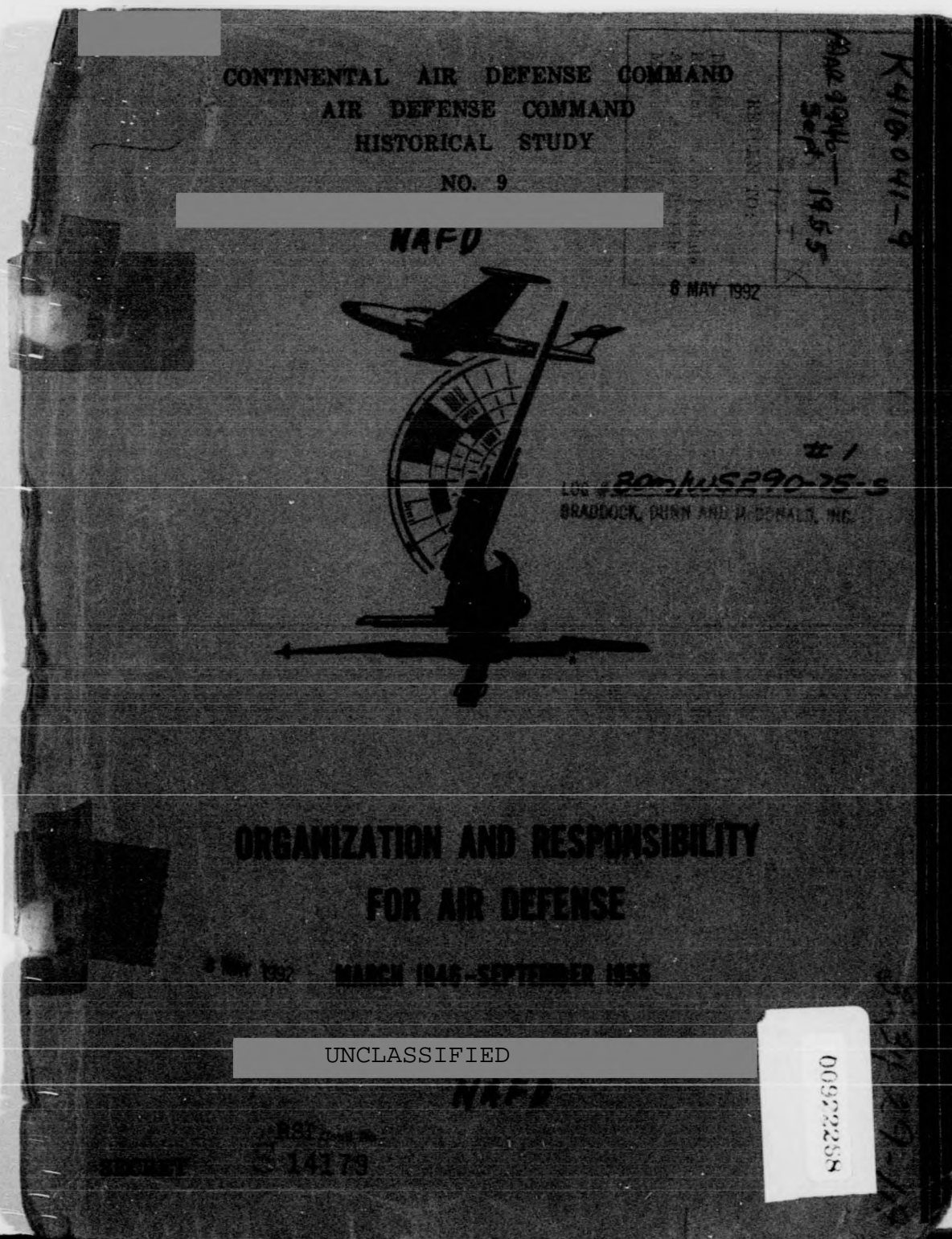


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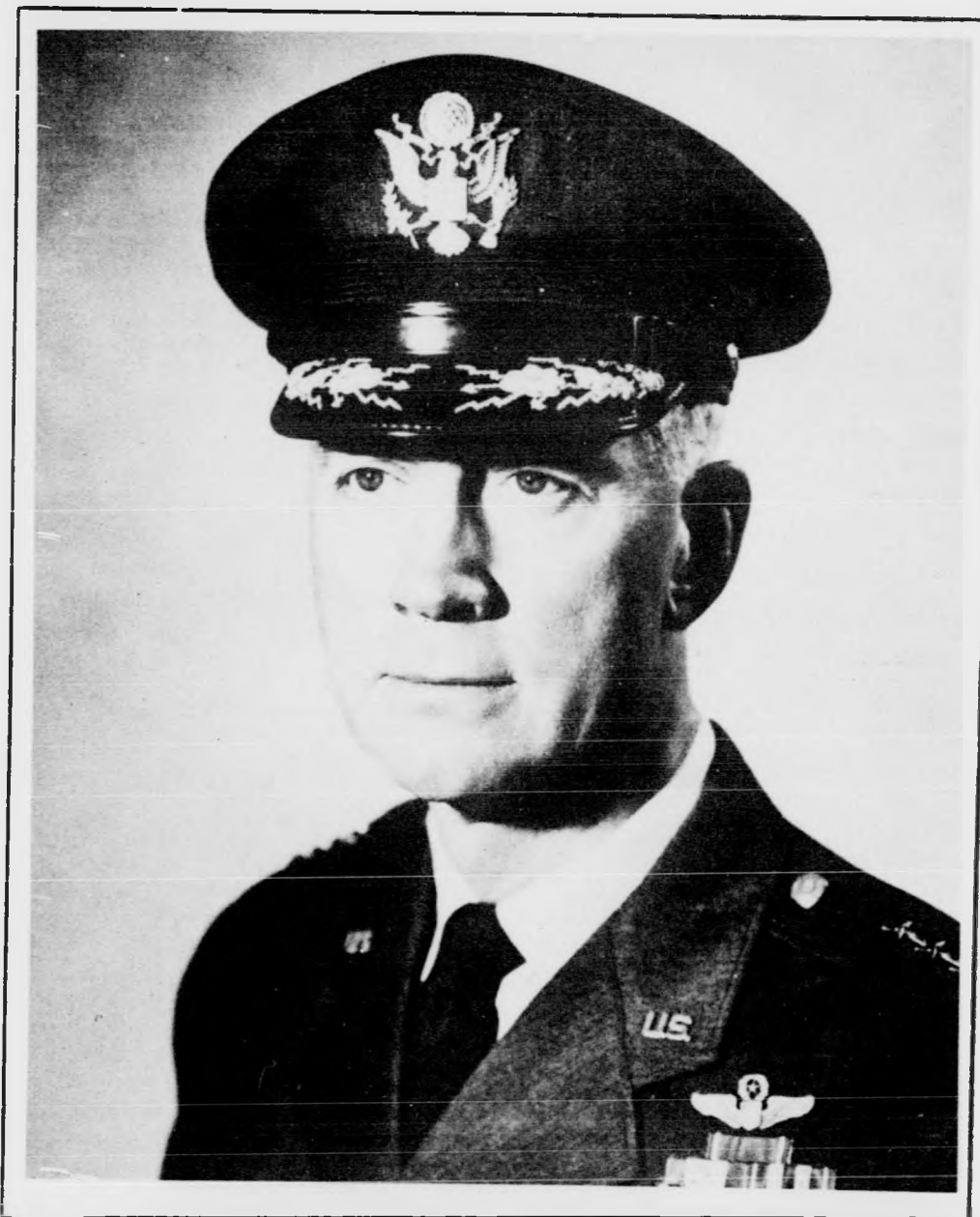
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General Earle E. Partridge
Commander in Chief, Continental Air Defense Command
Commander, Air Defense Command

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Continental Air Defense Command
Air Defense Command

HISTORICAL STUDY

NO. 9

ORGANIZATION AND RESPONSIBILITY
FOR AIR DEFENSE

March 1946-September 1955

by

Thomas A. Sturm

Directorate of Historical Services
Office of Information Services


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tion or the formulation of new organizational concepts were briefly discussed. Reference notes were then inserted on where additional information on these particular developments and on the general history of the growth of the forces could be found.

Most of the factual information contained in the study was gleaned from Wing, Air Division, Numbered Air Force, Air Defense Force, and Command semiannual histories. Consequently, whatever merit the study possesses is due in large part to the work of the authors of those volumes.

Appreciation is due, also, to the many staff officers at all echelons without whose unflagging cooperation the preparation of the semiannual volumes and the study would have been impossible.

Notification of suspected or actual errors or misrepresentations in the study will be sincerely appreciated.

Thomas A. Sturm
Directorate of Historical Services

Colorado Springs, Colorado
1 December 1955


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FOREWORD

Within the past nine and one-half years the agency entrusted with the air defense of the continental United States has grown from a third or fourth priority Army Air Forces' organization to a top-priority command directly under the Joint Chiefs of Staff. The object of this study is to trace this growth in terms of the changes in mission, command organization, and area assignments for air defense over these years.

The study is designed to serve as an orientation and reference work. To meet this goal, it was necessary to omit many of the details which a researcher interested in a particular organizational change per se would find most helpful. These details are readily available, however, either in the appended documents or in the referenced semiannual histories. Copies of these may be obtained from the ADC Historical Office or the USAF Historical Division.

Isolating the organizational story from the history of the growth of the radar, fighter and antiaircraft forces was the most difficult problem encountered in preparing the study. To have ignored the influence on organization of the various expedients applied to the build-up of the forces would have been to treat the evolution of the organization in a vacuum. On the other hand, to have made more than the merest reference to the force developments would have led to an obscuring of the central theme.

The usual escape from such historiographical predicaments was attempted. Changes in the forces which resulted in either a reorganiza-

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CHAPTER I
EMERGENCE OF THE MISSION
1946-1947

In the War Department changeover to a peacetime establishment in the spring of 1946, the Army Air Forces were organized along functional lines. Since the primary missions of the air arm during World War II had been strategic and tactical air operations and air defense, it seemed to follow that the combat organization of the peacetime air forces should be one which preserved and continued to develop a high capability in these particular and separate "arts".¹

In keeping with this logic, the Strategic, Tactical and Air Defense Commands were formed in March 1946.² The Headquarters Air Defense Command was activated on the 27th at Mitchel Field, New York.³ Lieutenant General George E. Stratemyer, of India-Burma-China fame during World War II, assumed command two days later. * Major General Charles B. Stone III was appointed Deputy Commander.

To suffice until conditions permitted the formulation of a more detailed statement of responsibilities, General Spaatz had drawn up a so-called "Interim Mission" for the new organization. The Air Defense Command, it directed, would: "organize and administer the integrated air defense of the continental United States; ...exercise direct control of all active measures and coordinate all passive means of air

* For a brief biography of General Stratemyer, see Appendix B.

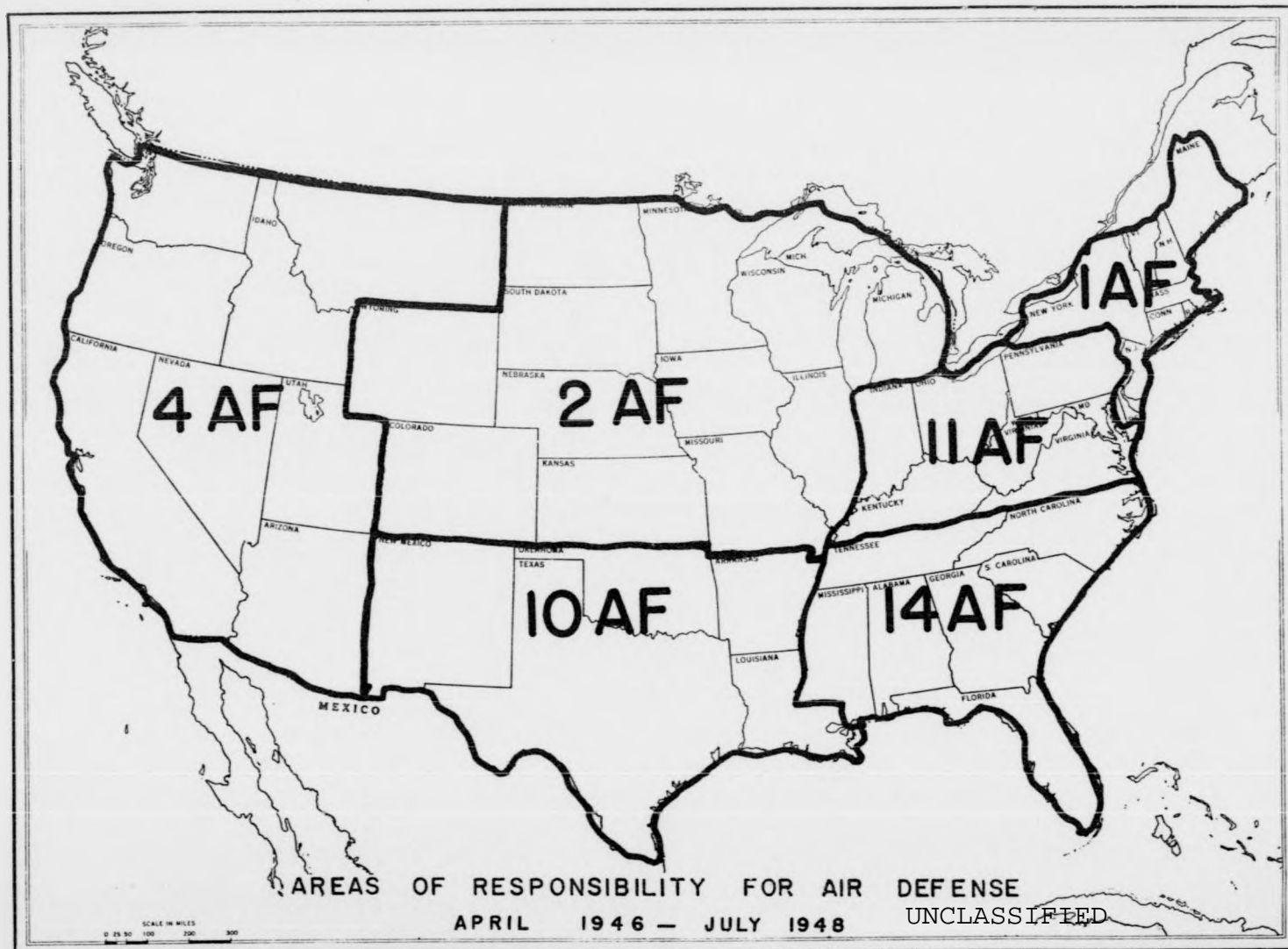
defense; ...maintain units of the Air National Guard and the Air Reserve in a highly trained and operational condition of readiness; ...and perform such special missions as the Commanding General, Army Air Forces may ⁴ direct.

To discharge these responsibilities, six numbered air forces were scheduled for assignment to the new organization. Two of them, the 1st and the 4th, with headquarters at Mitchel Field, New York, and Hamilton Field, California, respectively, were former members of the Continental Air Forces and were still manned and operational in March 1946. Consequently, they were reassigned immediately to the new Command. The others, however, had to be completely re-formed. Three -- the 10th, 11th and 14th -- were former overseas organizations and had been disbanded at the end of the war. The other, the 2d, had also been part of the Continental Air Forces, but its people had been transferred to the Strategic Air Command in the March reorganization.

