all units trained for combat.⁵⁴ Air crew training received special emphasis, and for the first time the wing attempted to reduce the number of calls made upon the time of flying officers: base commanders were instructed not to assign to such officers any duty which would interfere for a lengthy period with their tactical training. General Dargue began a series of Friday morning wing problems, with all units participating to the fullest possible extent. Although these problems lacked the scope of joint maneuvers and exercises, they provided tactical "skull practice" for the flyers and revealed command capabilities within the several squadrons.⁵⁵

CONFIDENTIAL

AEEB-42

CONFIDENTIAL

92

At the same time, the wing began to receive a few B-18A's in order that more overwater flying might be undertaken. During the last three days of May, Colonel Brady led a flight of six B-18's, carrying 25 officers and 29 enlisted men, from the Zone to the San Antonio Air Depot. The B-18's were exchanged for four B-18A's (which had full-feathering propellers), two C-33's, and several O-17A's. France and Albrook fields each received two B-18A's and one C-33, while the O-47A's were assigned to the 25th Observation Squadron.⁵⁶

Technical training, as opposed to flying training, also began to flourish in the Canal Zone. During the first four months of 1940 the flying technical schools at Albrook Field and at the Panama Air Depot were inactive, probably because the activation of seven new squadrons left no enlisted men who could act as instructors. By 3 May, however, the wing was within 43 men of its expansion program strength of 4,087 enlisted men. While a few experienced men were included in the shipments from the United States, most of the new arrivals were untrained recruits.⁵⁷ Officers and aircraft were still lagging behind their authorized strength, but this fact did not stand in the way of a technical training program, and General Dargue set as a goal the training of 700 men before the end of the year. Applicants for the several courses at the two schools were interviewed by their group commanders and then given a written examination to determine their aptitude for technical work. Assignments to the schools were made by the wing S-1 from a list of priorities in accordance with the needs of the units.

On 5 May the air depot school was ready to resume with 47 students.⁵⁸ Two months later the technical school at Albrook began to function with

CONFIDENTIAL

AASFS-42

CONFIDENTIAL

93

32 students, under the supervision of Capt. Forrest G. Allen. At the same time a branch school was set up at Rio Hato under the supervision of Capt. Guy F. Hix. The school had been projected at least as early as 25 May 1940, and orders had been issued to create classrooms beneath barracks already constructed. But conditions were decidedly unfavorable for a school at Rio Hato. At least one barracks built by and for the Air Corps had been occupied by other services; the Air Corps men were crowded into unscreened, unfloored tents and under barracks; and it was no uncommon occurrence for students to be called from their studies to perform fatigue duty. Increasing numbers of men were withdrawn from schools and from tactical units in order to perform labor details, and before the end of summer the wing training program had been seriously curtailed. The air depot school was forced to suspend its operations entirely.⁵⁹

A major impetus to construction at Rio Hato was given by General Arnold during his visit to the Canal Zone in May.⁶⁰ He announced that the 9th Bombardment Group (H), instead of the 22d Bombardment Group (M), would be sent from the United States about December 1940 and would be encamped at Rio Hato pending completion of permanent barracks and a paved runway at Howard Field. Temporarily, at least, Rio Hato would assume an importance equal to that of Fike Field. The expected arrival of approximately 1,000 officers and men called for an enormous increase in temporary housing, and the wing's request for an allotment of \$175,000 was approved within about nine weeks. The department commander ordered the 11th Engineers to build 10 barracks, two mess halls, one recreation hall, one headquarters office, one officers' quarters,

CONFIDENTIAL

AAFHS-42

94

CONFIDENTIAL

and one truck shed, with the department quartermaster supplying materials and the 19th Wing the additional troop labor. When General Van Voorhis first learned that work on the cantonment area had been authorized by the War Department, he requested that the arrival of the 9th Bombardment Group be delayed until 1 January 1941. At the end of May, however, he informed General Arnold that the authorized construction would not be completed until 1 May 1941. The revised estimate was based on the lack of building materials, but General Van Voorhis continued to requisition more men from the wing for erecting a temporary tent camp.

Approximately 175 Air Corps men had been assisting the engineers on various construction projects at Rio Hato since 1939. With the assignment of more men to labor details, however, a base detachment had to be formed in order to carry out the necessary base functions and to bring all Air Corps men under an Air Corps commander. Many officers and pilots became labor foremen, supervising men highly skilled in aviation specialties who, along with untrained recruits, were now working with shovel, hammer, and saw. For weeks at a time many planes were grounded, while their crews performed essential administrative and maintenance functions. Such assignments naturally had a deteriorating effect on the morale of men who had entered the Air Corps aspiring to become aerial gunners, aviation mechanics, and the like.⁶¹

General Arnold was cognizant of at least one angle of the personnel problem in the 19th Wing. Upon his return from the Caribbean inspection tour in mid-May, he had a "thorough investigation" made of the personnel situation, and he informed General Dargue that Air Corps officers were being transferred in order to equalize the experience level at overseas

CONFIDENTIAL

AAFHS-12

95

CONFIDENTIAL

stations. Before the end of May, 10 experienced officers were ordered to sail for Panama, bringing the experience level of tactical units in the 19th Wing up to a par with other foreign service stations. As a result of this Air Corps policy, foreign service units would, "for the time being at least," have a much higher experience level than some units in the United States.⁶² One month later General Arnold explained his position to General Van Voorhis. The Air Corps chief had "tried to impress upon Dargue and also upon Gilkeson the fact that due to the shortage of experienced personnel, the best they could hope for was their proper proportion." He added that he was "sort of inclined to agree" with General Van Voorhis that commanding officers of the wing units were spending too much time on administration and not enough time on organization and training.⁶³

The trend toward replacement of enlisted men with civilian labor at the Panama Air Depot was continuing, although there was some disagreement as to reorganization of the depot. The commanding officer, Colonel Strauss, was convinced that a total conversion to civilians was "impossible until at least a year after the removal of the depot from France to Albrook sometime in 1942." After considerable controversy, however, the 1st Depot Squadron was disbanded on 25 June. Officers and men were assigned to various squadrons at France Field, but most of them were allowed to remain on duty with the depot. General Dargue, less optimistic than Colonel Strauss, predicted that the air depot would continue to be dependent upon enlisted men; and in a mid-year summary of wing prospects he anticipated eventual establishment of two depot squadrons, totaling about 400 men.⁶⁴

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL⁹⁶

Personnel and equipment shortages were hindering the development of both weather and aircraft warning services in the Canal Zone. Previously the wing had depended upon several sources for its weather information: the department weather stations, the Navy, and commercial airlines. But with the coming of Capt. Floyd B. Wood, "the first qualified weather officer ever ordered to duty" in the Panama Canal Weather Region, the wing had the promise of a reliable system of weather reporting. Captain Wood proposed the establishment of a weather teletype circuit, with stations spread as widely as possible, to give complete coverage of the area and to eliminate the frequently unreliable radio reports received by the wing. This plan was generally approved, but lack of equipment and trained weather personnel delayed its functioning for many months. In the meantime, Captain Wood collected and catalogued weather data on Central and South America. Pilots were required to complete a weather form for all flights extending more than 250 miles from the point of departure. Within the Canal Zone weather information continued to be broadcast, while more extended flights were dependent primarily upon weather reports from Pan American Airways and Pan American Grace Airways.⁶⁵

Establishment of an aircraft warning service was proceeding slowly. The survey of station sites which had been started late in 1939 was not completed until July 1940. Even these carefully selected sites might not prove to be satisfactory, for much of the equipment to be used was still in the experimental stage and its capabilities had not yet been fully explored. On at least one occasion a ground observers' net was established temporarily in order to train the observers in aircraft

CONFIDENTIAL

AAFHS-42

97

CONFIDENTIAL

identification and in the mechanics of relaying their reports. With the arrival of the Signal Company, Aircraft Warning, Panama on 30 May 1940, radar experiments were begun at Fort Sherman on the Pacific side of the Zone.⁶⁶

Renewed Precautions against Attack

Military authorities in the Canal Zone could not view the coming of the first aircraft warning company as premature, for in the summer of 1940 the fear of attack which had accompanied the outbreak of war in 1939 again appeared, and again brought a demand for more stringent protective measures. Congressional action was taken on 30 May to start work at once on a third set of locks for the Canal.⁶⁷ On 20 June an immediate census was ordered for women and children who might be sent from the Canal Zone in case of an attack, the registration being handled jointly by the Army, Navy, Red Cross, and government agencies. Military authorities in the Zone began to conduct a thorough "housecleaning," and by the end of July they had rounded up 81 aliens, most of them European refugees who had received temporary haven from the Panamanian government and later entered the Canal Zone illegally. In announcing this action, Secretary of War Stimson declared: "The situation in Panama is one that everybody has his eye on. The Army realizes the danger."⁶⁸ Less than two months later General Van Voorhis ordered the discharge of all European-born aliens employed by the Army in the Canal Zone, stating that the action was "in the national interests."⁶⁹

Early in the summer the United States began conversations with Ecuador looking toward elimination of its German-operated airline. Nazi organizations and sympathizers in South America were becoming "more vocal

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

98

in the light of the German Army's advance in Europe," and the feeling was growing in U. S. official circles that German planes in South America, numbering approximately 100, were "a danger not only to the internal peace of some Latin American states, but perhaps a threat to the Panama Canal as well." Only two German planes were in the service of the Sedta Airline in Ecuador, but in Brazil the Condor line, a local subsidiary of the Deutsche Lufthansa, was reported to be operating about 25 planes and had access to approximately 50 airfields, many of them on the coast. In Peru, within possible striking distance of the Panama Canal, the Lufthansa was still operating under its own name, while in Bolivia, Aero-Lloyd was continuing its operations despite the war in Europe. According to information held by the U. S. government, most of the German planes in use were 17-passenger tri-motored Junkers which could easily be used as bombers. It was also known that a system of airfields, essentially German-controlled, extended through Brazil, Bolivia, Peru, Chile, Ecuador and into Argentina.⁷⁰

In January 1940 General Arnold had stated that the "increase in range of modern bombers had made the Panama Canal much more susceptible to attack from many places. Considering the importance of the Canal to our defense, we could not afford to permit any foreign power to establish air bases in South America."⁷¹ This latter tenet became the basis of Air Corps planning for defense of the western hemisphere and, more particularly, of the Panama Canal. In March the Intelligence Division of the Air Corps was assigned the task of preparing the information necessary to accomplishment of Air Corps portions of the Army-Navy Joint War Plan Rainbow 1. The plan involved air operations in defense

CONFIDENTIAL

AATES-42

CONFIDENTIAL

99

of the northern part of South America. Air task forces were contemplated "for prompt movement to the Natal area, ejection of such enemy air forces as may be established on land within 300 miles of Natal, and prevention of establishment of hostile air forces within that area." The air task forces were also to operate against seaborne targets within effective radius of action, in conjunction with the Navy.⁷²

"Principles of Employment, Army Air Component," proposed to and accepted by the Joint Air Advisory Committee on 5 June 1940, listed as the first priority task of the Air Corps: "to deny the establishment of hostile air bases in the Western Hemisphere."⁷³ In July the Air Corps completed its plans for possible employment in the Natal area. It was reasoned that there was little to prevent German movement to Dakar in French Senegal, if such a move were desired. Since France had capitulated, large German forces were available for employment elsewhere. A distance of only 1,875 miles separated Senegal from Natal, while Puerto Rico, the nearest American base, was 2,938 miles from Natal. Considering the lack of intermediate refueling stops available to American air forces, German aircraft could fly to Natal as easily as could U. S. Army aircraft. Plans Division therefore recommended that provisions be made for refueling stops at sufficiently close intervals to permit ferrying of pursuit aircraft and operation of cargo planes with not less than a 3,000-pound pay load. It was estimated that Air Corps units for the Natal project could not be provided until April 1941. In an emergency they might be equipped by October 1940, but they would not be properly trained at that time. The entire project of course hinged on the attitude of the Brazilian government. In the opinion of Plans Division,

CONFIDENTIAL

AATBS-42

CONFIDENTIAL

100

it was imperative that American air forces be moved to the Natal area as soon as possible. If necessary, in order to overcome diplomatic difficulties, "Brazilian army and air units might be included in the scheme, even to the point of placing a Brazilian general in command."⁷⁴

The proposed Air Corps assumption of defensive responsibilities in the Natal area promised an indirect reinforcement of the 19th Wing in defense of the Panama Canal. But the plan, if carried through, would require approximately one year before it could be put into effect. In the meantime, Canal forces were faced with what some military officials considered an imminent danger of attack, and additional methods of protection were sought. In the early summer of 1940 the extensive use of barrage balloons in many European cities suggested their employment in the Canal Zone, but there was some uncertainty as to which branch of the service should be responsible for their operation. General Van Voorhis wrote the War Department on 10 June that "experimentation in the employment of the balloon barrage in the passive defense of the Canal might prove profitable and at the same time would supply valuable information along these lines, heretofore unexplored by our Army." He recommended that the War Department acquire 10 captive balloons and ship them to the Canal Zone for testing. The department commander also requested information "as to the policy of the War Department concerning the arm, service, or agency that should be charged with the conduct of such tests and with the operation of captive balloons"⁷⁵

Coming almost simultaneously with the request from General Van Voorhis was a similar suggestion from Brig. Gen. James E. Chaney, head of the newly formed Air Defense Command, with headquarters at Litchel

CONFIDENTIAL

AAPHB-42

101

CONFIDENTIAL

Field, N. Y. Citing the use of barrage balloons at Scape Flow and around London, Paris, and other critical areas, General Chaney expressed his belief that they would be a valuable supplement to pursuit aviation and anti-aircraft artillery in defense of the Panama Canal. During the early years of the Panama Anti-aircraft Defense Project, two balloon barrages, totaling 73 balloons, had been included in defense requirements, but the materiel was never procured. Around 1932-33 the status of barrage balloons in the project was changed to "retained in the Project for planning purposes only." By the time the 1936 revision was adopted, there was no mention of balloons. In accordance with the suggestion of War Plans Division in June 1940, the matter was referred to the Chief of the Air Corps, to the Chief of the Coast Artillery, and to the commander of the Panama Canal Department.

General Van Voorhis repeated his original request for initial experimentation with 10 balloons, but he also elaborated upon a permanent project. Approximately 2,400 men would be required to operate 90 balloons in the Gatun area and 110 balloons in the vicinity of Pedro Miguel and Miraflores locks. The Chief of the Coast Artillery concurred in the recommendation that 10 balloons be procured for testing in the Canal Zone and expressed his belief that operations should be charged to coast artillery troops. The Chief of the Air Corps agreed with a C-3 recommendation that the Air Corps should be charged with development and training of barrage balloon squadrons. The Air Corps had already set aside \$50,000 out of the current year's Research and Development Program for the procurement of as many low-altitude (6,000 feet) balloons as possible. By mid-September 12 such balloons were on order, but the

CONFIDENTIAL

AATHS-42

~~CONFIDENTIAL~~

102

last of the 12 probably would not be delivered before June 1941. Like the Air Corps plan for defense of the Canal area, this project afforded no immediate reinforcement of Canal defenses.⁷⁶

Officers in the Canal Zone were not in complete agreement as to the necessary extent of precautionary measures which the international situation demanded. General Dargue wanted "a full load of bombs of every size for every bomber stored for emergency use at each air base." The department ordnance officer, however, did not entirely agree, believing that it was unnecessary to store bombs at bases where bombers were not normally serviced and that it was also unnecessary to store 2,000-pound bombs at any of the fields. In his estimation there would not be "any real requirement for the 2,000-lb. bomb which cannot be anticipated in sufficient time to take care of actual delivery to any air base in this department in advance of the time the bombs will be actually required." The wing was also encountering ordnance difficulties with its local defense responsibilities. An earlier decision to remove local defense from tactical units and place it in the hands of air base troops had resulted in the withdrawal of machine guns from tactical units. But no arms had been issued to air base squadrons, and none could be issued until a decision had been made as to the proper allotments.⁷⁷

In its attempt to procure service units, the 13th Wing was more successful. During the fall of 1940 the following were activated and assigned to Air Corps stations: the 13th and 14th Signal Platoons (Air Base), the 306th Signal Company (Aviation), the 52d Signal Maintenance Company (Aviation), the 61st Ordnance Battalion (Aviation), and

~~CONFIDENTIAL~~

AAFES-42

103

CONFIDENTIAL

the 325th Signal Aviation Company. These units were relatively inactive during the first months of their existence, but with the growth of outlying fields and with the assignment of a signal officer and an ordnance officer to the wing staff, the signal and ordnance troops became increasingly active. As for the progress of the aircraft service, operations finally began at Fort Sherman in September and at Taboga Island two months later, but the system was only moderately satisfactory because of faulty location of the stations.⁷⁸

Revision of Plans for the 19th Wing

In September General Dargue was informed of ambitious new objectives which had been established for the 19th Wing. Revised plans of the Air Corps now envisaged an expansion of the military air arm far greater than that which had been projected in 1939. By September 1940 a total of 12,835 Army aircraft of current types (approximately 4,000 in tactical units, 2,000 in reserve, and 6,835 training planes) had been approved as the Army's "First Aviation Objective" for training, organization, and procurement. On this basis the Air Corps had formulated a program for 54 combat groups, 6 transport groups, and other miscellaneous units. Plans had also been approved for organization of the 19th Wing into an air force composed of two homogeneous wings with supporting base and service units. Under this plan the aviation component of the Panama Canal Department would be composed of a bombardment wing comprising two heavy bombardment groups, two long-range reconnaissance squadrons, and one light bombardment squadron; a pursuit wing comprising three pursuit groups (two interceptor and one fighter); also three air base groups, one observation squadron, one transport squadron, and the necessary headquarters organizations for the two wings and the air force.⁷⁹

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

104

Outside of the addition of two new groups and two squadrons, perhaps the most noteworthy revision in previous plans was the projected change of bombardment groups from medium to heavy and of reconnaissance squadrons from medium- to long-range. The change had long been recommended by General Dargue and naturally met with his approval, as did the entire program for the 19th Wing. Considering that the wing's primary mission was the prevention of surprise attacks by hostile air or naval surface forces and assuming that naval patrol squadrons would be available for distant reconnaissance and search missions, General Dargue concluded that the new air force organization would be suitable for the Panama Canal Department.⁸⁰ The date of activation of new units was dependent upon aircraft production, availability of trained officers and enlisted men, and provision of the necessary housing and other facilities in the Panama Canal Department. This latter requirement threatened to hold up the entire program, for housing facilities at the moment were inadequate for troops already in the Canal Zone and airfield construction was lagging behind schedule.⁸¹

On 26 September the department ordered the wing to send 600 men and 20 officers to Rio Hato in order to construct a tent camp for the 9th Bombardment Group. Early in October the 37th Pursuit Group was sent to begin the construction, and it was expected that the 9th Group, after its arrival, would build its own temporary barracks and other structures. The France Field commander, Major House, was continuing to wage his personal war to have the field "moved up to its proper place in the scheme of defense of the Panama Canal." General Dargue, who shared Major House's appreciation of Atlantic-side aviation, gave the construction

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

105

of quarters at France priority over all construction at Howard Field. With the announcement of further increases in the air units of the Panama Canal Department, it was clear that France Field would have to be enlarged and its facilities improved. Despite the efforts of the wing and field commanders, this part of the wing's construction program had to be deferred to preliminary estimates for the fiscal year 1942 because of a lack of funds.⁸² Even the construction of quarters, for which funds had already been provided, progressed too slowly to meet with Major House's satisfaction, and his complaints continued to pour into 19th Wing Headquarters.⁸³

The most extensive construction activity on the Isthmus was going on at Albrook Field, for it was the prevailing policy "to utilize to the utmost every possibility of installations already in existence before attempting to undertake the creation of new bases in less accessible areas." Much of the construction was temporary--headquarters and technical buildings, officers' quarters, and barracks for incoming recruits, who were usually received at Albrook before being regularly assigned. There was also a large amount of permanent construction, ranging from a new runway to new telephone installations. Since no new quarters had been undertaken at France Field and no quarters were available at Howard Field, Albrook was called upon to house the entire increase in strength of the 19th Wing until an undetermined time in 1941. It was anticipated that by 1 July 1941, with all the construction which had been approved up to 6 September 1940, there would be a shortage of housing for 424 officers, 514 non-commissioned officers, and 3,381 enlisted men, including the 9th Bombardment Group which would have only temporary quarters at Rio Hato.⁸⁴

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

106

Air Corps approval was given to General Dargue's recommendation for a new runway at Albrook Field, and in October General Van Voorhis added his weight to a wing request for the necessary funds. The interest of General Van Voorhis in an improved and enlarged Albrook was in all probability related to a plan long favored by department commanders to control all civilian air entrance into the Canal Zone. By 1940 Albrook had become the primary station for Pan American Airways and its subsidiary airlines, and the rapid increase in air traffic had resulted in a great deal of congestion. General Van Voorhis recommended that the War Department allocate \$1,880,000 for immediate construction of an air terminal in the southeast section of Albrook Field. This arrangement would have the advantage of keeping all commercial air traffic under military control without allowing the passengers to have any contact with the operational part of the airfield. Within less than a month the Air Corps approved the department commander's suggestion and recommended that funds for the project be included in the next estimates for military activities submitted to Congress.⁸⁵

Other projects approved for Albrook were installation of a gasoline pipe line from the dock at Balboa and extension of the existing runway. The former would eliminate the cumbersome process of shipping aviation gasoline by tank car from Coco Solo to Albrook, where fueling of aircraft was accomplished by truck. A board appointed early in the year to consider the fuel supply problem recommended the pipe line to Albrook Field, which would have storage facilities for 2,000,000 gallons, and also recommended a standard Aqua system with 24 servicing pits at Albrook proper and six at the depot. Work on these installations was begun almost

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

107

immediately, while approval of the runway extension was delayed until late in 1940.

As for Howard Field, work was advancing so slowly that few problems had developed. In mid-October Colonel Brady stated that if, as had been suggested, "the War Department considered 'intensive actual operations' a possibility in the near future," the runway, an aircraft parking and service area, temporary bomb storage facilities, and an all-weather road to Howard Field should be constructed as soon as possible. At the end of the month General Dargue noted that the fill for the runway had been only partially completed, and he expressed his belief that "the runway project at Howard should be pushed and given first priority. . . ." But the prospects for early completion were poor, and it was thought that the field probably would not be occupied by any troops until 1 July 1941.

86

Auxiliary Airfields

As a means of coordinating plans for Air Corps construction in the department, General Dargue had outlined the responsibilities of the various officers involved. The wing commander was responsible for final approval of all plans after consultation with the department commander; each base commander was to coordinate all details with the Constructing Quartermaster and keep the wing commander informed of decisions and progress; and Maj. Bayard Johnson, who had been assigned as wing S-4 on 11 January 1940, was to obtain complete information from base commanders and from the Constructing Quartermaster. If General Dargue's instructions had been followed closely, probably much confusion would have been eliminated, but in some cases construction was undertaken without

CONFIDENTIAL

CONFIDENTIAL

AAPHB-42

CONFIDENTIAL

108

proper consultation among the designated officers and responsibility seemed to rest on no one. Major Johnson was reported to have been "the most important man in the 'ring' in construction matters, for he alone "kept entirely to his proper sphere, methodically consulting every available source of information, submitting it in written form to General Dargue, making occasional recommendations but no decisions."⁸⁷

As officer in charge of outlying fields, Major Johnson was to a certain extent responsible for the development of new fields and landing areas. During the first nine months of 1940 little progress was made in the auxiliary airfield project, primarily because actual construction had to await the signing of leases and also the report of a board appointed to study the matter. General Dargue observed on 23 October that no work, beyond minor grading, had been accomplished on any of the sites, because of "difficulties in arranging for the form of leases, and the settlement of questions pertaining to jurisdiction on subject leased grounds between representatives of the Foreign Service of the United States and the Secretary of Foreign Affairs of the Republic of Panama." Leases had not been negotiated for any fields outside the Canal Zone because the department was "awaiting the completion of the lease for Rio Hato, which will become a guide as to the procedure to be followed." And negotiations for Rio Hato were being impeded both by the owners of the land and by a small group of Panamanian patriots who had formed a society, "La Afirmercion Nacional," for the purpose of opposing any loss of national sovereignty. On 21 September the society distributed a handbill which claimed that the military authorities of the Canal Zone, without protest from the Panamanian chancellery, had

CONFIDENTIAL

AAAFES-42

CONFIDENTIAL

109

occupied Rio Hato and located there a military airport, an act "contrary to the patriotic sensibilities of the Panamanian people."

The board appointed "for the purpose of determining specific locations and general boundaries of sites to be acquired in the Republic of Panama as auxiliary landing fields and to recommend the improvement and installation at each site" submitted its recommendations on 30 July 1940, substantially in accord with the proposals made in 1939 by General Dargue. The report included as sites for auxiliary bases David, Chame, Aguadulce, and Garachine, and as auxiliary fields, Jaque, Poori, Las Lajas, Chorrera, La Mesa, La Jolla, and Changuinola. Perme and Mandinga, previously under consideration, were found to be unsuitable within normal limits of time and expense. No mention was made of Rio Hato, since it had already come under the jurisdiction of the department.

An urgent message from the War Department on 9 October revived interest in the project by requiring "early action to prepare auxiliary airdromes and emergency landing fields for Air Force operations in the Panama Canal Department." At the request of General Van Voorhis, General Dargue summarized the facilities for air operations. The report revealed that Albrook Field provided the only runway from which operations of heavily loaded bombers could be conducted during the rainy season. The location of Howard Field, an airline distance of less than three miles from Albrook, and the proposed assignment of two groups of bombardment and two groups of pursuit aircraft to each field would, according to the recommendations, create a congestion which would seriously interfere with training if outlying airfields were not developed. General Dargue again recommended approval of the auxiliary airfield project and asked

CONFIDENTIAL

AAFES-42

110

that \$600,000 be provided for accomplishment of the necessary work. These proposals met with the approval of the Chief of the Air Corps, and he recommended to the War Department that the funds be made available as requested by the Panama Canal Department.⁸⁸ Presumably the major delay in the project would now be the lack of funds.

In connection with the 9 October request for preparation of emergency landing fields, General Van Voorhis submitted additional information to the War Department on 12 October relative to the needs for expeditious servicing of air units. The servicing situation was described as "especially acute" because of the delay in construction at Howard Field, the "very limited servicing equipment" then at permanent stations, and the difficulty in acquiring emergency supplies of gasoline from commercial companies. "Intensive actual operations" would necessitate the use of auxiliary fields in addition to Albrook and France Fields. In some cases, operations from auxiliary fields would require use of water transportation and also improvement and constant maintenance of roads and landing areas. General Van Voorhis recommended that funds be provided for construction of facilities and procurement of needed items of equipment. Air Corps approval, however, did not come until four months later.⁸⁹

The End of General Dargue's Tour

The sudden rush of activity in the 19th Wing coincided with the end of General Dargue's tour of duty. But before his departure on 30 October he had completed the ground-work for the pending reorganization of the 19th Wing. On the last day of his command General Dargue summarized the work of the 19th Wing and made suggestions to the department

CONFIDENTIAL

AAPHS-42

111

CONFIDENTIAL

commander for improvement of many unsatisfactory conditions against which he had fought without success. During the previous 12 months approximately 3,000 Air Corps recruits had been sent to Panama, but schools of every kind were being undertaken to handle the training problem. For every airplane of the 19th Wing there was a combat crew, although in some cases certain officers were missing from the crews. There was also an enlisted maintenance crew for every plane, and approximately 750 enlisted men were receiving specialized instruction.

Many factors, however, prevented the 19th Wing from being considered an effective combat force. The only modern aircraft in the Canal Zone were 22 P-36's and 10 O-47A's. The striking force of reconnaissance and bombardment aircraft consisted of only 32 B-13's. There were approximately two squadrons of bombardment, two squadrons of pursuit, and little more than one flight of observation aircraft. There was a serious shortage of radio equipment. Gasoline consumption had doubled during the previous year, and the fuel supply situation had repeatedly been critical. Sufficient bombs were available for only a five-day period of operation for all aircraft contemplated in the expansion program; many of the bombs were undergoing modification, and storage was concentrated largely at points distant from airfields. There was little naval cooperation in the Canal Zone, and no clearly defined relationship existed between Army and Navy air forces in the area, although General Dargue had attempted to clarify the situation. The two-year tour of duty was a deterrent to combat efficiency, for after training had been accomplished, the wing personnel had not more than half the tour left to devote to productive effort. In addition to recommending remedial action for these undesirable

CONFIDENTIAL

AFES-42

112

CONFIDENTIAL

conditions, General Dargue also recommended the creation of an air defense command, composed of all air, aircraft warning, and antiaircraft units; the relocation of air force headquarters nearer the department headquarters, and appointment of an air officer as administrative advisor to the department commander; and the intensification of flights to Central and South American countries, with an improvement of diplomatic arrangements for such flights.⁹⁰

On 1 October General Dargue outlined for Air Corps approval his ideas on the organization of Panama Canal Department aviation, in accordance with expansion plans. The new air force would be made up of three major components, the 19th Bombardment Wing, the 12th Pursuit Wing, and the Panama Air Depot. Units under the bombardment wing would be the 6th and 9th Bombardment Groups (H), the 7th and 44th Reconnaissance Squadrons (LR), the 39th Bombardment Squadron (L), and the 16th Air Base Group (Reinforced). Units of the pursuit wing would include the 16th and 37th Pursuit Groups (I), the 32d Pursuit Group (F), the 15th Air Base Group (Reinforced), and the 47th Air Base Group, with the 39th Observation Squadron (O&D) attached. The air depot would consist of the 20th Transport Squadron and the 1st Depot Group, comprising one repair and one supply squadron.

As a first step toward the reorganization, General Dargue announced that under the existing 19th Wing two wing executives would be appointed, one to function as executive of the projected bombardment wing and the other as executive of the pursuit wing. For the present these officers were to function directly under the commander of the 19th Wing, but the appointment meant a separation of the two branches of aviation in the

CONFIDENTIAL

AFHS-42

113

CONFIDENTIAL

supervision of training and tactical inspections. On 4 October Col. Charles B. Oldfield was appointed bombardment executive, and five days later Col. Adlai H. Gilkeson was appointed pursuit executive. On the last day of his command General Dargue could report that "all the essential components of the new Panama Canal Department Air Force have already been organized (except the 9th Bombardment Group at present under orders to join this command, the 32d Pursuit Group shortly to be organized, and the Air Force Headquarters)" and that the 19th Wing was carrying the load which would soon be distributed to three headquarters. Air Corps approval of General Dargue's reorganization proposals came on 13 November, and authorization was given for the reorganization whenever the Panama Canal Department activated the headquarters units. ⁹¹

Revision of Plans for Puerto Rican Aviation

On 3 September 1940, when the 19th Wing was advised of new Air Corps plans for its extension, the Puerto Rican Department was likewise informed of changes in its air program. Approval had been granted for creation of a composite wing in the department. Units comprising the new 13th Composite Wing would be as follows: Wing Headquarters and Headquarters Squadron, the 36th Pursuit Group (I), the 25th Bombardment Group (H), the 40th Bombardment Group (I), the 27th Reconnaissance Squadron (IR), the 24th Air Base Group (Reinforced), the 43th Air Base Group, a reconnaissance squadron (MR), and an observation squadron (C. L.). The last three mentioned units and the 25th Bombardment Group would be new organizations which probably could not be set up until the last quarter of the fiscal year 1941.

CONFIDENTIAL

AAHHS-42 CONFIDENTIAL

114

On 19 September General Daley submitted his plans for station assignments and activation of units. For the present the department would have two air bases, Borinquen Field and Juana Diaz (in the south-central part of the island). Combat training and operations would be conducted from both bases and from auxiliary airfields, with units being rotated periodically to all auxiliary airfields for field training. Negotiations were under way for acquisition by donation of sufficient land at Juana Diaz to establish a base suitable for the 36th Pursuit Group, the 48th Air Base Group, and an observation squadron. Pending final acquisition, the land had been leased as authorized by the War Department on 18 September, and construction was soon to be started. Housing for the 36th Pursuit Group and the 48th Air Base Group was expected to be ready by 1 January 1941, with operating facilities becoming available shortly thereafter. The 48th Air Base Group would be activated from cadres furnished by the 24th Air Base Group.

All other units of the 13th Composite Wing were to be stationed at Borinquen Field. Housing facilities would be ready by 1 November 1940 to accommodate the remainder of the 24th Air Base Group and the 25th Bombardment Group, expected to arrive in Puerto Rico at about that time. Activation at Borinquen Field of the 40th Bombardment Group and its reconnaissance squadron was tentatively set for 1 April 1941, cadres to be furnished from the 25th Group and the 27th Reconnaissance Squadron. There was no parent observation unit in Puerto Rico from which to activate the observation squadron. However, one flight of three O-47A's, with six officers and three enlisted men, was then in Puerto Rico on three months' temporary duty from the 15th Observation Squadron, Scott Field, Ill.; and General Daley recommended that the flight remain in the

CONFIDENTIAL

CONFIDENTIAL

AAFHS-42 (Error in pagination. Text continued from p. 114.)

117

department and be augmented by sufficient personnel from a parent observation squadron in the United States to form the cadre for a new squadron.

On 14 November the War Department notified General Daley that his proposed station list had been approved. Action was being taken to authorize the expenditure of funds for airdromes at Juana Diaz, Arecibo, and Mayaguez, and consideration was being given to General Daley's recommendations regarding the dates for activation of new units. According to existing plans, foreign service units would be composed of approximately 60 per cent "old" and 40 per cent "new" men. Headquarters and Headquarters Squadron, 13th Pursuit Wing had been activated in the United States and was being transferred to Puerto Rico. Plans called for the 36th Pursuit Group to be sent to Puerto Rico as soon after 1 January 1941 as housing was ready and transport space was available. All additional new units were to be constituted and activated in Puerto Rico, cadres being furnished from units already in the department. This procedure was also to apply to the 4th Observation Squadron. Filler replacements, however, would contain "a percentage of experienced personnel."⁹²

Plans for Other Caribbean Bases

By this time, the fall of 1940, Puerto Rico was no longer the sole Caribbean outpost in American defense plans. On 3 September President Roosevelt announced that he had completed an arrangement whereby the United States would transfer 50 over-age destroyers to Great Britain in exchange for 99-year leases for sea and air bases at eight strategic points in the western hemisphere. The eight locations included British

CONFIDENTIAL

AAFES-42

118

CONFIDENTIAL

Guiana, Trinidad, Antigua, St. Lucia, Jamaica, and the Bahamas, as well as Bermuda and Newfoundland. The exact sites of the new bases were to be determined later by the two governments.⁹³

In conjunction with this project General Arnold had obtained the approval of the Chief of Staff to send three Air Corps officers to investigate landing field, airway, meteorological, and other facilities in Central America and the Caribbean area. The three officers were to fly in a B-18 to Panama, where General Arnold hoped an OA-8 might be made available to them for the remainder of their tour around the Caribbean. It was anticipated that flight clearances through foreign countries might be obtained in time for the flight to leave about 16 September. In order to secure the cooperation of General Van Voorhis, General Arnold wrote him a personal letter on 6 September, acquainting him with the plan.

At the same time, the commander of the Puerto Rican Department was informed by the War Department that officers then on a mission of conducting staff conferences with Latin American countries had been instructed to ask that "permission be granted for aerial photography by American airplanes as a mutually beneficial activity." No project for photographing large areas was contemplated, but it was desired to photograph airfields, seaports, surrounding areas, and any other areas of critical importance. The Dominican Republic had agreed to such a proposition, and General Deley was requested to furnish the planes for the project, the aircraft to be based temporarily at the Ciudad Trujillo airport. The aerial photographs were desired for the purpose of supplementing existing map information and for preparation of objective folders.⁹⁴

CONFIDENTIAL

AL HS-42

CONFIDENTIAL

119

The Air Corps was also exerting pressure for an early signing of the contract with Pan American Airways for landing facilities along routes to Puerto Rico, Panama, Trinidad, and northeast Brazil. On 6 September Plans Division forwarded a memorandum for the signature of the Chief of Staff to the Secretary of War, recommending immediate action on the contract, which had been in the office of the Director of the Budget "for over a week without any definite action being taken." The aviation facilities provided in the contract were considered "essential to effective Hemisphere Defense by both Army and Navy aviation." Unless these were afforded, neither movement by all kinds of aircraft into Puerto Rico, Trinidad, and northeast Brazil nor effective air operations in the Caribbean were possible "without considerable delay which might prejudice our chances of success." Plans Division also pointed out that the facilities included in the contract would be required regardless of the action taken to acquire additional bases from the British. The two actions were complementary, with neither obviating the other.

95

While efforts were being made to consummate the Pan American Airways contract, the Air Corps was also making plans for air base facilities in the British possessions leased in the destroyer deal. On 31 October the Chief of the Air Corps submitted his recommendations to War Plans Division. Trinidad, Antigua, and St. Lucia occupied first priority. The latter two bases were to include runways and operating facilities for use as staging fields and also quarters for an airways detachment of two officers and 25 enlisted men. Recommended for Trinidad were runways and air base facilities for 4,122 Air Corps officers and men.

CONFIDENTIAL

AAFTS-42

CONFIDENTIAL

120

Second priority was given to Bermuda, with the same facilities as for Trinidad. Further development of Antigua and St. Lucia was recommended for the third priority project. Occupying the fourth position was British Guiana, which would have runways and facilities for 2,486 officers and men. Fifth priority was suggested for Jamaica, which would have runways and facilities for 1,488 officers and men. Lowest priority was given to the Bahamas, with facilities here being the same as for Antigua and St. Lucia under first priority.

These recommendations were based on minimum tactical requirements. The Chief of the Air Corps felt that a composite wing, consisting of one bombardment group (H), one pursuit group, and one reconnaissance squadron (LR), was the smallest task force which could perform the air force mission in major outlying bases such as Trinidad and Bermuda. Long-range aircraft were recommended for these bases in order to extend the range of operations as far as possible.⁹⁶

The task of formulating requirements for these newly acquired bases was facilitated by the fact that the Air Corps had already investigated the possibilities of some of the bases and had made tentative plans for their use. Acquisition of air base sites in Trinidad and along the northeast coast of Brazil had already been advocated by the Air Corps. But steps in this direction were not taken until the possibility of American involvement in the European war became more pronounced. Whereas the outbreak of war in Europe had found Caribbean air defenses non-existent with the exception of the Panama Canal force, now—one year later—preparations were going forward for numerous air bases throughout the area. Adm. William D. Leahy, governor of Puerto Rico, remarked on 7 October 1940,

CONFIDENTIAL

AATHS-43

CONFIDENTIAL

121

"... when the defense construction program under way in Puerto Rico, and soon to begin on British possessions in the Caribbean, is complete and bases are supported with airplanes and ships, the Caribbean area, which includes the Panama Canal, will be practically secure."⁹⁷ The date of completion, however, was too far distant to offer any immediate comfort in the face of the increasingly serious international situation. And forces in the Canal Zone were still short of their objectives.

The 19th Wing under a New Commander

Before it could be organized into an air force, the 19th Wing came under a new commander. Brig. Gen. Douglas B. Netherwood arrived during the latter part of October, giving General Dargue a few days to "turn over to him the several things now in the mill."⁹⁸ Upon General Dargue's departure on 30 October, General Netherwood became head of the wing. The new commander had the distinction of being "the only officer remaining on the active list of the U. S. Army who was in the original group of 14 assigned to the Aviation Section, Signal Corps" on 20 August 1914. He had been piloting military aircraft for more than 25 years and had held command positions in the Philippines, at Maxwell Field, Ala., and at Mitchel Field, N. Y. But General Netherwood was destined to command Panama Canal Department aviation for only five weeks, and during this time most of the activities were directed by Colonel Brady.

On 12 November the 9th Bombardment Group (H) arrived in the Canal Zone and three days later was sent to its temporary quarters at Rio Hato. It had been expected that the group would be equipped with B-17's, but instead it brought B-18A's, which of course lacked the range necessary for the air mission in Panama. The wing did have prospects, however, of

A2FES-42

122

CONFIDENTIAL

more modern aircraft of all types within the coming year. Scheduled to arrive before November 1941 were 79 B-26's, 10 A-20's, and 110 P-40's, and there was reason to believe that eventually the heavy bombardment squadrons would be equipped with heavy bombers.

By 19 November orders had been prepared transferring men from Headquarters Squadron of the 12th Wing to the several headquarters squadrons of the new air force, and the plans laid by General Dargue were ready for action. At the time of its transition into the Panama Canal Department Air Force, the 12th Wing had a total of 150 Air Corps officers (plus 28 officers from other branches) and approximately 5,000 enlisted men, exclusive of the officers and men of the 9th Bombardment Group, who totaled about 1,225. The wing staff had grown to include not only S-1, S-2, S-3, S-4, and an adjutant, but also a signal officer, an ordnance officer, and a gas officer. But the growth of the wing had its unpleasant aspects: the number of courts-martial rose rapidly, and there was an increasing occurrence of AWOL, theft, insubordination, and assault cases. This decline in morale undoubtedly resulted from the flood of new recruits who were not yet accustomed to Army discipline, as well as from the inadequate housing facilities, the assignment of Air Corps men to construction duties, and the fear of imminent attack. Mentally and materially, perhaps, the wing was not yet ready to become an air force; but on 19 November 1940 the Panama Canal Department published an order to bring about the change.

99

CONFIDENTIAL

AFES-42

CONFIDENTIAL

Chapter IV

THE PANAMA CANAL DEPARTMENT AIR FORCE AND CARIBBEAN DEFENSE
30 NOVEMBER 1940-8 MAY 1941

Reorganization of the 19th Wing into the Panama Canal Department Air Force, effective 30 November 1940, was a progressive rather than a final step in the evolution of army aviation in the Canal Zone. The new air force did not become an effective combat force during its brief existence of less than six months, but it did serve as a transitional unit between the small 19th Wing and an organization much larger in scope and mission. The confusion which naturally accompanied this rapidly shifting scene is indicated by an uncertainty of nomenclature during this period: officials in the Canal Zone were not always sure of the proper designation of the new unit, sometimes calling it the "Panama Air Force," the "Panama Canal Air Force," and the "Caribbean Defense Air Force." Even the official letterhead bore the incorrect title "Headquarters Panama Canal Air Force."

Much of the confusion resulted from the fact that Air Corps plans for Panama aviation were continually being revamped before existing plans could be carried out. On the very day that the PCD Air Force came into existence, Plans Division forwarded a memorandum for General Arnold's signature to the Chief of Staff, calling for organization of a Caribbean air force, to be composed of all AAF units in the Caribbean Theater. The substance of the memorandum had been coordinated with War Plans Division and with the Assistant Chief of Staff, G-3, Maj. Gen. Frank M. Andrews. Within a few days General Andrews was ordered to the Canal

CONFIDENTIAL

AFHS-42

CONFIDENTIAL 124

Zone, where on 8 December he assumed command of the FOD Air Force. General Netherwood then became commander of the 19th Bomber Wing, with Colonel Oldfield remaining as his executive. Colonel Gilkeson continued to head the 12th Pursuit Wing. General Andrews' staff was composed of substantially the same officers who had made up the staff of the 19th Wing.¹

The coming of General Andrews to the Canal Zone was an indication of the importance which the War Department attached to the air command of the area and to the pending plans for reorganization of Caribbean forces. In 1935 General Andrews had been selected by Gen. Douglas MacArthur, Army Chief of Staff, to organize the GED Air Force. He had pioneered in instrument flying and had taken "a leading part in the development of modern standards of flying." From the beginning of his four-year tour as head of the GED Air Force, General Andrews championed the cause of the heavy bomber. Reverting to a colonelcy at the end of his tour, he came back as a permanent brigadier general of the line, the second Air Corps officer to be appointed a general officer in the line of the Army. In August 1939 General Andrews was assigned to the War Department General Staff, G-3. As soon as General Marshall became Chief of Staff, he "set the conservatives of the Army back on their heels by picking for G-3 the first Air Corps officer ever to head a General Staff division." It was from this position that General Andrews was called to head the FOD Air Force.²

Before leaving Washington, General Andrews had an opportunity to acquaint himself with General Arnold's ideas on the proposed Caribbean air force and with War Department plans for the theater. Joint Army and

CONFIDENTIAL

AAEHS-42

CONFIDENTIAL

125

Navy Basic War Plan Rainbow No. 4, approved by the President on 14 August 1940, defined the Caribbean Theater "to include the islands in and bordering on the Caribbean Sea, all or such parts of French Guiana, Surinam, British Guiana, Venezuela, Colombia, Ecuador, and Central America, less Mexico, and the sea areas adjacent thereto as may be required for Army and Navy operations." War Department Operations Plan R4-40 made provision for the designation of the commanding general of the Panama Canal Department as commanding general of the Caribbean Theater. The mission of Army forces in this theater would include support of naval forces in controlling the Caribbean Sea and adjacent waters and support of operations against shore objectives. Since the accomplishment of this mission depended largely upon the employment of air forces, it was apparent that the training and operations of air units in the theater "must be coordinated and controlled in both peace and war by a central headquarters." The Air Corps therefore recommended that all AAF units "permanently stationed in the Caribbean Theater be placed under unified control designated as the Caribbean Air Force, with peacetime headquarters in the Panama Canal Department and under control of the Commanding General, Panama Canal Department." This action would not deprive the Puerto Rican Department of air force means to accomplish its assigned mission, because current war plans contemplated that both the troops and the mission of the Puerto Rican Department would pass to the commander of the Caribbean Theater upon its activation.³

War Plans Division concurred with the recommendation of General Arnold, noting at the same time that the entire Caribbean Theater should

CONFIDENTIAL

AAFHS-42

126

CONFIDENTIAL

be activated immediately. General Van Voorhis was shortly designated as Caribbean Defense Commander; and on 8 January 1941 the War Department authorized constitution of the defense command, but formal organization of the Caribbean Defense Command and a Caribbean air force did not begin until May 1941. In the meantime, General Andrews was shaping the PCDA Air Force as a nucleus for the Caribbean Air Force.

New Units

During 1940 there had been a growing need for air transportation of personnel in the Panama Canal Department, as well as for transportation of supplies from the Panama Air Depot at France Field to other bases in the area. B-18's and other tactical aircraft were used, but only at the expense of training. The skeleton of a transportation system was established on 15 December, when the 20th Transport Squadron was organized at France Field. The squadron consisted of one officer and one enlisted man until 1 February 1941 when 20 enlisted men were assigned from units at France Field. On the same date the squadron received its first cargo plane, a C-33, and was officially assigned to the Panama Air Depot.

Other units were activated on 1 January 1941: the 32d Pursuit Group (F), composed of its headquarters and headquarters squadron, and the 51st, 52d, and 53d Pursuit Squadrons, at Rio Hato; the 59th Bombardment Squadron (L) at Rio Hato; and the 1st Air Depot Group, composed of its headquarters and headquarters squadron, the 1st Repair Squadron, and the 1st Supply Squadron, at France Field. For the most part, these

CONFIDENTIAL

JAFES-42

127

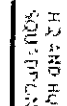
CONFIDENTIAL

units consisted only of cadres provided by other squadrons already in the Canal Zone. An unspecified number of men intended for the 59th Bombardment Squadron were in training with the 9th Bombardment Group at Rio Hato, but the squadron was activated with only one officer. The 32d Group by the middle of January had approximately 330 enlisted men, all of them newly arrived in the department and attached to the 9th Group for basic training. But as a tactical organization the 32d Group remained at Albrook Field, where all pursuit units were concentrated, and the 330 men did not actually join the group until three months later when housing became available for them at Albrook.

The creation of additional units gave an illusion of combat strength, but the entire air force was in something of a skeletal state. Most of the units were awaiting either the arrival of personnel from the United States or the assignment of men already in the department but occupied at the time in construction work and recruit training. Officer strength, in particular, was deficient; approximately 200 officers were assigned to the air force, as against the 1,048 proposed as peace strength and 1,287 as war strength. Administrative headquarters were kept as small as possible, but the formation of new headquarters for wings and groups required the assignment of experienced tactical leaders to desk jobs. Pursuit squadrons were left with an average officer strength of four to six, and bombardment squadrons with perhaps 10. The need for pilots, bombardiers, and navigators was crucial, but crewmen could not be sent from the United States, despite an urgent request from General Andrews. If officers had been available for transfer to Panama, their arrival

CONFIDENTIAL

PANAMA CANAL
DEPARTMENT AIR FORCE



CONFIDENTIAL

AAHS-42

CONFIDENTIAL

128

would undoubtedly have been slowed by the housing program, although a decision had been made to send officers to Panama without dependents.⁴

General Andrews' Conception of Canal Air Defense

General Andrews approached the problems of his new command with a characteristic freshness, being realistic in his estimate of the situation and practical in his recommendations to the department commander. Writing in mid-January to General Brett, Chief of the Air Corps, General Andrews frankly expressed his concern over the inability of the PCF Air Force to provide effective defense of the Canal. "Some people here think I am an alarmist about an aerial attack on the Canal," wrote General Andrews. "The truth of the matter is that I don't think it at all improbable . . . under present conditions our pursuit reaction would be worth little and you know the price we would pay in operating B-18's in daylight against anything modern." The communications system, for both ground and air, was described as "lousy," and General Andrews asked for "a couple of 197 sets" until scheduled deliveries could come through. General Brett replied that two sets of the radio equipment would be sent within a few weeks and that training in pursuit control should be facilitated thereby.⁵

General Andrews used both formal and informal communications to present his case to the department commander and to the Air Corps. But regardless of the manner of communication, his words seemed to have more weight with the Air Corps than with his immediate superior. On 11 January he summarized in a memorandum for General Van Voorhis the

CONFIDENTIAL

AAFHS-42

129

CONFIDENTIAL

measures which were needed for improving the air defense of the Panama Canal. Pursuit air action, in reasonable strength, was regarded by General Andrews as being "at least eight times as effective for active defense in stopping air raiders as any other element of defense, even in an area so highly organized for antiaircraft artillery as is the Panama Canal Department." In addition, bombardment aviation offered an active method of defense, and General Andrews therefore suggested that every possible means be used to bring the PCD Air Force up to maximum efficiency, "if necessary adopting measures as extreme as temporarily requisitioning labor and equipment engaged upon other projects with less pressing priorities, to prepare operating facilities for air units" The construction of a third set of locks in the Canal Zone, for example, was a defense measure which would not be completed for five years. The suggested principle of concentrating all available resources on immediate needs applied to all arms and agencies concerned with Canal defense, but General Andrews confined his specific recommendations to the air arm of the Panama Canal Department.

Immediate measures which the air force commander considered necessary were divided into two classes: those which could be taken locally, authority therefor being assumed or obtained, and those which must be accomplished through the War Department. In the first category General Andrews recommended five steps: an increase in the number of all-weather operating airfields in Panama; improvement of aviation gasoline storage and gasoline and ammunition distribution facilities; preparation of an antiaircraft warning service to augment the detector service then under

CONFIDENTIAL

AAFHHS-42

130

CONFIDENTIAL

way; improvement of communication systems to and within airdromes; and an intensive training program. General Andrews was most emphatic in regard to the need for better communications. Teletype was considered essential for proper operation of pursuit aircraft. In his estimation, pursuit defense of the Canal should be organized on the principle of centralized planning and direction, but decentralized operations. "Any other plan," he said, "will fail." For bombardment aircraft, centralized operations were considered more practicable, but here again the importance of accuracy, timeliness, and secrecy of information demanded teletype communication.

Measures which General Andrews recommended for accomplishment through the War Department were: modernization of aircraft in the Canal Zone, settlement of Army and Navy command relations, and organization of the Caribbean as one theater. Action on the latter, of course, had already been taken, and General Van Voorhis had been designated as commander of Caribbean defenses. Commenting on the aircraft used by the PCD Air Force, General Andrews noted that all pursuit equipment in the Zone was obsolete. It had no armor protection, the speed was too slow, and the fire power was "very limited." With a target as vulnerable to damage by air attack as the Canal, the type of pursuit planes in the Zone was "inexcusable," and General Andrews felt that the Air Corps would be justified in suspending shipments abroad, if necessary, until Caribbean pursuit units were properly equipped. The best bombardment plane in the Zone was no better in its class, but it "could carry on at the cost of great losses until reinforced from the United States by

CONFIDENTIAL

AAFHS-42

131

CONFIDENTIAL

suitable types." This tenet was in decided contrast to General Dargue's earlier belief that an air attack on the Canal would be so swift as to preclude reinforcement by aircraft from the States. General Andrews was in substantial agreement, however, with General Dargue's emphasis on unity of command. Navy operations in the Fifteenth Naval District had as their main objective the defense of the Canal, though the responsibility for defense rested upon the Army commander of the Caribbean area. Absolute coordination of Army and Navy effort was regarded by General Andrews as "vital to success," and this coordination could "only be obtained by unity of command." He recommended that a decision on unity of command be made and announced immediately, and not after an attack was under way. Air and naval coordination was definitely considered "the largest problem." General Van Voorhis may or may not have been surprised at the all-inclusiveness of General Andrews' suggestions, but he could hardly have escaped the conclusion that the air force commander regarded the air arm as "the primary element of the Caribbean defense." The airplane was the only weapon available which had "sufficient mobility to quickly affect any military situation" throughout the Caribbean Theater, or attack an enemy out of sight of land, and General Andrews made clear his intention to improve the combat effectiveness of his command.⁶

In order to keep the Air Corps informed of his actions, General Andrews on 13 January forwarded to General Brett a copy of his memorandum to the department commander, observing at the same time that he would

CONFIDENTIAL

AAFHS-42

132

CONFIDENTIAL

"probably send a copy on to Hap Arnold in a day or two." Further proof of General Andrews' desire for immediate action was his complaint to General Brett: "I can't get people down here to realize that we are in a war and that we must prepare our mental attitude to just that. Everything here now seems to be planned on what may happen two or three years from now instead of next week or next month." General Brett requested General Spaatz to read this letter from General Andrews, and also his memorandum to the department commander, in order that Air Corps planning might fit into the action recommended, provided of course that "the Van Voorhis letter" received approval.

Plans Division had already prepared for General Brett's signature a recommendation to the War Department that provision be made for dispersion of Panama Canal Department air units over areas adjacent to the Canal Zone. Although General Andrews had requested the early preparation of auxiliary airfields in Panama only, General Brett on 6 January had asked Plans Division to consider the possibility of having the Panama air units scattered over an area in the vicinity of Panama, rather than having all the tactical units "in one basket." He suggested, for example, the location of a pursuit group and a bombardment group in Costa Rica, a pursuit group in Nicaragua, and possibly a composite group in Guatemala. The suggestion was favorably received by Plans, and the division "strongly recommended" that General Brett bring the matter to the attention of the War Department. General Andrews' letter of 13 January undoubtedly added weight to the suggestion, and on 31 January General Brett recommended to The Adjutant General that facilities

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

133

be provided for dispersion of units of the PCD Air Force. The nature of such dispersion and the approximate location of units were to be based on plans prepared in accordance with "The Basic Principles of Employment of the Air Component of the Army in the Order of Their Priority," which had received the approval of the Chief of Staff late in November 1940. General Brett observed that the proper employment of air units in the Caribbean would require the establishment of air bases in several Central and South American countries, in addition to those already being prepared in the British West Indies and Guiana. It was therefore recommended by the Air Corps that "action be initiated with a view to securing the appointment, by the President, of a commission for the negotiation of the leases or sites found necessary in the various countries."⁷

In regard to General Andrews' recommendation that Panama aircraft be modernized, Plans Division informed General Brett that the action was contingent upon the production of aircraft then on order. In this respect, units within the United States were in no more favorable condition than were overseas units. Based on War Plans Division priorities, the predicted assignment of modern aircraft to Panama was as follows:

9th Bombardment Group	B-17E	1 September 1941
6th Bombardment Group	B-24D	1 November 1942
59th Bombardment Squadron	A-20A	1 May 1941
32d Pursuit Group	P-38E	1 May 1942
16th Pursuit Group	P-40	1 June 1941
37th Pursuit Group	P-39D	1 July 1941

This schedule of deliveries naturally provided little relief for a commander who foresaw the possibility of an attack "next week or next month."

CONFIDENTIAL

AAFHS-42

134

CONFIDENTIAL

General Andrews had also asked for immediate delivery of one four-engined plane which was needed "very badly" now that General Van Voorhis was responsible for the entire Caribbean area. The PGD Air Force commander had stopped all direct flights to Cuba and Puerto Rico with two-engined aircraft, considering it "not worth the risk, except in emergency." Flights to these points were routed by way of the Antilles, but the department needed at least one four-engined plane for across-the-water flights and for rapid trips by General Van Voorhis and his staff. Plans Division conceded that such an airplane would be a great convenience to General Van Voorhis, but it did not believe that the need was "sufficiently urgent to justify diversion of a four-engined bomber from priority task forces at this time."

In regard to General Andrews' recommendation for unity of command, Plans Division cited "Joint Action of the Army and Navy." Operations of Army and Navy forces were to be coordinated by the exercise of unity of command when ordered by the President, when provided for in joint agreements between the Secretary of War and the Secretary of the Navy, or when the commanders of Army and Navy forces agreed that the situation required the exercise of unity of command and further agreed as to the service which should exercise such command. It appeared to Plans Division that the Panama Canal Department commander should try to reach a satisfactory agreement with local naval authorities, and that, failing in this, he should submit his recommendations for appropriate action by the Secretary of War.⁸

CONFIDENTIAL

AAFHHS-42

CONFIDENTIAL

135

Army-Navy Coordination

The prospect of a transit of the Panama Canal by the U. S. fleet in January and joint exercises in February emphasized the need for Army-Navy coordination, and also revealed the deficiencies of the FCD Air Force. It was assumed that carrier-based aircraft would operate defensively from the Army's land bases during the transit, but the FCD Air Force had no knowledge of naval requirements for servicing and communications. On 18 January Colonel Brady, as a member of a committee appointed to report on naval air operations and requirements under such circumstances, submitted a draft of the report to G-3 of the Panama Canal Department. It was pointed out that Axis-controlled airlines, operating within 600 miles of the Canal, could conceivably attack the fleet, which was most vulnerable during a transit; that the Army pursuit force in the department was not sufficient to afford reasonable protection to the fleet in the Canal; and that the existing aircraft warning service was inadequate and unreliable. The report further noted that proper communications were lacking at outlying bases, that facilities for expeditious servicing at Army bases were badly limited, and that under the most favorable circumstances no more than 70 additional pursuit planes could operate from Army bases in the Canal Zone. The report concluded with specific recommendations for improvement of fuel facilities and general recommendations that Army aviation be reinforced without delay and that a joint plan for operations and communications be initiated at once.

The fact that Army officials in the Canal Zone had not been informed

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

136

of Navy plans was not entirely the fault of local naval authorities, for they were likewise ignorant of such plans. Admiral Sadler, writing to the Chief of Naval Operations in late February, repeated Colonel Brady's remarks and observed that despite the urgency of the situation no definite information on naval air operations during transit had yet been received. He urged that specific information be furnished as to fuel requirements and the number and type of naval aircraft which might be based temporarily on Army airfields.

In the meantime, Army and Navy forces in the Canal Zone carried out their first joint exercise of 1941, beginning on 11 February. The U.S.S. Erie was used to represent a hostile force consisting of an aircraft carrier and its destroyer screen. Naval air patrols were sent out to locate the target, Army bombers were sent to attack the target, and pursuit aircraft were then dispatched to intercept the returning bombers. Two days later General Andrews requested the bombardment and pursuit wing commanders to indicate their conclusions as to "the combat possibilities of the present Air Defense organization in the Panama Canal Department," especially in regard to the suitability of signal communications facilities, the operation of the existing aircraft warning service, and the "limitations imposed by present limited assignment of pursuit aircraft."