Activation and manning of the 10th Air Force was completed in May at Brooks Field, Texas. The 14th was formed the same month at Orlando Army Air Base, Florida. And by the end of the following month, the other two were in operation -- the 2d at Fort Crook, Nebraska, and the 11th at Olmsted Field, Pennsylvania.

The establishment of the geographical areas within which the air force commanders would be responsible for the conduct of the responsibilities set down in the Interim Mission was an easy task. On the orders of higher headquarters, they were drawn to conform to those of the continental armies.
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The majority of the tactical forces had gone to the Strategic and Tactical Air Command in the March reorganization, ADC receiving only one fighter group, one night fighter squadron and three or four radar warning and control squadrons. Consequently, until additional forces were assigned, the numbered air forces would have little or nothing to do in the way of actual air defense operations and training. Anticipating this delay in the air defense program, however, Headquarters AAF had planned from the start to establish ADC as its chief representative in the field on a host of administrative duties.

* Having been given the responsibility for air defense but no weapons with which to perform his mission, General Stratemeyer early set out to draw plans whereby the Army's antiaircraft weapons and the considerable fighter and radar forces of the sister commands and the Navy might be employed for air defense in an emergency. But it was not clear in the Interim Mission directive just how far he should go in pushing for control of these forces. "Could more explicit information be issued on this score?" USAF Headquarters was queried in May 1946.⁶

"Clarification of responsibilities of Air, Army and Navy commanders as to coordination of defense efforts," that headquarters replied, "is at this time inseparable from the questions of unification of the armed forces and the missions of the land, naval and air forces."⁷ In short, higher headquarters intended to pursue a general hands-off policy on the issue of interservice relations for air defense until the air arm became a separate service and could plead its case with a firm voice. So far as the use of the forces of the sister commands for emergency air defense was concerned, higher headquarters would leave such arrangements up to ADC, to be worked out at local level. As events proved, this was tantamount to saying: These organizations are too engrossed in their own manning and materiel problems at this time to devote much time to your problem.

Shortly after this interchange, General Eaker informed General Stratemeyer that until a doctrine for the employment of the forces of the three services for emergency air defense was settled on, ADC would take "immediate and independent action" in the event of air attack.⁸ On 17 July 1946, General Stratemeyer delegated this independent action" authority to his numbered air force commanders. Within the confines of this policy, he and his field commanders were responsible for air defense of the nation in an emergency over the next year and one-half.⁹

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On 5 June 1946, higher headquarters explained in further detail ADC's responsibilities toward the reserve forces, as stipulated in the Interim Mission directive. In the future, the new instruction stipulated, ADC would fulfill the Army Air Forces' obligations to the Air Reserve and Air National Guard regardless of the role particular reserve organizations were destined to fill on the outbreak of hostilities. The magnitude of this assignment is best illustrated by the fact that some five years later it became the primary mission of a major Air Force command.

The following month, General Eaker verbally assigned General Stratemeyer the mission of serving as the administrative contact between Army Air Forces Headquarters and the Army, Naval Sea Frontier and Naval District commanders, and civilian agencies. It was to facilitate the conduct of this mission that the numbered air force boundaries had been made identical to the continental Army boundaries. This assignment, too, was a large order, and, as the histories of the numbered air forces for these early years relate, engendered a great amount of administrative labor.

In succeeding months, ADC was given responsibility for the Air Reserve Officers Training and Air Scout Programs, the Aviation Cadet procurement program, liaison at ports of embarkation, the operation of overseas replacement depots for Army Air Forces personnel, administration of Army Air Force Extension Course Program, and a score of other such duties. As a result, the title "Air Defense Command," as depictive of the various functions performed by the organization, had become a misnomer by late 1946. In actuality, in terms of field organization and current duties,

the command had evolved into a sort of administrative extension of Headquarters Army Air Forces.

In October 1946, higher headquarters replaced the interim mission orders of the Strategic and Tactical Air Commands with formal mission directives. But none appeared for the Air Defense Command. Anxious to obtain an equally firm and detailed statement of his responsibilities, General Stratemyer, in early 1947, prepared what he felt was an adequate document of this sort and sent it forward for signature.¹⁴ General Spaatz, however, refused to sign it. The Air Defense Command would have to continue to struggle along as best it could under interim orders until the air arm achieved independence. Not until this time could work begin in earnest to obtain a firm statement from the Joint Chiefs of Staff on the Air Force's right to begin actual construction of a peacetime air defense establishment.¹⁵

Consequently, through 1947, the main emphasis within ADC continued to be placed on supervision of the reserve forces programs and conduct of the humdrum housekeeping assignments. In what time remained, General Stratemyer, his staff, and his field commanders explored the several avenues of approach to the creation of an active air defense system toward the day when the wraps would be taken off their combat mission.¹⁶

The waiting period for a clear statement on the Air Defense Command's reason for being began to draw to a close in mid-1947. Following the passage of the National Security Act in July, which established the Air Force on a co-equal basis with the Army and the Navy,

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complete restudy of the air defense problem was begun in Headquarters United States Air Force. Then, at a meeting in the Pentagon on 16 October, General Spaatz informed General Stratemeyer that beginning at once more emphasis would be placed on the air defense mission.¹⁷

In evidence of this, the formal mission directive for which the command had been waiting since mid-1946 (Air Force Regulation 20-13) was issued on 19 December.¹⁸ While specifying that the Air Defense Command would continue to discharge the reserve forces and other missions which it currently held, the directive further stipulated that air defense was to be the command's "chief mission."

Some two months later, at the Key West Conference of 11-14 March 1948, the other two services put their stamps of approval on the Air Force's air defense responsibilities as set down in the 19 December directive. Henceforth, it was agreed, air defense, to include the establishment of an operational peacetime system comprised of radars and interceptor aircraft and incorporating Army antiaircraft and Navy forces on a coordinated basis, would be a primary function of the United States Air Force.

CHAPTER II

BIRTH OF THE ACTIVE AIR DEFENSE SYSTEM
1948The Requirement for an Operational Air Defense System

The elevation of the Air Force to equal status with the other services, and the clarification of the Air Force's mission with regard to air defense at Key West opened the door to the construction of a radar net and the creation of an operational air defense system within the United States. The Air Defense Command, however, remained practically destitute of tactical forces. Even with the receipt of its projected force increases it would still be unable to carry out its mission. * Clearly, before construction could start on the air defenses Air Force manpower and materiel authorizations had to be expanded. But Congress was slow to accept the justification for such action.

The long and the short of the situation in early 1948 was that Congress was not convinced of the need for a peacetime air defense establishment. Was not the United States the sole possessor of the atom bomb? Was not the Strategic Air Command powerful and capable enough to deliver the bomb at the least sign of hostile intent on the part of the

* In a briefing on ADC organization and mission for the Assistant Secretary of the Defense Department in early 1948, General Stratemeyer pointed out that under current Air Force allocations four fighter groups and two aircraft control and warning groups were allotted ADC. This, he said, was "a hopelessly inadequate force to afford any acceptable degree of security."

Soviets? And had not Dr. Vannevar Bush and other eminent scientists predicted that it would be about another six years before the Soviets developed their own bomb? Then why the commotion over an air defense system? The nation should be certain that one was needed before spending vast sums on it.

The major defect in this logic, in the eyes of General Stratemeyer, his staff, and those acquainted with air defense requirements in higher quarters, was that an air defense system was not something which could be thrown up overnight. The British experience in World War II had shown that air defense was an exceedingly complex operation and required large numbers of skilled radar operators, radar technicians, controllers, and pilots familiar with the hazards of night and inclement weather operations. These men had to be trained before the outbreak of hostilities. General Stratemeyer and his superiors in Washington reasoned, therefore, that an interim air defense system -- comprised of radars, aircraft, stations, and airbases at hand -- had to be erected immediately to train on and to provide a modicum of protection. At the same time, research and development and new construction had to begin immediately on the communications, electronics, weapons and bases which would be required to mount a defense of the nation when the Soviets had developed the A-bomb and the means to deliver it.

Genesis of the Radar Warning and Control Net

Late in 1947, Headquarters USAF, in keeping with General Spaatz' promise to place greater emphasis on air defense, had drawn up plans for the construction of 223 radar stations in the United States and 37 stations

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Lieutenant General George E. Stratemeyer
Commander, Air Defense Command: March 1946-November 1948
Commander, Continental Air Command: December 1948-April 1949

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in Alaska. This ambitious program, fittingly labeled SUPREMACY, was submitted to Congress for approval and funding in April 1948. There, as a reflection of the general apathy toward air defense which marked the times, it eventually died on the vine.¹

Meanwhile, General Stratemeyer had to decide how best to employ the few forces assigned him for carrying out the jobs set down in the 19 December 1947 mission directive. The only radar organization in the Command was the 505th Aircraft Control and Warning Group which had been activated in May 1947 and assigned command of the paltry radar resources in the Northwest.² Headquarters of this organization was at McChord Air Force Base. By early 1948 it had one radar station in operation for training purposes at Arlington, Washington, north of Seattle, and commanded a total of four undermanned squadrons. General Stratemeyer's plan was to move this unit to the New York area, the section of the nation which he and the Pentagon regarded as most sensitive to air attack, and there, by July of 1948, to set up an experimental air defense system.³

In March, the 505th was packed and ready to move to its new location when an order came down from Headquarters USAF to establish immediately an active air defense system in the Seattle-Pasco area. While there was no indication that the Soviets were actually mounting an attack against the United States, international relations were strained to the point where the outbreak of World War III seemed imminent.*⁴ This, then, was an emergency, not a maneuver directive.

* See Forrestal Diaries.

At once, General Stratemeyer ordered Major General John E. Upston, the 4th Air Force Commander and the officer charged with the air defense of the West Coast, to place the radar station at Arlington on twenty-four hour operations immediately. In addition, he was directed to locate radar stations about Spokane and Hanford on the western slope of the Cascades, and to integrate these stations into a twenty-four hour operational air defense system. To provide fighter strength, the Tactical Air Command's 27th Fighter Wing was flown into McChord from Kearney, Nebraska. By 12 April, the Northwest Air Defense Wing, under the 27th Wing's commander, had been set up to assume control over the radar and fighter forces in the area.⁵

Similar emergency action was taken on the East Coast. On 9 April, Major General Robert M. Webster, Commander of the 1st Air Force and responsible for the air defense of the Northeast, was directed to take immediate action to prepare to reoccupy World War II radar sites at Roslyn and Montauk, on Long Island, and Palermo and Twin Lights, in New Jersey.⁶ This was an even more difficult order to execute than the one given General Upston; no radar forces at all were assigned the 1st Air Force and General Webster's instructions were to create them from within his currently assigned resources.

By mid-April, the crisis had blown over and the pitiful display of strength evidenced by the Air Defense Command during the course of it was soon forgotten by political Washington (if, indeed, it had ever been noticed). Consequently, when Colonel Hobart Yeager, the Air Defense Command's communication chief was told in Washington that the "heat was off," there was nothing to do but dismantle the Northwest Air

Defense Wing and return the Tactical Air Command forces to their home bases.

Until it received instructions to do so, however, ADC was not going to close out the radar stations which had been so painfully maintained during the affair. The 505th was now operational with several stations on the West Coast. And the 1st Air Force was forming the 503d Aircraft Control and Warning Group to assume command over the radar stations set up on the East Coast during the emergency. Why not keep both nets in operation, so far as current manpower resources permitted, until orders came down to tear them out? Accordingly, Generals Upston and Webster were permitted to relax their twenty-four hour schedules, but directed to keep the radar stations in operation to the best of their capacities.

On 23 April, higher headquarters confirmed this decision. Lieutenant General Lauris Norstad, Deputy for Operations of Headquarters USAF, instructed General Stratemeyer to establish aircraft control and warning systems in the Northwest, the Northeast, and the Albuquerque, New Mexico areas, in that priority.

Thus, as the result of the agreements reached at Key West the preceding month, USAF Headquarters finally could issue General Stratemeyer specific orders on when, where, and how the active air defenses were to be initially constructed. This was a turning point of no small consequence in the history of the Air Defense Command. While funds were not available for the build-up of the stations already in operation and for

* The 503d was officially activated on 30 April 1948.

[REDACTED]

the construction of additional stations right away, General Norstad was optimistic that the Pentagon would soon be able to raise them. It was a small start, certainly, but the creation of a radar warning and control network, the first ingredient of an air defense system, had begun at last.

Reorganizing for Active Air Defense

By the time this authority was received to begin construction of active air defense systems, General Stratemyer had readied a plan for reorganizing ADC along lines better fitted for air defense. The breakdown of the command into six numbered air forces, whose boundaries coincided with those of the six continental armies, was a suitable arrangement so long as the conduct of the "single contact" and other housekeeping missions had been the command's major preoccupations. However, the 19 December 1947 regulation had definitely established air defense as the chief mission of the command and the present organization did not lend itself to the adequate conduct of that duty. The numbered air force boundaries, General Stratemyer believed, should be arranged so that one commander was responsible for the air defense of the whole of a particular target complex, regardless of whether the air defense boundary coincided with an Army boundary or not.

Following the issuance of the formal mission directive in late 1947, General Spaatz gave General Stratemyer permission to organize his command in the manner which he believed to be best suited for carrying out the functions set down in that regulation. Accordingly, in early 1948, General Stratemyer requested permission to reduce the numbered air

forces from six to four and realign the air force boundaries according to his principle of concentrating the whole of a target area under the responsibility of a single Air Force commander. "Four air forces, each controlling a specific geographical area of related strategic importance, [would] prove more effective than the six air forces maintained previously,"¹¹ he believed.

He also asked for the transfer of Headquarters ADC as soon as possible "to a locality that is suitable and acceptable as the site of the headquarters of the commander charged with the overall defense of the United States." The locations where he would have moved it, in order of priority, were St. Louis, Kansas City, Indianapolis and Louisville.¹²

In early June 1948, General Norstad wrote General Stratemeyer that Headquarters USAF had approved both requests and asked him to pick the new site for the Headquarters. However, General Norstad added, actual movement of the Headquarters would have to be postponed until additional funds were obtained.¹³

The reorganization went into effect on 1 July 1948.¹⁴ The 11th and 2d Air Forces were inactivated and their personnel reassigned to the remaining Air Forces. The 10th Air Force then moved up to take over the area formerly watched over by the 2d. The 1st and 14th Air Forces moved into the area vacated by the 11th and 10th.*

* During the preliminaries to the reorganization the Department of the Army had successfully swung Headquarters USAF over to its belief that the Continental Army-Numbered Air Force boundaries should and could still coincide even with the reduction in the total number of Air Forces. The Army's point was that if each of its commanders had to do business with more than one Air Force commander, an unnecessary number of administrative problems would arise. General Stratemeyer acceded to the Army's wishes

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Organization for Air Defense Below Numbered Air Force

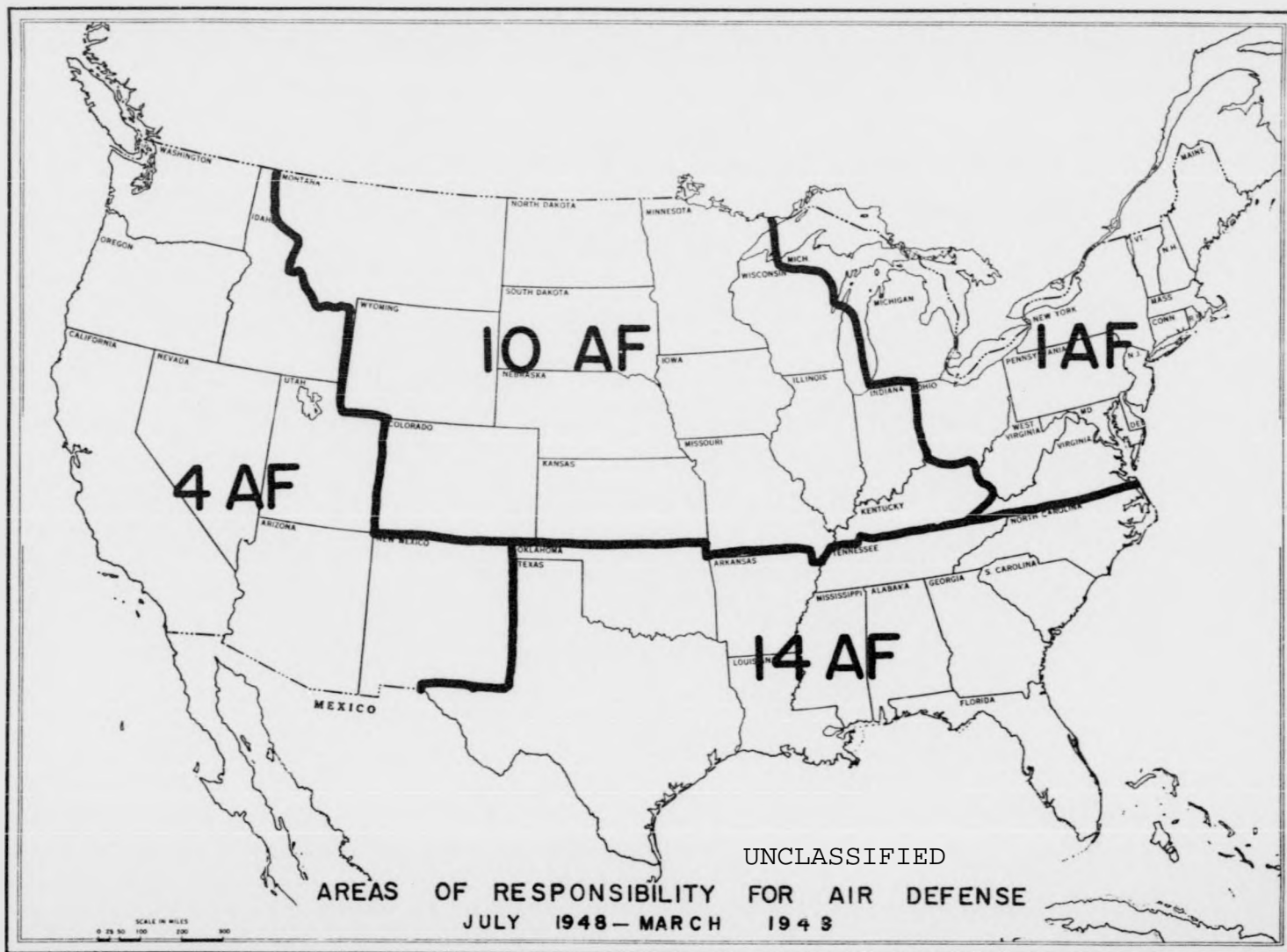
The stringent manpower ceiling under which the Air Force had been forced to operate and the conviction on the part of many officers that the commander responsible for the air defense of an area should be as free as possible of detailed, administrative and logistic worries appear to have been the prime motivating factors for the form of organization which evolved below numbered air force level around mid-1948.

Upon the termination of the March 1948 "crisis", the Northwest Air Defense Wing was disbanded. From that time until late 1948, responsibility for the defense of the areas in which the radars and fighters were deployed did not extend below the 1st and 4th Air Force commanders. The reason for this was quite simple: there was no one to whom it could be delegated. The radar stations were assigned to the aircraft control and warning groups and the fighter squadrons to the fighter wings*, with both the groups and wings assigned on the same line

(con't from previous page) except in the case of Michigan. He regarded that State as part of the general Northeast defense complex and had recommended that it be assigned to the 1st Air Force. The Army, for the reasons given above, wanted it to be assigned to the 10th Air Force. USAF Headquarters sided with the Army and the reorganization which went into effect on 1 July saw Michigan assigned to the 10th Air Force. At this point, General Stratemyer drew up a strongly worded defense of his original position. Administrative convenience, he said, should be subordinated to the "dictates of efficient air defense."¹⁵ In August following, USAF Headquarters reversed its position and Michigan went over to the 1st Air Force.

* The Wing-Base organization was instituted Air Force-wide in July 1948 (AFR 20-15). Prior to this date, in the Air Defense Command, the basic unit for the fighters had been the group. Following this change, the Wing became the basic unit. It was comprised of a tactical group, to which the tactical squadrons were assigned, and three support organizations -- a maintenance and repair group, an air base group and a medical group.

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of command to the numbered air forces.

To remedy this situation, it was decided in late April or May 1948 to activate small, operational-type headquarters under the numbered air forces and make them responsible for the air defense of sub-areas* within the numbered air force areas. Assignment of the tactical forces would remain with the radar groups and fighter wings, who would oversee their administration, supply, and proficiency training needs. Training of the tactical forces in air defense operational procedures, however, would pass to the new units. All three organizations -- radar groups, fighter wings and the new organizations -- would be assigned on the same level of command to the numbered air forces.

The name given to these small, operational headquarters was Air Division (Defense)** No indication as to the thinking in mid-1948 concerning how many of these organizations would be required appeared in the available documents. Since the Air Defense Command was already reconciled to the fact that the SUPREMACY plan for additional radar forces would be rejected, it is probable that no specific plans were made in this regard.

In the "Department of the Air Force Troop Program," issued on 1 June 1948, two air divisions were programmed for activation and

* As is told in the next chapter, these areas eventually came to be termed air defense "sectors."

** The organizations were initially designated Air Defense Divisions. The change to Air Division (Defense) was made on 20 June 1949 to conform more to common Air Force organizational terminology. Throughout the study they will also be referred to either as Air Divisions or, simply, Divisions.¹⁶

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assignment to the Air Defense Command. One was to be activated in the Northwest in late September 1948¹⁷, the other in the Northeast in late 1949. In keeping with this schedule, the 25th Air Division was formed at Silver Lake (Everett), Washington, on 25 October 1948 and assigned to the 4th Air Force.¹⁸ Because the radar net in the Northeast grew faster than originally expected as the result of an increase in construction funds in late 1948, ADC sought and received permission from higher headquarters to activate the division in that area a year ahead of schedule.¹⁹ Thus, the 26th Air Division was born at Mitchel Air Force Base on 16 November 1948, assigned to the 1st Air Force, and moved to Roslyn, on Long Island, soon after.²⁰

Expansion of the Radar Warning and Control Net

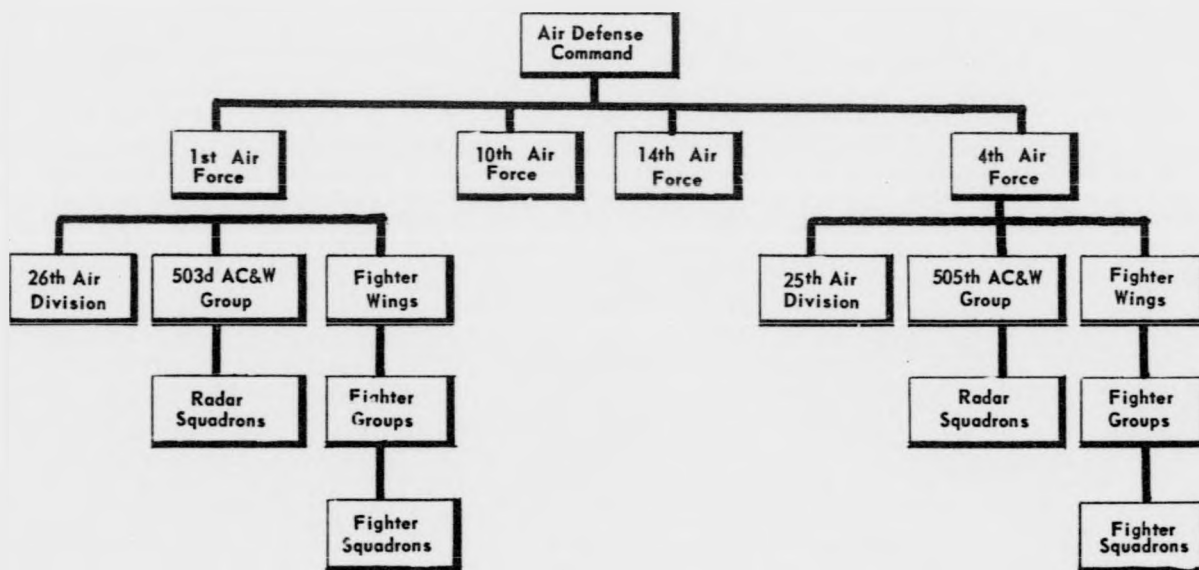
The 80th Congress adjourned in 1948 without acting on the SUPREMACY proposal. To USAF Headquarters, it seemed unlikely, in mid-1948, that the next session of Congress would be any more amenable to the plan than its predecessor was. While the troubles with Soviet Russia in early 1948 had convinced the legislators of the need for some air defense, they still did not believe that the situation demanded an all-out and exceedingly expensive program such as SUPREMACY called for. In short, Congress' objection seemed not to be that the Air Force had asked for funds with which to create a radar net but that it had asked for too much.

Accordingly, the Air Force lowered its sights in the fall of 1948. Major General Gordon P. Saville -- probably the foremost expert on air defense on the Headquarters USAF staff due to his extensive World

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War II experience with the subject, and, in the postwar years, a leading figure in the drive for an operational, peacetime air defense system -- briefed Secretary Forrestal on the Air Force's revised approach in September.

General Saville called the new plan the Interim Program.

The Air Force was asking the Defense Department to submit it to Congress for approval and funding, he said, because "immediate and positive action is required to start at once on the establishment of a limited air defense in being...." In brief, the Interim Program, was "designed to constitute the initial phase of Project SUPREMACY or of any other over-all air defense plan for the Continental U. S. and Alaska which may be finally approved."²¹

The plan, "to avoid any possible objection...on the grounds of magnitude, cost or possible interference with important development or research to produce better equipment," called simply for the deployment of radars currently on hand or under procurement from funds already appropriated. All told, the Air Force had 61 search radars which fell into one or the other of these two categories. There were five obsolescent but usable radars presently on site in the Northwest and Northeast and 19 other radars of this type in storage. In addition, the Air Force had under procurement 12 CPS-6s and 25 FPS-3s, the latest design in search radars, which would be completed and ready for use in 1949 and 1950.

Thus, the Air Force already had the radars with which to build an air defense system. It also had the troops and the ancillary communications equipment. The hold-up was, and had been, in authorization and funds for the construction of facilities.

Under the Interim Program, the Air Force was asking for \$45 million in FY 1949 to begin construction on 61 stations for the radars and for ten control centers from which area (Division) commanders could direct operations. To obtain these funds, the Air Force recommended that \$706,000 be diverted immediately from lesser and already funded Air Force projects and that a supplemental appropriation of \$44,300,000 be submitted as soon as Congress convened.

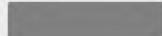
When completed, General Saville pointed out, the Interim Program would still not afford even a minimum defense. Consequently, the Air Force, in its FY 1950 estimates, had included a request for funds to procure additional radars of the CPS-6 type, build stations for their operational employment, and procure modern height-finders. This program was called the "First Augmentation."

Congress approved both the Interim Program and the First Augmentation in March 1949 and the necessary funds for their implementation were received later in the year. Soon after the passage of this legislation, the name Permanent Radar System (P-system) was affixed to the facilities authorized for construction by the terms of these programs, which, as finally approved, totaled 75 radar stations and ten control centers. Originally scheduled to be finished by July 1951, the P-system was not fully in operation until early 1953, due primarily to delays in the procurement of the radar equipment.

Meanwhile, USAF Headquarters had decided that while the P-system was being built a temporary aircraft control and warning system, consisting of World War II radars sited on government-owned land, would be

erected. Action toward this end had already begun in the Northwest and Northeast. The additional radars required to expand the net were already on hand. All that was needed now were funds for construction. On 20 October 1948, General Stratemeyer was informed that \$561,000 had been pulled off other projects for initiating construction of the emergency net and that he was to proceed immediately on the selection of sites.²²

The location of the stations of the temporary net had been decided on and many of the stations already placed in operation by early 1949. To differentiate the stations and equipment of this system from those of the P-system, it was termed the Lashup radar net. By July 1950, 44 Lashup stations were in operation. While a few minor changes in location and equipment took place within the network afterwards, the Lashup system was regarded as completed as of that date. When stations of the P-system began to come into operation in late 1950, the stations of the Lashup net were gradually disbanded.



CHAPTER III

POOLING THE RESOURCES

1949

Creation of the Continental Air Command

The Air Defense Command was barely settled under the 1 July 1948 reorganization when higher headquarters announced its intentions to merge the resources and functions of the Air Defense and Tactical Air Commands under a new major Air Force organization -- the Continental Air Command (ConAC).¹ The new command was created on 1 December 1948, with Headquarters at Mitchel Air Force Base.² At this time, the Air Defense and Tactical Air Command Headquarters were shorn of their subordinate units, reduced in stature to so-called "Operational Air Commands," and placed on equal command line with the six numbered air forces.^{*} The tactical forces were then assigned to the numbered air forces.

The decision to form the new organization was a sudden one and derived its stimulus from the Presidential Directive of 15 October 1948 which ordered that a strong impetus be given to the organization and training of the Civilian Components. In the reorganization, the offices at Command and numbered air force level whose duties were to

* In the reorganization, the two former Tactical Air Command air forces, the 9th and the 12th, were relieved of their former missions and assigned the same geographical functions as the four former Air Defense Command air forces.



supervise Air Reserve and Air National Guard activities were increased in size and importance to bring greater attention to bear on reserve affairs in line with the President's instructions.³

An equally important rationale for the reorganization, however, was to strengthen the air defenses by pooling practically all of the fighter resources in the Zone of the Interior in the hands of the air defense commander.^{*} By the same token, this same force would be prepared to assume a tactical air role immediately after the air defense battle was won. In short, the goal was the development of a multi-purpose fighter force.⁴

The staff of the headquarters of the new command was formed almost wholly from the staff of the former Headquarters Air Defense Command. General Stratemyer assumed command on 1 December 1948. General Saville, who had spearheaded the drive for the P-system, was appointed commander of the Air Defense Command on the same date.^{**} Major General Robert M. Lee assumed command of the Tactical Air Command.