Reports from the wing commanders indicated that existing communications were far from adequate for the requirements in the department. Some of the communications failures could be attributed to antiquated equipment or equipment unsuited to local conditions, while other

CONFIDENTIAL

AAFHS-42

137

CONFIDENTIAL

deficiencies resulted from a lack of completely trained personnel, or from defects in the general plan, poor coordination between arms or units, poor discipline, or neglect. The wing commanders agreed that the number of pursuit aircraft in the department was wholly inadequate for defense purposes. Only 18 P-36's and 18 P-26's were then in flying condition, and the P-26's had no combat value. Colonel Gilkeson observed that the modern aircraft available for the three pursuit groups represented a little more than two-thirds the complement of one full-strength squadron. The pursuit commander pointed to two possible methods for conducting the defense of the Canal: the entire pursuit force could be concentrated on one target at a time, or smaller forces could be sent against several targets simultaneously, but neither method would provide adequate defense.

The aircraft warning system did not show up to advantage during the exercises. While the officer in charge of the information center seemed to have been fairly well pleased with the performance of the stations at Taboga Island and Fort Sherman, he noted that at times there were so many targets in such small areas that it was impossible to determine the direction of the planes' flights. In the opinion of the pursuit wing commander, the value of the aircraft warning system was limited by the lack of visual observations. He recommended the incorporation of visual reporting stations into the system in order to identify aircraft; to report their altitude, number, and direction; to report each target more frequently; and to locate each target more accurately by subdividing the existing grid system into smaller squares.

CONFIDENTIAL

AAHHS-42

CONFIDENTIAL

138

On the basis of recommendations from the wing commanders and the department signal officer, the PCD Air Force attempted to correct some of the deficiencies, particularly those in the tactical net, by requesting additional teletype connections between Albrook, France, and the naval air station at Coco Solo. But a shortage of teletype service on the Isthmus prevented immediate success.

Early in January Colonel Gilkeson had made a survey of the aircraft warning system and had listed 38 desired locations for observation posts within the Republic of Panama. The air force signal officer added his suggestions, noting that these stations should be connected by radio rather than by cable net, which would be "prohibitive in cost and time." Colonel Gravely was strongly in favor of the project, although he admitted that it probably would not be approved by the Panama Canal Department at that time. General Andrews likewise favored the project, giving highest priority to the approach areas over the Pacific and from the southwest. He also proposed that all existing radio and telephone service, whether Army, Navy, or commercial, be used to connect observer stations with the information center. Following the joint exercises in February, there was an intensification of training in the use of standard communications equipment. More suitable equipment was requisitioned, problems involving communications were conducted once a week, and procedures were changed to effect better operation of the warning service. But despite the efforts of the PCD Air Force, the service was not materially improved in scope or quality for almost a year.⁹

General Andrews had already tried informally to obtain more modern

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

139

pursuit aircraft for his command, with no immediate success. He also presented his requests through formal channels, but he received little support from the department commander. In forwarding to the War Department an air force statement of pursuit weaknesses, General Van Voorhis on 1 February stated that he was withholding recommendations "on the possibility of their being in conflict with the views of higher authority." Perhaps it was just as well, for the Air Corps was unable to meet all the demands for new aircraft from overseas garrisons and continental units. Naval air forces in the Canal Zone apparently were little better off in this respect. Colonel House learned that the commander of Patrol Wing Three at Coco Solo was expecting new equipment "soon" and hoping that his forces would be increased, but he had no definite information as to when the changes would take place.

10

Basic Principles of Air Force Employment

If General Andrews had little tangible material with which to work, he at least had plenty of opportunities for planning. On 18 February he presented to General Van Voorhis his adaptation of "Principles of Employment of the Air Component of the Army in the Order of Their Priority." The statement of priority had been forwarded to the Panama Canal Department on 6 December 1940 "for the information and guidance of all officers concerned with formulating policy for the organization, training, and equipment of the Army Air Forces." The seven principles were as follows:

1. Deny the establishment of hostile bases in the Western hemisphere.

AAFHS-42

140

CONFIDENTIAL

2. Defeat, by air action against their base establishments, hostile air forces that may be established in the Western Hemisphere.
3. Oppose the operations of hostile air forces by fighting in the air.
4. Operate against hostile land or sea forces, the location and strength of which are such as to threaten the vital interests of the United States.
5. Operate in close cooperation with the other arms of the mobile Army in the conduct of land operations.
6. Operate in support of our naval forces when the Fleet is so situated that it can and does operate effectively against enemy forces afloat in the threatened area.
7. Operate in lieu of or supported by the Navy forces when the Fleet is so situated that it cannot operate effectively against enemy forces afloat in the threatened area.

In considering these principles as they applied to air units of the Caribbean Defense Command, General Andrews first pointed out the boundaries of the command. The limits of the area to be defended included Ecuador on the west coast of South America, French Guiana on the east coast, Guatemala to the northwest, and the Bahamas and Antilles on the east. The responsibility of the Caribbean Defense Commander extended not only to the geographical limits of this area but also to the area included within the range of weapons at his disposal. In order to deny the establishment of hostile bases in the vicinity and to defend the Caribbean area, the air component of the command "must be prepared to attack any bases--afloat or ashore--within range of modern aviation equipment," or within 750 to 1,000 miles beyond the geographical limits of the command. Since efficient employment of the AAF was largely dependent upon the off-shore reconnaissance of naval air units, General Andrews felt that unity of command was needed for Army and Navy air forces in the Caribbean.

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

141

As for opposing the operations of hostile air forces by fighting in the air, General Andrews indicated that the fighting might be expected in the vicinity of important military objectives (such as the Canal, the San Juan and Borinquen fields on Puerto Rico, and Trinidad) and important industrial points such as Aruba and Curacao. Air combat could also be expected with the employment of bombardment aircraft against enemy objectives on land or sea. The commander of the FCD Air Force therefore concluded that pursuit must be organized for employment within air defense commands at these critical points and for support of bombardment aviation when its range permitted.

The remaining principles of air force employment emphasized the need for unified control of all Army air units in the Caribbean area. For the general tactical organization, General Andrews recommended three major steps: (1) the grouping of bombardment and reconnaissance aviation under one commander; (2) the establishment of air defense commands at critical points with minimum pursuit aviation, antiaircraft artillery, and aircraft warning service facilities and personnel under unified operational control; and (3) the organization of a pursuit reserve force, from the pursuit not organically assigned to air defense commands in the Panama Canal and Puerto Rican Departments, for such missions as might be assigned by the Caribbean Defense Commander. Here, in essence, was the blueprint for a Caribbean air force. More detailed plans were to be drawn up later, but General Andrews' ideas, as expressed in this communication to General Van Voorhis, formed the core of later plans.¹¹

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

142

The concept of Canal Zone aviation was undergoing a rapid transformation from local to far-flung defense. The change was so rapid that revisions of the Panama Canal Defense Project could not be made at equal pace. By February 1941, the 1940 revision was sadly out of date, and on 26 February the Air Corps Plans Division recommended an immediate revision in the light of "the constitution and activation of the Caribbean Defense Command." Plans Division noted that the recently announced "Basic Principles of Employment of the Air Component of the Army in the Order of Their Priority" and the acquisition of air base sites in the Antilles and the probability of acquiring other sites in several Central and South American countries, as well as activation of the Caribbean Defense Command, "may have changed previous conceptions for a defense of the Panama Canal." It was obvious, from these recent actions, that the PCD Air Force "must participate, at least in part, in the defense of the Caribbean area."

Because of the static nature of the defense of the Canal, Plans recommended to the War Department that consideration be given to the organization of an air defense command in the Panama Canal Department. General Dargue had urged the formation of such an organization throughout his two years in the Zone, but this recommendation of Plans seemingly represented the first positive expression on the subject from the Office, Chief of the Air Corps. British experience in World War II indicated that pursuit aviation was "the most effective weapon against air attack" and that the coordination of barrage balloon operations, antiaircraft artillery, and the aircraft warning service with the

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

143

employment of pursuit aircraft was of vital importance. The Air Corps also recommended that plans for joint action with naval forces be included in the revision of the Panama Canal Defense Project. A significant disclosure was made by Plans when it stated that a change in the allotment of airplanes to the Panama Canal Department was being studied by the War Department. In this connection, the early completion of the auxiliary airfield program was "strongly recommended."¹²

Policy toward Latin American Aviation

The pending dispersion of AAF units throughout the Caribbean and the possible acquisition of additional sites in Central and South America led in February to further consideration of U. S. policy toward Latin American aviation. General Spaatz was kept informed by Maj. E. F. Gillespie of developments among the German-operated airlines in South America, particularly in regard to their proximity to the Panama Canal. Some progress had been made in the attempt to have American airlines operate over South American routes. The Scadta line had been taken over by the Colombian government, and Pan American Airways was under contract to operate the service. Brazil had put all aviation under an air ministry and had decreed that all pilots on Brazilian lines be native-born, but the German pilots were reported to be producing faked birth certificates. General Spaatz also learned from Major Gillespie that "our attempt to acquire Latin American defense bases has injured our prestige." Military authorities in the Canal Zone were aware of the dangers inherent in the presence of German-controlled airlines in South

CONFIDENTIAL

AATHS-42

CONFIDENTIAL

144

America, but formulation of a policy for their elimination was not within the province of Canal officials.

Mr. Nelson Rockefeller, Coordinator of Inter-American Affairs, had suggested to President Roosevelt that a committee be established to coordinate activities of the government in the field of Latin American air transportation. On 29 January he sought the War Department reaction to his suggestion, and General Marshall's reply on 1 February showed the War Department to be wholly in sympathy with the idea. The Chief of Staff thought that the matter was one "of vital importance to national defense," and he agreed with Mr. Rockefeller that the Civil Aeronautics Board was the proper agency to deal with the problem.

War Department aid was also sought in the formulation of other policies related to South American aviation. On 29 January the Paraguayan Minister discussed with General Marshall the desirability of U. S. assistance in the establishment of air bases in his country. From a purely military point of view, however, General Marshall felt that Paraguay was the least important of the American Republics "in our plans for Hemisphere Defense." He pointed out to the Under Secretary of State on 1 February that if "we finance the improvement of airfields in Paraguay, other American Republics will doubtless ask for similar assistance" and it "will be difficult to refuse them." In addition, extension of this form of aid to Paraguay might "produce strong reactions embarrassing to us in Bolivia and Argentina."

But the State Department favored some kind of military aid for Paraguay, and General Marshall attempted to find the most desirable

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

145

means of compliance. It was his belief that "from the long-range point of view the United States will derive more enduring advantages from a policy which aims at assisting Latin American countries to improve and develop their airfields and methods of communication than would a policy expressed in terms of the supply of armament and military equipment." It therefore seemed to General Marshall that the United States might undertake to finance the improvement of Paraguayan airfields, beginning with the commercial field at Asuncion, which was a useful staging point for air traffic between the east and west coasts of South America. The field at Concepcion was considered of next importance to the United States. This program met with the approval of the State Department and also received the hearty concurrence of the GEC Air Force commander, who considered the project "of major importance inasmuch as movement to and reinforcement of the Natal Area may be limited entirely to the West Coast routes."

Within two months action had been initiated to extend the existing War Department contract with Pan American Airways to provide for improvement of airfields in Paraguay and also in Bolivia, and the President had been requested to make the necessary funds available. Even though U. S. Army planes might never be called upon to use the airfields for defense purposes, the PGD Air Force could expect to benefit from the program in extended familiarization flights. During a flight by bombers in November 1939 one plane had gone through the turf cover of the Asuncion field on two occasions. The construction of hard-surface runways would assure all-weather operating conditions.¹³

CONFIDENTIAL

CONFIDENTIAL

AAFHS-42

146

At least one policy of the PGD Air Force was meeting with widespread approval among Latin American republics and was offering promise of improved relations between the United States and its neighboring countries to the south. Early in 1941 General Spaatz received a recommendation from Major Gillespie that the "study of the Spanish language should be mandatory in the Air Corps and the fact well publicized in Latin America." The PGD Air Force had already instituted such a course of study for its officers, and the consensus of Panamanian editorial comment was that such study would hasten "continental understanding." El Panama America observed in December 1940 that the step would "result in greater understanding and unity" and would "have its effect in Panama, in Cuba, and in all the countries of the Caribbean."

One Air Corps officer in the Canal Zone, however, reported his objection to the program. Colonel House, still commanding France Field, wrote General Andrews on 6 February 1941 that the study of Spanish was taking up too much valuable time of the 6th Bombardment Group, stationed at France. "The officers," he said, "have been taking Spanish now for close to a year. They are now getting into the advanced moods, which require considerable study." Colonel House did not believe that it was "the intention of the War Department to make Spanish linguists out of Air Corps officers" or "to have these officers use two or three hours of their working day on Spanish." Some staff members of the PGD Air Force were inclined to agree with Colonel House, but since "the General" did not become "excited" over the matter, nothing was done to alter the program.

CONFIDENTIAL

AAEHS-42

147

CONFIDENTIAL

Colonel House's objections were not to the study of Spanish per se, but rather to the amount of time required for the study. He was in favor of such a program on the officers' "own time after duty hours," so that the duty hours could be used for "courses in courts-martial, administration, Moss's officers manual, courses taken from the text of the Air Corps Tactical School, etc."¹⁴ In the long run, perhaps this matter was of little consequence, yet it is significant for its relation to the training problem and for its revelation of commanding officers' sensitivity to hindrances in the way of training.

Training and Operations

Training and construction were still the two major problems of the FOD Air Force, and the latter was still the chief deterrent to the former, along with the demand for cooperative missions. There was a serious shortage of housing at every base, but especially at Albrook. Little permanent construction could be expected before the latter half of 1941, and construction of temporary housing was proceeding at a rate disproportionate to that of the arrival of officers and men. In late January, 2,750 enlisted men at Albrook Field were crowded into quarters originally intended for 1,282, and an additional 500 men were living in one of the hangars. The latter group was threatened with ouster from its shelter, for the Chief of the Air Corps had given notice that hangar space must be cleared for a flow of heavy equipment and supplies for Howard Field and the air depot. Albrook was scheduled to provide temporary storage

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

148

space at least until 1 August, when the supply building at the new depot was to be completed.

In January General Andrews submitted a report to General Van Voorhis on the existing status of training and on the status expected at the end of the calendar year. Of the 5,390 Air Corps enlisted men in the air force, approximately 31 per cent were untrained and 31 per cent were partially trained. With the expected loss of 1,365 trained men during 1941 and with approximately 90 per cent of the replacements being untrained, General Andrews estimated that by the end of the year 4,109 or about 57 per cent of the total authorized strength of 7,146 would be untrained, leaving approximately 21 per cent trained and 22 per cent partially trained. It was readily obvious to General Andrews, as it had been to General Dargue, that "one of our handicaps here is the two-year tour."

General Andrews proposed to alter these percentages by requisitioning more trained men from the United States and by increasing the capacity of schools within the department. But since additional trained men could not be procured, attention was directed toward wiser use of each man according to his qualifications. The shortage of administrative officers, however, continued to place ground duties upon many flying personnel. The air force technical schools at France Field, the air depot, Albrook, and Rio Hato were functioning amid difficulties, and the influx of recruits increased the strain on the schools' limited facilities without reflecting an increase in the number of trained men.

The quality of tactical training was also a concern of General Andrews, and he sought to raise the level of combat readiness to thorough

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

149

preparedness for war. On 14 January he wrote to Colonel Brady and Colonel Gravelly:

I want to emphasize pursuit gunnery. A pursuit pilot who cannot shoot must be transferred out. I want pursuit taught to shoot and not just to have a qualification I want set up, on paper, as far as we can, a combat crew, by name, for every airplane scheduled for delivery to Panama Canal Department Air Force on or before July 1 we don't want to try and fool ourselves. I would like prepared, a series of tactical tests which I propose to spring on our units without prior warning at periodic intervals. Logistical arrangements must always be included.

There was, accordingly, an increase in the number and scope of tactical exercises and maneuvers. This new note of realism was also seen in the department's preparation of a bombproof command post. The structure was not expected to be complete until the fall of 1941, but plans were already being drawn up for its use in routine and emergency operations. An estimate had also been made as to the number of officers and men at Albrook whom the department could use for local combat duty in case of attack. But General Andrews, anticipating the tasks of aircraft dispersal and operations from auxiliary airfields, recommended in January that "personnel assigned to the Air Corps stations in the Panama Canal Department not be considered available for guarding installations or for combat missions not directly connected with Air Force operations."

Many Air Corps personnel, however, were already assigned to duties not necessarily connected with their real mission in the Canal Zone. In January the 9th Bombardment Group at Rio Hato was so burdened by extraneous duties that the group was barely able to maintain its equipment and the flying proficiency of its pilots, without regard to tactical and bombardment training. Out of a total of 1,002 enlisted men assigned or attached

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

149a

to the group, only 240 were actually available for duty with the group, while 610 were performing construction work for the 11th Engineers and 111 were detailed to the commanding officer of the Department Training Center. In addition, 388 men from France and Albrook were on special duty in various administrative and maintenance capacities, making a total of 1,109 Air Corps men performing duties at Rio Hato "prejudicial to necessary individual tactical and technical training." On 17 January the 9th Bombardment Group had only 55 men to serve as combat and maintenance crews for its 19 planes, a number plainly insufficient to perform required duties.

General Netherwood, whose survey of the 19th Bombardment Wing in January had revealed serious deficiencies, suggested that a department training center detachment be organized to include men from all arms and services in proportion to the number of troops to be regularly trained at Rio Hato. The detachment would perform all air base and post functions, thereby releasing a minimum of 400 men for training with the 9th Group. General Andrews passed the recommendation on to General Van Voorhis, with the additional suggestion that 200 men from branches other than the Air Corps be detailed to the 11th Engineers. The department did not approve the latter, but action was taken to provide administrative and maintenance detachments at Rio Hato, and the department instructed the commander of the training center to release any 9th Bombardment Group personnel who might be or might become excess. As late as 20 February, however, the organization of permanent detachments had not resulted in the release of

CONFIDENTIAL

AAFHS-42

150

CONFIDENTIAL

any personnel to the 9th Group, to France Field, or to Albroom. The 610 men assigned to the 11th Engineers had fulfilled their original purpose of providing housing for the 9th Group, but the Air Corps men were retained for construction work of primary benefit to other branches. Approximately 75 per cent of the post overhead of 385 men, exclusive of personnel engaged in airdrome operation, was provided by the PGD Air Force, the figure being far in excess of the percentage of Air Corps men in training there.

In February the traffic pattern of one of the fields at Rio Hato provided another issue for conflict between the department and the air force. General Andrews had asked General Netherwood to investigate a report that planes entering the field were endangered by antiaircraft artillery fire. The results of the investigation were forwarded to General Van Voorhis with a recommendation from General Andrews that the firing point be moved approximately 8,000 yards away from the approach to the runway. The department commander, in reply, was "unable to understand why this question should be raised after the expiration of nearly a year of Coast Artillery firing in their present battery position." The matter had been discussed with General Dargue during the previous year and no change had been made in battery positions. General Van Voorhis further remarked that he had recently landed at the field in his C-39, "no question being raised on that occasion as to the danger involved," and that to move the batteries 8,000 yards would put them outside the boundaries of the reservation.

CONFIDENTIAL

AATHS-42

151

CONFIDENTIAL

The Panama Canal Department seemingly resented any suggestions from the air force which would affect other branches of the service at Rio Hato. In this instance the department failed to consider that conditions might not always remain static and that a compromise once satisfactory might not continue indefinitely to be so. Moreover, General Van Voorhis based part of his reasoning on his own opinion regarding a purely aerial matter; his pilot on the particular tour of inspection later reported that for reasons of safety he had not followed the prescribed traffic pattern at the Rio Hato field. But this settlement was typical of the "solutions" provided for almost all controversial matters at Rio Hato.

When the issue of cooperative missions arose in mid-February, the department commander reversed the premise of his reasoning and rendered a decision on the basis of changes rather than on the lack of change. The Panama Coast Artillery commander, General Jarman, submitted on 14 February an estimate of the cooperative flying time necessary for his command during the month of March. The estimate called for a total of 257 hours "on course," including day and night tracking and towing missions, to be performed on the Atlantic and Pacific side and at Rio Hato. General Andrews called attention to a letter which had been written by the department commander on 1 May 1940, informing the War Department that Air Corps tracking and towing missions for the fiscal year 1941 had been limited to 700 hours. The PCDA Air Force had already flown 814 hours for the coast artillery during the fiscal year, 16 per cent more than had been allotted for the entire year. While expressing his desire to cooperate in the training of all combat branches, General Andrews recommended to the

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

152

department that not more than 100 hours per month total flying time (not "on course" time) be scheduled for towing and tracking during the remainder of the fiscal year. On 28 February General Van Voorhis asked that General Andrews and General Jarman confer and make such adjustments "as will produce the most effective results." He informed General Andrews as follows:

During the early part of last year, it must be admitted, there was considerable confusion in the Department due to reorganization, augmentation and the acquisition of additional defense materiel. . . . I know that you can appreciate the changes that have taken place within this period and that none of us can be bound by what appeared to us at the time to be the most practical solution. . . . I am thoroughly appreciative of the difficulties which confront you in your training program, utilization, in many cases, of obsolescent equipment, shortage of trained personnel, etc. However, I have never seen the time when adjustments could not be made.

This expression was strangely in contrast with the finality of the decision regarding the air traffic pattern at Rio Hato. It would seem to point to the conclusion that the department encouraged concessions of the air force to other branches, but was vigorously opposed to adjustments by other branches of the service which would accommodate the air force.

General Andrews, in conference with General Jarman and General Netherwood, re-examined the possibility of providing the additional hours requested by the coast artillery commander and required by War Department regulations for the artillery. The interruption of the air force training program was only one objection to the project. The "great bottleneck" was depot overhaul of engines. Only 180 engines per year could be overhauled by the air depot, leaving an annual deficiency of 156 engines, or 31,000 hours, for Air Corps training alone. Before the deficiency could be met locally, there would have to be an increase in

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

153

civilian personnel at the depot, and this increase was contingent upon the provision of adequate housing. Ten days after General Van Voorhis had directed that the conference be held, General Andrews reported the results and concluded with his belief that "with the present shortage of flying hours in this Department the firing requirements of antiaircraft artillery could be reduced without any serious effect on the efficiency of the gun defense of the Panama Canal."

Perhaps the chief result of the conference was the decision to conduct "the firing of guns and automatic weapons machine gun practices at Rio Hato, rather than attempting practices at firing points in both the Atlantic and the Pacific entrances to the Panama Canal." A decision was also made to send the 39th Observation Squadron with O-47's and radio-controlled target equipment to Rio Hato on field service status. The squadron would perform the flying missions for all antiaircraft artillery firing except practices with high explosive shell, this latter phase of artillery training to be accomplished by bombardment aircraft during approximately 300 hours.¹⁵ This seemed to be a logical solution to a difficult problem, as it relieved bombardment groups of most of the non-tactical flying and concentrated it in the squadron which was best suited for that type of mission.

Tactical flying began to reflect the trend toward unification of defense efforts in the Caribbean. Under the guidance of General Andrews the program for extended training flights was greatly expanded. With few exceptions, B-18's were used for the flights, as most of the routes necessitated lengthy overwater hops, but the personnel was composed of

CONFIDENTIAL

AAFHS-42

154

CONFIDENTIAL

about equal numbers of bombardment and pursuit flyers. The route which included all Central American capitals and the one which led down the west coast of South America were most commonly flown. Flights across the northern coast of South America and through the Antilles to Cuba were limited by the necessity of obtaining diplomatic clearances.

As the flights increased in popularity with Canal Zone officers, they tended to become pleasure trips rather than familiarization missions. Passenger lists revealed that the officers most frequently engaged in the missions were those whose rank made it unlikely that they would ever serve in combat in the area. Officers belonging to other branches of the service began to be attracted to the flights, and the air force was "increasingly importuned with requests to be detailed as observers." The so-called observers were afforded a brief vacation, while they traveled about the Caribbean "drawing \$6.00 per diem." The B-18's were not suitable for passenger service and they were insufficient in number to provide for air force needs. General Andrews found himself repeatedly explaining to department officials why it was impossible for the air force to satisfy their travel requirements. On 12 December 1940 he had issued orders that Air Corps officers should not invite persons to accompany flights into foreign countries and that if approached by officers of other branches, they should refer the applicant to the instructions of the department commander. General Van Voorhis, however, approved "the broadening effect of travel on the viewpoint of officers" of the department, and the air force had to agree to take four passengers each month on the flight to the capitals of Central America.

CONFIDENTIAL

AATHS-42

CONFIDENTIAL

155

Previously, because of the restricted scope of aerial operations, gasoline had not been required at many points outside the Canal Zone. Fuel needs were met by purchases from Pan American or Pan American Grace Airways at their stations throughout Central and South America. Advance arrangements had not been necessary because the purchases were usually small--for two or three planes at a time. But now, with flights being made over areas not regularly serviced by commercial airlines, it was necessary for the PCD Air Force to make arrangements for fuel supplies at many small airports and emergency landing fields, particularly along the northern coast of South America. Some difficulty resulted from the fact that Navy and Marine aircraft often used fuel supplies requested by the PCD Air Force without making any arrangements with the air force. On 22 February General Andrews asked that the Navy Department be informed of the situation. In the resulting correspondence the Secretary of the Navy assured the Secretary of War that in the future naval aircraft would use Army gasoline only when there was "no possible alternative and then only after notifying the Air Force."

Arrangements for gasoline storage in Ecuador and Peru were made chiefly by Maj. Uzal G. Ent, military attache at Lima. But it was impossible for the air force to make an accurate estimate of its future fuel requirements. During 1940 the monthly consumption of the entire air force had fluctuated between 75,000 and 450,000 gallons, and in view of promises of new types and increased numbers of aircraft, as well as the undetermined nature of operations in the area, the air force did not

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

156

establish definite aviation fuel requirements for the remainder of the fiscal year 1941. Climatic conditions, which caused a deterioration of aviation gasoline, made it economically unwise to keep a larger supply of fuel than could be used within six months. Apparently no attempt was made to study the aviation fuel requirements of the Caribbean area as a whole, and, as a result, each new landing field and each new flight was treated as a separate phenomenon.

For a series of photographic flights over Latin American countries during late 1940 and early 1941, the FGD Air Force had to make arrangements in advance of each flight for gasoline of the proper octane rating at locations near the areas to be photographed. These missions served a variety of useful purposes: they gave flight experience to crews over a number of hitherto unfamiliar locations, fostered relations with countries which had requested missions, and provided the nucleus for a photographic library of permanent importance to forces defending the Caribbean area. The 7th Reconnaissance Squadron carried out the photography, which in general was limited to small, strategic areas, including airfields, harbors, power plants, railroad bridges, highways, and other points of military importance. Among the countries either requesting photographic missions or granting authority for such missions were Peru, Ecuador, Paraguay, El Salvador, Guatemala, Honduras, British Honduras, Costa Rica, Nicaragua, Trinidad, British Guiana, and Surinam. There was also a limited amount of flying, incidental to photography, over Bolivia, Chile, and Colombia. Local photography for the FGD Air Force was carried

CONFIDENTIAL

AATHS-42

157

CONFIDENTIAL

out by the 44th Reconnaissance Squadron and the 39th Observation Squadron, but the work of these units consisted primarily of monthly surveys of construction progress at Albrook, France, and Howard fields, with occasional photography of emergency airfields in Panama. The work of the 7th Reconnaissance Squadron in Central and South America was considered "of much broader importance."

Because plans for Air Corps expansion in the Caribbean had not yet been completed and diplomatic requirements were still somewhat rigid, air commanders were not allowed to make too obvious their interest in development of specific locations outside the Canal Zone. But in many areas where interest had not been officially declared, airfield development was being sponsored by secret agreement with U. S. commercial airlines and import companies. By such arrangements, runways were being constructed at Port au Prince, Ciudad Trujillo, Guatemala City, Managua, Camaguey, La Guaira, Maracaibo, Barranquilla, and Caripito, with expected completion dates ranging from 15 January to 1 August 1941, and with operating facilities to be ready within 30 days after runway completion. Pan American Airways had developed an emergency field at San Jose, Guatemala, which was of interest to the PCD Air Force, along with another emergency field at San Lorenzo, Honduras. In February, General Andrews recommended that both sites be developed. Pan American made an estimate of the cost for construction of additional facilities at San Jose, and the War Department promised to give the project high priority as soon as funds became available, but the project for San Lorenzo was dismissed.¹⁶

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

158

In February the prospective use of contract airfields throughout Latin America gave rise to the question of Army-Navy control of communications at these sites. According to "Joint Action of the Army and Navy," the Navy had prior right "to utilize, in whole or in part, non-military communication stations . . . that are permitted to communicate overseas with ships, or with aircraft flying over the sea, and non-military communication stations in Panama, the insular possessions, and in foreign territory exclusively occupied by the Navy." In Washington the Chief Signal Officer raised the question as to whether or not this statement applied to the radio equipment at airfields constructed by Pan American Airways. The Chief of Naval Operations on 26 February proposed that the radio facilities at such airfields be considered an exception to the general policy and that control of the facilities be regarded as the prerogative of whatever U. S. service might be controlling, or customarily using, the airfields.

The Chief Signal Officer found the Navy reply inadequate because it failed to distinguish between the normal company-owned communication facilities and those installed at government expense. The latter represented "a specific AAF requirement" and, according to the Chief Signal Officer, "should be available to the Army whenever required regardless of any other consideration." It was also noted that the Navy had collaborated in the preparation of plans for augmentation of facilities and had not requested installation of any equipment for Navy purposes. Strenuous objection was raised to the assumption that control of these facilities should be the prerogative of the Navy in case the Navy happened

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

159

to be using the airfield. The Chief Signal Officer did not presume that the facilities could not be made available to the Navy if required, but he believed the matter should be left to "the discretion of the Air Force commander in the area." It was considered imperative that the Army air commander "be assured the right to operate and control his tactical ground stations without any consideration of the presence or absence of any large naval contingent." Likewise, it was regarded imperative that facilities forming the links in an airway chain from the United States to lower Brazil "not be diverted from the centralized Army control essential for the efficient operation of such an extensive airway."

The Chief of the Air Corps agreed with these tenets and also with the Navy suggestion that the commercial radio facilities be considered an exception to the requirements of "Joint Action." But the Air Corps went further and pointed out to the War Department that a definite change in policy, outlined in "Joint Action," was now required, as the existing policy was "obsolete." It was therefore recommended that the radio facilities of Pan American Airways in Central and South America and in the Caribbean Theater "be placed, in time of emergency or war, under the direct control of the Army, and that an agreement be reached and orders issued placing this agreement into effect."¹⁷

Progress of Plans for a Caribbean Air Force

While higher headquarters wrestled with problems of Army-Navy control and policies, General Andrews continued to make plans for an integrated Army air command in the Caribbean. In late January he had made a

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

160

rapid survey of projected air bases in the Caribbean , including stops at Jamaica, Puerto Rico, and Trinidad; and early in February he accompanied General Van Voorhis over the same route. But, as Colonel Brady reported to General Spaatz on 18 February, the situation regarding the development of the proposed Caribbean Air Force was "quite discouraging." Colonel Brady had presumed that with the arrival of General Andrews, the department commander "would see fit to place responsibility for Air Corps administration and Air Force organization directly in his [Andrews'] hands." So far, this had not been the case. Colonel Brady had not seen any general plan for the organization of the Caribbean Defense Command, nor had he heard of the existence of any such plan at department headquarters. But staff members of the PCD Air Force had drawn up some proposals which General Andrews was shortly to submit to General Van Voorhis. These plans called for organization of the Puerto Rican and Panama Canal Department forces into the Caribbean Defense Command as follows:

- (1) A Coastal Frontier Defense Command, to be created from the Panama Canal Department, with its area extending from the northern boundary of Guatemala to the southern boundary of Ecuador.
- (2) A Caribbean Coastal Defense Command, to be created from the Puerto Rican Department, with its boundaries extending from the northern limits of the Bahamas down the east coast of South America as far as French Guiana.
- (3) A Caribbean Defense Command Air Force, with unified bomber and pursuit commands (the latter to be made up of pursuit not organically a part of air defense commands).

CONFIDENTIAL

CONFIDENTIAL
AFHS-42

161

(4) A Mobile Ground Force Command, to include the troops not assigned to the coastal command, and to be designed for extending the zone of operations southward and for occupying such critical points as might be required.

(5) Air Defense Commands, including a minimum of pursuit aircraft, antiaircraft artillery, and aircraft warning service, to be created for the Canal Zone, Puerto Rico, and Trinidad, and possibly sub-commands for Kingston, Antigua, and other important points.

Colonel Brady explained to General Spaatz that the idea of the Coastal Frontier Defense Command was being introduced "with the hopes that the high-ranking ground officers would get the bigger picture that defense no longer is confined to holding with ground forces the Canal Zone or establishments in Puerto Rico, etc." The reception which these plans might be accorded at department headquarters was "problematical," but judging from previous experiences, the airmen might logically have expected a rejection of recommendations having to do with other services.¹⁸

The air component of the new Puerto Rican Department was further advanced in its organizational progress than was the PCD Air Force. On 14 February a Provisional Air Defense Command was established in Puerto Rico, comprising all antiaircraft artillery, aircraft warning services, passive defenses in the department, and "such aviation as may from time to time be attached to it." Brig. Gen. Follett Bradley, commanding the 13th Composite Wing, was designated air defense commander, while the senior coast artillery officer on duty with antiaircraft coast artillery units

CONFIDENTIAL

AAFHS-42

162

CONFIDENTIAL

was designated deputy air defense commander. The new command was purely a tactical organization, having no administrative functions; technical training of its components remained under their respective commanding officers. The air defense commander was charged with the development of plans for defense of the Puerto Rican Department against air attack. In addition, he was to conduct the combined training of the Air Defense Command in peace and its operations in war.¹⁹ This was the kind of organization which General Dargue had fought for during his two years in the Canal Zone, and the type of command which was now being advocated by his successor in the Zone, as well as by the Air Corps.

Prior to this time the 13th Wing had been proceeding in its plans without the coordination of General Andrews. A memorandum from Colonel Brady to Colonel Gravely on 26 February marked the beginning of close contact between the PCD Air Force and the 13th Wing. It was assumed that General Andrews would eventually command all air units in the Caribbean, but until the formal organization took place, it was necessary for representatives of the two forces to confer and coordinate their action. Colonel Gravely was informed on 26 February that General Andrews wanted him to consult with General Bradley "on the planned flight to Puerto Rico in connection with the organization of the Caribbean Defense Command." Subjects listed for discussion were: the scope and itinerary of familiarization flights to be made by the 13th Wing; diplomatic arrangements already made for flights to Cuba, Haiti, the Dominican Republic, Trinidad, Jamaica, and Barbados; and centralized control of fuel requirements for Army aircraft in the Caribbean, to prevent a continued duplication of

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

163

arrangements with commercial companies. General Andrews also wanted General Bradley to understand that he did "not at this time want to interfere in any way with his proposed training," for until the organization of the Caribbean Defense Command was clarified, it was difficult to give any definite instructions or information on proposed air force activities.

General Bradley wrote Colonel Brady on 1 March, answering the questions which had been raised in the memorandum to Colonel Gravely. He recommended two flights monthly from Puerto Rico to the Canal Zone via the Lesser Antilles, Maracaibo, and Colombia. An alternate return route over the Caribbean was also suggested. These flights were to be in addition to those already being made weekly to Havana and Miami. Only one plane was included in each flight, but as the strength of the wing increased, more planes would participate. The commanding general of the Puerto Rican Department had authority to make direct arrangements with the embassy at Havana, with the legations in Haiti and the Dominican Republic, and with the American consul at Trinidad for flights to, from, and over those places. General Bradley assured Colonel Brady that he would keep the FCD Air Force informed of fuel needs of the 13th Composite Wing. More detailed plans for familiarization flights were announced on 14 March, and at General Andrews' request, authorization was granted for direct communication between his headquarters and headquarters of the 13th Composite Wing with reference to any changes in the schedule.²⁰ The administrative framework for cooperation between the two air units

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

164

was therefore established before formal organization of a Caribbean air command.

Revised Plans for Air Corps Expansion

On 14 March 1941, long before the Panama and Puerto Rican air units had reached the strength authorized in the First Aviation Objective, the Army announced its Second Aviation Objective. Instead of a goal of 4,006 aircraft, the air arm now had a goal of 7,799. The second program was not to be initiated until after completion of the first, but the whole process of Air Corps expansion was to be speeded up in order to complete the 54 Group Program "at the earliest practicable date."

The general plan for implementation was as follows. An additional squadron would be formed in each group, to be used as training squadrons and as a source of replacement squadrons, flights, or individuals. After the addition of training squadrons it was planned to increase the number of aircraft assigned to all squadrons to the greatest number which could be "effectively commanded, employed, based, and served by one squadron headquarters establishment." In the case of pursuit groups, it was planned to add another combat squadron to each group, making four combat squadrons and one training squadron per group headquarters. After units in the 54 Group Program had been thus augmented, it was planned to form additional groups up to the number allowed by the number of operating aircraft in the Second Aviation Objective.²¹

For General Andrews, as for other air commanders at overseas stations, the program meant a revision of plans to allow for the expansion of existing bases and the provision of new bases. The more immediate problem, however, was to hasten completion of expansion objectives as announced in the 54 Group Program. By mid-March the schedules for aircraft

CONFIDENTIAL

AATHS-42

165

CONFIDENTIAL

delivery had been revised. General Andrews was informed that the Panama Canal Department, occupying third place in "Priorities for Supply of Aircraft," would receive 80 P-40B's in April 1941, 13 A-20A's in May, 80 P-40B-D's in July, 35 B-17D-E's in August, and 35 B-17E's in September. In March the aircraft strength of the PCF Air Force was short at least 12 bombers and 125 pursuit planes, exclusive of squadrons which had been activated but had not begun tactical training, and disregarding the age and unsuitability of the aircraft. Because of a shortage of trained mechanics, not more than two-thirds of the 56 bombers and 35 pursuit planes could be kept in operating condition at any one time.

On 28 February Lt. Col. John P. Richter, commanding the air depot, had reported that all the P-26's were approximately eight years old and were "entirely obsolete." He recommended that they be flown as long as their present condition permitted and then be disposed of, without wasting time on depot inspection and repair. The recommendation was not accepted by General Andrews, who apparently did not have too much confidence in the promised flood of P-40's within the next few months. The 12th Pursuit Wing approved of Colonel Richter's suggestion, but General Andrews directed that the P-26's "be retained in service until replacement airplanes are actually on hand."²²

A shortage of engines continued to ground an average of 10 to 15 planes a month. Colonel Richter estimated that consumption requirements had increased to 25 engines per month since the arrival of the 9th Bombardment Group, while repair and testing facilities at the depot were

CONFIDENTIAL

AAFHS-42

166

CONFIDENTIAL

not sufficient to provide more than 15. It was proposed to supplement the local repair of engines by accumulating supplies at the San Antonio Air Depot and using the newly activated 20th Transport Squadron to bring two engines a week from San Antonio. But this proposal meant little improvement, in view of the shortage of transport planes. There were only two such planes in the department, a C-39 assigned to General Van Voorhis and a C-33, chronically grounded for lack of parts. On 19 March Colonel Richter declared that the primary function of the 20th Transport Squadron was that of an air transport service, charged with the transportation of necessary supplies and equipment in the shortest time possible. The squadron was using B-18's to carry out its functions, but the planes were not readily adaptable to such service and, in addition, they were needed by tactical units. General Andrews' request for the assignment of three C-39's to the squadron had been approved by the War Department, but it was estimated that the planes would not be available until December 1941.

For those planes which were scheduled to arrive in the spring, the PCD Air Force began to make extensive preparations. In mid-March the 12th Pursuit Wing formulated a detailed plan for ferrying the P-40's from Buffalo, N. Y., to Albrook Field. In anticipation of new and increased supply and maintenance requirements, estimates of the necessary stocks were submitted. The air force also proposed to send officers and enlisted men to Mitchel Field, N. Y., for study of the P-40 type, and to the Allison Division, General Motors, at Indianapolis for training in maintenance of the Allison engine. Approximately 30 men were sent to

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

167

the United States in accordance with this plan, and arrangements were made for B-18 transportation of pursuit pilots to Patterson Field, Ohio, in order to ferry the P-40's to the Canal Zone. In addition, one officer and 13 enlisted men were sent to March Field, Calif., to study maintenance of the A-20 type, but they reported that March Field had no A-20 equipment or trained personnel for instructional purposes in that type of aircraft. In view of these difficulties, perhaps it was just as well that the P-40's and A-20's did not become available until late May, and then in numbers much smaller than had been promised.²³

In expectation of increased air force requirements, the Panama Canal Department activated 11 service units, effective 25 March. The 483d, 697th, 742d, 743d, and 744th Ordnance Companies, Aviation, were activated to provide ordnance service for the two combat wings and three air bases. Three quartermaster companies, the 9th and 10th (truck) and the 40th (light maintenance), the 46th Signal Platoon (Air Base), and the 327th Signal Aviation Company were all activated with station at Albrook Field. The 6th Chemical Company was likewise announced for Albrook, but it was essentially a "paper" organization. The 25 men available for chemical warfare service in the department remained in training at Corozal, pending the arrival of chemical officers and a decision on the allocation of men to the several bases.

On 26 March the 805th Engineer Company (Aviation) arrived in the department and was assigned to Rio Hato. At one time, an entire battalion, with its heavy equipment, had been promised, but only one

CONFIDENTIAL

AAFHS-42

168

CONFIDENTIAL

company, without heavy equipment, could be sent. Assignment of the company to Rio Hato was contrary to the wishes of General Andrews, who felt that the unit should be stationed, at least temporarily, at Albrook where it could prepare camouflage, dispersal areas, and taxi strips. General Van Voorhis felt otherwise, and the company was therefore sent to Rio Hato to carry out instructions of the Department Engineer.

General Andrews' concern for camouflage and other protective measures had its effect on the entire air force of the Panama Canal Department. Headquarters of the air force sought information on illuminating and blackout methods which had been found most practicable for night operations in England. Commanders of the 19th Bombardment Wing and the 12th Pursuit Wing were ordered to maintain a roster of "alert officers," so that the air force might be ready 24 hours a day to act on any important information from other headquarters. And on 8 March the pursuit wing was ordered to maintain in readiness during the daylight hours two pursuit planes which could take to the air within five minutes after receipt of instructions. While the primary function of the two planes was to identify and report on commercial aircraft, each plane was required to be armed with at least one .30-cal. machine gun loaded with 150 rounds of tracer ammunition.²⁴

Garrisons for Caribbean Bases

By 27 March General Andrews had completed a study of the planned disposition of air units at Caribbean bases, and through the Caribbean Defense Commander he informed the War Department of recommended changes.

CONFIDENTIAL

AAFHS-42

169

CONFIDENTIAL

The War Department was contemplating the establishment of a complete, operating air base, with a suitable complement of Air Corps units, in Trinidad and staging fields with airways detachments in the Bahamas, Jamaica, Antigua, St. Lucia, and British Guiana. But General Andrews felt that small, operating air units should be stationed in Antigua and St. Lucia and that construction of the British Guiana base should be altered to include facilities for a relatively large complement of Air Corps units. It was reasoned that Antigua and St. Lucia were strategically located for air surveillance of the French islands of Guadeloupe and Martinique and for long-range reconnaissance over the Leeward Islands front. According to existing plans, entire dependence for warning of the approach of hostile forces was placed on the aircraft warning service, which in General Andrews' opinion was not sufficient, considering the vital importance of the frontier. It was also believed that for any air activity directed toward the critical Natal area of Brazil, the British Guiana base "must necessarily be utilized as an operating base." General Andrews therefore recommended that at least one composite group be allotted to the proposed base in British Guiana and that one long-range reconnaissance squadron (less one flight) be stationed at Antigua. The Chief of the Air Corps concurred with these views and accordingly recommended to the War Department that the Caribbean Defense Commander be granted authority to dispose of the air units available to him in the manner best suited to the situation. The only stipulation was that the War Department be advised in advance of the proposed disposition in order that construction plans might be changed to fit revised requirements.²⁵

CONFIDENTIAL

AATHS-42

170

CONFIDENTIAL

By 1 April the agreement with Great Britain had been signed for the use of sites acquired in exchange for 50 destroyers, and steps were being taken to expedite the signing of individual leases. Construction plans provided for complete facilities generally as recommended by the Greenslade-Devers Board reports and in accordance with whatever modifications were later directed.²⁶ President Roosevelt had directed that every reasonable effort be made to construct buildings of a type that would not mar the natural beauty of the islands, and in this connection he had stressed the desirability of employing competent architects to design the structures. The War Department therefore directed the Chief of Engineers to see that architecture at each base conformed "to local types in so far as practicable." Construction was to be "expedited in every way practicable, giving priority to airfields, including necessary operating facilities, and prepared camp sites."²⁷

According to War Department plans, the Puerto Rican Department would provide the initial garrison at Trinidad. On 26 March General Van Voorhis notified General Daley that it was contemplated establishing an Air Corps detachment from his department "in the near future" at Piarco Airport near Port of Spain, Trinidad. The detachment was to consist of six officers and about 15 enlisted men, with two B-18's and motor equipment to be furnished by the Panama Canal Department. This drain on its personnel complement, slight though it was, could hardly have been welcome news to the 13th Composite Wing, for the wing was still dividing and subdividing its units in order to create the new groups required by the First Aviation Objective. The 40th Bombardment Group (M) was activated

CONFIDENTIAL

AAFHS-42

171

CONFIDENTIAL

on 1 April, with commissioned personnel taken from the 25th Bombardment Group (H) and enlisted personnel from the 24th Air Base Group, the 25th Bombardment Group, the 27th Reconnaissance Squadron, and a casual detachment of recruits.²⁸

The aircraft strength of the 13th Wing at this time consisted of 21 B-18A's, 2 A-17's, and 1 A-17A. One of the B-18's was undergoing inspection, two were at Middletown Air Depot undergoing repairs, and two were awaiting orders to proceed to the depot for repairs. Approximately 80 pilots were on flight duty, and increments of 54 pilots were expected to arrive every 12 weeks. Since many of these pilots would be newly graduated from flying school, the 13th Wing needed advanced training planes in order to continue their training. The wing took the point of view that "to fly entirely as co-pilots for such period as is required to qualify as first pilots is not conducive to morale or pilot efficiency." General Bradley was informed that the desired aircraft could not be assigned from the United States, but that three Link trainers would become available for shipment about 15 May.²⁹

By 8 April the War Department had changed its plan for garrisoning Trinidad, and the 13th Wing was relieved of its responsibilities in this connection. General Van Voorhis was ordered to prepare for movement to Trinidad about 20 April 1941 one heavy bombardment squadron, equipped initially with six B-18A's and accompanied by the necessary Air Corps services. The total strength was to be approximately 46 officers and 386 enlisted men. On 16 April General Van Voorhis ordered General Andrews to form a provisional air base detachment and to prepare the 1st

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

172

Squadron of the 9th Bombardment Group for movement to the Piarco Airport. Maj. Arthur L. Bump, selected as commander of the detachment, was issued general instructions on 19 April regarding his new command, with special emphasis on the need for cooperating with the Base Engineer, Trinidad, pending the arrival of the Trinidad Base Force. This force, accompanied by the base commander, was scheduled to sail from New York about 28 April and to arrive in Trinidad approximately five days later.

On 20 April the water echelon of the detachment under command of Major Bump embarked at Balboa on the U.S.A.T. Chateau Thierry. Within a week the air echelon, consisting of 15 officers and 12 enlisted men, left in six B-18's under the command of Maj. Stuart P. Wright. The War Department had directed that "special effort be made to maintain the secret status" of this movement, but the desired secrecy was not kept. Even before base officers had been officially informed of the move, many enlisted men at Albrook had come or telephoned to base headquarters to volunteer for duty in Trinidad. And two organizations, the 28th and 31st Pursuit Squadrons, had even posted notices on their bulletin boards calling for volunteers. An investigation of the breach of security was made, but Colonel Gilkeson concluded that "the fact that the news was general throughout the post would explain the apparent negligence of parties involved."³⁰

Diplomatic formalities experienced with the Trinidad movement provided General Andrews with an opportunity to emphasize the need for liberalization of flight arrangements with Latin American countries. Before the 1st Bombardment Squadron moved its air echelon to Trinidad,

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL 173

it was necessary for military authorities in the Canal Zone to obtain authority from the Colombian and Venezuelan governments for stops en route in their respective countries. The armament for the B-18's had to be shipped by water, as no authority existed for U. S. planes to carry arms when flying over foreign territory. The Caribbean Defense Commander informed the War Department that "there must be effected a liberalization of such restrictions on our movements" throughout the Caribbean area.³¹

Some headway had been made in this direction. Blanket clearance agreements had been made with Colombia, Venezuela, Ecuador, Peru, Guatemala, El Salvador, Honduras, Costa Rica, and Nicaragua, and the Puerto Rican Department had obtained similar permission in Haiti, the Dominican Republic, and Cuba. For such clearance it was necessary that the Panama Canal or Puerto Rican Department notify the American diplomatic representative in the country involved when a flight was expected to land in or cross over that country's territory, provided that no civilians were on board and that sufficient advance notice was given to obtain the permission. Blanket clearance had also been arranged for specified familiarization flights throughout Central and South America. Formation of the Caribbean Defense Command simplified the procedure somewhat by giving the authority to one agent, the defense commander, instead of the two department commanders, for obtaining all Caribbean clearances. But some countries, Mexico in particular, were still unwilling to grant diplomatic clearance except upon request for the passage of a particular flight. With the pending formation of a unified air command in the Caribbean and the growing necessity for rapid movements, unimpeded by diplomatic negotiations,

CONFIDENTIAL

AAFHS-42

174

CONFIDENTIAL

it was obvious that more suitable arrangements would have to be made, and the War Department was therefore preparing to take the matter up with the State Department.

On 29 April General Andrews forwarded to the Caribbean Defense Command his plan for implementation of the Army's Second Aviation Objective. It had been thought that the program would call for new air bases and expansion of existing bases, but General Andrews considered this action impracticable. He proposed that the expansion of Air Corps units in the Caribbean Defense Command be accomplished "through the utilization of the planned airdrome and air operating facilities in the Caribbean Defense Command area" in accordance with his plan for a redistribution of units. The plan involved the movement of one heavy bombardment group, one interceptor pursuit group, and one reconnaissance group from Panama to the Trinidad-Georgetown area. This projected movement meant that the air strength in Panama would be substantially the same under the Second Aviation Objective as it was under the First. The expansion of units stationed in Puerto Rico would be provided for by movement of one heavy bombardment squadron to Antigua and one to St. Croix, and a composite group, composed of one medium bombardment and one pursuit squadron, to Jamaica.³²

In order to prepare the FCD Air Force for its share of responsibilities in the expansion program, General Andrews was pressing for early completion of airfields in the Republic of Panama. On 26 February the department commander had established several policies to be followed in development

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

175

of auxiliary airfields: responsibility for design and construction of the fields, with the exception of Rio Hato, was assigned to the Department Engineer, to whom all funds were allotted, and construction was authorized by any means "most expeditious and feasible within the funds which may be provided." It was also directed that the 805th Engineer Company be made available for work on the projects, and that design and priority in construction be coordinated with the FOD Air Force.

On 1 April General Andrews had given first priority to the work at Chame, followed closely by Rio Hato and Aguadulce. He had also indicated that construction of an all-weather runway at least 5,000 feet in length was of highest importance at each field. The department at first was opposed to this system of priorities, preferring instead that as many usable fields as possible be made available in the shortest possible time and that initial work on all runways be restricted to clearing, marking, and leveling to the extent necessary to make the fields usable. But the air force continued to maintain its position that assurance of all-weather operations from a few fields was of more importance than limited operations from a greater number of fields, and funds in the amount of \$1,000,000 were therefore requested for permanent runways at Chame, Rio Hato, Aguadulce, and Jaque.

Formal acquisition of properties, including a site at Almirante, was completed between 3 and 11 April. By the latter part of the month the Department Engineer had completed initial planning for the projects, while work had begun at Chame some weeks earlier. A landing field at Puerto Armuelles, Panama, operated by the United Fruit Company but

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

176

recently fallen into disuse, again came into use for pursuit aircraft in April.

The air force was also interested in the development of the national airport at David. The field was suitable for limited operations by pursuit and bombardment aircraft and for refueling of aircraft moving to and from the Canal Zone. The PCD Air Force proposed to place immediate emphasis on the provision of adequate water supply, construction of a barracks-operations building, and development of gasoline storage, dock facilities, and a highway at the port of Pedrigal. The department, however, did not believe it "to be the best interest of the War Department to contribute to the support and improvement of an aviation field over which the Panama Government has any control, when there is a field provided under the control of the War Department in the same immediate vicinity." The air force therefore sponsored the development of another airfield at David. The department, wholly in favor of this step, recommended to the War Department on 1 May that funds which had been allotted for development of an airfield at David by Pan American Airways be transferred to the department for development of a comparable field by military forces.

At France Field, extensive construction was still being held up for lack of funds. But work at Howard Field, future headquarters of the 19th Bombardment Wing, was progressing rapidly. Plans for occupancy fell largely to General Netherwood, who had scheduled the first movement of forces to the field for early in May. Quarters were required initially for 72 commissioned and non-commissioned officers and 1,288 enlisted men.

CONFIDENTIAL

CONFIDENTIAL

AAFES-42

177

Since it was clear that not all the permanent construction necessary for housing the troops would be completed in time for the first move, a decision was made to rush completion of various temporary buildings of barracks type to house wing headquarters, squadron engineering, and operations. During the first week of May the first troops began to move to Howard Field as a permanent station. The opening of Howard alleviated to some extent the crowded conditions at France and Rio Hato, but it also created another personnel problem, which stemmed from the lack of officers for carrying out administrative duties at the new base.

While construction of airfields was being speeded, final steps were being taken preparatory to constitution of the Caribbean Air Force. To provide for closer liaison between the air command and defense command headquarters, Colonel Gravely on 8 March had been named Air Officer, in addition to his duties as G-3 of the air force; the office which had been virtually abandoned four years earlier was thus revived without placing an additional burden on the air force commander. Col. Floyd E. Galloway was designated on 21 April as post commander of Albrook Field, in order that Colonel Gilkeson might devote all his time to tactical duties as commander of the 12th Pursuit Wing and probable commander of the proposed Caribbean Interceptor Command. And on 8 May, General Andrews ordered an increase in duty hours in anticipation of the increase of work incident to expansion and reorganization.³³

By this time, final plans had been made for organization of the Caribbean Air Force. Key officers had been selected, requirements for additional officers had been studied, and necessary equipment had been

CONFIDENTIAL

AAEHS-42

CONFIDENTIAL

178

requisitioned. The Panama Canal Department Air Force had served its purpose as a transitional organization. General Andrews and his staff awaited only the official announcement from headquarters of the defense command that the Caribbean Air Force had been constituted.

CONFIDENTIAL

CONFIDENTIAL

AAFHS-42

Chapter V

THE CARIBBEAN AIR FORCE, 8 MAY-7 DECEMBER 1941

Constitution of the Caribbean Air Force on 8 May 1941 marked the beginning of one of the most important periods in the history of Panama Canal air defense. As might be expected, there was a continuation, on a larger geographical scale, of the problems, trends, and policies which had characterized the establishment of the FGD Air Force. Vast construction projects, training of inexperienced personnel, acquisition of modern aircraft, increased maintenance demands, diplomatic clearances, air traffic regulations, improvement of weather and communications systems--all were matters which occupied the attention of General Andrews and his staff. Yet these demands contained little that was new or significant. The chief interest in this period lies not in these details of preparation, but rather in the broader aspects of organization and planning. The air force structure, embodying the ideas of General Andrews, was in a sense experimental, but it had a traceable influence on both the continental commands of the AAF and, later, on American air forces in Europe.

The trend toward air force predominance in Caribbean defense forces was climaxed on 19 September 1941, when General Andrews succeeded General Van Voorhis as head of the Caribbean Defense Command. Even after his elevation to this position, General Andrews continued to influence the development of the Caribbean Air Force, which was commanded after 19 September by Maj. Gen. Davenport Johnson.

179

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL 180

Organization of the Caribbean Air Force

As eventually organized, the Caribbean Air Force was an integrated unit, separate from ground forces in the theater and capable of both independent and coordinated action. But the process of organization was slow, and the task was not completed until after General Andrews had become head of the defense command. Perhaps the foremost issue to be decided at the outset was the extent to which control should be decentralized and distributed among the three major air commands and their subunits. The question was settled differently in each case, with the result that the Caribbean Air Force served as a proving ground for various degrees of centralization and decentralization of control.

The Caribbean Defense Command tended to delegate wide responsibilities to sector commanders. When on 29 May the defense command announced its own organization it also defined the limits of three sectors: the Panama Sector, containing the Panama Canal Department and, for intelligence purposes, Colombia, Ecuador, and all of Central America with the exception of Mexico; the Puerto Rican Sector, containing the Puerto Rican Department, which included the Virgin Islands, the Bahama, Jamaica, and Antigua Base Commands; and the Trinidad Sector, containing the Trinidad, St. Lucia, and British Guiana Base Commands, plus, for the purposes of military intelligence, Venezuela, Surinam, and French Guiana.¹

Sector commanders were charged with the defense of their respective areas and the initiation, preparation, and execution of defense plans; the command and training of all assigned personnel and units except those of the Caribbean Air Force; the administration and supply (except Air

AAFES-42

CONFIDENTIAL

181

Corps technical supply) of all personnel and units within their respective sectors; technical maintenance of service units assigned to the Caribbean Air Force; and general court-martial jurisdiction over all personnel in their respective sectors.

The air force commander was charged with planning, training, and execution of plans for air operations and defense against air attack in the Caribbean Theater; coordination of plans with sector commanders and preparation of air defense portions of local defense plans; technical supply and maintenance of all Air Corps units within the Caribbean Theater; and control of all military air traffic in the Caribbean Defense Command.

The organization of the air force, as recommended by General Andrews, provided for Caribbean bomber, interceptor, and maintenance commands. Of these three, the interceptor command received immediate emphasis, undoubtedly because of General Andrews' recognition of the imminence of war and the consequent demand for strong air defense. Upon his request, a study of the proposed command was made in May by General Bradley, who still headed the 13th Composite Wing in Puerto Rico. The results of the study were embodied in the initial organization of the Caribbean Interceptor Command, which was constituted on 3 June. The command as constituted was composed of four regional sub-units in Panama, Puerto Rico, Trinidad, and Jamaica. Actively assigned to the command at the time were the 12th Pursuit Wing of the Canal Zone, the 36th Pursuit Group of Puerto Rico, signal companies (aircraft warning) of

CONFIDENTIAL

AAFHS-42

182

CONFIDENTIAL

both areas, and two battalions of antiaircraft artillery which had previously been assigned to the Provisional Air Defense Command in Puerto Rico. General Bradley was designated as head of the command and was authorized to use personnel of the 13th Composite Wing Headquarters in order to form provisional headquarters for the command and also for the Puerto Rico region.² General Andrews' decision to locate the headquarters of the most important element of his air force more than 1,000 miles away from the Panama Canal was altogether novel. It would seem to indicate at least a high regard for General Bradley's abilities.