The Plan for Air Defense Under the Continental Air Command

The mission directive for the Continental Air Command was issued on 11 January 1949.⁵ The new organization was to conduct the active air defense of the United States, cooperate with land and amphi-

* A number of the Strategic Air Command fighter squadrons were also transferred to the Continental Air Command in the reorganization.

** For a brief biography of General Saville, see Appendix B.

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Major General Gordon P. Saville
Commander, Air Defense Command: December 1948-September 1949

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bious forces, supervise the Air Force reserve programs, and ready all forces under its jurisdiction for combat. The numbered air forces would be responsible for the administration, training and logistic support of the tactical forces. The Air Defense and Tactical Air Commands would "act as operational command headquarters for their respective tactical functions, within the framework of the Continental Air Command, and [would] also act as the staff of the Commanding General, Continental Air Command, for their respective tactical functions."

Thus, General Stratemyer, in his new capacity as the Continental Air Command commander, would remain in supreme command of the air defenses. However, instead of delegating this authority to the numbered air force commanders, as before, he would invest it in an operational hierarchy to be established under General Saville's Air Defense Command. The concept of separating administrative and logistic responsibilities from operational responsibilities for air defense was not a new one, having received practical application months earlier when the plan for establishing the air divisions was drawn up. Under the new scheme of things, the concept was merely to be extended up the chain of command.

* The mission directive for the Air Defense Command (ConACR 25-1) was issued on 31 Dec 49. By its provisions, the Air Defense Command was responsible for the following: (1) Continue to plan in preparation for the conduct of active air defense of the United States; (2) Conduct the active air defense of the continental United States with the means made available by the Commanding General, Continental Air Command; (3) Prepare for the employment of such units of the Army and Navy as may be made available for direct defense of the United States against air attack; (4) Prepare and conduct USAF operational participation in civilian defense in connection with an air attack on the conti-

The plan for air defense under ConAC retained that aspect of earlier air defense planning which called for splitting the nation into a number of air division or "sector" areas of responsibility. The duties of the division commander and his small operational-type staff would be to assist in planning the defenses of the sector; coordinate with the Army, Navy, and other Air Force organizations in the area for the employment of their forces in an emergency; exercise "operational control" of the radar and fighter forces assigned to the ConAC numbered air forces in their sectors for the purpose of training these forces in air defense tactics and techniques; and, in the event of attack, conduct the air defense of the sector.

To enable the division commander to oversee the air situation in his area, he was to be provided an operations building housing a

(con't from previous page) nental United States; (5) Recommend policies, plans, doctrine, organization, systems, materiel, tactics, techniques, and procedures applicable to the air defense of the United States; (6) Conduct systematic training of available forces in active air defense; (7) Carry out joint air defense exercises and maneuvers, in accordance with approved plans, utilizing such units of other components of the National Military Establishment as may be made available; (8) Recommend to the Commanding General, Continental Air Command, the allocation and deployment of available force in preparation for and the conduct of the active air defense of the United States; (9) Establish and maintain liaison with Naval sea frontier commanders and numbered Army commanders in joint matters pertaining to the air defense of the continental United States; and (10) Recommend to the Commanding General, Continental Air Command, the proficiency standards and desired capabilities of units to be employed in air defense operations.

* Actually, the terms "sector" and "region" (the latter is used later in the chapter) were not officially incorporated into air defense terminology until mid-1950. However, they were in common usage throughout 1949 and early 1950.

control center. Battle information from the outlying radar stations would be sent into this center. There it would be displayed for battle control purposes and also forwarded to adjacent control centers and to higher headquarters.

As discussed previously, ten control centers were authorized under the Permanent Radar System. However, under the projected troop program the command would be able to man only eight divisions. Consequently, the Plan was to construct all ten control centers but to subdivide the nation into only eight air division/sector areas for peacetime operations. Upon the outbreak of war, the remaining two centers would be manned by Air National Guardsmen recalled to active duty. Also at that time, an additional ten control centers, manned by Air National Guard personnel, would go into operation. In short, in wartime the nation would be divided into twenty air division/sector areas for air defense.⁷

Between the air divisions and ADC Headquarters, two additional operational headquarters, called the Eastern and Western Air Defense Forces, were to be created. The commanders of these organizations would be responsible for the air defense of a "region," each of which would encompass several division/sector areas, and be provided some sort of facility into which information from the control centers would flow for command purposes.

Atop the whole structure would be Headquarters, Air Defense Command. General Saville, too, would eventually be provided a facility through which he and General Stratemeyer could keep abreast of the state of

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the air situation in the regions and sectors.

Transfer of the Air Defense Mission to the Air Defense Command

As previously mentioned, two air divisions -- the 25th at Silver Lake and the 26th at Roslyn -- were activated before ConAC was formed. Both, however, were still little more than paper organizations in late 1948. The plan was to bring these organizations up to operating strength by early 1949 and to assign them to the Headquarters, Air Defense Command.

Also by that time, two interim organizations, called the Eastern and Western Liaison Groups, were to be organized. These would be non-operational agencies, their primary mission being to relieve the numbered air forces of air defense planning responsibilities and to provide an experienced cadre on which the Headquarters, Eastern and Western Air Defense Forces could be formed later in the year when additional personnel were authorized. The commanders of the 25th and 26th Air Divisions would also command the liaison groups during this interim period. These actions completed, the numbered air force commanders were to be relieved of the responsibility for air defense which they had held since 1946. It would then be reinvested in General Saville to be exercised through the air division/liaison group commanders.

The changeover began on 1 March 1949. On that date, the liaison groups were formed by transferring to them the persons who had been assigned to the Directorates of Air Defense in the Headquarters of the 1st and 4th Air Forces. Also on that date, the numbered air forces were completely

absolved of further responsibility for air defense. On 1 April, the transition to the new order was completed with the transfer of the two air divisions to Headquarters, Air Defense Command.

Demise of the Headquarters, Air Defense Command

The first step which had to be taken following these changes was to explain how the air defense system would function under the new arrangement. This was done on 24 May in a Continental Air Command regulation defining "operational control" as:

those functions of command involving the assignment of tasks, the designation of objectives, and the authoritative direction necessary to accomplish the mission. It shall be exercised by the use of the assigned normal organizational units, through responsible commanders. It does not include such matters as administration, discipline, internal organization, logistic support, and individual training, except in such matters as the subordinate commander may request assistance.

The next step was to redraw the areas of responsibility for air defense. This was done on 8 June. The 25th Air Division area of responsibility included everything west of the line running south from the northeast corner of the State of Washington a point mid-way on the eastern border of Oregon, east to Scottsbluff, Nebraska, and south to the Mexican border. The 26th Air Division's area of responsibility encompassed everything north and east of the line extending from Cape Fear in North Carolina, east to Memphis, Tennessee, and north to Houghton, Michigan, on Lake Superior.

The next step was to allocate specific units of the numbered air forces to the operational control of the divisions. At this juncture the original plans for air defense under the Continental Air Command

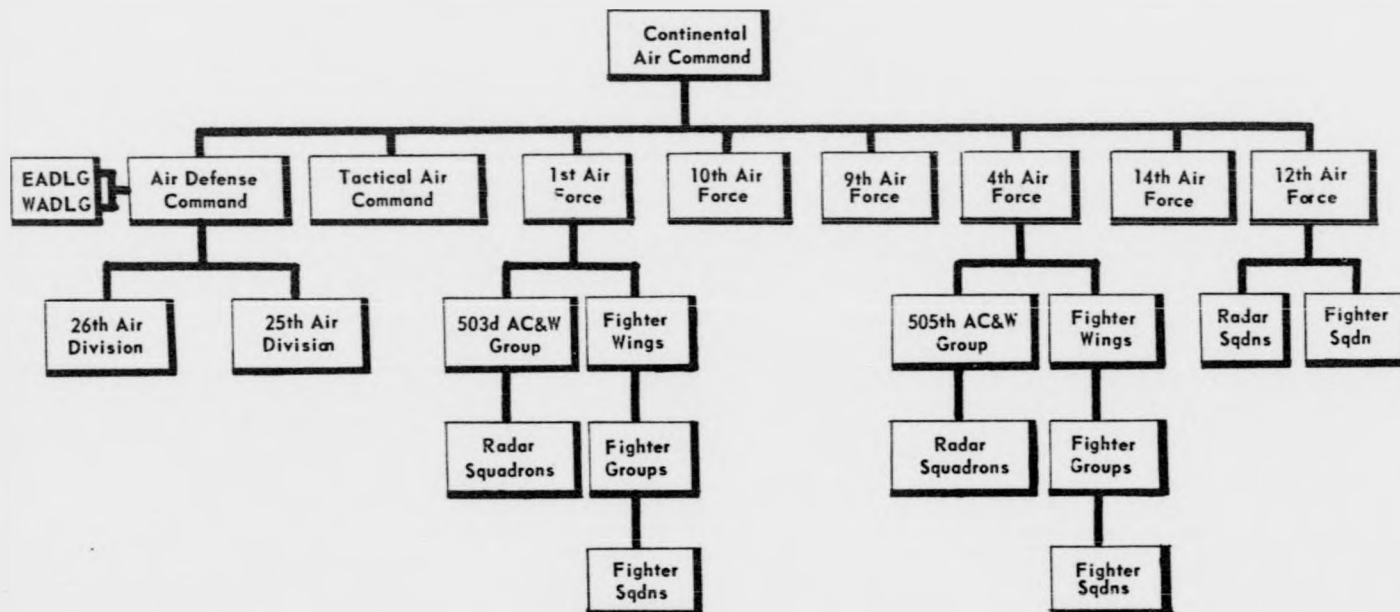
began to fall apart. In late June, General Saville went to Lieutenant General Ennis C. Whitehead, who had recently replaced General Stratemeyer as the ConAC commander, for permission to grant the 25th Air Division operational control over the 505th Aircraft Control and Warning Group and its radar squadrons. General Whitehead, to whom the very complex organizational structure was still an unfamiliar object, turned to General Upston, to whose Fourth Air Force the 505th was assigned, for his opinion on the request. "It has been our intention to give permanent operational control of the AC&W network to ADC when the network became sufficiently operational and when the ADC was properly organized and sufficiently manned," General Whitehead said. "If such action were taken now, what effect would it have on the Fourth Air Force's ability to train, administer and logistically support existing radar installations and to conduct new stations?"¹⁵

General Upston replied that operational control of the forces could be given to the 25th without interfering with the 4th's presently assigned mission. However, he felt that the overall arrangement for air defense as recommended by General Saville was not the best answer to the problem of defending the West Coast with the weapons and manpower currently assigned. He believed that he, not the 25th Air Division commander, should be responsible for West Coast defenses, and that the 25th should be attached to the 4th Air Force to execute this responsibility. He would then attach the 505th Group to the 25th and give the Division operational control over the 505th and its squadrons. He would,

* See Appendix B for a brief biography of General Whitehead.

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additionally, place a flight of fighter aircraft on continuous alert¹⁶
and under the immediate operational control of the Division.

Caught in the middle of these conflicting views, Colonel Clinton D. Vincent, the 25th Air Division Commander, threw additional fuel on the flames. The letter of 8 June establishing the 25th's area of responsibility made him responsible for the air defense of practically everything in the western half of the United States, he wired General Saville in July. But, he still did not have control over any forces. "Thus," he said, "I have the responsibility but not the tools ...either assign me operational control of necessary units...or relieve me of responsibility for air defense and assign¹⁷ it to appropriate air forces."

This was too confusing a state of things for General Whitehead.¹⁸ After obtaining General Saville's recommendations on the matter, he reassigned the 25th Air Division back to the 4th Air Force on¹⁹ 14 July and made General Upston responsible for the air defense of the California and Northwest areas. At the same time, he made the 12th Air Force commander, Major General Glen O. Barcus, responsible for the air defense of the Albuquerque area. This arrangement, he said, would remain in effect until the Western Air Defense Force was formed "to obviate any misunderstanding as to who is responsible to me for the²⁰ air defense in the West...."

In the east, the Eastern Air Defense Liaison Group was disbanded and its personnel reassigned to a new organization called the Eastern Defense Division, which was assigned directly to Head-

quarters, Continental Air Command. Major General Webster, Commander of the 1st Air Force, was appointed commander of the new organization as an additional duty and made responsible for the air defense of the East Coast until the Eastern Air Defense Force could be activated.²¹

The above actions sounded the death-knell to General Saville's Air Defense Command. By them, General Whitehead eliminated the need for an agency between himself and the field commanders charged with the air defense of the specific areas. Consequently, in September, the Headquarters Air Defense Command was reduced to record status. It remained in this state of limbo until 1 July 1950 when, in consonance with the sweeping reorganization of the command which took place at that time, it was completely dissolved.

* General Saville moved into the Director of Requirements job on the Headquarters USAF staff on 1 September.

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CHAPTER IV
RISE OF THE AIR DEFENSE FORCES
1950

Activation of the Defense Forces

On 1 September 1949, simultaneously with the disappearance of the Air Defense Command from the scene, the two regional commands were activated.¹ The Headquarters of the Eastern Air Defense Force was activated at Mitchel Air Force Base and that of the western command at Hamilton Air Force Base. They were then placed on the same command level as the numbered air forces and the Tactical Air Command, directly under Headquarters, Continental Air Command.

The Headquarters Eastern Air Defense Force was manned by transferring to it the persons formerly assigned to the Headquarters ADC Deputate for Air Defense and the Eastern Defense Division.² On the same day it was formed, Major General Webster was relieved of his previous duties as commander of the 1st Air Force and the Eastern Defense Division and appointed commander of the Eastern Air Defense Force as a sole duty. By mid-September, the new command was ready to assume charge of the eastern defenses.

Readying of the Headquarters Western Air Defense Force was a more difficult task. The only immediate source of experienced persons here was the small number of officers formerly comprising the Western Air Defense Liaison Group. As a result, for the first few months following the activation of the new organization General Upston and his



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4th Air Force staff doubled as the staff of the new organization.³ Finally, by late November, the initial manning problems were overcome, Major General Hugo P. Rush was appointed commander, and the new command was ready to assume responsibility for the western defenses.

Mission and Area Organization

Tentative instructions were sent to the Air Defense Forces shortly after their activation. The Western Air Defense Force was to be responsible for the area west of the 103° meridian and the Eastern Air Defense Force of the area east of that line. On 2 November, the formal mission directives were issued, confirming the area responsibilities previously delineated and stipulating that the Headquarters Air Defense Forces would discharge their air defense responsibilities by exercising "operational control... of such ...units as may be allocated by the Commanding General, Continental Air Command."⁴

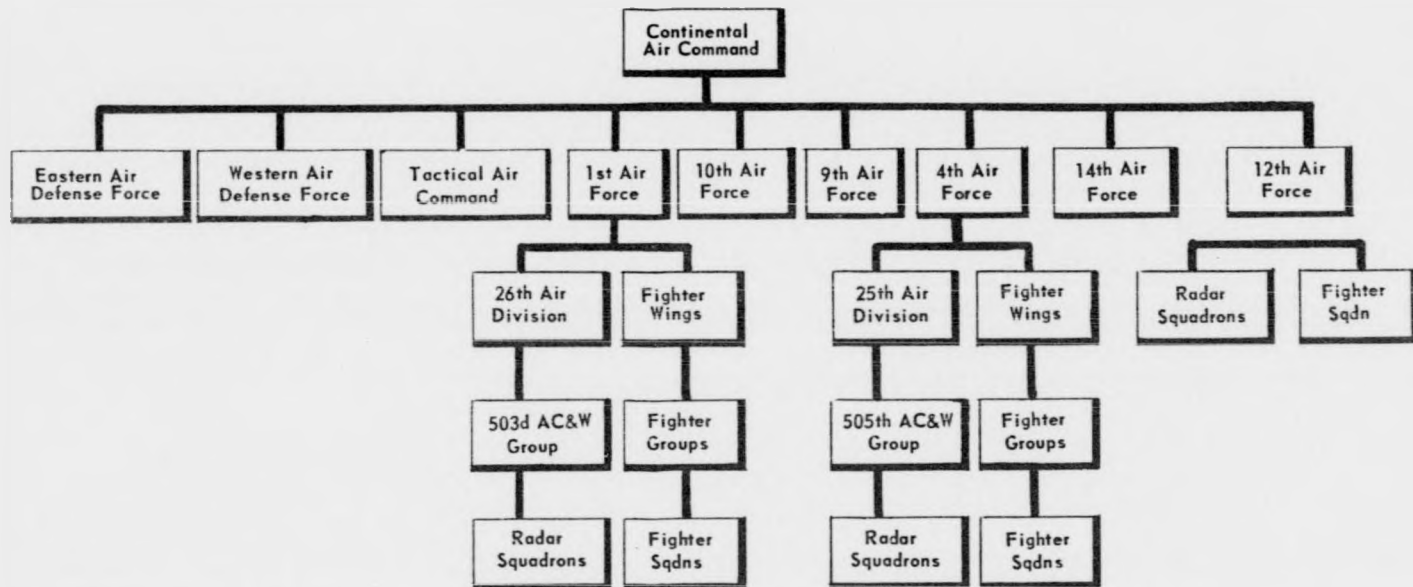
Meanwhile, actions were underway for realigning unit assignments and increasing the number of air division/sector defense areas. *

When the Air Defense Forces were activated, the 25th and 26th Air Divisions, the 505th and 503d Aircraft Control and Warning Groups, and the fighter wings were assigned to the numbered air forces on the same level of command. On 16 November, on the recommendations of General Upston and Colonel Vincent,⁶ the radar groups, which were situated on the same stations as the divisions, were assigned to the divisions. At that time, the staffs of the group headquarters and their control

* When responsibility for air defense reverted to the 4th AF and Eastern Defense Command in mid-1949, the 26th Air Division remained assigned to Hq ADC and was not officially reassigned to the 1st AF until 16 November.⁵

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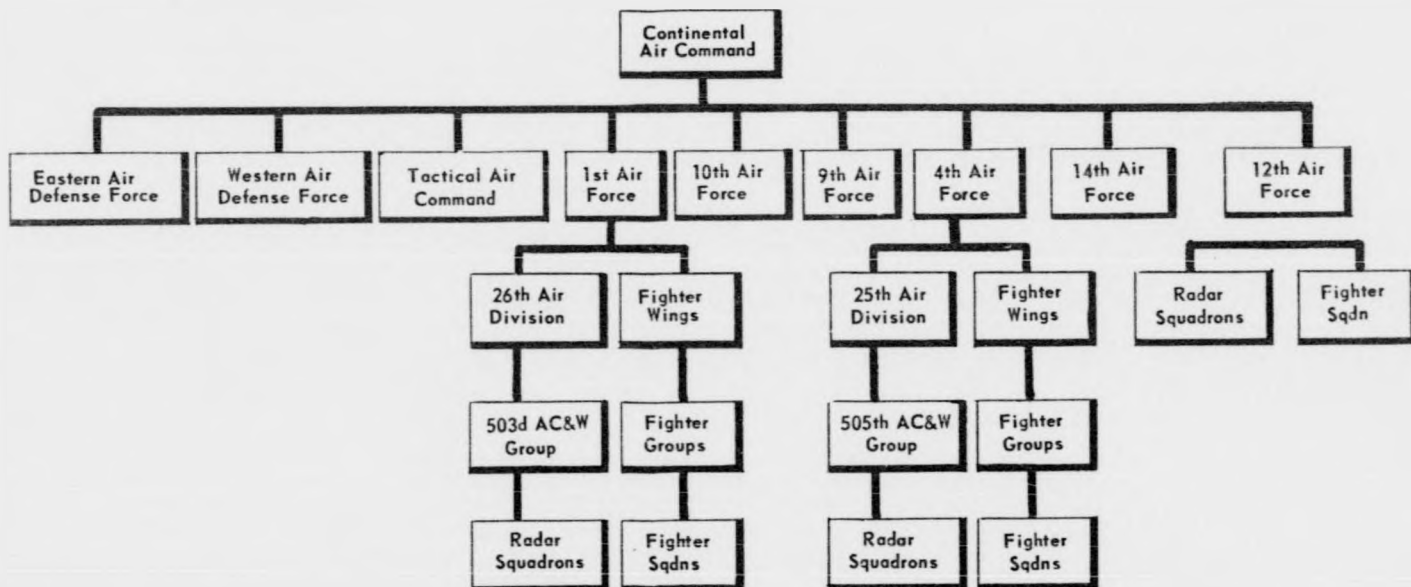
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squadrons were combined with those of the air divisions to the extent that certain officers carried on the rolls of the groups were assigned key air division staff duties. To all intents and purposes, the three organizations, in the changeover, came to function as one. The result was a greater efficiency of operation plus closer contact between the division commander and the persons responsible for the support of the radar squadrons.⁷ A few years later, the groups were disbanded completely. Such action was not considered feasible at this time, however, in view of the uncertainty of future operational requirements.*

By this time, construction of the Lashup radar system had reached a point where the activation of three additional air divisions was deemed necessary under the eight-division peacetime plan for air defense. Consequently, the 32d and 28th Divisions were activated on 8 December at Stewart Air Force Base, New York, and Hamilton Air Force Base, California, respectively. The 30th was activated at Selfridge Air Force Base, Michigan, eight days later.^{8**}

The new divisions became operational in early 1950, at which time sector area responsibilities for all five divisions then in exis-

* The possibility existed that as new radar stations came into being groups would have to be activated on installations separate from the air division installations to provide a proper span of control between the divisions and the stations.

** At the same time these divisions were activated, AC&W groups were activated on the same installations, assigned to the divisions, and the consolidated staff method of operation placed into effect. This system prevailed until the groups were inactivated in early 1952.

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tence were established as shown on the following map.

The Problem of Divided Control

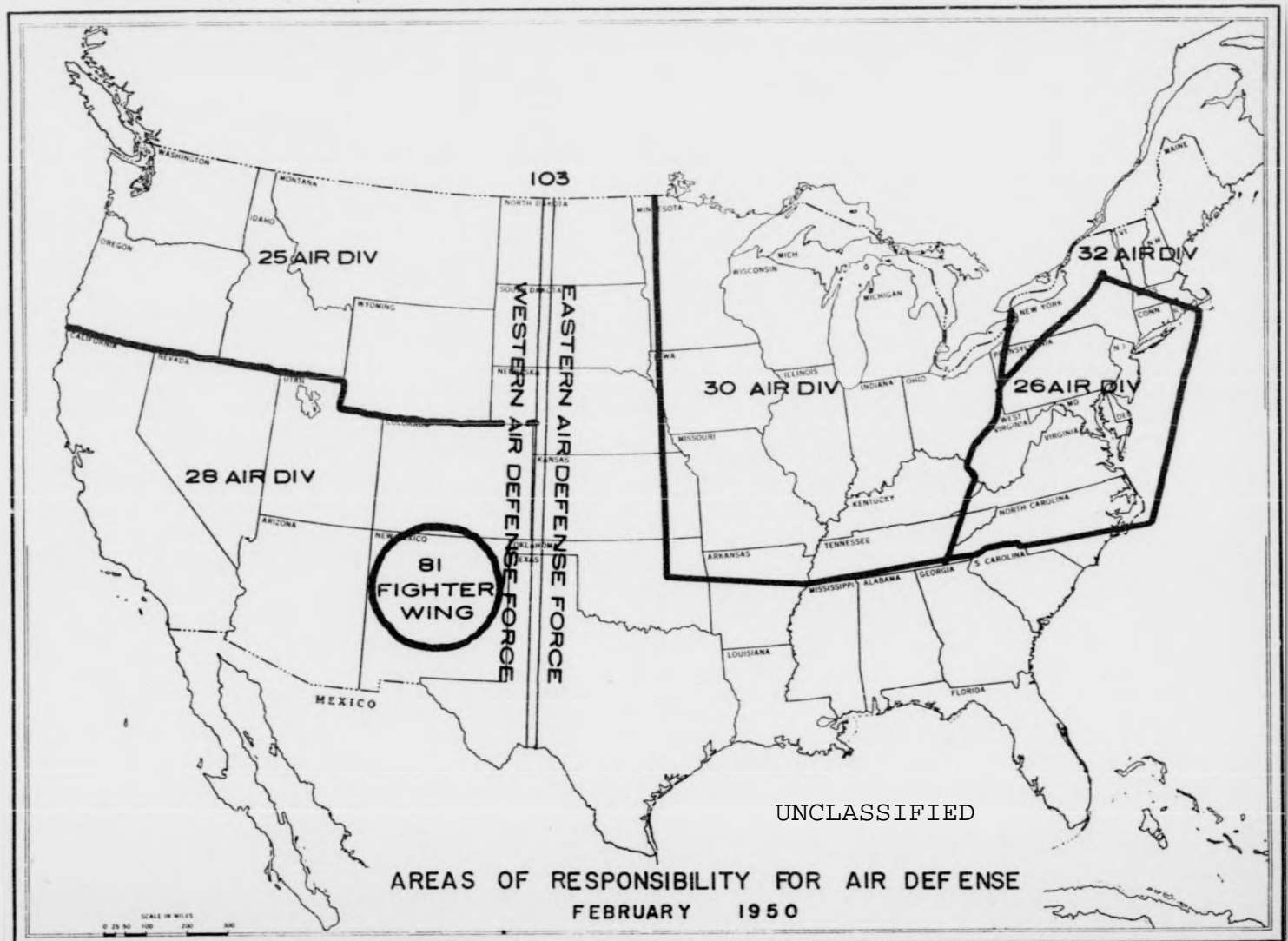
While the assignment of the groups to the divisions eased the situation in part, the organizational structure at the time responsibility for air defense passed to the Air Defense Forces still remained confusingly complex. The 2 November Air Defense Force mission directives had said that the Defense Forces would exercise operational control over the tactical units assigned the numbered air forces. The questions posed by both the Air Defense Force and the numbered air force commanders in late 1949 were: precisely, what was meant by the term "operational control"? Was it a permanent sort of thing, or was it to be exercised only during maneuvers or an emergency?

ConAC Regulation 25-2, issued in May 1949 while Headquarters Air Defense Command was still in charge of the air defenses, remained the outstanding authority on this subject. As defined in that directive, 10

Operational control of units for air defense purposes may be prescribed for a definite or indefinite period of time. Thus, for a training exercise, certain fighter groups, squadrons, or flights, and certain AC&W groups may be placed under the operational control of the Air Defense Command between specific dates, upon termination of which they will revert to normal status wherein complete command and control jurisdiction is exercised by the parent air force; or during emergencies, these units might be placed under Air Defense Command operational control for a period of time not having a prescribed termination date. Normally, all AC&W units will be under Air Defense Command operational control continuously inasmuch as they man and operate the air control

* The radar and fighter defenses in the Albuquerque area at this time were under the operational control of the 81st Fighter Wing Commander, at Kirtland AFB, whose area of defense encompassed roughly the area within a 150 mile radius centered on Albuquerque.

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and warning net system which must provide a continuous service to command agencies charged with active defense against possible air attack.

Clearly, there was too much room in this definition for individual interpretation.

Major General Charles T. Myers, ConAC's Vice Commander, clarified the issue before any serious conflicts arose. On 9 November he informed the field commanders that the Air Defense Forces would have continuous operational control over the fighter and radar forces for "systems" training -- i.e., training in ground controlled interception tactics and procedures. The numbered air forces would be charged with their unit and individual training.¹¹ In short, the tactical forces, practically speaking, would answer to two masters.

On 10 November, a ConAC General Order threw further light on the subject by specifically allocating tactical units to one or the other of the Air Defense Forces for continuous operational control.¹² By the terms of this order, all of the radar and fighter forces (excluding those few whose primary mission was tactical air) were to be under the control of the Defense Force commander for "systems" training at all times. This soon proved too ambitious a program, however; the fighter forces found themselves getting ample training in ground controlled interception procedures but falling far behind the numbered air force' unit and individual training schedules. Consequently, in late November, the instructions were modified so that no more than one-third of the fighter force in the particular Air Defense Force area was under the operational control of the Air Defense Force at any one time.¹³

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In late December, a new regulation on operational control, defining the subject in terms of "systems" versus "unit and individual training", was issued. On the basis of the instructions contained in this regulation and under "the one-third of the available fighter force" proviso, the Air Defense Forces and air divisions operated until mid-1950.

Assignment of the Tactical Units to the Air Defense Forces

Shortly after the activation of the Air Defense Forces, President Truman announced to the nation that signs of an atomic explosion within the Soviet Union had been detected. The Russians had succeeded in developing the bomb some four to six years ahead of prediction.

Within the Air Force, attention was immediately focused on strengthening the air defenses, so far as current resources permitted. In early January 1950, manning of the fighter and radar squadrons was raised to a number one priority, a privilege formerly enjoyed only by the Strategic Air Command and the overseas commands. The completion date for the Permanent Radar System was moved up. And plans for a wider dispersal of the interceptor force were given favorable reception. Within the Continental Air Command, General Whitehead and his staff dropped practically all else to attack the problems standing in the way of twenty-four hour operations.

In keeping with this overall effort, General Whitehead protested the division of control over the tactical forces. The assignment of forces to one commander for unit and individual training, and to

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Lieutenant General Ennis C. Whitehead
Commander, Continental Air Command: April 1949-December 1950
Commander, Air Defense Command: January 1951-August 1951

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another for combat training and operations, simply ran contrary to proved methods of efficient operation. Thanks principally to an unusually cooperative group of field commanders, he had been able to make some headway under the current organization toward an operational defense system. But if the defenses were to catch up with the new threat, they had to be more directly aligned.