Aside from the natural difficulties in setting up regional commands with an insufficient number of officers, two of the foremost problems facing the interceptor commander were concerned with antiaircraft artillery and the aircraft warning service. On 7 July General Bradley recommended that all antiaircraft artillery be organized into a Caribbean Antiaircraft Artillery Command and placed under the commanding general of the air force for training purposes. But General Jarman, commanding the Panama Coast Artillery Command, suggested that the proposed organization be placed under the Caribbean Defense Command, with liaison to be established with the air force. The issue was settled three weeks later when General Van Voorhis charged sector commanders with the command and training of antiaircraft artillery "up to the point where further progress necessitates its operation with other forces," while the air force commander was charged with the planning for combined air defense by air and antiaircraft artillery units, the planning and execution of all combined antiaircraft and Air Corps training, and the execution of plans for combined air

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

183

defense. The air force charge was delegated to the Caribbean Interceptor Commander, but General Van Voorhis' compromise solution was not entirely satisfactory inasmuch as it divided control of the antiaircraft artillery among the various sector and regional commanders.³

Organization and administration of the aircraft warning service presented more difficulties. Each of the four interceptor regions, representing various stages of development, required separate study and individual treatment. The great distances separating General Bradley's headquarters from the regional headquarters ruled out the practicability of frequent conferences. Furthermore, there was a considerable amount of misunderstanding throughout the command as to the responsibility of various agencies for the installations, supply, maintenance, and operation of the aircraft warning service. Brig. Gen. Harry C. Ingles, who had become G-3 for the Caribbean Defense Command, attempted in the summer of 1941 to clarify the matter. Operation of the service was undeniably a responsibility of the air force, since the two aircraft warning companies had been assigned to the force. But many headquarters were disposed to let other agencies assume the responsibility for installation, maintenance, and supply of the various stations. Clarification came in July when General Ingles completed a study of the situation and, with General Andrews' concurrence, circulated a directive which delineated the responsibilities of the sector and regional commanders with regard to the warning service.⁴

As for the operation of the regional commands, little was accomplished prior to the outbreak of war. Only the more advanced Panama

CONFIDENTIAL

AAFHS-42

184

CONFIDENTIAL

region was able to begin an approach to the ideal, and its operations, equipment, and personnel experience level were far from satisfactory. Nevertheless, under General Bradley and his successor, General Ketherwood, the framework for a workable interceptor command was established and 7 December found the unit more completely organized than other commands in the Caribbean Air Force.⁵

Unlike the interceptor command, the bomber command was not formed even provisionally until four months after constitution of the Caribbean Air Force, and its internal structure was comparatively simple. Brig. Gen. Edwin B. Lyon, who had arrived during the summer, became head of the Caribbean Bomber Command upon its activation on 18 September. Initially there were no regional divisions; from his headquarters in the Canal Zone, General Lyon exercised command over all bombardment and reconnaissance aviation in the Caribbean area, along with such pursuit aircraft as were attached for training or operations. But on 27 October, two days after the interceptor and bomber commands had received the numerical designation of "6th," the Puerto Rican Area of the 6th Bomber Command was established and placed under Lt. Col. Caleb V. Haynes. Further area divisions may have been contemplated, but they were not set up. Control of the Caribbean bomber force thus remained substantially centralized.⁶

The organization of the service command, as conceived by General Andrews, contained more original concepts and had a more definite influence upon the continental commands of the AAF than did the interceptor

CONFIDENTIAL

AAFS-42

185

CONFIDENTIAL

and bomber commands. On 20 May 1941 General Andrews, in a letter to General Spaatz in Washington, explained his plans for a maintenance command to be established in the Caribbean Air Force.⁷ The command was to be

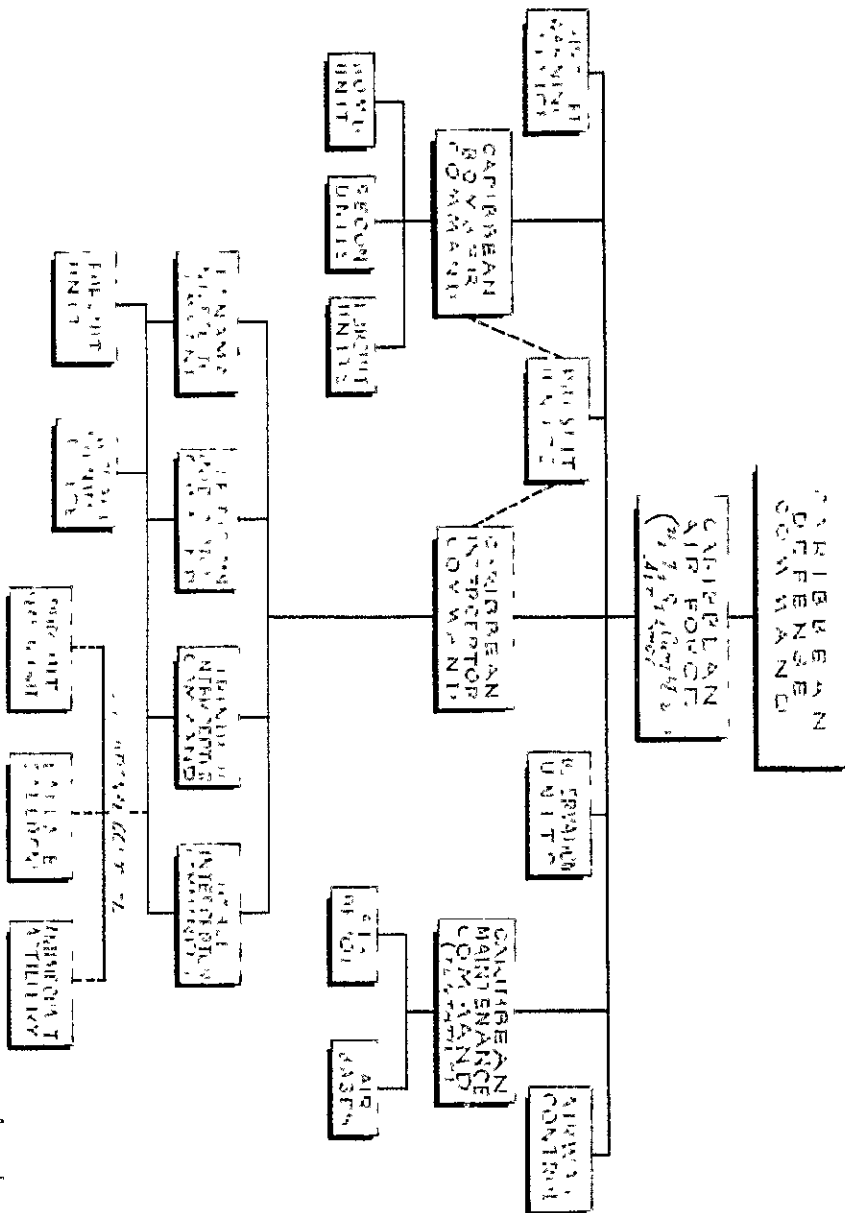
far broader in scope and activities than the Maintenance Wing now organized for each of the Air Forces in the continental United States. It is proposed to have a senior officer, preferably a General officer, command all the Air Corps installations within the Caribbean Defense Command area, including the depot or depots, the air bases and auxiliary fields and all auxiliary or service units assigned thereto. It would relieve the Air Force commander and the G-4 section of his staff from operational control of supply and maintenance, standardize and centralize the operation of air bases and permit the full utilization of all service installations and components within the command.

Writing to General Spaatz again on 17 June, General Andrews observed that the problem of organization of the maintenance command was not so serious as the lack of "means to do things with." He also informed General Spaatz that the ground troop commanders in Puerto Rico and Trinidad were "not very friendly" to the new integrated Caribbean Air Force, but that they would "get used to it in time." Fortunately, he explained, "both of them are personal friends of mine and I will keep the friction down to a minimum without compromising the principles under which we are organized."⁸

When in August the Air Staff at Headquarters, AAF recommended to the Air Council a reorganization of continental air service, General Andrews' name and experience in the Caribbean were used in support of the recommendation. The proposed reorganization, which would create four service areas in the United States, was essentially the same as General

CONFIDENTIAL

CONFIDENTIAL



AAFHS-42

186

CONFIDENTIAL

Andrews had planned for his command, and this fact was cited in the study, along with a quotation from General Andrews' letter of 20 May to General Spaatz. Earlier plans for a continental air service organization had not included the command of bases; but since the recommendations in August included this detail, it is probable that General Andrews' influence was greatest in this respect. At any rate, there can be little doubt that his experience in the Caribbean was used to advantage by the Air Staff.⁹

By September the projected maintenance command in the Caribbean had undergone a change in designation, and on 18 September the Service Command, Caribbean Air Force was constituted under the command of Col. Harold A. Strauss. The new organization was to consist of all the air bases in Panama, Puerto Rico, and Trinidad, and the airways detachments for Surinam, British Guiana, St. Lucia, Antigua, Jamaica, and Rio Hato; the Panama Air Depot, with the 1st Air Depot Group and the 20th Transport Squadron; engineer and tow target detachments; all air base groups, station hospital and quartermaster detachments; and all signal, ordnance, chemical, and quartermaster units not already assigned or attached to tactical commands.¹⁰

The internal structure of the service command was similar to that of the interceptor command, with its regional units. The Panama Area Service Command was constituted on 6 October, followed four days later by corresponding commands in the Puerto Rico and Trinidad areas.¹¹ In general, area commanders were allowed the greatest possible freedom in performing their duties. This policy was in keeping with a conclusion

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

187

reached by Lt. Col. Elmer E. Adler, following a visit to the Caribbean in September. Upon his return to the United States he wrote General Arnold that in the Caribbean service organization "local authorities must be given considerable latitude" and that decentralization of authority was of "paramount importance."¹² Like other new organizations in the Caribbean, however, the interceptor command was initially handicapped by a shortage of experienced officers, and the formation of necessary staffs was consequently delayed.

Despite the difficulties, General Andrews had welded the scattered Caribbean air units into a composite air force. Sector divisions in the Caribbean Defense Command did not lead to control of parts of the air force by ground officers. The Caribbean Air Force, in essence, was a "task force," complete within itself, capable of independent action, and commanded only by air officers. It was this concept of an integrated air force and its successful use in the Caribbean to which General Arnold in November pointed as an example for the organization of Army air units in England.¹³ The influence of General Andrews was by no means coterminous with the bounds of the Caribbean Defense Command.

Plans for Assistance to Latin American Countries

In addition to the tasks of reorganization and continuous defense, forces in the Caribbean were called upon to prepare for support of Latin American republics. This course of action, representing an extension of previous policy, was essentially a defense measure, designed to resist any attempt on the part of non-American powers to gain military control of governments in the republics. On 14 January 1941 the Chief of Staff

CONFIDENTIAL

AAHHS-42

188

CONFIDENTIAL

had approved a recommendation of War Plans Division that the Joint Board be requested to develop a plan for the effective support of Ecuador, Colombia, Venezuela, and the Central American republics, and further that the Panama Canal Department commander be given the responsibility of making specific plans for the occupation of strategic areas by air. Essential features of the plan were to be the occupation on 48 hours' notice of strategic interior points by troops of the Panama Canal Department transported by air, the prompt occupation of seaports by naval forces, and the reinforcement of these forces by Army expeditionary troops dispatched from the United States.¹⁴

The Joint Board plan, approved by the President on 29 April, gave a fuller statement of U. S. policy in regard to armed assistance. Liaison officers conducting staff conversations with Latin American countries had been informed as follows:

The United States will employ its armed forces to assist any Republic to defeat attacks on it by the armed forces of a non-American State or by fifth column groups supported by a non-American State, when requested so to do by the recognized government of the republic concerned. In the event that no request is forthcoming and a situation arises which appears to threaten the peace and security of the republics of this hemisphere, or of any one of them, the United States will employ its armed forces in accordance with whatever decision may be reached as a result of an inter-American consultation in consonance with the procedure established in the Declaration of Lima. In all cases, it is understood that the decision will rest with our Government when the emergency arises.

The joint plan pointed out that "the successful overthrow of the recognized governments of Latin American countries near the Panama Canal and the establishment of regimes opposed to the principles of Pan-American

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

189

solidarity would constitute a menace to the security of the Canal." Forces to be provided by the Caribbean Defense Command were one airborne infantry battalion and one platoon of parachute troops. The defense commander was directed to prepare a separate Army plan for each country concerned.¹⁵

Although there was no occasion to put these plans into action, the Caribbean Air Force was as a result of the plans favored with a high priority in the delivery of much-needed transport planes and was able to experiment with airborne operations.¹⁶ On 1 July the 550th Infantry Airborne Battalion was activated at Howard Field, with volunteers from combat units in Panama providing the initial strength. By 12 September the 501st Parachute Battalion had arrived from the United States. On this date the first major tactical exercise in airborne operations within the Canal Zone was conducted during a visit to Panama by General Arnold. The troops were flown from Rio Hato in a simulated attempt to capture Howard Field, but the exercise was deficient in "realism in smoothness." General Arnold noted that the equipment "hung on the men like Christmas tree decorations" and handicapped the activity of the troops. He directed the commanding officer of the infantry battalion to study the matter and submit recommendations for the proper equipment so that the men could "come out fighting." He also directed General Johnson to prepare mock-up fuselages to permit training of the airborne infantry in loading and unloading auxiliary equipment.¹⁷ On 20 September the airborne units were reassigned from the Panama Canal Department to the Caribbean Air Force, making possible a higher degree of coordination in

CONFIDENTIAL

AAEHS-42

190

CONFIDENTIAL

training of the troops, while direction of their tactical use remained with the Caribbean Defense Command.¹⁸ In airborne operations, when, as well as in matters of organization, the Caribbean Air Force was a pioneer unit.

Army-Navy Responsibilities and Relations

Local planning for armed assistance to Latin American republics served to emphasize the need for closer Army-Navy coordination in the Caribbean. Succeeding months in the latter half of 1941 brought other evidence indicating that "voluntary cooperation" would not insure effective joint defense, but General Andrews' insistence upon unity of command was to no avail prior to American entry into the war.

The subject of joint Army-Navy action came to the fore in the summer of 1941 when increasing reports of Axis vessels in Caribbean waters led the Navy commandant to request occasional assistance from the Caribbean Air Force. By September the Navy had asked that the air force assume 50 per cent of all search operations, but General Andrews strongly declined the request. He did not intend to use Army planes for carrying out Navy reconnaissance missions unless the emergency became acute.

The emergency had approached an acute stage by 24 September, when the Caribbean Defense Command informed its components that Navy Western Hemisphere Defense Plan No. 4 was in effect. The plan called for naval forces to destroy surface raiders which attacked or threatened U. S. flag shipping and to trail merchant vessels of belligerent powers if suspected of assisting the naval vessels or aircraft of such belligerents.

CONFIDENTIAL

AATHS-42

CONFIDENTIAL

191

General Andrews, now heading the defense command, instructed subordinate commanders to cooperate with appropriate naval officers in execution of the plan. In forwarding the instructions to the bomber commander, General Johnson ordered that no regular patrol missions be assigned to bombardment units, inasmuch as the location of hostile forces at sea was a naval responsibility. But upon receipt of information that hostile forces might be approaching the attack zone (the area within 50 miles of the British bases leased by the United States), the bomber command was to take action to insure that the vessels were located.¹⁹

When the defense command announced on 5 November that Navy Western Hemisphere Defense Plan No. 5 had superseded Plan No. 4, components of the command were again instructed to cooperate with the Navy.²⁰ The cooperation and support on the part of the several commanders was to be "consistent with the execution of their normal missions and with the state of readiness of the forces and means under their control." In expectation of an increased number of calls for assistance, the air force designated General Lyon of the bomber command as the representative of the air force commander to arrange for execution of support missions upon request of naval commanders.

In response to General Andrews' inquiry as to the type of support mission to be requested, Admiral Sadler on 19 November outlined his concept of AAF assistance. Upon request, the air force would trail merchant vessels and report movements to the Commander, Panama Naval Frontier; assist in patrolling sea areas under naval coordination; attack and destroy German and Italian naval and air forces; provide the air

CONFIDENTIAL

AAFHS-42

192

CONFIDENTIAL

offensive or striking force; and when these were sea operations, the assignment of missions and designation of objectives would be vested in the Navy.²¹

General Lyon raised several objections to this interpretation of Army air assistance. He pointed out that the trailing of merchant vessels was a function of surface craft and, in view of the small number of aircraft available, "wasteful beyond consideration." He further commented that, inasmuch as the bomber command did not have the equipment necessary for extensive patrolling, such missions should be performed exclusively by the Navy except when there was a definite request to search a definite area. Designation of objectives, General Lyon agreed, was normally a Navy function, but he visualized situations in which the Army would be in a better position to determine where the greatest danger lay.

Concurring with these views, General Johnson emphasized that the air force could not take over "either completely or in part the naval functions of patrolling and tracking, except for short periods during specific emergencies." Any extensive use of bombers for such functions would curtail the striking force which the bomber command was obligated to maintain in order to destroy enemy naval craft or installations within its radius of action.²²

Maintaining such diametric views as to the carrying out of their assigned missions, Army and Navy commanders in the Caribbean obviously did not reach complete agreement on defense of the area. While relations were generally amicable and while there may have been a desire for mutual

CONFIDENTIAL

AAFHS-42

193

~~CONFIDENTIAL~~

assistance, joint planning proved to be unsuccessful when there was occasion to put the plans into operation. As a result of the Navy's inability to perform the desired number of offshore patrols, and the Army's inability to assume a definite part of the Navy's task, the Caribbean area was sadly deficient in the matter of aerial over-water reconnaissance.

The vital importance of this phase of Canal defense was revealed in the "Preliminary Estimate of the Strength, Composition, and Lines of Action of Enemy Forces Operating against the Panama Canal," prepared by the Caribbean Defense Command on 26 November. Japan was considered the primary potential enemy because of "the present state of our political and economic relations with that country." The estimate admitted that a carrier-based attack from the Pacific was "not an improbable feat" and "could conceivably effect damage upon the Canal." After listing other possibilities, the report concluded that the most important defensive measure was "unceasing and thorough reconnaissance and observation of the air, sea, and land approaches to the Canal Zone."²³

Air reconnaissance was neither unceasing nor thorough, and General Lyon was properly disturbed about the resulting danger to the Canal. Of the eight B-17's which had arrived in the area during the summer, four were stationed in Panama and four were in the Trinidad area in November. It had been recommended that one plane from each area be sent to Puerto Rico for training purposes. According to General Lyon, the prospect of receiving any more B-17's before the next summer was becoming "more and more remote." He had ordered that operational activities of the heavy

~~CONFIDENTIAL~~

AAFHS-42

CONFIDENTIAL

194

bombers be subordinated to training. But the international situation in the Pacific, which he considered "for the present our principal threat," taken with the fact of delayed delivery of heavy bombers, led General Lyon to believe that a change of policy was advisable. On 13 November he informed General Johnson of his belief that all B-17's should be concentrated in Panama and that training of new crews should be subordinated to perfecting of existing crews in tactical operations. Admiral Sadler had disclosed to General Lyon that he had "nowhere near the airplanes" which he considered necessary for his mission in the Pacific. This fact added strength to the argument of the bomber commander, and his suggested change in policy was allowed to prevail.²⁴

The Caribbean Defense Command estimate of 26 November expressed the belief that existing forces in the Canal Zone and vicinity were sufficient to repel any probable initial attack on the Canal, provided they were given timely warning of the approach of hostile forces. The inability of defending naval and military air forces to perform the required amount of reconnaissance and to provide the "timely warning" constituted perhaps the chief weakness in Caribbean defense immediately prior to American entry into the war. It was a weakness which was recognized by both Army and Navy commanders; their expressed hope lay in the postponement of attack by an enemy until the defending forces could achieve the proper degree of coordination and the necessary equipment for complete coverage of the vast sea frontiers. The progress of the Caribbean Air Force in this direction was painfully slow and discouraging. As a means of improving the status of the air force, General Andrews, before he

CONFIDENTIAL

AATHS-42

195

CONFIDENTIAL

succeeded General Van Voorhis as head of the Caribbean Defense Command, gave serious consideration to making the Caribbean Air Force completely autonomous.³⁵ He did not subsequently, however, find it necessary to take this action, probably because in his position as commander of Caribbean defenses he could allow the air force to be virtually autonomous without taking formal action to this end.

Conclusion

Two major trends in the history of Panama Canal air defense from January 1939 to December 1941 had their culmination in this final pre-war period. One was the extension of the concept of Canal defense from the narrow confines of the Isthmus to the far-flung reaches of the Caribbean. The other was the emergence of the air force as the predominant element of that defense. Both were steps which had long been advocated by air commanders in the area. Neither was accomplished without opposition from some quarters, but the changes were made with comparative rapidity.

The factors giving greatest impulse to these trends were the characteristics of the European war and the probability of American entry into the conflict. The experience of Great Britain and other countries at the hands of the Luftwaffe had its effect on the growth of American air power in general and on the strengthening of overseas garrisons in particular. Commanders in the Caribbean area frequently pointed to the Battle of Britain as evidence of the importance of air defense. It is apparent that in the Caribbean the influence of the European war was

CONFIDENTIAL

AIR FACILITIES IN THE CARIBBEAN AREA,
7 DECEMBER 1941

LEGEND

- ◆ AIRFIELD
- OTHER FIELD
- ▲ SEAPLANE BASE

PUERTO RICO

PUERTO RICO
SECTOR

TRINIDAD
SECTOR

PANAMA
SECTOR

PANAMA

CONFIDENTIAL

CONFIDENTIAL

AAFHS-42

196

CONFIDENTIAL

felt more in the realm of passive defense than of active defense. Increasing emphasis was placed on interceptor control, aircraft warning, antiaircraft artillery, and other protective measures.

Despite the progress which had been made by 7 December 1941, serious deficiencies still existed in Canal air defenses. Not the least of the weaknesses lay in the relative lack of coverage of the Pacific approaches. Earlier attempts to acquire air base sites in the Galapagos and Cocos islands had come to naught, with the result that the Pacific side of the Canal was dangerously open to attack. Although approximately 165 P-40's had arrived in the Caribbean, they were not equipped with the necessary devices to assure interception or to operate effectively at night. The pursuit aircraft were on the alert 24 hours a day, but only about 50 per cent of their practice missions resulted in interceptions.²⁶ The bomber situation was, of course, even less satisfactory, the handful of B-17's comprising the only modern bombers in the area. The air force had additional responsibilities under the plan to furnish armed assistance to Latin American countries, and the geographical expansion of the force created a further drain on the limited number of available aircraft.

In its organization, however, the Caribbean Air Force was ably fitted to carry out its tasks. And with an airman heading the Caribbean Defense Command, the air force was assured of a sympathetic hearing for all its problems. Yet General Andrews' attention was by no means devoted exclusively to the air element of his command. While recognizing the importance of the air force, he strongly emphasized the responsibility

CONFIDENTIAL

AAFHS-42

197

CONFIDENTIAL

of the ground forces in guarding the Caribbean area. It is probably not amiss to conclude that the most significant occurrence of the three-year period, as regards both air defense and total defense of the area, was the accession of General Andrews to the top position in the Caribbean Defense Command. His insistence upon teamwork was an indication of the breadth of his vision and the thoroughness of his grasp on the problem at hand. Upon assuming command on 19 September 1941, General Andrews addressed a general order to the forces of the Caribbean Defense Command which epitomizes his approach to the task, as well as the principles which he stressed in his new position:²⁷

. . . to everyone of us, from the General down to the newest private, has been entrusted a serious and difficult task--the task of organizing and building within the Caribbean theater, and guarding it against attack. This responsibility has meant hardships, strenuous work under difficult conditions, and personal sacrifice. We must realize that the immediate future offers nothing better, but you have demonstrated a splendid willingness to accept necessary conditions--to shoulder together the burden of preparing yourselves for whatever eventuality time may bring. Whether your job is in the air or on the ground, it is this spirit of teamwork which has made possible the progress which has been made and which still must be made. World War II has clearly demonstrated that teamwork between air, ground and sea forces is the primary requirement for military success. May we ever keep in mind, in the Panama Canal Department and the Caribbean Defense Command, an appreciation of this fundamental principle.

By 7 December 1941 the Caribbean Sea had been converted into "an American lake" fringed with new air bases and nests of antiaircraft guns. Airfields in Panama, Puerto Rico, the Virgin Islands, Antigua, Jamaica, St. Lucia, Trinidad, British Guiana, and Dutch Guiana exhibited various stages of development, but they were at least capable of sustaining limited operations by tactical squadrons. Other fields were being

CONFIDENTIAL

AAAFHS-42

198

CONFIDENTIAL

completed by commercial airline companies under contract to the War Department, giving promise of additional bases which might be used for defense purposes. Distributed among the military fields and installations in the Panama, Puerto Rican, and Trinidad areas were 1,112 Air Corps officers and 14,974 enlisted men, and approximately 137 pursuit planes, 77 bombers, 22 attack aircraft, and 9 observation planes.²⁸ Air and ground crews were training at an accelerated pace for possible combat.

A number of factors had combined to keep the air force on the alert: elements of the French Fleet at Martinique, and activities in French Guiana and Guadeloupe required constant watching; the presence of Fifth Columnists in near-by Latin American countries was a possible source of danger for the Canal; there were recurring reports of Axis vessels in Caribbean waters; and information from intelligence sources indicated the imminence of war with Axis countries or Japan, or with both. Perhaps of equal importance with the alertness of the air force was its awareness of deficiencies which hindered combat effectiveness. Remedial action was being taken insofar as lay within the province of local forces, and Headquarters, AAF was well informed of further needs of the air force. The first week in December 1941, then, found the Panama Canal and southern approaches to the United States with a more formidable defense system than had existed at any time since the Canal's completion, and with an air force which, because of its numerical and geographical expansion, was better prepared to play its proper role in that defense than at any time since the introduction of military aviation in the Canal Zone.

CONFIDENTIAL

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

G L O S S A R Y

AFSC	Air Force Service Command
AGD	Adjutant General's Department
B & G Div.	Buildings and Grounds Division, CCAC
CA	Coast Artillery
C/AC	Chief of Air Corps
CAF	Caribbean Air Force
C & D	Corps and division
CDC	Caribbean Defense Command
Comdr.	Commander
Comp.	Composite
C/NO	Chief of Naval Operations
Info. Div.	Information Division, CCAC
Mat. Div.	Materiel Division, CCAC
M/R	Medium range
Msg.	Message
OCAC	Office of Chief of Air Corps
OCSigO	Office of the Chief Signal Officer
PAD	Panama Air Depot
PCD	Panama Canal Department
PRD	Puerto Rican Department
QMG	Quartermaster General
Recn.	Reconnaissance
SC CAF	Service Command, Caribbean Air Force
SE	Single engine
TAG	The Adjutant General
WDGS	War Department General Staff
WPD	War Plans Division

CONFIDENTIAL

CONFIDENTIAL

AATHS-42

NOTES

Chapter I

1. Air Corps Newsletter, XXII, #14 (15 July 39), p. 12.
2. History, VI Bomber Comd., to 7 Dec. 41.
3. France Field was named for Lt. Howard J. France, the first U. S. Army pilot to be killed while on active duty in the Canal Zone. Lieutenant France lost his life when his hydroplane crashed in Gatun Lake on 24 April 1918. History, France Field, to 1942.
4. Albrook Field was named in honor of Lt. Frank P. Albrook, who died 17 September 1924 from injuries received in an airplane accident at Chanute Field, Ill., shortly after his return from a tour of duty in the Canal Zone. Histories, Sixth AF, 1939; XXVI Fighter Comd., 1 Jan. 39-7 Dec. 41; Albrook Field, 1931-38.
5. History, Sixth AF, 1939.
6. Ibid.
7. Memo for Col. Hall by Maj. C. P. Kane, 1 July 37, in AAG 680, Misc., Panama--Caribbean; history, Panama Air Depot [PAD], 1 Jan. 39-7 Dec. 41.
8. Ltr., CG 19th Comp. Wing to CG PCD, 4 Sep. 36, in AAG Bulk 381, PCD.
9. Memo for Col. Watson by Brig. Gen. O. Westover, 26 Oct. 35, in AAG 452.1, Panama--Caribbean, Airplanes.
10. Ltr., C/AC to TAG, 31 May 38, in AAG 680, Misc., Panama--Caribbean; ltr., CG 19th Comp. Wing to CG PCD, 4 Sep. 36, in AAG Bulk 381, PCD.
11. Ltr., CG 19th Wing to C/AC, 31 May 38, ibid.; ltr., C/AC to TAG, 31 May 38, in AAG 680, Misc., Panama--Caribbean.
12. Ltr., Dargue to C/AC, 5 July 38, and incl. to ltr., Arnold to Mrs. H. A. Dargue, 16 May 42, in 201 file, Dargue; Air Corps Newsletter, XXII, #7 (1 April 39, p. 1; Time, XXXVII, #13 (31 March 41), p. 17.

200 CONFIDENTIAL

AAFHS-43

CONFIDENTIAL

201

Chapter II

1. The authorized enlisted strength for the 19th Wing was apportioned as follows: 15 to the wing Headquarters and Headquarters Squadron, 789 to Albrook Field, 389 to France Field, and 197 to the air depot. Of the 74 officers, 4 were allotted to wing headquarters, 41 to Albrook Field, 23 to France, 6 to the air depot, and 1 as aeronautical advisor to the governor of the Canal Zone. History, Sixth AF, 1939.
2. Ibid.; Air Corps News Letter, XXII, #10 (15 May 39), p. 6.
3. History, Sixth AF, 1939.
4. Ibid.; Air Corps News Letter, XXII, #9 (1 May 39), p. 5.
5. Ibid., #3 (1 Feb. 39), p. 10.
6. Ltr., AC News Representative to CG 19th Wing, 8 July 39, in history, Sixth AF, 1939, appendix.
7. Ltr., Dargue to Arnold, 30 March 39, in 201 file, Dargue; N. Y. Times, 14 March 39, p. 6.
8. History, Sixth AF, 1939; Air Corps News Letter, XXI, #8 (15 April 39), p. 4.
9. History, Sixth AF, 1939.
10. Ltr., Dargue to Spaatz, 25 July 39, ibid., appendix.
11. History, Sixth AF, 1939.
12. Ibid.
13. Ltr., Dargue to Arnold, 13 March 39, and ltr., Arnold to Dargue, 1 April 39, in 201 file, Dargue; ltr., Dargue to Arnold, 27 April 39, in 201 file, Arnold.
14. Ltr., Dargue to Arnold, 27 April 39, ibid.
15. Ltr., Dargue to Arnold, 13 March 39, in 201 file, Dargue.
16. Ibid.
17. Ltr., Dargue to CO PAD, 5 June 39, in history, PAD, 1 Jan. 39-7 Dec. 41, appendix; history, Sixth AF, 1939.