Higher headquarters showed full agreement with this view. The "marriage of convenience," that was the Continental Air Command, was fine so long as the balance of offensive power rested overwhelmingly in the hands of the United States. Now, however, things had changed and the decision had to be made whether to continue the conduct of air defense, tactical air and reserve forces affairs in equal balance or, through a reorganization, assign the weight of the available resources to air defense. What were General Whitehead's views on the matter? higher headquarters asked in early 1950.

His recommendation was that a new command, which he tentatively labeled the "Combat Command," be created which would become responsible for the tactical air and air defense missions. The Eastern and Western Air Defense Forces and the Tactical Air Command would be reassigned to this organization and be raised to full command status. All of the tactical forces would then be reassigned from the numbered air forces to the operational commands. ConAC and the numbered air forces would remain in existence for the conduct of the reserve forces and the several minor missions. At the same time, to provide the additional personnel required to elevate the Air Defense Forces and Tactical

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Air Command to full command status, the 12th and 9th Air Forces would
 16
 be eliminated.

Higher headquarters disapproved the recommendation, presumably because it disagreed with General Whitehead's belief that there were enough personnel available in the present organization to adequately man two separate organizations. The Air Force still had more tasks than it had men to perform them with; consequently, Headquarters Continental Air Command would have to remain as presently constituted. General Whitehead was then asked to devise a new plan for reorganizing within the confines of that ruling.

The new plan was forwarded on 2 May. Under it, General Whitehead proposed that the Air Defense Forces and the Tactical Air Command be raised to full command status and the tactical units be re-assigned from five of the numbered air forces to the regional commands. The 9th Air Force would be assigned to the Tactical Air Command and share in the command of the forces assigned a tactical air role. The 12th Air Force would be inactivated and its people reassigned throughout the command as necessary, leaving four numbered air forces for the
 17
 conduct of the reserve forces and other functions.

This plan was immediately accepted, and on 1 August Headquarters Western Air Defense Force assumed command of all the forces west of the
 18
 103° meridian. On the first day of the following month, all of the forces east of that line were assigned to Headquarters Eastern Air Defense
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 Force. To afford roomier and more centrally located quarters for its expanded function, the Eastern Headquarters moved north at this time

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from Mitchel Air Force Base to Stewart Air Force Base at Newburgh,
20 21*
New York. The Western Headquarters remained at Hamilton.

* Mission directives for the Defense Forces following this change, as amended and revised through September 1955, may be found in the supporting documents to the study (See, Reference Notes, Chapter V, note 21).

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CHAPTER V

THE AIR DEFENSE COMMAND COMES OF AGE
1951

The Problem of Excessive Responsibilities

Both Generals Stratemyer and Whitehead had tried repeatedly without success during the years 1946-1950 to disentangle the air defense mission from the reserve forces and housekeeping missions. They were convinced, through experience, that the responsibility for conducting the other missions was so great a load that they were unable to give proper attention to air defense matters.

General Stratemyer called the problem to the attention of his superiors on every possible occasion during 1946 and 1947. He knew that he was battling windmills, for nothing could be done about the matter until the air defense mission was more clearly defined, the Air Force had gained its freedom from the Army, and additional forces for air defense were allocated. His orders, however, were to plan an air defense system and this he felt was a basic principle in any such plan: that the command charged with air defense had to be free of all duties which might detract from its ability to establish and operate such a system.

Following unification, General Spaatz informed General Stratemyer, at an October 1947 meeting of the two in the Pentagon, that as part of the program to place more emphasis on the air defense mission "all miscellaneous tasks now assigned to the Air Defense Command and

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which interfere with the air defense mission would be transferred to other commands." ¹ At that time General Spaatz asked General Stratemeyer to list the other missions held by the Air Defense Command which served to drag down his ability to attend properly to the air defenses and to recommend the agencies within the Air Force to which these missions could be reassigned.

A group of USAF officers who had been working on Air Force organizational problems helped General Stratemeyer prepare the study, which was completed in late October 1947. ² If the recommendations contained in it had been adopted, virtually every major and minor mission then held by the Air Defense Command other than air defense would have been turned over to another Air Force organization. However, the study was never accepted, in whole or in part, for the additional missions remained with the Air Defense Command and its successor the Continental Air Command through 1950.

Making the best of the situation, the Air Defense Command then drew up the plan for an operational hierarchy for air defense at sector level in mid-1948. When the Continental Air Command was formed in December 1948, this plan was expanded on and accepted as the answer to the excessive responsibilities problem. Soon, however, the concept of investing air defense responsibility in an operational headquarters under Headquarters, Continental Air Command proved unworkable and General Whitehead was back in the same position that General Stratemeyer had been in throughout 1946-1948.

* This was the Hood Committee, comprised of Generals Hood, Lindsay, Burns and Arkenbrandt, Colonel Chuck and Hilger, and assisted by General McConnell.

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Late in 1949, General Whitehead recommended to higher headquarters that he be relieved of a host of the smaller missions assigned him. ^{3*} But, early in 1950, before a reply had been received to this suggestion, he submitted the proposal that higher headquarters split the Continental Air Command down the middle, leaving all the missions except air defense and tactical air with the Continental Air Command, and creating a "Combat Command" to carry out air defense and tactical air responsibilities.

In view of the fact that the Russians had found the A-bomb, General Whitehead's recommendation for strengthening the organization for air defense was very much in order. Higher headquarters, however, was forced to disapprove the proposal. The Air Force simply did not have enough people to man the two separate commands. It was at this point that the compromise solution of reassigning the tactical forces from the numbered air forces to the Air Defense Forces and the Tactical Air Command was adopted. This cleared up the problem of divided authority at regional level but still left the Continental Air Command Headquarters staff immersed in so many duties that it could not properly attend to air defense affairs.

* These were: 1) The AF ROTC Program; 2) The Air Scout Program; 3) The single Air Force contact mission; 4) The Air Force liaison at water POEs mission; 5) The Apprehension of Air Force Absentees Program; 6) The custody of Air Force prisoners; 7) The Aviation Cadet and Officer Candidate procurement programs; 8) The administration of procurement program; 9) The Air Force Extension Course Program; 10) The Return of WWII dead program; 11) The Armed Forces disciplinary control boards. Subsequently, the Command was relieved of three of them (4, 5, and 8) but the rest remained with ConAC throughout 1950.

Reestablishment of the Air Defense Command

Meanwhile, the Korean War had broken out. Fearful that this was the prelude to World War III, Congress took a new look at the nation's fighting strength. One result of the survey was the granting of large manpower and materiel increases to the Air Force.

This opened the door to a reconsideration of the possibility of separating air defense affairs from the reserve and housekeeping functions and General Whitehead was prompt to resubmit his case to higher headquarters. His proposal this time was far more drastic than his previous ones. "In order to cope with the growing Air Defense system and its problems," he told General Vandenberg in October, "I think that it is a matter of utmost urgency to separate the headquarters of the Air Defense Command from Continental Air Command." In short, he wanted a major Air Force command established whose sole business would be air defense. Furthermore, he wanted it set up on or before 1 January 1951 with headquarters somewhere in the mid-west. His justification for prompt action on the reorganization was as follows:

Beginning the first of the year, 1951, some of our permanent radar sites will become operative. During the course of the year, many additional sites will come into being. Over the same period of time, twelve additional Air Defense fighter squadrons are programmed for activation. To be sure that these activities receive adequate, undivided attention and supervision, the Hq Air Defense Command should be organized immediately and a permanent site designated for its headquarters.

Evidently, there had been some private discussion of the matter between General Whitehead and his superiors before he submitted his recommendation, for the request was immediately approved. On

17 November, Major General William F. McKee, Assistant Vice Chief of Staff, Headquarters USAF, informed General Whitehead that orders were being cut for the establishment of the new command with Headquarters at Ent Air Force Base in Colorado Springs, Colorado.⁶

Breakup of the Continental Air Command began on 1 December 1950. The Tactical Air Command, as well as the Air Defense Command, was to gain its freedom, and on 1 December it was elevated to major command status, taking with it the forces whose primary mission under the Continental Air Command had been tactical air.

The Air Defense Command was "reestablished as a major air command of the United States Air Force" on 1 January 1951.⁷ The two Air Defense Forces, the air divisions, the fighter wings, groups, and squadrons, the AC&W groups and the radar squadrons, plus all of the other organizations whose primary duty under ConAC had been air defense were, on that date, reassigned from the Continental Air Command to the Air Defense Command. General Whitehead, who was selected to command the new organization, and the officers, airmen and civilians whom he chose to man the Headquarters, began the move from Mitchel Air Force Base to Colorado in December. On 1 January 1951 the Command was in operation.

The mission directive for the new organization had been issued shortly before its activation. "The Air Defense Command," it read, "is organized primarily for the air defense of the United States."⁸

Thus, for the first time since 1946, there existed a major Air Force organization whose only reason for being was to develop and

operate the air defenses of the continental United States. Later, on 19 September 1951, the new organization was written into public law. In PL 150, "An Act to provide for the organization of the Air Force and the Department of the Air Force..." the 82d Congress directed,⁹

- (a) There shall be within the Air Force-
- (1) the following major air commands:
 - (i) an air defense command;
 - (ii) a strategic air command; and
 - (iii) a tactical air command;
 - (2) such other commands and organizations as may from time to time be established by the Secretary of the Air Force in the interest of efficiency and economy of operation.

There was no longer any question as to the relative importance of the air defense mission among the other missions of the Air Force. And there were to be no more compromise solutions as to the best way to organize for the conduct of that mission; at least, not without the consent of Congress.

Changes in Division/Sector Area Organization

The plan for air defense area organization below Air Defense Force level as conceived at the time ConAC was activated had undergone considerable revision by the time the new Air Defense Command was formed. Under the Permanent Radar Program, it will be recalled, the construction of ten division operational buildings or control centers was authorized. Shortly after this program was approved in late 1948, the requirement for a center in the Southeast was eliminated, reducing the total number of centers programmed for construction under the P-program to nine. They

* See Chapter II, pp. 16-19.

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were to be built at: Syracuse, New York; Silver Lake, Washington; Great Falls, Montana; Bismarck, North Dakota; Detroit, Michigan; St. Paul, Minnesota; Oakland, California; Roslyn, New York and Albuquerque, New Mexico.
11

By early 1949, the division/sector peacetime, organizational plan was as follows. At eight of the nine centers, air division headquarters manned by regular Air Force personnel were to be activated. The ninth center, at Bismarck, North Dakota, would lie dormant except for training purposes until the outbreak of war. At this time, it would be manned and operated by Air National Guard personnel who would also form a division headquarters and assume sector responsibilities. The defense of the Southeast area was to be conducted in an emergency by men and facilities of a radar training school to be established at Orlando AFB, Florida.

On the outbreak of war, ten more ANG manned division control centers were to go into operation, making a 20 sector wartime organization.
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Meanwhile, as a matter of economy, the decision had been made to construct the nine control centers on government-owned or already leased property. Thus, the permanent stations of the five divisions already in operation in early 1950 had been relocated as necessary to comply with the terms of this policy. The 25th's control center was built on McChord Air Force Base, requiring the Division to move eventually from Silver Lake to that installation. The 26th remained at

* The move was finally completed in September 1951.

Roslyn. The other three were located as close to the originally programmed stations as possible -- the 28th at Hamilton, the 30th at Willow Run Airport outside Detroit, and the 32d at Hancock Field on the outskirts of Syracuse, New York.

This left four control centers to be constructed and three divisions to be activated. By this time, however, the efficacy of phasing from an eight division/sector peacetime organization (plus the Orlando defense area) to a 20 division/sector breakdown upon the outbreak of war had been questioned. In evidence of ConAC's dissatisfaction with this plan, General Whitehead recommended in January 1950 that the control center scheduled for construction at Albuquerque be located instead in the Los Angeles area where an Air National Guard defense sector was scheduled to go into operation in wartime. This was too critical an area to be defended by the reservists, he believed. At the same time, he recommended that the control center at Bismarck, which was to be Air National Guard manned, be eliminated, presumably to expedite construction of the Regular Air Force-manned control centers.¹³

These recommendations, coupled with the overall reappraisal of air defense which took place in higher quarters following the discovery of the Soviet atomic explosion, resulted in the formulation of a firmer concept of division/sector organization. The plan for the use of Air National Guardsmen in sector control operations was abandoned. Henceforth, air division headquarters, manned with Regular Air Force personnel, would be activated at each control center. This peacetime sector organization would be the one under which the air defense of the nation would

be performed in wartime.

The question now was: how many division/control centers were required in support of the new concept and where should they be located? The decision reached around mid-1950 was that eleven of them were required initially. If additional forces were later assigned, new division/control centers would be formed as necessary.

As it worked out, the five division/control centers already in operation remained as currently located. Also, the plans for placing division/control centers on Great Falls Air Force Base, Fort Snelling (St. Paul), and Kirtland Air Force Base at Albuquerque were retained. The control center originally scheduled for construction at Bismarck, however, was reprogrammed for the Los Angeles area -- at Norton Air Force Base near San Bernadino.¹⁴ Additionally, a new control center was programmed for Tinker Air Force Base. The eleventh division/control center was programmed for Dobbins Air Force Base at Marietta, Georgia. Since funds existed under the P-program for only nine control centers, construction on the Dobbins and Albuquerque centers was held up until additional funds became available.¹⁵

Action on the establishment of the six additional divisions began in May 1950 with the creation of a small Headquarters, Albuquerque Air Defense Sector (Provisional) at Kirtland.^{16*} Pending the activation of a Division headquarters here, this organization would exercise opera-

* This organization was designated the Headquarters, Albuquerque Air Defense Area (Provisional) from 1 May to 7 August 1950, at which time the designation given in the narrative was adopted.

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tional control over the radar and fighter forces deployed for the
 defense of the critical Los Alamos and Sandia areas. On 7 August,
 the Southern California Air Defense Sector (Provisional) was activated
 at Fort MacArthur, San Pedro, California, and given operational control
 over the radar and fighter forces in the area.¹⁷ On 20 September 1950,
 the 27th Air Division was activated at Norton, at which time the pro-
 visional organization was disbanded and its personnel transferred to
 the new Division headquarters.¹⁸ Thanks to the preparatory actions
 taken by the provisional headquarters, the 27th became operational on
 the same day it was activated.

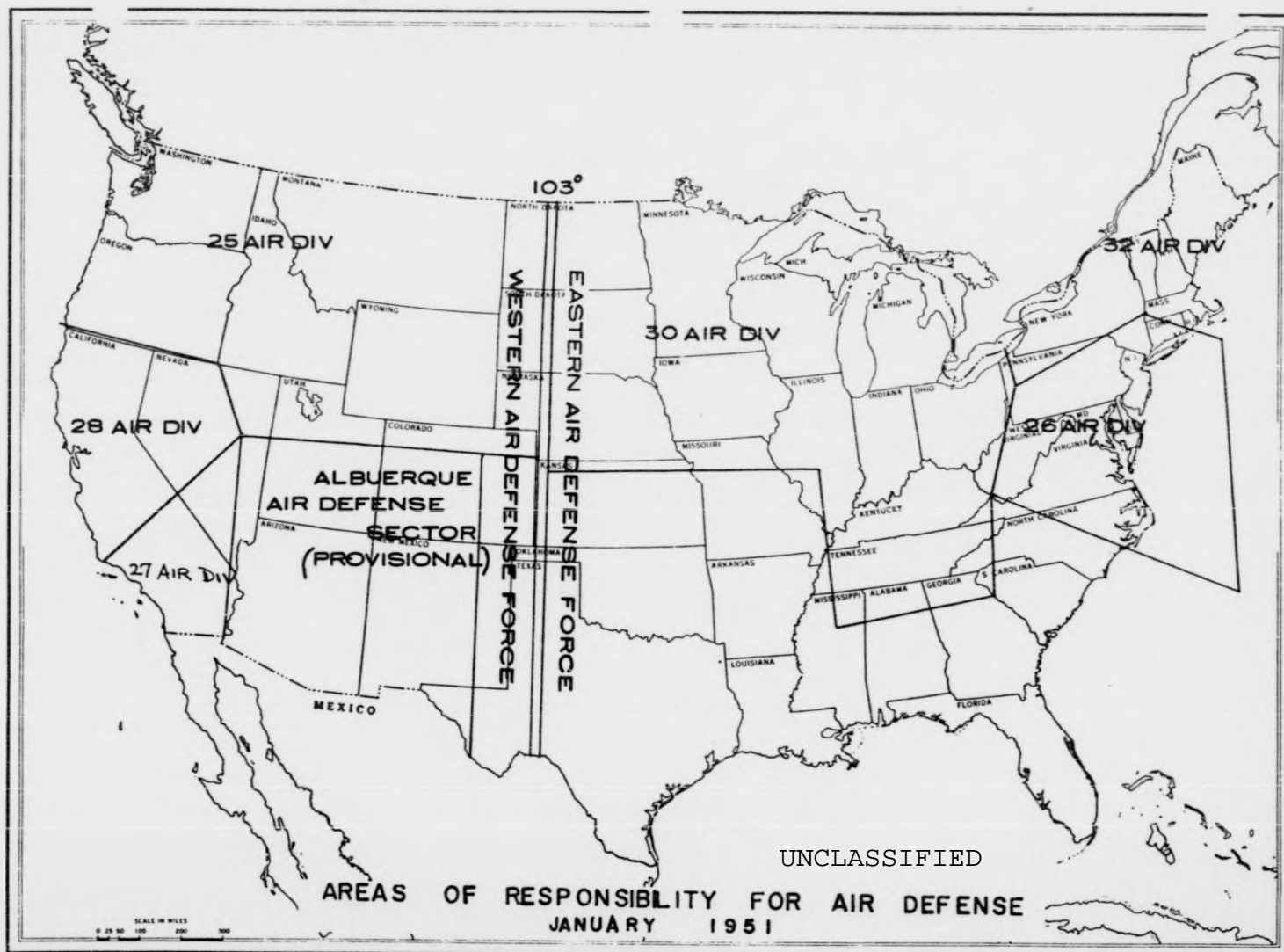
Thus, when the Air Defense Command was reactivated as a major
 Air Force command on 1 January 1951, defense of the nation was split
 among six divisions and the provisional organization at Albuquerque.¹⁹
 The seventh division, the 31st, programmed for location on Fort Snelling,
 had been activated on 8 October 1950, but was not yet sufficiently manned
 or equipped to assume area responsibilities.²⁰

The remaining four divisions were activated during the next
 six months. On 5 January 1951, the 34th was formed at Kirtland, at
 which time the provisional organization was discontinued.²¹ The 29th
 was activated at Great Falls on 1 March and the 33d at Tinker on the
 19th of that month.²² The eleventh division, the 35th, was activated
 on 1 July.²³²⁴

Creation of the Central Air Defense Force

Regional organization plans drawn up at the time ConAC was
 formed had also been changed by the time the Air Defense Command was

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reactivated. In late July 1950, General Whitehead had asked General Vandenberg for the wherewithal to establish a third Air Defense Force. "I feel that a three way division is necessary," he said, "in order that the troops may be properly handled, their morale maintained, and efficient administration and operational command exercised." Specifically, he believed that the air defense of the area east of the 103^o parallel was too much of a job for one Air Defense Force, containing as it did the majority of the vital targets of the nation. His plan was to create a Central Air Defense Force, which would take over the western and southeastern portion of the Eastern Air Defense Force's region.

Two months passed before an answer was received on the proposal. Then Lieutenant General Lauris Norstad, Acting Vice Chief of Staff, Headquarters USAF, stated that the overall plan for the air defense of the United States had just been completed and submitted for the approval of the other services. The plan had been based on splitting the nation at the 103^o parallel into two parts for air defense and to change that concept now would be to invite further delay in coordinating the plan. Further, General Norstad said, talk of the creation of a Unified Command for air defense was going the rounds. * It would be best to hold up on any drastic revisions in the current organization for air defense until that issue was settled.

General Whitehead immediately protested the decision. "Urgently request reconsideration be given to my original proposal," he wrote. "Problems associated with the air defense of the United States, regard-

* See below, p. 8

less of the command status of the Air Defense Command, are of such proportions as to dictate a further breakdown of the Air Defense Forces to include a Central Air Defense Force.²⁷ Despite this plea, higher headquarters pigeonholed the recommendation for the remainder of the time the air defense mission was under the Continental Air Command.

In early December 1950, the Unified Command discussions had died down and General Nathan F. Twining, who had since replaced General Norstad as Vice Chief of Staff, informed General Whitehead that his proposal for a third Air Defense Force was a valid one and had been approved in principle by the Air Staff. General Twining said, however, that his headquarters did not believe that conditions warranted the creation of the new organization immediately. "It is appreciated that when the air defense force and facilities approach more closely [its programmed strength] ... the Eastern Air Defense Force may be faced with such logistical and administrative burdens as to impair its air defense mission."²⁸

Following the reestablishment of the Air Defense Command on major Air Force command level, General Whitehead reopened his case for the new Air Defense Force, asking that it be established on 1 March following.²⁹ Either higher headquarters had had a change of heart as to the urgency of the matter or General Whitehead's persistence had worn it out, for it promptly concurred in the recommendation. Grandview Air Force Base, Missouri, just outside Kansas City was chosen as the site for the headquarters.³⁰

The negotiations for manning the new organization were quickly completed and on 1 March 1951, as planned, the Central Air Defense Force

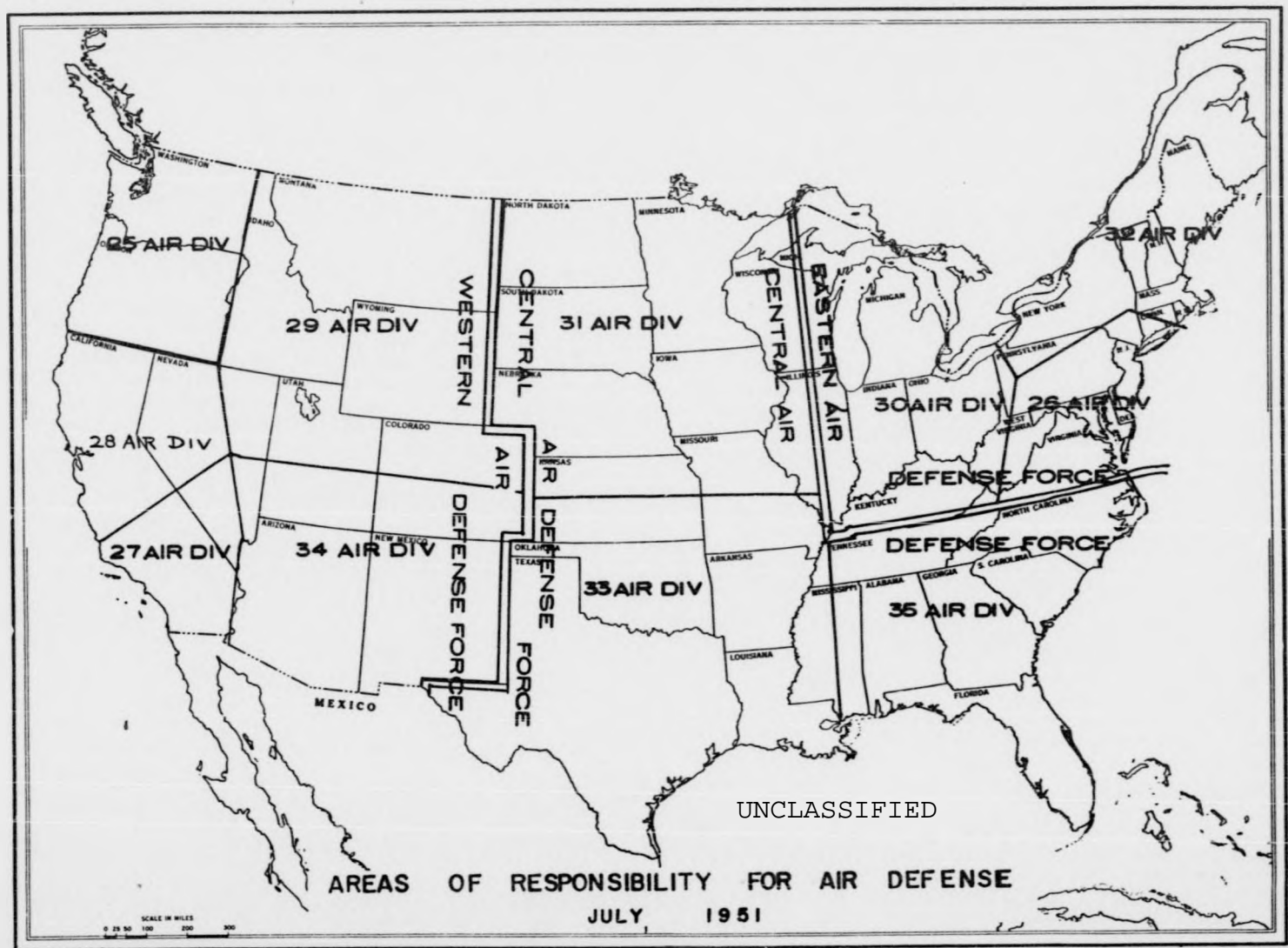
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was activated with Major General George R. Acheson as Commander.³¹
Pending the completion of its permanent quarters at Grandview Air
Force Base, the Headquarters moved into temporary offices in down-
town Kansas City, where it was to stay for the next three years.*

Arrangements for the reassignment of divisions and tactical forces within the area of responsibility set aside for the new Air Defense Force from Eastern Air Defense Force were completed within the next couple of months and the changeover became official on 20 May 1951.³²

* Hq CADF moved onto Grandview AFB in March 1954.

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CHAPTER VI

FORMULATION OF A PHILOSOPHY OF AIR DEFENSE ORGANIZATION
1952-1953

Inadequacies in Sector Organization

The assignment of the tactical units to the Air Defense Forces in the reorganization of mid-1950 had resolved the problem of divided control at regional level. The 1 January 1951 reorganization had eliminated the problem of excessive responsibilities by freeing the nation's air defense commander of all duties except that of creating and operating an air defense system. The time had now arrived to attack certain conspicuous organizational problems which had developed within the sectors during the past year.

There were two major trouble-spots in sector organization in early 1951. These were, (1) a split in command over the fighter squadrons, and (2) an overabundance of personnel in the higher echelons of the fighter organization with a dire shortage at base level. The first problem resulted from the fact that the fighter wings (to which the fighter squadrons were assigned) occupied the same level of command under the Air Defense Forces as the divisions, with the division commanders responsible for the "systems" training of the fighter squadrons and the wing commanders for their unit and individual training and logistic and administrative support. The second was caused by the conflict between ADC's requirement to deploy by squadron and Headquarters USAF's dictum that all fighter organizations would be organized on the wing-

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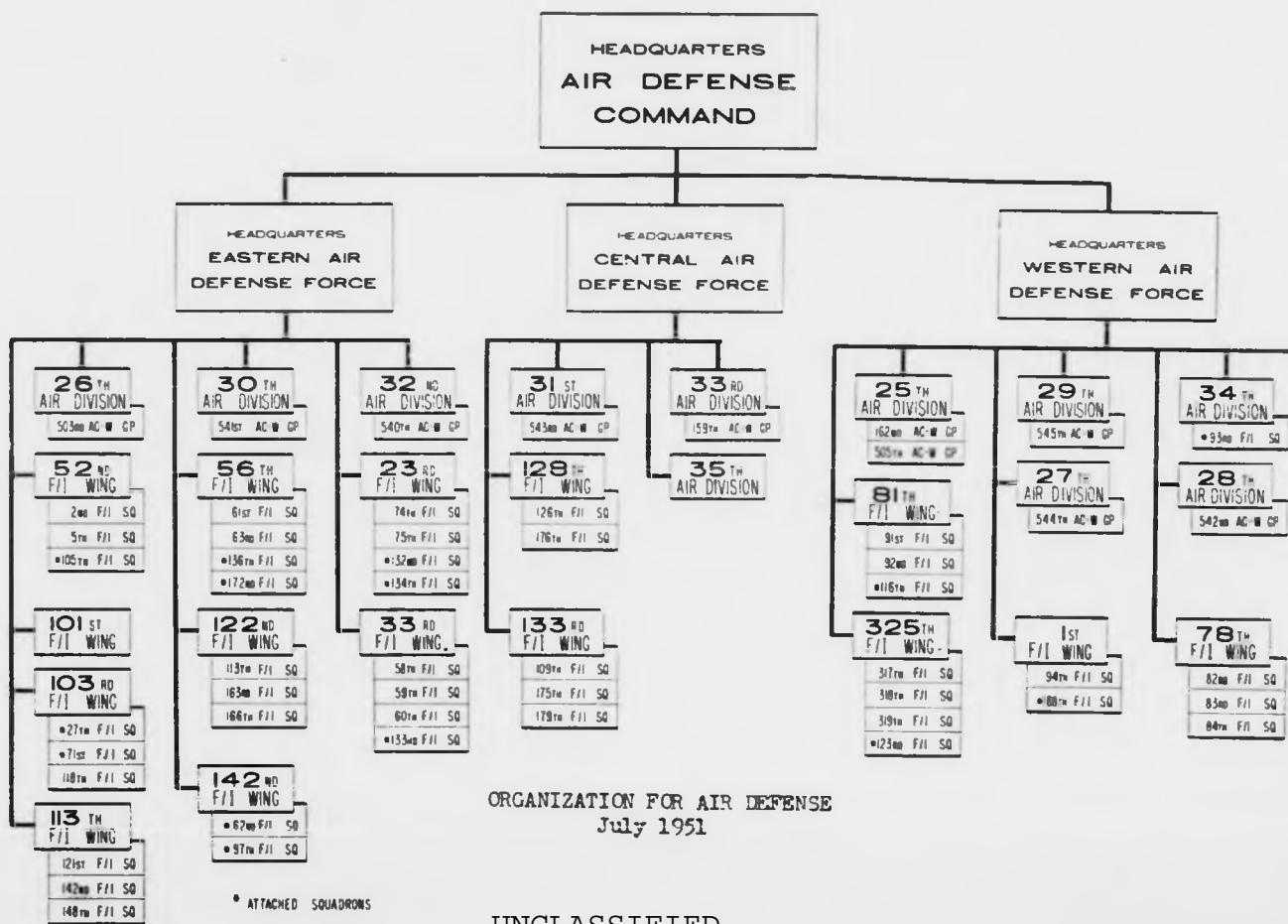
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base plan.