CONFIDENTIAL

CONFIDENTIAL

18. Ltr., TAG to C/AC, 23 May 39, and ltr., Hq 18th Ren. Sq., GHQ AF, Mitchel Field to C/AC, 10 June 39, in 201 file, Arnold; ltr., Lt. Col. Ira C. Baker to Maj. Gen. Frank M. Andrews, 26 May 39, in 201 file, Andrews.
19. Memo for C/S by C/AC, 8 Feb. 39, in AAG 686, Air Bases, West Indies.
20. Memo for C/AC from WPD, 2 March 39, ibid.
21. Ltr., Commandant, AC Tactical School to C/AC, 25 June 36, in AAG Bulk 381, PCD.
22. Ibid., 2d ind., Hq GHQ AF to TAG, 6 Aug. 36.
23. Ltr., Maj. Gen. Frank R. McCoy to TAG, 28 July 39, in AAG 680, Misc., Puerto Rico.
24. Memo for Lt. Col. L. T. Miller by Maj. Arthur R. Wilson, Office, C/S, 23 Sep. 38, ibid.
25. R&R, T&O Div. to Exec. CGAC, 29 Sep. 38, ibid.
26. R&R #3, Plans Sec. to C/AC, 11 Oct. 38; R&R #6, Plans Sec. to Exec. CGAC, 3 Nov. 38, ibid.
27. 5th ind. (ltr., Post Comdr., San Juan to CG Second Corps Area, 19 Sep. 38), CGAC to TAG, 13 Dec. 38, and 6th ind., AGO to CG Second Corps Area, 29 Dec. 38, ibid.
28. Ibid.
29. Ltr., Arnold to Kenney, 1 Feb. 39, and ltr., Kenney to Arnold, 4 Feb. 39, in AAG 680, Misc., Puerto Rico.
30. Ltr., Kenney to C/AC, 28 April 39, ibid.
31. Memo for TAG from WPD, 3 March 39, ibid.
32. Ltr., TAG to QMG, 21 March 39, ibid.; N. Y. Times, 16 April 39, p. 34.
33. Other officers in the crew of the B-17 included Maj. Harold L. George and Capt. F. E. Glantzberg. Air Corps News Letter, XXII, #11 (16 June 39), p. 1.
34. Memo for C/AC from Plans Sec., 29 July 39, and memo for WPD from C/AC, 12 Aug. 39, in AAG 686, Air Bases, West Indies.
35. There is some indication that in his enthusiasm for the air command of his department General Stone sometimes communicated his desires

CONFIDENTIAL

CONFIDENTIAL

directly to the War Department without consulting General Dargue and ascertaining the Air Corps position. When General Marshall received a request from General Stone in October 1939, asking that a B-17 be furnished the Panama Canal Department, the Chief of Staff assumed that the request had been prompted by General Dargue and he asked General Arnold to write the wing commander and "explain matters to him so that Stone will understand from him rather than having Dargue telling Stone that we ought to do thus and so." The letter was written by General Arnold as directed, explaining that it was impossible for the Air Corps to furnish a B-17 to Panama "without completely upsetting our plans for that type of unit in the GHQ Air Force." General Arnold requested that General Dargue not make suggestions to the department commander "concerning such air matters as may prove embarrassing to us here until you have first contacted me in order to see whether it fits in with War Department plans." General Dargue's reply, on 9 November, denied that he had instigated the request for a B-17. He stated further: "I learn about these things many times after they happen and have nothing to do with prompting them. . . . It has been my aim to avoid embarrassment for you but it has been impossible for me to divine beforehand what has gone into some of the letters that have been sent to you, General Marshall and possibly others." Memo for Arnold by GCM [Gen. George C. Marshall], 25 Oct. 39; ltr., Arnold to Dargue, 26 Oct. 39; ltr., Dargue to Arnold, 9 Nov. 39, all in AAG 452.1, Panama--Caribbean, Airplanes.

36. R&R, Plans Sec. to C/AC, 9 June 39, in AAG 686, Misc., Panama--Caribbean.
37. History, Sixth AF, 1939.
38. Ltr., Dargue to Stone, 6 June 39, ibid., appendix.
39. 1st ind. (original ltr. not attached), Hq 19th Wing to CG PCD, 1 Sep. 39, ibid.
40. Ltr., Dargue to Arnold, 19 Sep. 39, in 201 file, Dargue; Air Corps News Letter, XXII, #16, 16 Aug. 39, p. 13.
41. Ltr., Arnold to Dargue, 11 Aug. 39, in 201 file, Dargue.
42. History, Sixth AF, 1939.
43. Ltr., EAG to CG, PCD, 23 Aug. 39, in AAG Bulk 381, PCD.
44. Ltr., Arnold to Dargue, 31 Aug. 39, in history, Sixth AF, 1939, appendix.
45. As announced on 29 August, the troops ordered to Panama immediately were as follows: 26 officers and 170 enlisted men from the Air Corps,

CONFIDENTIAL

CONFIDENTIAL

and 30 officers and 959 enlisted men from antiaircraft units of the 61st, 62d, and 63d Coast Artillery. On 26 August the War Department informed the commanding general of the Panama Canal Department that 30 P-36's and one P-30 would be ferried to the Zone as soon as arrangements could be made; 26 of the pilots were to remain on permanent duty in Panama. N. Y. Times, 30 Aug. 39, p. 8; ltr., TAG to CG FCD, 26 Aug. 39, in AAG Bulk 381, FGD.

46. History, Sixth AF, 1939.
47. One pursuit plane was reported lost in a storm en route to Panama, while two others were forced down on a beach near Playa de Madrel. One flight of the P-36's was commanded by Maj. Harold L. George whom General Dargue desired to keep in Panama, but the Chief of the Air Corps found it impossible to comply with the request. There was some consolation in the news that orders had been issued for 12 additional field officers to report to the 19th Wing by 1 January 1940. N. Y. Times, 31 Aug. 39, p. 7; index sheet, radio msg., C/AG to Dargue, 12 Sep. 39, in 201 file, Dargue.
48. N. Y. Times, 1 Sep. 39, p. 5; 4 Sep., p. 12; 5 Sep. p. 1; 6 Sep., p. 8; 7 Sep., p. 15; 10 Sep., p. 28; 15 Sep., pp. 4, 7.
49. R&R, I. C. E. [Ira C. Eaker], Exec. to Plans Sec., 29 Aug. 39, in AAG 680, Misc., Puerto Rico; ltr., TAG to OCSigO, 16 Sep. 31, in AAG 600, Misc., Puerto Rico; N. Y. Times, 8 Sep. 39, p. 13.
50. Ibid.; ltrs., Arnold to Bradley, 31 Oct. 39, Bradley to Arnold, 6 Nov. 39, and Yount to Bradley, 16 Nov. 39, in AAG 600, Misc., Puerto Rico.
51. Ltr., CG 19th Wing to CG FCD, 5 Sep. 39, in history, Sixth AF, 1939, appendix.
52. Ibid.
53. Memo for Exec. OCAC by Lt. Col. Carl Spaatz, 9 Sep. 39, in AAG 400, Panama--Caribbean.
54. Ltr., CG 19th Wing to OCAC, 19 Sep. 39, in history, Sixth AF, 1939, appendix.
55. Ibid.
56. Ibid., 1st ind., Hq FCD to TAG, 25 Sep. 39.
57. Ibid.
58. In regard to H. R. 5098 and H. R. 5378, to authorize the President to enter into negotiations with Ecuador and Costa Rica for the

CONFIDENTIAL

CONFIDENTIAL

acquisition of the Galapagos and Cocos islands, the Secretary of War wrote to the chairman of the Committee on Foreign Affairs, House of Representatives: "Regardless of the strategic value of the Galapagos and Cocos Islands, it is believed that legislation relative to the acquisition, by the United States, of territory belonging to other American Republics is a matter of national policy and therefore of primary interest to the State Department. For that reason, the War Department, in deference to the State Department, prefers to make no recommendations thereon." Ltr., TAG to C/AC, 2 June 39, in AAG 686, Sites, Panama-Caribbean; history, Sixth AF, 1939.

59. Ltr., CG 19th Wing to C/AC, 9 Oct. 39, in AAG 452.1, Panama-Caribbean, Airplanes.
60. Ibid., 3d ind., OCAC to TAG, 8 Nov. 39.
61. The Panama Canal defense requirements had been envisaged by the War Department Air Board and, on the basis of studies made by Plans Division, types of Army aircraft were proscribed to meet the requirements thereof. Canal defense requirements were considered in a study made of the Caribbean area in September 1939. The area included southern Florida, Central America, the West Indies, Venezuela, Colombia, and all other land and sea areas within striking distance by air of the Panama Canal. The paramount purpose of aviation in this area was "defense of vital installations of the Canal from bombardment by hostile aviation." Adequate air bases would be required in the Canal Zone, Puerto Rico, southern Florida, and Texas, with a base on Trinidad being considered extremely valuable, though not vital, to defense of the Canal. The current Air Corps expansion program contemplated the following units:
 - a. The Panama Canal Zone
 - (1) Albrook Field
 - 37th Pur Gp (I) (3 Pur Sqs)
 - 16th Pur Gp (SE) (3 SE Pur Sqs)
 - 16th Base Sq, Double
 - (2) Brasilia Point Field
 - 6th Bomb Gp (M) (3 Bomb Sqs)
 - 22d Bomb Gp (M) (3 Bomb Sqs)
 - 44th Rcn Sq (M/R)
 - 16th Base Sq, Double (less detachment)
 - (3) France Field
 - 7th Rcn Sq (M/R)
 - Det 16th Base Sq
 - 39th Obs Sq (C&D)

CONFIDENTIAL

CONFIDENTIAL

b. Puerto Rico Air Base

25th Bomb Gp (H) (3 Bomb Sqs)
 27th Rcn Sq (L/R)
 36th Pur Gp, SE (3 SE Pur Sqs)
 24th Base Sq, Double

c. Southern FloridaSoutheast Air Base

29th Bomb Gp (H) (3 Bomb Sqs)
 41st Rcn Sq (L/R)
 27th Base Sq, Single

d. Texas

Combat units: none.

Bases suitable for operation of aircraft of all types are available at San Antonio and El Paso.

Incl. 5, memo for WPD from OCAG, 19 Oct. 39, in AAG Bulk 334.7, 30 Aug. 40.

62. No specific reason has been found for the Air Corps' reversal of its position in the matter of a new France Field, but it is safe to assume that the international situation, which had the effect of speeding up reinforcement of Canal defenses, by this time had also pointed up the need for a suitable airfield on the Atlantic side of the Canal.
63. R&R, SAC Sec. to Exec. OCAG, 13 Oct. 39, in AAG 686, Sites, Panama-Caribbean.
64. History, Sixth AF, 1939.
65. Ltr., Dargue to Arnold, 11 Sep. 39, in AAG Bulk 381, PCD.
66. On 24 August 1939 the War Department approved a study recommending acquisition of 10 sites (Rio Hato, Jaque, Almirante, Ferme, La Chorrera, La Joya, Pocri, Garachine, La Mesa, and Mandinga) by 999-year lease, but apparently General Dargue had not been informed of the action at the time of his report to General Arnold on 11 September. Ltr., Arnold to Dargue, 14 Oct. 39, in AAG 686, Sites, Panama-Caribbean.
67. Incl. 2, ibid.; ltr., Dargue to Arnold, 11 Sep. 39, in AAG Bulk 381, PCD.
68. History, Sixth AF, 1939.
69. GO #18, Hq PCD, 16 Oct. 39, in history, Sixth AF, 1 Jan.-30 Nov. 40 [installment 2], appendix; N. Y. Times, 18 Oct. 39, p. 8.

CONFIDENTIAL

CONFIDENTIAL

70. History, PAD, 1 Jan. 39-7 Dec. 41.
71. General Arnold's interest in this project was revealed in a terse notation to Plans Section in November 1938: "Keep this going. We will civilianize the Depot somehow. You will find the way to do it." R&R #2, C/AC to Plans Sec., 14 Nov. 38, in AAG Bulk 381, PCD.
72. History, PAD, 1 Jan. 39-7 Dec. 41; ltr., Arnold to Dargue, 27 June 39, in 201 file, Dargue.
73. The 74th Attack Squadron was converted to bombardment on 1 November 1939, despite department disapproval. History, Sixth AF, 1939; ltr., Exec. 19th Wing to CG Panama Prov. CA Brigade (AA), 4 Nov. 39, *ibid.*, appendix.
74. Existing pursuit units were to furnish cadres for the new pursuit, the 25th Bombardment Squadron for the 3d Bombardment Squadron, and the 7th Reconnaissance Squadron for the 39th Observation Squadron. History, Sixth AF, 1939.
75. The commander of the 6th Bombardment Group at France Field would arrange through the Cristobal port captain to obtain information on the approximate position and description of ships approaching or leaving the Canal. On the following morning the 7th Reconnaissance Squadron would be dispatched to conduct a search mission for a certain vessel, with the planes maintaining radio silence except at intervals and simulating conditions of actual warfare insofar as practicable. After the target had been sighted, an encoded contact message would be radioed to group headquarters, giving the time of interception, course, estimated speed, and position. The 25th Bombardment Squadron would then take off with all planes loaded with bombs and ammunition. Upon reaching the reported position, the squadron would release enough oil to create a "slick" on the water, to serve as a target for the problem. Air Corps News Letter, XXIII, #1 (1 Jan. 40), p. 20.
76. Circular 50-12 OCAC prescribed that not less than five hours' night flying be accomplished each fiscal six months, and that one night navigation flight of not less than two hours' duration be accomplished to a point 100 miles from the origin. The 19th Wing secured a waiver on both requirements, although the total yearly requirement on night flying was to remain at 10 hours. Ltr., Exec. 19th Wing to C/AC, 27 Nov. 39, and 2d ind., OCAC to SAC, 22 Dec. 39, in history, Sixth AF, 1939, appendix.
77. Ltr., CG 19th Wing to C/AC, 29 Dec. 39, *ibid.*
78. The German-controlled Scadta airline in Colombia employed approximately 20 pilots who were reportedly German reserve officers. The company possessed three or four Junkers bombers, which were not in

CONFIDENTIAL

regular commercial service but were still serviceable. As a result of the European conflict, the Colombian government had instituted protective measures, placing a Colombian army co-pilot in each commercial plane on scheduled flight. The German pilots were too close to Panama, however, for Canal military authorities to be complacent about the situation. N. Y. Times, 20 Sep. 39, p. 9; 22 Sep., p. 4; 8 Oct., p. 47.

79. Air Corps News Letter, XXIII, #1 (1 Jan. 40), p. 1.
80. The Bruja Point air base was designated Howard Field in honor of Maj. Charles E. Howard, Air Corps pilot who served in Panama from 1926 to 1929. Later, while on duty in the Office, Chief of the Air Corps, he participated in the Alaskan flight, 1 July to 11 September 1934. Major Howard died on 25 October 1936 near Bryan Mills, Texas. History, Howard Field, 1 Jan. 39-7 Dec. 41.
81. On 19 September 1939, Maj. Winfield C. Scott, AGD, a descendant of the Mexican War hero, was appointed adjutant of the 19th Wing, becoming the first officer of another branch of the service to be assigned to headquarters of the wing. Major Scott later became S-1 also. In October, Maj. William S. Gravely arrived in Panama to serve on the wing staff as S-2 and S-3. History, Sixth AF, 1939.

CONFIDENTIAL

AAFHS-43

CONFIDENTIAL

209

Chapter III

1. History, Sixth AF, installment 2.
2. Ltr., TAG to CG PCD, 3 Jan. 40, in AAG 400, Panama-Caribbean.
3. Memo for conference with C/S by Van Voorhis, 5 Feb. 40, in AG 580, 12/14/39, Sec. 1.
4. General Dargue's initial recommendations apparently were not entirely acceptable to the department commander, for his communication of 25 January stated that his memorandum of 19 January to the commanding general of the Panama Canal Department had been changed as a result of a conference with General Van Voorhis and "in accordance with his instructions." The memorandum of 19 January was not found in AAF files. Memo for CG PCD by Dargue, 25 Jan. 40, in AAG Bulk 381, PCD.
5. Ibid.
6. Ltr., Rear Adm. F. H. Sadler, Commandant 15th Naval District, to CG PCD, 2 Jan. 40; incl. A, memo for Capt. Crenshaw, Director, Navy WPD, by Brig. Gen. George V. Strong, AG/S WPD, 8 Dec. 39; incl. B, memo for C/S U. S. Army, by C/NO, 9 Dec. 39; incl. C, ltr., C/NO to C-in-C U. S. Fleet, 9 Dec. 39; incl. D, ltr., C/NO to Commandant 15th Naval District, 9 Dec. 39, in AAG Bulk 381, PCD.
7. Memo for CG PCD by Dargue, 25 Jan. 40, ibid.
8. Ibid.
9. Whether or not any of these recommendations originated with General Van Voorhis is difficult to determine, but it would seem that they represented somewhat his own feelings in the matter of organization and responsibilities. See n. 4 above.
10. Ltr., CG PCD to TAG, 12 Feb. 40, in AAG Bulk 381, PCD.
11. Memo for WPD by Arnold, 5 March 40, in AG 580, 12/14/39, Sec. 1.
12. Ibid.
13. Memo for C/S from WPD, 17 April 40; memo for WPD by C/S, 24 April 40, in AG 580, 12/14/39, Sec. 1.
14. The crew of the B-17 included Maj. H. L. George, pilot; Capt. Carl B. McDaniel, co-pilot; Capt. W. A. Matney and Lt. Torgils G. Wold, navigators; W/Sgt. Floyd Maney and T/Sgt. J. E. McDonald, engineers; S/Sgt. J. H. Walsh, radio operator; Sgt. D. E. Hamilton, armorer; and S/Sgt. J. Semanko, orderly. Air Corps News Letter, XXIII, #6 (15 March 40), p. 1.

CONFIDENTIAL

AAFHS-43, Notes, Chap. III

CONFIDENTIAL

210

15. Ibid.; N. Y. Times, 3 Feb. 40, p. 6; 10 Feb., p. 5.
16. Ltr., Arnold to Van Voorhis, 8 Feb. 40, in AAG 680, Misc., Panama-Caribbean; R&R, Exec. OCAO to Chief, Plans Div., 15 Feb. 40; memo for C/AC from Plans Div., 14 March 40, in AAG 000-800, Misc., Puerto Rico.
17. On 6 March 1940 the "(2-Gp)" was changed to read "(Double)." This designation was changed on 25 September to read "(Reinforced)." GO #4, Hq PCD, 27 Jan. 40; GO #11, Hq PCD, 6 March 40; GO #46, Hq PCD, 19 Sep. 40, in history, Sixth AF, installment 2, appendix.
18. GO #2, Hq PCD, 13 Jan. 40, ibid.
19. After the reorganization on 1 February, a report from Albrook Field listed the following commanders: 15th Air Base Squadron (2-Gp), Maj. R. K. Stoner; 16th Pursuit Group, Capt. A. L. Bump, Jr.; Headquarters and Headquarters Squadron of the 16th Group, Capt. Roger J. Browne, Jr.; 24th, 29th, and 43d Squadrons, commanded by Lts. John A. H. Miller, James Twaddel, and Robert L. Baseler, respectively; 44th Reconnaissance Squadron, Capt. T. G. Allen; 37th Pursuit Group, Capt. R. E. Randall; Headquarters and Headquarters Squadron of the 37th Group, Lt. Morley F. Slaughter; 28th, 30th, and 31st Squadrons, commanded by Lts. Robert D. Gaven, Carl T. Goldenberg, and J. R. Kelly, respectively; 74th Bombardment Squadron, Lt. Richard T. King. Air Corps News Letter, XXIII, #5 (1 March 40), p. 31; #6, (15 March 40), p. 31.
20. Ltr., CG PCD to TAG, 12 Feb. 40, in AAG Bulk 381, PCD.
21. The previous organization of Canal ground forces into the Atlantic and Pacific Sectors was the outcome of a board study in 1929, approved for extended trial in 1932 and finally adopted in 1934. General Fiske, department commander, stated in 1934 that while the sector organization was not ideal, it was "the best that could be evolved to meet existing conditions." He further stated that the organization was suited chiefly to meeting minor raids by air or water and attempts at sabotage; major operations would demand some changes in the organization. A better arrangement in case of war, according to General Fiske, was a coast defense command and a reinforced brigade of mobile troops, if and when all the fixed harbor defenses and the antiaircraft artillery could be turned over to the coast artillery and when an isthmian highway provided better communication. On 13 January 1937 General Butner, the department commander, declared the sector organization to be unsuited to war, and he recommended an organization composed of a mobile force, a coast artillery brigade, a composite wing, and department troops. General Stone, the succeeding department commander, urged that the War Department approve this recommendation; but no action was taken until February 1940. Memo for JPD from G-3, 28 March 40, in AG 581, 12/14/39, Sec. 1.

CONFIDENTIAL

CONFIDENTIAL

22. N. Y. Times, 17 Feb. 40, p. 6.
23. GO #5, Hq FGD, 16 Feb. 40, in history, Sixth AF, installment 2, appendix.
24. Ltr., Dargue to CG FGD, 30 Oct. 40, in history, Sixth AF, installment 2, appendix.
25. History, Sixth AF, installment 2.
26. History, Rio Hato, 1 Jan. 39-7 Dec. 41.
27. This generous offer came from Asger Kierulff, a Dane, who owned or, as director of a land company, controlled most of the land in the area. He was also the owner of the locally famous Santa Clara Inn, located on a bluff overlooking the Bay of Panama at the edge of the Rio Hato site. Senor Kierulff's offer was undoubtedly prompted by a desire to obtain a fairly constant clientele, for the unpopulated local areas provided no patronage and the poor condition of the national highway acted as a deterrent to Army personnel with only a day or two of leave. History, Sixth AF, installment 2.
28. On 30 May 1939 General Dargue dictated a minority report no longer available at Albrook Field but reportedly "the most violent outburst ever to issue from a man noted for his restraint." Ibid.
29. Ltr., Van Voorhis to TAG, 29 Oct. 40, ibid., appendix.
30. History, Sixth AF, installment 2.
31. Air Corps News Letter, XXIII, #5 (1 March 40), p. 22.
32. Ltr., Daley to TAG, 8 Feb. 40, in AAG 680, Misc., Puerto Rico.
33. In November 1939 General Daley had requested the War Department to provide \$967,940 for an airdrome adjacent to the proposed site of the Puerto Rican General Depot. Reasons for requesting this, "the most important auxiliary airdrome," were as follows: (1) One-half of the defense reserve of aerial bombs for the Puerto Rican Department would be stored at the Puerto Rican General Depot. Aircraft would need a readily accessible loading place near this source of supply. (2) An auxiliary airdrome for exclusive Army use close to San Juan was essential. (3) Such an airdrome would make possible the supply of troops by air in an emergency.
The request met with War Department approval, although construction of the airdrome was to be held in abeyance "until such time as the actual need for this construction is apparent." On 25 January 1940 The Adjutant General informed the Budget Officer of the War Department that an item of \$135,000 for acquisition of approximately

CONFIDENTIAL

CONFIDENTIAL

318 acres of land for an airdrome adjacent to the Puerto Rican General Depot would be included in a deficiency bill at the earliest practicable date. In connection with this matter, the Air Corps recommended that no change be made regarding the development of the Isla Grande airport and that Army aircraft be permitted to use the Navy facilities when completed. Ltr., Daley to TAG, 7 Nov. 39; F&R, Plans Div. to S&G Sec., 17 Nov. 39; F&R #2, S&G Sec. to Gen. Young, 22 Nov. 39; F&R #3, Exec. OCAC to Mat. Div., 30 Nov. 39; 5th ind. (ltr., Daley to TAG, 7 Nov. 39), AGO to Budget Officer, WD, 25 Jan. 40, all in AAG 680, Misc., Puerto Rico.

34. Ltr., Daley to TAG, 8 Feb. 40, ibid.

35. Ibid., 2d ind., OCAC to CMG, 24 Feb. 40.

36. Air Corps News Letter, XXIII, #7 (1 April 40), p. 3.

37. Memo for C/AC from Plans Div., 14 March 40, in AAG 000-800, Misc., Puerto Rico.

38. Ibid.

39. At this same time, the Air Corps was beginning to plan for a reorganization of its tactical units and command agencies. The Chief of the Air Corps on 23 January 1940 wrote to The Adjutant General:

Homogeneous wings consisting of two or three combat groups, together with their supporting base units, should be organized wherever practicable.

A wing should be considered homogeneous when it contains only bombardment and reconnaissance aviation or when it contains only pursuit aviation.

The grouping of wings and separate groups, together with their complementary service elements, into Air Divisions appears to offer the best solution to the existing requirements for agencies for command, administration, training and employment.

Each Air Division headquarters should be organized, trained and equipped to act as a command agency for a large aviation force in a theater containing no superior or coordinate aviation headquarters.

Homogeneous wings should be organized in Panama and Hawaii.

The aviation forces in the Panama Canal Department and in the Hawaiian Department should be organized into an Air Division.

The aviation forces in the Puerto Rican Department should be organized into a wing (separate) having a headquarters capable of performing all of the functions of a homogeneous wing and most of the functions of an Air Division. (Ibid.)

40. Colonel Bradley also expressed his regret that General Arnold had to cancel his visit to Puerto Rico during the last week of March. "However," he added, "I hope to be in Washington for your Wing Ding

CONFIDENTIAL

CONFIDENTIAL

on April 2d, and look forward to an opportunity of discussing Puerto Rican matters with you then."

Colonel Bradley apparently carried out his plans to visit headquarters. He was reported to have taken off on 26 March for Bolling Field via Miami, carrying crew members who were to ferry two A-17A's to Puerto Rico. Lt. Willard W. Lazarus and Leland G. Fiegel flew the attack planes, making short hops, and arrived in Puerto Rico without mishap. A Navy cruiser was standing by between Miami and Cuba in case of trouble during the long overwater hop in the single-engine aircraft. Ltr., Bradley to Arnold, 25 March 40, in AAG 680, Misc., Puerto Rico; Air Corps News Letter, XXII, #9 (1 May 40), p. 32.

41. R&R, C/AC to Plans Div., 27 March 40, in AAG 600, Misc., Puerto Rico.
42. R&R, Plans Div. to Mat. and B&G Divs., 23 April 40; R&R #3, Exec. UCAG to B&G Div., 24 April 40; 6th ind. (ltr., Daley to TAG, 30 March 40), AGO to CG PRD, 5 June 40, ibid.
43. Index sheet, msg., Dargue to Arnold, 25 March 40, in 201 file, Dargue.
44. General Dargue originally planned to go to Washington early in March, but General Arnold asked him to arrange his visit so as to be in Washington on 2 April, when a formal stag night would bring together all Air Corps officers in the city and the Secretary and the Assistant Secretary of War, the Chief of Staff, and the chiefs of the General Staff subdivisions. See n. 40 above. Ltr., Arnold to Dargue, 28 Feb. 40, ibid.; Air Corps News Letter, XXIII, #8 (15 April 40), p. 17; #9 (1 May 40), p. 6.
45. The order further specified that tactical units would take the following minimum steps to insure satisfactory results on these cooperative missions. Two aircraft equipped for towing would be sent to Rio Hato so as to arrive there at least one hour before the scheduled beginning of daylight missions. One plane would be held in reserve, prepared to take off and complete the mission in the event of mechanical failure of the plane performing the mission. At least one pilot in each plane was to have flown previous cooperative missions at Rio Hato. Operations Memo #5, Hq 19th Wing, 18 April 40, in history, Sixth AF, installment 2, appendix.
46. Twelve B-18's carried out a mission to Lima, Peru, during the week of 10-17 March. General Van Voorhis rode in the lead plane, piloted by General Dargue, commander of the flight.
Continuing the policy of "flights to establish more cordial relations between the military authorities of the Canal Zone and government officials of Central and South American countries," a total of 25 B-18's, P-26's, and P-36's flew to San Jose, Costa Rica on 7 April. General Van Voorhis again accompanied the flight.

CONFIDENTIAL

AAFHS-42, Notes, Chap. III

214

CONFIDENTIAL

Late in June a flight of more than 80 officers, headed by General Dargue, made a tour of Central American capitals. Index sheets, ltr., TAG to CG PCD, 24 Feb. 40, and R&R, Mat. Div. to Info. Div., 12 April 40, in 201 file, Dargue; Air Corps News Letter, XXIII, #7 (1 April 40), p. 4; #10 (15 May 40), p. 13; #15 (1 Aug. 40), p. 13.

47. Air Corps News Letter, XXIII, #15 (1 Aug. 40), p. 16.
48. Ltr., Dargue to TAG, 30 May 40, in AAG Bulk 381, 11/20/40.
49. Ibid., 4th ind., AGO to CG PCD, 30 July 40.
50. There is some evidence indicating that the 19th Wing was occasionally used to maintain the political status quo. When the American minister to Ecuador suspected that a revolution was brewing, he requested that a flight of B-18's be sent to Guayaquil, "apparently as a show of strength and to indicate American backing for the regime then in power." On 8 July 1940 the flight was sent as requested; the crews remained at the airport for five or six days and finally returned, without ever knowing the specific reason for going. History, Sixth AF, installment 2.
51. Ibid.
52. Lt. John B. Montgomery was bombardier of the plane and Lt. Hiette S. Williams, navigator. Ltr., Dargue to Arnold, 20 May 40, ibid., appendix.
53. Ibid.; Air Corps News Letter, XXIII, #10 (15 May 40), p. 15.
54. Index sheet, msg., Arnold to Dargue, 17 May 40, in 201 file, Arnold; Operations Memo #11, Hq 19th Wing, 10 June 40, in history, Sixth AF, installment 2, appendix.
55. History, Sixth AF, installment 2.
56. Air Corps News Letter, XXIII, #14 (15 July 40), p. 16.
57. In accordance with an Air Corps policy of redistributing experienced enlisted men outside the continental United States, approximately 275 men, ranging in grade from private first class to staff sergeant, were assigned to the 19th Wing. They arrived on the Isthmus between March and the middle of May. History, Sixth AF, installment 2.
58. Of the 47 students assigned to courses at the air depot school, 29 were assigned to the crew chiefs' maintenance course, 6 to the instrument course, 7 to the technical inspectors' course, 2 to the radio maintenance mechanical course, 2 to the sheet metal workers' course, and 1 to the hydraulic course. Ibid.

CONFIDENTIAL

CONFIDENTIAL

59. Ibid.
60. General Arnold left Bolling Field on 3 May 1940 in a C-41, with Capt. E. H. Beebe acting as his co-pilot. The inspection party also included Lt. Col. David N. W. Grant of the Medical Corps and Majs. Warren R. Carter and Benjamin W. Chidlaw of the Air Corps. The tour included stops at Brownsville, Texas; Mexico City, Mexico; Guatemala City, Guatemala; Managua, Nicaragua; Albrook Field; Maracaibo and La Guaira, Venezuela; Trinidad; San Juan, P. R., Camaguey, Cuba; and Miami, Fla. The return was made on 13 May. Index sheet, ltr., Chief, Personnel Div. to TAG, 30 May 40, in 201 file, Arnold; Air Corps News Letter, XXIII, #10 (15 May 40), p. 16.
61. History, Sixth AF, installment 2.
62. Index sheet, msg., Arnold to Dargue, 17 May 40, in 201 file, Arnold.
63. Index sheet, msg., Arnold to Van Voorhis, 8 July 40, ibid.
64. History, PAD, 1 Jan. 39-7 Dec. 41; history, Sixth AF, installment 2.
65. Important as Captain Wood's duties were, he soon fell victim to the seemingly unavoidable wing practice of loading several full-time assignments on one officer. By October 1940 he was a squadron commander and the post exchange officer at Albrook Field, in addition to serving as regional control officer of the Panama Canal Weather Region. When this information reached General Arnold, he asked General Dargue to relieve Captain Wood of all other duties in order that he might "organize the weather service as it should be organized in that region." The Navy, the U. S. Weather Bureau, the Air Corps, and Pan American Airlines were coordinating their efforts to establish an adequate weather service in the Canal Zone, and General Arnold was anxious for the Air Corps to do its full share. To do so would require the full time of Captain Wood, who was sent to the Zone "for the specific purpose of reorganizing the weather service and putting it on a paying basis." Ltr., Arnold to Dargue, 9 Oct. 40, in 201 file, Dargue; history, Sixth AF, installment 2.
66. Ibid.
67. The House had originally refused to vote funds for the project because the work would require six years for completion. On 30 May, however, the House appropriated \$15,000,000 to start work and \$99,000,000 in contractual authority. The total cost of the third set of locks was expected to be about \$277,000,000. N. Y. Times, 31 May 40, p. 1.
68. Ibid., 21 June 40, p. 2; 2 Aug., p. 1; 3 Aug., p. 7.
69. Ibid., 30 Sep. 40, p. 18.

CONFIDENTIAL

70. Ibid., 31 May 40, p. 13.
71. Ibid., 16 Jan. 40, p. 9.
72. Memo for C/AC from Info. Div., 1 March 40, in AAG Bulk 381, 11/20/40.
73. Incl. 1, R&R, Plans Div. to Info. Div., 10 July 40, ibid.
74. According to the Air Corps Plans Division, examination of the areas in which the establishment of hostile air bases would constitute the most direct threat to continental United States and to hemisphere defense, and consideration of the difficulties confronting a hostile power which might desire to conduct air operations in the western hemisphere, indicated that the most critical theaters were the Newfoundland-Greenland area and the Natal area. Under existing circumstances, the latter was believed to be the more critical. Army ground forces would be required at Natal for defense of air bases; and it was felt by Plans Division that the Navy should participate, as a practical exercise, in the expeditionary movement. Paramaribo, Surinam, one of the recommended refueling stops, was considered a particularly important point in the chain of air communication, perhaps requiring a garrison. Forces recommended for the Natal project were: an Air Corps wing, consisting of one heavy and one medium bombardment group, one pursuit group (I), one transport squadron, and one air base group (reinforced); one infantry brigade (reinforced); and one Navy patrol wing. R&R, Plans Div. to Info. Div., 10 July 40; incl. 1, ibid.
75. Ltr., Van Voorhis to TAG, 10 June 40, in AAG 381, War Plans.
76. On 6 June 1940 the Air Corps reported that military characteristics for both low altitude (6,000 feet) and high altitude (20,000 feet) barrage balloons had been approved. Military characteristics for winch and truck equipment were being processed. Immediately upon procurement of the first equipment, the Air Corps planned to ship the items to Ft. Sill, Okla., for an expedited service test. Out of the next year's Research and Development funds, \$60,000 had been tentatively earmarked for procurement of further service-test balloons of the high-altitude type, provided initial tests on the low-altitude type indicated any success in the operation of the high-altitude type.
 A WDGS G-3 study of 23 July 1940 recommended the following steps: movement of the 3d Balloon Squadron from Ft. Lewis to Ft. Riley, use of this unit to form a tentative barrage balloon squadron in order to determine equipment and organizational needs, purchase of the necessary equipment from savings in munitions appropriations, purchase of additional balloons (total 150) as funds permitted, and Air Corps direction of development and training. The Chief of the Air Corps concurred with these recommendations with the exception

CONFIDENTIAL

CONFIDENTIAL

of the proposed location, recommending, instead, Ft. Monmouth or Ft. Dix, N. J. Ltr., Brig. Gen. J. E. Chaney to TAG, 22 May 40, and 3d ind., CGAG to TAG, 6 June 40; ltr., Chaney to Marshall, 31 May 40; memo for AG/S, G-3 from AG/S, WPD, 12 June 40; ltr., TAG to CG PCD, 15 June 40, and 1st ind., CG PCD to TAG, 25 June 40, also 3d ind., C/CA to TAG, 6 July 40; memo for Chief, Plans Div. to Maj. H. A. Craig, 19 Sep. 40, all in AAG 381, War Plans.

77. History, Sixth AF, installment 2.
78. Ibid.
79. Ltr., TAG to CG PCD, 4 Sep. 40, in AAG Bulc 381, PCD.
80. Ibid., 1st ind., CG PCD to TAG, 1 Oct. 40.
81. In this connection it should be remembered that "adequate quarters" were still judged by peacetime standards which, for officers, required space not only for the officers themselves but for their wives, children, and servants. As a result, houses built in the Zone in 1940 were "not only permanent but, by civilian standards in the Zone, luxurious." History, Sixth AF, installment 2.
82. On 5 October 1940 the Chief of the Air Corps requested G-4 to authorize additional construction at France Field. In reply, authority was granted for including in 1942 estimates the amounts required for grading and construction of concrete runways and for related construction. Memo for AG/S, G-4 from C/AC, 5 Oct. 40; ltr., TAG to C/AC, 18 Oct. 40, in AAG 600, Panama-Caribbean.
83. On 24 October, Major House wrote that "the construction of the new sets of quarters at France Field have been practically at a standstill for weeks. It has taken the contractor about five or six months to put up a very small part of one set of quarters. . . . A representative of the Panama Canal Department Constructing Quartermaster's office told me that every job has to have a tail end and he guessed the Air Corps was it." History, Sixth AF, installment 2.
84. Fifty sets of civilian quarters under construction for the air depot in the Curundu area of Albrook were expected to be completed between 4 September 1940 and 8 January 1941. Since the depot would not be moved until the completion of its buildings sometime in 1942, the quarters could be used temporarily by officers of the 19th Wing. For enlisted men, however, there was no relief in the housing shortage, and for at least a year and a half many of them were housed in hangars. Ibid.
85. Between 1933 and 1940 the number of passengers carried by commercial airlines in the Canal Zone doubled and the weight of air express and mail increased by half. According to General Van Voorhis' recommendation, the governor of the Panama Canal, the commanding general

CONFIDENTIAL

AAFHS-42, Notes, Chaw. III

CONFIDENTIAL 218

of the 19th Wing, the commander of the department, and officials of Pan American and Pan American Grace Airways all agreed that the main terminal for all commercial aviation in the Canal Zone should be at the Pacific end, rather than at the Atlantic end, of the Canal. Ibid.; ltr., Van Voorhis to TAG, 12 Oct. 40, 1st ind., AGO to C/AC, 17 Oct. 40, and 2d ind., OCAO to TAG, 4 Nov. 40, in AAG 680, Misc., Panama-Caribbean.

86. History, Sixth AF, installment 2.
87. Ibid.
88. In response to a request from General Van Voorhis, General Dargue on 28 October prepared a memorandum giving the status of each outlying field, listing the improvements which had been made by the wing, and listing the steps which had been taken to secure leases. According to the memorandum, no government funds had been spent on Las Lajas, La Mesa, or La Jolla (La Joya or Pacora); minor improvements had been made at Pocri, Chame, Aguadulce, and Chorrera; David, as a Panamanian national airport, had been used by the Air Corps as a servicing station on flights to and from the Canal Zone; Changuinola (Almirante) had not been used for two years; Jaque was frequently used in training flights, \$600 having been paid for its use; and \$400 had been spent on Garachine for the making of trails. Verbal agreements presumably had been made between the department and the Panamanian Secretary of Foreign Affairs as early as 1933 regarding the leasing of privately owned property in Panama. Captain Hill of the Engineers, who had supervised the surveys of these sites in 1939-40, had been "most scrupulous in addressing himself to the local Alcalde and private owners before starting work on any site." Garachine, the only site east of the Canal, and corresponding to Rio Hato on the west, possessed excellent possibilities, but it was never developed in any way. Ibid.; ltr., Van Voorhis to TAG, 23 Oct. 40, 1st ind., AGO to C/AC, 1 Nov. 40, and 2d ind., OCAO to TAG, 5 Dec. 40, in AAG 686, Sites, Panama-Caribbean.
89. Ltr., Van Voorhis to TAG, 12 Oct. 40, and 2d ind., OCAO to TAG, 11 Feb. 41, in AAG 400, Panama-Caribbean.
90. Ltr., Dargue to Van Voorhis, 30 Oct. 40, in history, Sixth AF, installment 2, appendix.
91. 1st ind. (ltr., TAG to CG PCD, 4 Sep. 40), Hq PCD to TAG, 1 Oct. 40, and 2d ind., AGO to CG PCD, 13 Nov. 40, in AAG Bulk 381, PCD; history, Sixth AF, installment 2.
92. Ltr., TAG to CG PRD, 24 Aug. 40, and 1st ind., Hq PRD to TAG, 19 Sep. 40, in AAG Bulk 381, PCD; ltr., TAG to CG PRD, 3 Sep. 40; ltr., CG PRD to TAG, 19 Sep. 40, and 1st ind., AGO to CG PCD, 14 Nov. 40, in AAG 000-800, Misc., Puerto Rico.

CONFIDENTIAL

CONFIDENTIAL

93. On 4 September, the day following President Roosevelt's announcement of the new American defense line in the Atlantic, Secretary of the Navy Frank Knox announced that negotiations were under way for new defense bases in the Pacific Ocean, particularly for protection of the Panama Canal. He stated that bases were to be acquired on the Cocos and Galapagos islands because the Canal could not be defended completely by planes stationed on the Panama mainland.
- Two days later, President Roosevelt denied that negotiations were under way for more bases in the Pacific. He described as "regrettably inaccurate" the news stories which quoted Secretary Knox as saying that such negotiations were in prospect.
- On 5 September, however, the president of Costa Rica announced that his country had offered to lease the Cocos Islands to the United States for establishment of air and naval bases to guard the western approaches to the Panama Canal. But no reply had been received from Washington.
- Subsequent events would seem to indicate that Secretary Knox's announcement, though premature and perhaps ill advised, possessed at least an element of accuracy. N. Y. Times, 4 Sep. 40, p. 1; 5 Sep., p. 13; 6 Sep., p. 1; 7 Sep., p. 61.
94. No further references have been found to the survey described by General Arnold in his letter to General Van Voorhis or to the project discussed in the letter to the commanding general of the Puerto Rican Department. Whether these two projects were separate undertakings or were one and the same is not clear. Ltr., TAG to CG PRD, 4 Sep. 40, in AAG 373, Flights, General; ltr., Arnold to Van Voorhis, 6 Sep. 40, in AAG 686, Sites, Panama-Caribbean.
95. R&R, Plans Div. to C/AC, 6 Sep. 40, in AAG Bulk 381, 11/20/40.
96. Personnel figures in these estimates were for the Air Corps only; other arms and services were not listed. A reconnaissance, rather than bombardment, squadron was recommended for Jamaica because the probable mission was largely reconnaissance. Memo for AC/S, WPD by C/AC, 31 Oct. 40, in AAG 686, Air Bases, West Indies.
97. N. Y. Times, 8 Oct. 40, p. 8.
98. Upon his return from Panama, General Dargue served as Inspector General of the Air Corps and subsequently as commander of the First Air Force. His career in the AAF was cut short on 12 December 1941, when he lost his life in an airplane crash in southern California. At the time of the crash he was en route to Hawaii to assume command of the Hawaiian Department. Ltr., Arnold to Mrs. H. A. Dargue, 16 May 42; memo for Administration of Veterans' Affairs from TAG, 27 Jan. 42, in 201 file, Dargue.
99. History, Sixth AF, installment 3; Air Corps News Letter, XXIII, #4 (15 Feb. 40), p. 10; ltr., Arnold to Dargue, 3 Oct. 40, and ltr., Dargue to Arnold, 5 Oct. 40, in 201 file, Dargue; R&R, Plans Div. to Gen. Spaatz, 22 Oct. 40, in AAG 452.1, Airplanes, Panama-Caribbean.

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL

220

Chapter IV

1. As announced on 6 December 1940, General Andrews' staff was as follows: Lt. Col. Francis M. Brady, Acting Chief of Staff; Lt. Col. William S. Gravely, Acting AC/S, G-3; Maj. Bayard Johnson, Acting AC/S, G-4; Maj. Winfield C. Scott, Adjutant General; Lt. Col. John A. Wheeler, Ordnance Officer; Capt. Lloyd H. Watnee, Communications Officer; Capt. Albert J. Mandelbaum, Signal Officer. History, Panama Canal Department Air Force, 20 Nov. 40-8 May 41 /Sixth AF, installment 3/; R&R, Plans Div. to Gen. Brett, 20 Nov. 40, in AAG 686, Air Bases, West Indies.
2. Air Corps News Letter, XXII, #6 (15 March 39), p. 5; #16 (15 Aug. 39), p. 16; Time, XXXVI, 29 July 40, p. 32.
3. R&R, OCAC to Chief, Plans Div., 13 Nov. 40, in AAG 686, Sites, Panama-Caribbean; incl. 1, R&R, Plans Div. to Gen. Brett, 20 Nov. 40, in AAG 686, Air Bases, West Indies.
4. History, 20th Troop Carrier Sq., 15 Dec. 40-7 Dec. 41; History, Sixth AF, installment 3.
5. Ltr., Andrews to Brett, 15 Jan. 41, in AAG Bulk 676.3; index sheet, ltr., Brett to Andrews, 3 Feb. 41, in 201 file, Andrews.
6. Memo for Van Voorhis by Andrews, 11 Jan. 41, in AAG 381, War Plans.
7. This action to have Plans Division study the subject of outlying airfields was taken by General Brett following a discussion with Brig. Gen. Walter H. Frank on the evening of 5 January 1941. General Brett learned that General Frank had "informed General Van Voorhis that there were 14 outlying landing fields in Hawaii" and this "appealed greatly to General Van Voorhis." R&R, Exec. OCAC to Plans Div., 6 Jan. 41; R&R #2, Plans Div. to Exec. OCAC, 24 Jan. 41, in AAG 381, War Plans; ltr., Brett to TAG, 31 Jan. 41, in AAG 381, Spec., Panama-Caribbean.
8. Ltr., Andrews to Brett, 13 Jan. 41; R&R, Exec. OCAC to Plans Div., 21 Jan. 41; R&R #3, Plans Div. to Exec. OCAC, 30 Jan. 41, in AAG 381, War Plans.
9. History, Sixth AF, installment 3.
10. Ltr., Andrews to CG PCD, 30 Jan. 41, and 1st ind., Van Voorhis to TAG, 1 Feb. 41, in AAG 381, Spec., Panama-Caribbean; memo for CG PCD AF, 6 May 41, in history, Sixth AF, installment 3, appendix.
11. Ltr., TAG to CG PCD, 6 Dec. 40, and ltr., CG PCD to CG GDC, 18 Feb. 41, ibid.

CONFIDENTIAL

CONFIDENTIAL

AAFHS-42, Notes, Chap. IV

221

12. Ltr., TAG to C/AC, 17 Jan. 41, and 1st ind., OCAC to TAG, 26 Feb. 41, in AAG 400, Panama-Caribbean.
13. Memo for Spaatz by Maj. E. F. Gillespie, 22 Jan. 41, in AAG 452.1, Airplanes, South America; ltr., C/S to Nelson Rockefeller, 1 Feb. 41, in AAG 000-800, Misc., South America; memo for Under Sec. of State by C/S, 1 Feb. 41; memo for C/AC from WPD, 10 Feb. 41; memo for WPD from Plans Div., 13 Feb. 41; memo for C/S from WPD, 16 April 41; ltr., Acting Sec. of War to the President, 18 April 41; memo for Sec. of War by C/S, 18 April 41; memo for C/AC from WPD, 26 April 41, all in AAG 686, Air Bases, South America; memo for Spaatz by Maj. E. F. Gillespie, 13 Feb. 41, in AAG 400, Panama-Caribbean.
14. Memo for Spaatz by Maj. E. F. Gillespie, 21 Jan. 41, in AAG 360.01, WD Policy toward Aviation; "Comments on Current Events," G-2 Report #18, 17 Dec. 40, in A-2 Lib.; memo for CG PCD by Lt. Col. Edwin J. House, 6 Feb. 41, in history, Sixth AF, installment 3, appendix.
15. History, Sixth AF, installment 3.
16. Ibid.
17. Memo for C/S by C/NO, 26 Feb. 41, 2d ind., OCSigO to C/AC, 11 March 41, and 3d ind., OCAC to TAG, 20 March 41, in AAG 600, Misc., South America.
18. Ltr., Brady to Spaatz, 18 Feb. 41, in AAG 381, Spec., Panama-Caribbean.
19. GO #6, Hq Puerto Rican Dept., 14 Feb. 41, in AAG 452.1, Airplanes, Puerto Rico.
20. Memo for Gravelly by Brady, 26 Feb. 41; memo for Brady by Bradley, 1 March 41; ltr., Andrews to CG PCD, 14 March 41, 3d ind., Hq. 13th Comp. Wing to CG PRD, 24 March 41, and 4th ind., Hq PRD to CG CDC, 25 March 41, all in history, Sixth AF, installment 3, appendix.
21. Ltr., TAG to C/AC, 14 March 41, ibid.
22. 3d ind. (ltr., Andrews to CG PCD, 30 Jan. 41), OCAC to TAG, 13 March 41, in AAG 381, Spec., Panama-Caribbean; history, Sixth AF, installment 3; ltr., Lt. Col. J. B. Richter to CG PCD AF, 28 Feb. 41, and 3d ind., Hq PCD AF to CG PAD, 4 April 41, ibid., appendix.
23. History, PAD, 1 Jan. 39-7 Dec. 41; history, Sixth AF, installment 3.
24. Ibid.
25. Ltr., Hq CDC to TAG, 27 March 41, and 2d ind., OCAC to TAG, 12 April 41, in AAG 381, War Plans.

CONFIDENTIAL

CONFIDENTIAL

26. No copy of the Greenslade-Devers Board reports was found in AAF files.
27. Air Corps technical facilities were to be provided as follows:
(1) at Jamaica, Antigua, St. Lucia, British Guiana, and the Bahamas, to permit operations by one heavy bombardment group and one long-range reconnaissance squadron; and (2) at Trinidad, to permit operations by a wing consisting of one heavy bombardment group, one interceptor pursuit group, and one long-range reconnaissance squadron. Ltr., TAG to Chief of Engineers, 3 April 41, in AAG 600, Misc., West Indies.
28. Lt. Col. W. B. Souza, who had commanded the 25th Bombardment Group, became first commander of the new 40th Group. On 29 April he became base executive at Borinquen Field and Maj. George W. McGregor was transferred from the 27th Reconnaissance Squadron to command of the 40th Group. The strength of the group at this time was 29 officers and 567 enlisted men. The unit subsequently was changed from medium to heavy, returned to the United States, and in August 1943 became the first group to be assigned the new B-29. History, 40th Bomb Gp. (H), 1 April 41-20 Aug. 43.
29. Radgm., Hartle (San Juan) to TAG, 12 April 41, and radgm., TAG to CG PRD, 23 April 41, in AAG 452.1, Airplanes, Puerto Rico.
30. History, Sixth AF, installment 3.
31. Ltr., CG CDC to TAG, 1 May 41, *ibid.*, appendix.
32. Ltr., Andrews to C/S CDC, 29 April 41, *ibid.*
33. History, Sixth AF, installment 3.

CONFIDENTIAL

AAFHS-42

223

Chapter V

1. History, Caribbean Air Force, 8 May 1941-6 March 1942 [CAF].
2. On 9 June General Bradley announced the establishment of Headquarters, Caribbean Intercenter Command at Borinquen Field. On 26 June the Panama Region Intercenter Command was constituted with headquarters at Albrook Field and placed under the command of Colonel Gilkeson. Ibid.
3. Ltr., CG CDC to CG CAF, et al., 1 Aug. 41, ibid., appendix.
4. Sector commanders were made responsible for housing of personnel, installation and maintenance of equipment, supply of AWS detachments, installation of information centers, installation of communication channels between AWS stations and information centers, and such maintenance as was beyond the capabilities of operating personnel. To the air force was delegated the occupation and operation of all AWS stations, information centers, and (within limits) channels of communication. Memo, CG CAF to G-3 CDC, 1 July 1941, ibid.
5. General Netherwood assumed command of the Caribbean Intercenter Command on 6 September. On 18 September the 305th Signal Company, Air Wing and the 661st, 662d, 697th, and 673d Ordnance Companies, Aviation (Pursuit) were assigned to the command, the first units other than tactical aviation or aircraft warning to be so assigned. History, CAF.
6. Ibid.
7. Incl., ltr., Spaatz to Andrews, 15 Aug. 41, ibid., appendix.
8. Ltr., Andrews to Spaatz, 17 June 41, in AAG 381, Spec., Panama-Caribbean.
9. Ltr., Spaatz to Andrews, 11 July 41, ibid. For a detailed account of the organization of the Air Service Command, see administrative history, Air Service Command, 1921-1944, in AFSHO files.
10. GO #8, Hq CAF, 15 Sep. 41, in history, CAF, appendix.
11. GO #2, Hq SC CAF, 6 Oct. 41, in history, PAD, appendix.
12. Colonel Adler, chief of staff of the continental Maintenance Command, was sent to Panama in September for conferences and inspections with regard to problems of supply and maintenance. Memo for C/AAF by Lt. Col. E. E. Adler, 24 Sep. 41, in history, VI AFSC, appendix.
13. Ltr., Arnold to Maj. Gen. James E. Chaney, 8 Nov. 41, in AAG 321.9.

CONFIDENTIAL

14. Ltr., TAG to CG PCD, 16 Jan. 41, in history, CAF, appendix.
15. Ltr., TAG to CG GDC, 20 May 41, in history, VI AFSC, appendix.
16. In mid-July the contemplated air transport augmentation for the Caribbean Air Force was as follows: 2 C-39's (large doors, troop benches) on hand; 2 C-39's en route; 1 C-49 (small door, airline seating) on hand; 2 C-49's en route; 7 C-49CD's (small doors, troop benches)--1 in August, 6 in September; and 12 C-47's (large doors, troop benches) in December. The latter comprised the first C-47's scheduled for delivery to the Air Corps. General Van Voorhis had pointed out, however, that it would require approximately 42 C-39's or their equivalent to transport an airborne battalion and a parachute platoon. Ltr., Van Voorhis to TAG, 23 June 41; ltr., WPD to C/AAF, 9 July 41; memo for AG/S, WPD by Sec., Air Staff, 17 July 41, all in AAG 381, Spec., Panama-Caribbean.
17. Memo for Arnold by Brady, 13 Sep. 41, in history, CAF, appendix.
18. History, CAF.
19. Ibid.
20. The new plan directed that the Navy (1) protect U. S. and foreign shipping (other than German or Italian) by providing suitable escort; (2) destroy enemy land, air, or sea forces encountered; (3) trail and report on any merchant vessels suspected of assisting the operations of German or Italian naval vessels or aircraft; (4) insure the safety of sea communications with U. S. strategic outposts; and (5) support the defense of such outposts. Ibid.
21. Ltr., Sadler to Andrews, 19 Nov. 41, ibid., appendix.
22. History, CAF.
23. Ibid.
24. Ltr., Brig. Gen. E. B. Lyon to CG CAF, 13 Nov. 41, ibid., appendix.
25. On 20 August 1941 General Johnson wrote Maj. E. M. Walker in the Office, Chief of Air Corps that General Andrews was "thinking of publishing an order making the Air Corps in the Caribbean area autonomous, as the Army Air Corps is in the United States." Ltr., Johnson to Walker, 20 Aug. 41, ibid.
26. Ltr., Andrews to Spaatz, 18 Sep. 41, in AAG 400, Panama-Caribbean.
27. GO #2, Ho GDC, 19 Sep. 41, in history, VI AFSC, appendix.
28. The personnel figures are as of 11 December 1941, the aircraft figures as of 15 December 1941. History, CAF.

CONFIDENTIAL

AATHC-42

CONFIDENTIAL

BIBLIOGRAPHICAL NOTE

Major dependence in this study has been placed on two groups of materials: unit histories which have been prepared in the Sixth Air Force, and correspondence which is filed in the Classified Records Section of the Air Adjutant General's office (cited AAG with decimal) at Headquarters, AAF.

The unit histories, filed in the AAF Historical Office, are especially valuable because of their wealth of supporting documents. Narratives of the several volumes of Sixth Air Force history are noteworthy for their excellent synthesis of material and clarity of presentation. Persons interested in a more detailed treatment than has been possible within the scope of this study should consult these volumes and their supporting documents. Still more specialized treatment can be found in histories of the bomber, fighter, and service commands. Also available in the AAF Historical Office are fairly complete histories of the more important airfields in the Panama Canal Department.

Two other sources have been used less extensively but have nevertheless proved valuable in this study: the unclassified 201 files of general officers and the Air Corps News Letter. The latter was particularly useful for the earlier portion of the period.

Files in other offices of Headquarters, AAF were consulted but were found to contain no pertinent material which was not available in the above mentioned sources. These offices include the Secretary of the Air Staff, the Library Branch of AC/AS-2, and Office Services Section of AC/AS-5.

CONFIDENTIAL

SECRET

CONFIDENTIAL

AFHS-42

INDEX

A

A-17, 11, 39, 73, 171
 A-17A, 171, 213 (n 40)
 A-20, 122, 167
 A-20A, 133, 165
 Adjutant General, The, 88, 132,
 211 (n 33), 212 (n 39)
 Adler, Lt. Col. E. E., 87,
 223 (n 12)
 Aero-Iloyd line, 98
 Aguadulce, 3, 48, 109, 175,
 218 (n 88)
 Air Corps Tactical School, 9,
 22-23, 147
 Air Defense Board, 57-59, 67
 Air Defense Comd., 100, 162
 Albrook, Lt. F. P., 200 (n 4)
 Albrook Fld., 3-4, 7-8, 10-11,
 13, 17-18, 20-21, 31-33, 36,
 39, 51-52, 71, 73, 75-79, 81,
 90, 92, 95, 105-06, 109-10,
 127, 147-50, 157, 166-68, 172,
 200 (n 4), 201 (n 1), 205 (n 61),
 210 (n 19), 211 (n 28), 215
 (n 65), 217 (n 84), 223 (n 2)
 Allen, Capt. F. G., 93, 210 (n 19)
 Almirante, 49, 175, 206 (n 66),
 218 (n 88)
 Almirante Bay, 48
 Almirante Fld., 11
 Andrews, Maj. Gen. F. M., 123-24,
 126-28, 130-34, 136, 139-41,
 146, 148-55, 157, 159, 160,
 162-65, 168-69, 171-72, 174-75,
 177-87, 190-91, 194-97, 220 (n 1),
 224 (n 25)
 Anegada Passage, 83-84
 Antigua, 118-20, 161, 169, 174,
 186, 197, 222 (n 27)
 Antigua Base Comd., 180
 Antilles Is., 21, 134, 140
 Arecibo, 82, 85-86, 117
 Argentina, 98, 144
 Arnold, Gen. H. H., 2, 9, 17-21,
 28-29, 32-33, 35, 37-38, 40,
 46-48, 51, 56, 68-72, 83, 85-
 87, 91, 93-95, 98, 110, 118,
 123-25, 132, 187, 189, 203 (n 35),
 206 (n 66), 207 (n 71), 212 (n 39-
 40), 213 (n 44), 215 (n 60, 65)

Aruba, 141
 Asuncion, 145
 Atlantic Sector, 3, 13, 50, 66,
 210 (n 21)
 Axtater, Maj. K. S., 27

B

B-10, 11
 B-10B, 5-6, 11-12
 B-17, 27-28, 71, 90, 121, 193-94,
 196, 202 (n 33), 203 (n 35),
 209 (n 14)
 B-17D, 165
 B-17E, 133, 165
 B-18, 12, 16, 32, 36, 39, 52, 54,
 70-71, 90, 92, 111, 118, 126,
 128, 153-54, 166-67, 170-73,
 213 (n 46)
 B-18A, 6, 81, 92, 121, 171
 B-24D, 133
 B-26, 122
 B-29, 222 (n 28)
 Bahama Base Comd., 180
 Bahama Is., 118, 120, 140, 160,
 169, 222 (n 27)
 Balboa, 7, 14, 106, 172
 Barbados, 162
 Barranquilla, 88, 157
 Baseler, Lt. R. L., 210 (n 19)
 Basic War Plan, 62
 Beebe, Capt. E. H., 215 (n 60)
 Bermuda, 118, 120
 Bocas del Toro, 3
 Bogota, 88
 Bolivia, 98, 144-45, 156
 Bolling Fld., 27, 213 (n 40),
 215 (n 60)
 Borinquen Fld., 81-82, 85, 88,
 114, 141, 222 (n 28), 223 (n 2)
 Bradley, Brig. Gen. Follett, 38,
 83, 85-86, 161-63, 171, 181-84,
 212-13 (n 40), 223 (n 2)
 Brady, Lt. Col. F. M., 18, 32,
 52, 92, 107, 121, 135-36, 149,
 160-63, 220 (n 1)
 Brazil, 21-22, 28, 98, 119-20,
 143, 159, 169
 Brett, Brig. Gen. G. H., 3, 5-7,
 71-72, 75, 128, 131-33, 220 (n 7)

CONFIDENTIAL

AAFHS-42

227

CONFIDENTIAL

British Guiana, 118, 120, 125,
133, 156, 169, 186, 197,
222 (n 27)
British Guiana Base Comd., 180
Browne, Capt. R. J., Jr., 210
(n 19)
Brownsville, 215 (n 60)
Bruja Point, 7-8, 17, 20, 33-34,
56, 55, 205 (n 61), 208 (n 80)
Budget, Director of, 119
Buffalo, 166
Bump, Maj. A. L., 172, 210 (n 19)
Butler, Lt. Col. W. O., 17
Butner, Gen., 210 (n 21)

C

C-29, 70
C-33, 70, 92, 126, 166
C-39, 70, 166, 224 (n 16)
C-41, 215 (n 60)
C-47, 224 (n 16)
C-49, 224 (n 16)
C-49B, 224 (n 16)
Caguas, 82
Cali, 88
Camaguey, 28, 157, 215 (n 60)
Candee, Maj. R. C., 3
Cape Mala, 49
Caribbean Air Force, 125, 160,
177-98
Caribbean Antiaircraft Artillery
Comd., 182
Caribbean Bomb Comd., 184
Caribbean Coastal Defense Comd.,
160
Caribbean Defense Comd., 126,
140, 142, 160, 162-63, 173-74,
179-83, 187, 189-90, 193-97
Caribbean Defense Comd. Air Force,
160
Caribbean Interceptor Comd., 177,
181, 183, 223 (n 2, 5)
Caribbean Sea, 22, 69, 125, 197
Caripito, 157
Cartegena, 88
Carter, Maj. W. R., 215 (n 60)
Ceiba, 26, 82

Central America, 8, 31-33, 66,
88-89, 96, 112, 118, 125, 133,
142-43, 154-55, 157, 159, 180,
188, 205 (n 61), 213 (n 46),
214 (n 46)
Chame, 48, 109, 175, 218 (n 88)
Chaney, Brig. Gen. J. E., 100-01
Changuinola, 109, 218 (n 88)
Chanute Fld., 200 (n 4)
Chateau Thierry, 172
Chiclayo, 88
Chidlaw, Maj. B. W., 215 (n 60)
Chile, 13, 89, 98, 156
Chorrera, 109, 218 (n 88)
Circular 50-12, OCAC, 207 (n 76)
Ciudad Trujillo airport, 118,
157
Civil Aeronautics Authority, 37
Civil Aeronautics Board, 144
Coastal Frontier Defense Comd.,
160-61
Coco Solo, 3, 14, 46, 62, 106,
139
Cocos Is., 41-45, 196, 205 (n 58),
219 (n 93)
Goiba I., 49
Colobre, 3
Colombia, 12, 54, 87, 125, 143,
156, 163, 173, 180, 188, 205
(n 61), 207 (n 78)
Concepcion, 145
Condor line, 98
Consolidated Aircraft Corporation,
45
Conway, Maj. E. T., 83
Corozal, 167
Corps of Engineers, 21
Costa Rica, 32, 43, 87, 132, 156,
173, 204 (n 58), 213 (n 46),
219 (n 93)
Cristobal, 207 (n 75)
Cuba, 28, 42, 87-88, 134, 146,
162, 173, 213 (n 40), 215 (n 60)
Culebra, 26, 84
Curacao, 141
Curundu area, 217 (n 84)

CONFIDENTIAL

AARHS-42

228

CONFIDENTIAL

D

Dakar, 99
 Daley, Brig. Gen. E. L., 37-38,
 82-84, 86, 114, 117-18, 170,
 211 (n 33)
 Dargue, Brig. Gen. H. A., 8-20,
 29-35, 39-42, 44-46, 48-50,
 53, 58-60, 64-68, 70, 72, 75,
 77-79, 81, 86-88, 90-92, 94-
 95, 102-04, 106-13, 121-22,
 131, 142, 148, 150, 162, 203
 (n 35), 204 (n 47), 206 (n 66),
 209 (n 4), 211 (n 28), 213
 (n 44), 214 (n 46), 215 (n 65),
 218 (n 88), 219 (n 98)
 David, 3, 11, 48, 109, 176,
 218 (n 88)
 Department Training Center, 149a
 Department Troops, 3, 50, 74
 Desecheo I., 38
 Deutsche Lufthansa, 98
 Diablo Hill, 31
 Dominican Republic, 28, 87, 118,
 162-63, 173
 Dorado, 82, 85-86
 Dutch Guiana, 197

E

11th Engineers, 67, 77, 93, 149a-
 50
 18th Infantry Brigade, 36
 805th Engr. Co., 167, 175
 Ecuador, 43, 87, 89, 97-98, 125,
 140, 155, 160, 173, 180, 188,
 204 (n 58), 214 (n 50)
 El Panama America, 146
 El Paso, 206 (n 61)
 El Salvador, 32, 87, 156, 173
 Emmons, Maj. Gen. D. C., 27
 Engineers, Chief of, 170
 Engineers, Corps of, 21
 England, 168, 187
 Ent, Maj. Uzal, 155
 Erie, 136

F

1st Air Depot Gp., 126, 186
 1st Air Force, 219 (n 98)
 1st Bomb Sq., 172
 1st Depot Gp., 112
 1st Depot Sq., 10, 51, 95
 1st Repair Sq., 126
 1st Supply Sq., 126
 4th Observation Sq., 117
 15th Air Base Gp., 112
 15th Air Base Sq., 4, 10, 80,
 205 (n 61), 210 (n 19)
 15th Naval District, 62, 131
 15th Observation Sq., 114
 40th Bomb Gp. (M), 113-14, 170,
 222 (n 28)
 40th Quartermaster Maintenance
 Co., 167
 41st Rcn. Sq., 206 (n 61)
 43d Pursuit Sq., 53-54, 73,
 210 (n 19)
 44th Rcn. Sq., 10, 12, 14, 73,
 112, 157, 205 (n 61), 210 (n 19)
 46th Signal Platoon, 167
 47th Air Base Gp., 112
 48th Air Base Gp., 113-14
 51st Pursuit Sq., 126
 52d Pursuit Sq., 126
 52d Signal Maintenance Co., 102
 53d Pursuit Sq., 126
 59th Bomb Sq., 112, 126-27, 133
 483d Ordnance Co., 167
 501st Parachute Bn., 189
 550th Infantry Airborne Bn., 189
 Fiegel, Lt. L. G., 213 (n 40)
 Fiske, Gen., 210 (n 21)
 Florida, 205 (n 61), 215 (n 60)
 Fort Clayton, 14
 Fort Dix, 217 (n 76)
 Fort Lewis, 216 (n 76)
 Fort Miles, 85
 Fort Monmouth, 217 (n 76)
 Fort Riley, 216 (n 76)
 Fort Sherman, 97, 103, 137
 Fort Sill, 216 (n 76)
 France, Lt. H. J., 200 (n 3)

CONFIDENTIAL

AAFHS-42

229

France Fld., 2-4, 6-8, 10, 16-18, 20, 33, 36, 39, 46-47, 51-52, 73, 90, 92-93, 95, 104-05, 110, 126, 146, 148, 149a-50, 157, 176-77, 200 (n 3), 201 (n 1), 205 (n 61), 207 (n 75), 217 (n 82)

Frank, Brig. Gen. H. H., 220 (n 7)

Frech, Maj. F. F., 77

French Fleet, 198

French Guiana, 125, 140, 160, 180, 198

G

Galapagos Is., 13, 41-45, 196, 205 (n 58), 219 (n 93)

Galloway, Col. F. E., 177

Gapen, Lt. R. D., 210 (n 19)

Garachine, 11, 109, 206 (n 66), 218 (n 88)

Gatun area, 101

Gatun lake, 200

Gatun locks, 14, 65

George, Maj. H. L., 202 (n 33), 204 (n 47), 209 (n 14)

Georgetown, 174

Germany, 83, 89

GHQ Air Force, 6, 23-24, 27, 70, 124, 145, 203 (n 35)

Gilkeson, Lt. Col. A. H., 36, 95, 113, 124, 137, 172, 177, 223 (n 2)

Gillespie, Maj. E. F., 143, 146

Glantzberg, Capt. F. E., 202 (n 33)

Goldenberg, Lt. C. T., 210 (n 19)

"Good-Neighbor Policy," 8, 42

Governors Is., 23

Grant, Lt. Col. D. N., 215 (n 60)

Gravely, Lt. Col. W. S., 87, 149, 162-63, 177, 208 (n 81), 220 (n 1)

Great Britain, 117, 170, 195

Greenslade-Devers Board reports, 170, 222 (n 26)

Griffin, Lt. Col. C. E., 81

Guadeloupe, 169, 198

Guatemala, 12, 32, 87, 132, 140, 156-57, 160, 173, 215 (n 60)

Guatemala City, 32, 157, 215 (n 60)

Guayama, 82

Guayaquil, 88, 214 (n 50)

H

Haiti, 28, 42, 87-88, 162-63, 173

Hamilton, Sgt. D. E., 209 (n 14)

Hamilton Fld., 86

Haney, M/Sgt. Floyd, 209 (n 14)

Havana, 163

Hawaii, 212 (n 39)

Haynes, Lt. Col. C. V., 90, 184

Hepburn, Rear Adm. A. J., 24

Hill, Capt., 218 (n 88)

Hix, Capt. G. F., 93

Honduras, 32, 87, 156-57, 173

House, Maj. E. J., 36, 46, 104, 139, 146-47, 217 (n 83)

House of Representatives, 215 (n 67)

Howard, Maj. C. H., 208 (n 80)

Howard Fld., 55, 93, 105, 107, 109-10, 147, 157, 176-77, 189, 208 (n 80)

H. R. 5098, 204 (n 58)

H. R. 5378, 204 (n 58)

I

Indianapolis, 166

Ingles, Brig. Gen. H. G., 183

Isla Grande airport, 24-25, 212 (n 33)

Italy, 83, 89

J

Jamaica, 118, 120, 160, 162,

169, 174, 181, 186, 197, 219 (n 96), 222 (n 27)

Jamaica Base Comd., 180

Japan, 59, 83, 193, 198

AAFHS-42

230

CONFIDENTIAL

Jaque Fld., 11, 48-49, 109, 175,
206 (n 66), 218 (n 88)
Jarman, Brig. Gen. Sanderford,
50, 56, 74, 151-52, 182
Johnson, Maj. Bayard, 107-08,
220 (n 1)
Johnson, Maj. Gen. Davenport,
179, 189, 191-92, 194, 224 (n 25)
Joint Action, 61, 64-65
Joint Air Advisory Committee, 99
Joint Army-Navy War Plan Rainbow
No. 1, 98
Joint Army-Navy War Plan Rainbow
No. 4, 124-25
Joint Board, 83
Joint Board Plan, 188
Joint Board Report No. 325, 60-61
Joint Board Report No. 349, 61
Joint Defense Plan, 44
Juana Diaz, 85-86, 114, 117,
Junker, 98

K

Keesley, Col. H. J., 78-79
Kelly, Lt. J. R., 210 (n 19)
Kelly Fld., 12
Kenney, Maj. G. C., 26-27
Kierulff, Asger, 21 (n 27)
King, Lt. R. T., 210 (n 19)
Kingston, 161
Knox, Frank, 219 (n 93)

L

"La Afirmacion Nacional," 108
La Chorrera, 11, 48, 206 (n 66)
La Guaira, 88, 157, 215 (n 60)
La Jolla, 109, 218 (n 88)
La Joya, 48, 206 (n 66), 218
(n 88)
La Mesa, 48, 109, (206 (n 66),
218 (n 88)
Langley Fld., 90
La Palma, 49
Las Lajas, 48, 109, 218 (n 88)
Lazarus, Lt. Millard, 213 (n 40)
Leahy, Adm. W. D., 120

Lear, Maj. Gen. Ben, 13, 56, 74
Lee, Col. J. C., 21
Leeward Is., 169
Le May, Capt. C. E., 90
Lesser Antilles, 42, 163
Lima, 88, 155, 213 (n 46)
Limon Bay, 13
London, 101
Luftwaffe, 195
Lyon, Brig. Gen. E. B., 184,
191-94

M

MacArthur, Gen. Douglas, 124
McChord, Lt. Col. H. C., 76
McCoy, Maj. Gen. F. R., 23-24
McDaniel, Capt. C. B., 209 (n 14)
McDonald, T/Sgt. J. E., 209 (n 14)
McGregor, Maj. G. W., 228 (n 28)
McNarney, Lt. Col. J. T., 27
Maddux, Lt. Sam, 32
Managua, 32, 157, 215 (n 60)
Mandelbaum, Capt. A. J., 220 (n 1)
Mandinga, 11, 109, 206 (n 66)
Maracaibo, 72, 157, 163, 215 (n 60)
March Fld., 167
Marshall, Gen. G. C., 28, 56-59,
71-72, 81, 124, 144-45, 203
(n 35)
Martinique, 169, 198
Matheny, Capt. H. A., 209 (n 14)
Maxwell Fld., 121
Mayaguez, 82, 85-86, 117
Medallin, 88
Mexico, 125, 173, 180, 215 (n 60)
Mexico City, 88, 215 (n 60)
Miami, 27, 88, 90, 163, 213 (n 40),
215 (n 60)
Middletown Air Depot, 171
Miller, Lt. J. A., 210 (n 19)
Miraflores locks, 14, 29, 65, 101
Mitchel Fld., 27, 100-01, 121, 166
Mobile Ground Force Comd., 161
Mona, 26
Montgomery, Lt. J. B., 214 (n 52)
Moore, Brig. Gen. R. C., 13

CONFIDENTIAL

AAFHS-42

231

N

P CONFIDENTIAL

9th Bomb Gp. (H), 93-94, 104-05,
112-13, 121-22, 127, 133, 149-
50, 165, 172
9th Quartermaster Truck Co., 167
19th Bomb Wing., 112, 124, 149a,
168, 176
19th Composite Wing, 2-3
19th Wing, 3-15, 18-20, 29-31,
33-34, 36, 38, 40-41, 45, 47-
52, 54, 56, 61, 64-66, 70-72,
74-75, 77-78, 80-81, 87-91,
94-95, 100, 102-04, 110-13,
121-24, 201 (n 1), 204 (n 47),
207 (n 76), 208 (n 81), 214
(n 50, 57), 218 (n 85)
Nashville, 27
Natal, 99, 216 (n 74)
Natal area, 99-100, 102, 145, 169,
216 (n 74)
Naval Operations, Chief of, 62-63,
69
Naval War College, 9
Navy, 7, 23-25, 37, 44, 46-47, 49,
60-63, 65, 69, 96-97, 88, 99,
119, 125, 130-31, 134-36, 140,
155, 158-59, 190-94, 212 (n 33),
213 (n 40), 215 (n 65), 216
(n 74), 224 (n 20)
Navy War Plans Division, 62
Navy Western Hemisphere Defense
Plan No. 4, 190-91
Plan No. 5, 191
Netherwood, Brig. Gen. D. B., 121,
124, 149a-50, 152, 176, 184,
223 (n 5)
Newfoundland, 118, 215 (n 74)
Nicaragua, 32, 87, 132, 156, 173,
215 (n 60)

O

O-47, 153
O-47A, 73, 92, 111, 114
OA-8, 118
Oldfield, Col. C. B., 79, 113, 124
Olds, Col. Robert, 27

P-12, 11-12
P-12E, 11
P-12F, 11
P-26, 11, 39, 137, 165, 204 (n 45),
213 (n 46)
P-26A, 11, 36
P-36, 36, 111, 137, 204 (n 45, 47),
213 (n 46)
P-36A, 12
P-38E, 133
P-39D, 133
P-40, 122, 133, 165-67, 196
P-40B, 165
P-40D, 165
Pacific Sector, 3, 13, 50, 66,
210 (n 21)
Pacora, 11, 218 (n 88)
Paitilla Point, 3
Panama, Bay of, 211 (n 27)
Panama, Gulf of, 12, 14
Panama, Republic of, 3, 47, 49,
53, 55, 60, 97, 109, 132, 146,
157-58, 175-76, 218 (n 88)
Panama Air Depot, 4, 10, 51, 66,
74, 87, 92, 95, 112, 126, 186
Panama Antiaircraft Defense Project,
101
Panama Area Service Command, 186
Panama Canal Dept., 3-5, 8, 10,
13, 16, 18, 20, 29, 31, 34, 35,
44, 50-52, 55-58, 60, 63, 65-66,
68-74, 76-77, 81, 83, 88-89,
103-05, 109-10, 112-13, 121,
125-26, 129, 132, 134-35, 139,
141-43, 149, 151, 160, 165,
167-68, 170, 173, 180, 188-89,
197, 203 (n 35), 204 (n 45),
209 (n 4), 212 (n 39), 217
(n 83)
Panama Canal Dept. Air Force,
112-13, 122-24, 126, 129, 133-
35, 141-42, 145-47, 150-51,
155-57, 160-63, 165-66, 174-76,
178-79
Panama Canal Weather Region, 215
(n 65)
Panama Coast Artillery Comd., 182

CONFIDENTIAL

AAFHS-42

CONFIDENTIAL 232

Panama Mobile Force, 74
 Panama National Highway, 76
 Panama Provisional Coast Artillery
 Brigade, 50, 74
 Panama Region Interceptor Comd.,
 223 (n 2)
 Panama Sector, 180
 Panama Separate Coast Artillery
 Brigade, 87
 Pan American Airways, 24, 89, 96,
 106, 119, 143, 145, 155, 157-
 59, 176, 215 (n 65), 218 (n 85)
 Pan American Grace Airways, 96,
 155, 218 (n 85)
 Paraguay, 144-45, 156
 Paramaibo, 216 (n 74)
 Patrol Wing Three, 14, 61-62, 139
 Patterson Fld., 167
 PBX, 14
 Pedrigal, 176
 Pedro Miguel locks, 65, 101
 Penonome, 3
 Perlas Is., 2, 14
 Perme, 11, 48, 109, 206 (n 66)
 Peru, 87, 89, 98, 155, 173,
 213 (n 46)
 Piarco airport, 170, 172
 Pitz, Col. H. L., 27
 Plans Div., OCAC, 216 (n 74)
 Plans Sec., OCAC, 21
 Playa de Madrel, 204 (n 47)
 Pocrri Fld., 11, 48, 109, 206 (n 66),
 218 (n 88)
 Ponce, 26, 82
 Port-au-Prince, 28, 157
 Port of Spain, 170
 "Principles of Employment, Army
 Air Component," 99
 Provisional Air Defense Comd., 161,
 182
 Puerto Armuelles, 175
 Puerto Obaldia, 49
 Puerto Rican Defense Project, 83-84
 Puerto Rican Dept., 66, 68, 72,
 81-82, 84-85, 113, 118, 125, 141,
 160-63, 173, 180, 211 (n 33),
 212 (n 39), 212 (n 94)
 Puerto Rican General Depot, 82,
 211 (n 33)
 Puerto Rican Sector, 180

Puerto Rico, 21-28, 37-38, 42,
 54, 72, 82-87, 99, 114, 117,
 119-21, 134, 141, 160-64, 174,
 181-82, 185-86, 193, 197, 205
 (n 61), 212 (n 40), 213 (n 40)
 Puerto Rico Air Base, 206 (n 61)
 Punta Borinquen Area, 26

Q

Quarry Heights, 3, 50, 75, 78

R

Randall, Capt. R. E., 210 (n 19)
 Red Cross, 97
 Richter, Lt. Col. J. P., 165-66
 Ridley, C. S., 89-90
 Rio Coco Solo, 46
 Rio Hato, 7, 11, 20, 29, 33,
 47-48, 75-81, 87, 93-94, 104-
 05, 108-09, 121, 126-27, 148-
 49a, 151-53, 167-68, 175, 177,
 186, 206 (n 66), 211 (n 27),
 213 (n 45), 218 (n 88)
 Rockefeller, Nelson, 144
 Roosevelt, Pres., 5, 32, 36, 56,
 117, 125, 133-34, 144-45, 170,
 188, 204 (n 58), 219 (n 93)

S

2d Corps Area, 23, 25, 27
 6th Bomb Comd., 184
 6th Bomb Gp., 4, 10, 12-14, 19,
 36, 53, 73, 112, 133, 205
 (n 61), 207 (n 75)
 6th Composite Gp., 2-3
 7th Aero Sq., 2
 7th Rcn. Sq., 10, 12, 73, 112,
 156-57, 205 (n 61), 207 (n 74)
 16th Air Base Gp., 112
 16th Air Base Sq., 4, 10, 19,
 205 (n 61)
 16th Pursuit Gp., 3-4, 10, 12,
 14, 19, 36, 53, 73, 76, 112,
 133, 205 (n 61), 210 (n 19)

CONFIDENTIAL

AAFHS-42

1157

CONFIDENTIAL

233

61st Coast Artillery, 204 (n 45)
 61st Ord. Bn., 102
 62d Coast Artillery, 204 (n 45)
 63d Coast Artillery, 204 (n 45)
 63d Service Sq., 2
 73d Coast Artillery, 77
 74th Attack Sq., 10, 13-14, 73, 207 (n 73)
 74th Bomb Sq., 210 (n 19)
 661st Ord. Co., 223 (n 5)
 662d Ord. Co., 223 (n 5)
 673d Ord. Co., 223 (n 5)
 697th Ord. Co., 167, 223 (n 5)
 742d Ord. Co., 167
 743d Ord. Co., 167
 744th Ord. Co., 167
 Sadler, Rear Adm. F. H., 62-63, 191, 194
 St. Croix I., 26, 82-83, 85, 174
 St. John I., 26
 St. Lucia, 118-20, 169, 186, 197, 222 (n 27)
 St. Lucia Base Comd., 180
St. Mihiel, 35
 St. Thomas I., 26
 Salinas, 85-86
 San Antonio, 206 (n 61)
 San Antonio Air Depot, 92, 166
 San Jose, 32, 157, 213 (n 46)
 San Juan, 24, 27, 82, 141, 211 (n 33), 215 (n 60)
 San Lorenzo, 157
 San Miguel Bay, 48
 San Romana, 28
 San Salvador, 32
 Santa Clara Inn, 211 (n 27)
 Santa Ysabel, 26, 85-86
 Santiago, 3, 13
 Scadta airline, 143, 207 (n 78)
 Scott, Maj. W. C., 208 (n 81), 220 (n 1)
 Scott Fld., 114
 Secretary of Navy, 134, 155
 Secretary of War, 1, 4, 47, 54, 67, 119, 134, 155, 205 (n 58)
 Sedta airline, 98
 Semanko, S/Sgt. J., 209 (n 14)
 Senegal, 99
 Signal Co., Aircraft Warning, 97
 Signal Corps, 50
 Slaughter, Lt. M. F., 210 (n 19)

Souza, Lt. W. B., 222 (n 28)
 South America, 8-9, 21, 66, 70, 82, 88-89, 96-99, 112, 133, 140, 142-45, 154-55, 157, 159, 160
 Southern Florida Southeast Air Base, 206 (n 61)
 Spaatz, Gen. Carl, 15, 21, 132, 143, 146, 160-61, 185-86
 Stark, Adm. H. R., 47
 State Dept., 33, 37, 43, 54, 144-45, 174, 205 (n 58)
 Stimson, 97. See also Sec. of War.
 Stone, Maj. Gen. D. L., 13, 16, 18, 29-31, 33, 36, 42-44, 56, 73, 77, 202 (n 35), 203 (n 35), 210 (n 21)
 Stoner, Maj. R. K., 210 (n 19)
 Strauss, Col. H. A., 51, 95, 186
 Strong, Brig. Gen. G. V., 20, 62
 Surinam, 125, 156, 180, 186, 216 (n 74)

T

3d Bomb Sq., 53, 73, 207 (n 74)
 10th Quartermaster Truck Co., 167
 12th Pursuit Wing, 112, 124, 165-66, 168, 181
 13th Composite Wing, 113-14, 161-63, 170-71, 181-82
 13th Pursuit Gp., 117
 13th Signal Platoon, 102
 14th Signal Platoon, 102
 20th Pursuit Sq., 2
 20th Transport Sq., 112, 126, 166, 186
 22d Bomb Gp. (M), 34, 45, 54, 93, 205 (n 61)
 24th Air Base Gp., 113-14, 171
 24th Air Base Sq., 54, 206 (n 61)
 24th Pursuit Sq., 10, 13, 210 (n 19)
 25th Bomb Gp. (H), 54, 113-14, 171, 206 (n 61), 222 (n 28)
 25th Bomb Sq., 2, 10, 12, 207 (n 74)
 27th Air Base Sq., 206 (n 61)
 27th Recon. Sq., 38, 81, 113-14, 171, 206 (n 61), 222 (n 28)

CONFIDENTIAL

AAFH3-42

CONFIDENTIAL

234

28th Pursuit Sq., 53, 73, 172,
210 (n 19)
29th Bomb Gp. (H), 206 (n 61)
29th Pursuit Sq., 10, 13, 210
(n 19)
30th Pursuit Sq., 53, 73, 210
(n 19)
31st Pursuit Sq., 53, 73, 172,
210 (n 19)
32d Pursuit Gp., 112-13, 126-27,
133
36th Pursuit Gp., 54, 113-14, 181,
206 (n 61)
37th Pursuit Gp., 53-54, 73, 104,
112, 133, 205 (n 61), 210 (n 19)
39th Observation Sq., 53, 73, 92,
112, 153, 157, 205 (n 61), 207
(n 74)
305th Signal Co., 223 (n 5)
306th Signal Co., 102
325th Signal Co., 103
327th Signal Co., 167
Talara, 88
Teguicigalpa, 32
Texas, 205 (n 61), 206 (n 61),
215 (n 60)
Tobago I., 103, 137
Trinidad, 21-22, 28, 42, 118-20,
141, 156, 160-63, 169-72, 174,
181, 185-86, 193, 197, 205
(n 61), 215 (n 60), 222 (n 27)
Trinidad Base Comd., 180
Trinidad Sector, 180
Twaddell, Lt. James, 210 (n 19)

U

United Fruit Co., 175
U. S. Engineer Depot, 25

V

Van Voorhis, Maj. Gen. Daniel, 56-
58, 64, 67, 71, 73, 78-80, 83,
87, 94-95, 97, 100, 106, 109-10,
118, 126, 128, 130-32, 134, 139,
141, 148, 149a-50, 152-54, 160,
166, 168, 171, 179, 182-83, 195,
209 (n 4, 9), 213 (n 46), 217
(n 85), 219 (n 94), 220 (n 7),
224 (n 16)

Vega Baja, 85-86
Venezuela, 72, 87, 125, 173,
180, 188, 205 (n 61), 215
(n 60)
Vieques, 26, 84
Virgin Is., 26, 84, 180, 197

W

Walker, Maj. K. M., 224 (n 25)
Walsh, S/Sgt. J. H., 209 (n 14)
Walsh, Maj. R. L., 76
War Dept. Air Board, 205 (n 61)
War Dept. Operations Plan R4-40,
125
War Plans Division, 20, 22, 27-28,
49, 62, 68, 71-72, 83, 86, 99,
101, 119, 123, 125, 132-34, 142,
188, 205 (n 61)
Watnee, Capt. L. H., 220 (n 1)
Weather Bureau, 215 (n 65)
West Indies, 66, 133, 205 (n 61)
Westover, Maj. Gen. Oscar, 4,
6-8
Wheeler, Lt. Col. J. A., 220 (n 1)
Williams, Lt. H. S., 214 (n 52)
Wold, Lt. T. G., 209 (n 14)
Wolfe, Capt. F. C., 13
Wood, Capt. F. B., 96, 215 (n 65)
Woodring, 35
Wright, Lt. Col. J. W., 24
Wright, Maj. S. P., 172
Wright Fld., 87

X

XB-15, 90

Y

Yount, Brig. Gen. B. K., 38

CONFIDENTIAL

CONFIDENTIAL

MEMORANDUM FOR THE COMMANDING GENERAL, ARMY AIR FORCES:
(Attention AAF Historical Office)

Subject: Critique of Army Air Forces Historical
Studies: No. 42, Air Defense of the
Panama Canal, 1 January 1939-7 December
1941

CONFIDENTIAL

CONFIDENTIAL

MEMORANDUM FOR THE COMMANDING GENERAL, ARMY AIR FORCES:
(Attention AAF Historical Office)

Subject: Critique of Army Air Forces Historical
Studies, No. 42, Air Defense of the
Panama Canal, 1 January 1939-7 December
1941

CONFIDENTIAL

CONFIDENTIAL

MEMORANDUM FOR THE COMMANDING GENERAL, ARMY AIR FORCES:
(Attention AAF Historical Office)

Subject: Critique of Army Air Forces Historical
Studies, No. 42, Air Defense of the
Panama Canal, 1 January 1939-7 December
1941

CONFIDENTIAL

~~SECRET~~

CONFIDENTIAL

MEMORANDUM FOR THE COMMANDING GENERAL, ARMY AIR FORCES:
(Attention AAF Historical Office)

Subject: Critique of Army Air Forces Historical
Studies, No. 42, Air Defense of the
Panama Canal, 1 January 1939-7 December
1941

CONFIDENTIAL

CONFIDENTIAL

MEMORANDUM FOR THE COMMANDING GENERAL, ARMY AIR FORCES:
(Attention AAF Historical Office)

Subject: Critique of Army Air Forces Historical
Studies: No. 42, Air Defense of the
Panama Canal, 1 January 1939-7 December
1941

CONFIDENTIAL