Even before it was completely settled in the new quarters at Colorado Springs, the Headquarters ADC staff, with the help of the Defense Force staffs, was busy seeking ways to eliminate the problems. The obvious solution was to assign the fighter wings to the divisions and "tailor" the fighter organization at each base to fit the particular situation.

It was not as simple as that, however. First of all, Headquarters USAF was adamant that the wing-base structure be retained. Korea was still very active and at any moment ADC's fighter units might be called into action in the Far East, in which event, they could most efficiently deploy by wing. Also, in spite of the manpower increases of late 1950, the Air Force still labored under an overall shortage of personnel. To assign the fighter forces to the air divisions would require raising the division headquarters from strictly operational-type organizations to full command status. There were simply not enough people available to make this change at this time. Finally, a large number of officers still held to the belief that the division commanders should not be loaded down with tedious squadron and airbase chores which would result from the direct assignment of the fighter forces to the divisions.

In February 1951, General Whitehead called his staff and key Air Defense Force officers together at Colorado Springs to discuss the problems. At the meeting everyone had an answer. The trouble was that no two of the proffered remedies were alike or else the solutions offered were academic in the light of current manning and organization restrictions. Con-

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sequently, the Defense Force officers returned home with instructions to "rearrange and/or reorganize units, on a temporary basis, to isolate problems or develop more suitable structures....in order that ideas which might only be proven by trial and error" could be tested.²

By mid-1951, about as many different ideas on bettering sector organization as there were division and Air Defense Force headquarters had been forwarded to Command Headquarters. By no process of legerdemain were the manpower and organization staff officers there able to reconcile fully these many views one with the other and with the USAF dictates on the wing-base structure and manpower ceilings. Then came a break in the impasse. At a conference of top Air Force commanders on 30 August 1951, General Vandenberg said that to make the most of available forces, standardized organizational arrangements such as the wing-base were to be abandoned and major commands permitted to organize as befitted their particular missions.³ This pronouncement at once freed ADC to remove one of the major defects from sector organization -- the inefficient alignment of the fighter force.

On 2 October following, General Benjamin W. Chidlaw, who had assumed command of the Air Defense Command in August upon General Whitehead's retirement,^{*} told higher headquarters that he was ready to start cleaning house in the sectors. His plan, he stated, was in consonance with USAF's program for extracting the most firepower from available resources. And while it was not the final answer to his sector problems,⁴ it would provide a springboard to the eventual resolution of them all.

* See Appendix B for a brief biography of General Chidlaw.

The plan was as follows. The wing-base structure would be scrapped in favor of a fighter organization tailored to meet ADC's particular needs. The aircraft control and warning groups, with their control squadrons, would be inactivated and their duties and responsibilities taken over by the divisions. Finally, the divisions would be changed from table of organization to table of distribution headquarters.

USAF approved the plan on 12 October.⁵ While General Chidlaw had hoped to make the changeover before the end of the year, higher headquarters was not able to complete the detailed paperwork on the matter until early in January 1952.⁶ Final arrangements were completed by the end of that month and the reorganization, as planned, went into effect on 1 February.⁷

Abolition of the Wing-Base Plan

An underlying motive for the institution of the wing-base plan throughout the Air Force in 1948 was to invest command of the base in the officer who commanded the tactical forces stationed there. In many instances during World War II where one officer had commanded the base and another the tactical unit on the base a sort of personal war on the side had taken place between them. Under the wing-base plan, this situation could never occur. Another advantage of the plan was that it featured a high degree of mobility, since the wings were administratively, logistically and operationally self sufficient.⁸

The plan was unsuited to air defense because the centralization of three squadrons on one base resulted in an inadequate dispersal of the fighter interceptor force. When, in mid-1950, General Whitehead,

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General Benjamin W. Chidlaw
Commander, Air Defense Command: August 1951-May 1955
Commander-in-Chief, Continental Air Defense Command: September 1954-May 1955

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requested permission to deploy the twenty-three squadrons then assigned
him for air defense over fourteen bases, USAF granted the request, but
stipulated that it and subsequent single squadron deployments be per-
formed within the framework of the wing-base plan. In other words, one
or two squadrons might be separated from the parent wing and group head-
quarters, but those headquarters were still to be maintained intact. As
mentioned previously, USAF's reason for this was to preserve the mobility
of the fighter forces which the wing-base system afforded in the event
those forces were needed for duty in Korea.

One result of this conflict between ADC's requirement to deploy
by squadron and USAF's insistence that the wing-base organization still
be kept, was a wastage of manpower in wing and group headquarters with
a concomitant shortage of support personnel on the deployed squadron
bases. One investigation showed that a separately deployed squadron re-
quired approximately 630 people, but a wing with one squadron at a base
of comparable size required more than twice as many people.

Another problem was the great burden it placed on commanders
of squadrons deployed on ADC-owned bases. They had to cope with the
minutia of base problems and still operate their squadrons in competition
with squadron commanders situated on bases where wing and group commanders
attended to the housekeeping affairs.

Thus, while wide variations in opinion still existed within the
Air Defense Command in mid-1951 as to the best way to reorganize the sectors,
there was full agreement that the wing-base had to go. And go it did on
1 February 1952. The new arrangement looked a bit weird to the old pilots
in Washington, but they were willing to gamble with General Chidlaw that

it was the best solution in sight to a tough problem.

In the reorganization, all of the wing, tactical group, air base group, maintenance and supply group and medical group headquarters of the wing-base were inactivated. Further, all of the deployed squadrons were stripped of their augmentation spaces and reduced to their basic manning allowances. In short, the fighter force was pared down to the pilots, mechanics, and aircraft.

In the rebuilding, two new types of support units were activated on the bases over which the command had jurisdiction. * On the six large bases, (Hamilton, McGuire, McChord, Otis, Larson and Selfridge), eight-squadron air base groups were activated. On the five smaller bases and 12 municipal airports air base squadrons were formed.

Under the new organization, the air base group and the air base squadron commanders were placed on the same level of command as the tactical squadron commanders. In the future, one man would run the base and the other the fighter squadron with neither having jurisdiction over the other's activities. This was in line with ADC's experience that it was too much of a load on the tactical commander to run both the base and the squadron. Of course, this meant a return to the split in responsibility at base level which had caused so much trouble during World War II.

However, ADC did not anticipate similar troubles. In contrast

* On the bases where a fighter squadron was a tenant (there were ten of these in February 1952) the command which owned the base was hence forth charged with the full support of the squadron. Formerly, the tenant squadrons had been manned to perform part of their support and the owning command had furnished a part.

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with the situation during the War, both commanders were members of the same organization. Too, as Major General Kenneth P. Bergquist, the Air Defense Command's Deputy for Operations, put it, it was to be made clear to base commanders that "...this Service Unit's mission in life will be to give service to that Tactical Unit."¹²

USAF was not as optimistic as ADC that this aspect of the organization was workable. The split in responsibility, that Headquarters warned, would make it difficult to fix responsibility in the event a squadron failed to perform its mission. However, because it promised a great savings in personnel, by making unnecessary the superimposing of a third commander and staff over base and tactical squadron activities, it was worth a trial. Consequently, ADC was given five months in which to test its workability, at the end of which time it was to submit a full report on its experiences to the Pentagon.¹³

Activation of the Air Defense Wings

To insure a proper span of control over air base and fighter squadron activities, still another type of fighter organization was created in the February 1952 reorganization. This was the Air Defense Wing.* Its mission was to exercise administrative and logistic supervision over the fighter elements assigned them.

In contrast to the wing headquarters of the old wing-base plan, the new wings were designed as area rather than mobile headquarters. While the old wings were responsible for administering one base, the

* From February 1952 until September 1954, these organizations were designated simply Defense Wings.

air defense wings were responsible for administering all of the ADC-owned fighter bases in their areas. Also, there was no enduring relationship between wing and fighter squadron as there had been under the wing-base. If a squadron moved from one geographical area to another it simply changed its assignment from one air defense wing to another. Thus, the complex and confusing web of assigned and attached squadrons scattered over the nation, which had existed under the wing-base, was dispensed with.

Finally, the old wings had been table of organization units. The new wings were organized according to more flexible tables of distribution. This made it simpler to vary the size of the staff of each wing headquarters to meet variations in requirements at different locations.

Eight air defense wings were activated, two in each of the Eastern Air Defense Force division areas and one in the 25th and the 28th Division areas.^{14*} In these sectors, the fighter squadrons and the air base organizations were assigned to the wings and the wings directly to the Air Defense Forces. In four of the remaining five air divisions -- the 29th, 33d, 34th and 35th -- the few fighter squadrons

* Actually, ten defense wings were initially established but two (the 4703d in the 25th Division and the 4705th in the 27th) were discontinued soon afterwards in compliance with the ever-increasing pressure from Washington to economize in manpower. Later, the wing activated in the 28th Division was transferred to Geiger Field, Washington where it remained in operation until the activation of the 9th Air Division in September 1954. At that time, both of the 25th Division wings were inactivated as unnecessary, dropping the number of wings in-being in September 1955 to six, all of which were located in the Eastern region.

stationed there presented no span of control problem and were assigned directly to air division headquarters. In the fifth division, the 31st, there were enough fighter squadrons to warrant the establishment of a defense wing. Here, however, the efficacy of assigning all of the forces in an area directly to the division commander was to be tested.

Changes in Division Headquarters

While the emphasis in the February 1952 reorganization was on the elimination of the logistic and administrative problems in the fighter forces, two changes of note also took place in the function and character of the air division headquarters. The aircraft control and warning groups were abolished and full command of the radar squadrons invested in the air division commander. Also, the tables of organization, under which the air division headquarters had been manned for the past three years, were replaced by more flexible tables of distribution.¹⁵ This last change was designed to enable ADC to better apportion manpower in the future according to the particular needs of each division.¹⁶

The elimination of the groups was long overdue. While the concept of the division headquarters as a strictly operational body had been workable if not satisfactory so far as the fighter force was concerned, it had proved untenable for radar affairs. The division headquarters was too intimately a part of the radar warning and control system for it to delegate matters of any consequence to the groups. In recognition of this fact, the staffs of those divisions and group headquarters which were located on the same installations had been combined in late 1949. By 1951,

* See Chapter IV, p. 93.

this process of amalgamation had advanced to the point where division commanders were also commanding the groups.¹⁷

Thus, the aircraft control and warning group had become an anachronism by mid-1950 and its elimination in early 1952 merely served to clear the books of extraneous unit designations. The most noticeable effect of the change was a large increase in the number of personnel assigned the division headquarters. This was an illusory growth, however; actually, the same number of people were on hand in the division blockhouses after the reorganization as before. The only difference was that where before they were carried on the rolls of three organizations, they now appeared on the single roster.

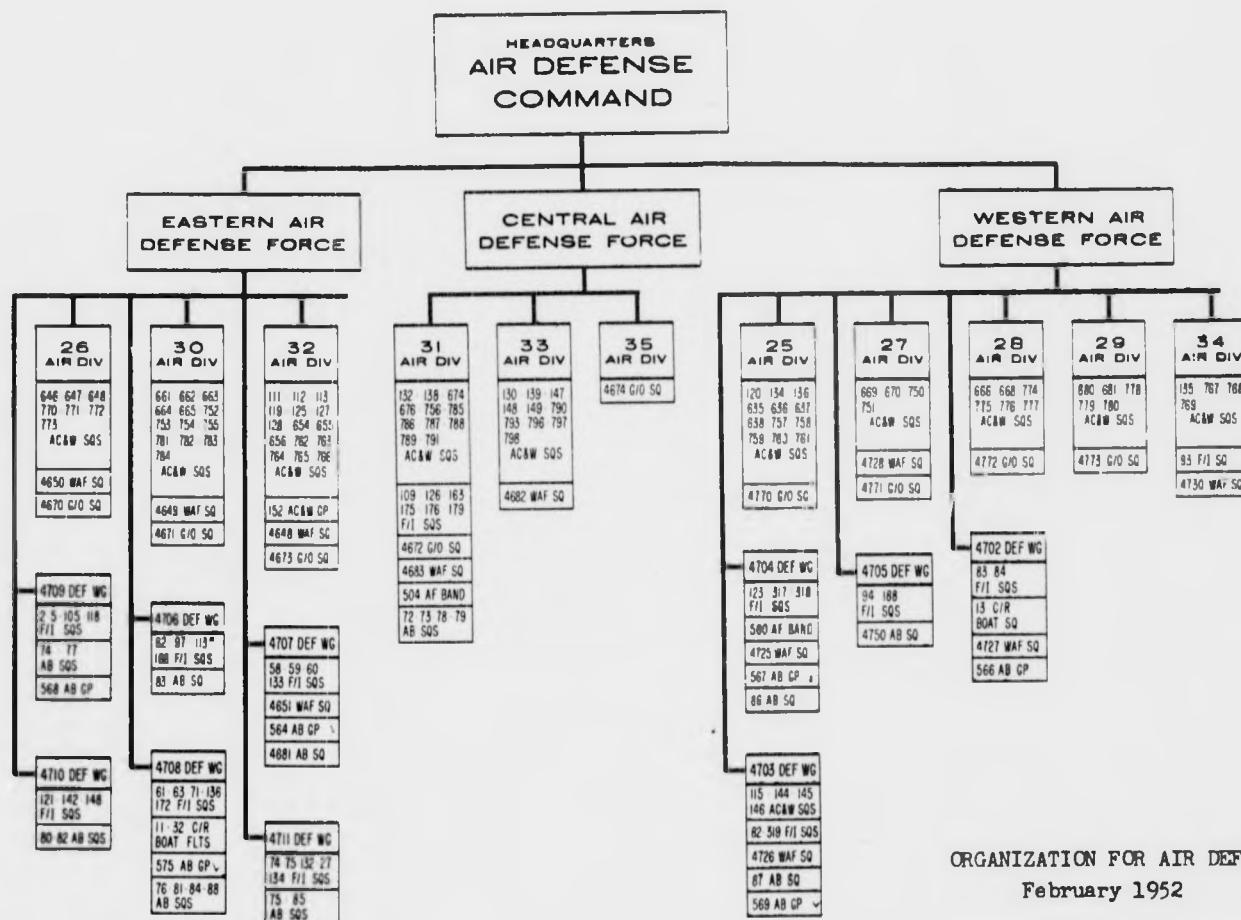
The chart on the next page shows the organization after the February 1952 changes. In the sectors where defense wings were created, the fighter units were assigned to the wings and the radar units to the divisions, with the divisions and wings reporting to Air Defense Force headquarters. In the two sectors where there were few or no fighters, both the radars and fighters were assigned to the divisions.

The 31st Division was the exception to both cases. Here, under Brigadier General Thomas C. Darcy, the possibility of assigning a large number of fighter as well as radar units in the sectors directly to the division was to be tested. The thought was that by expanding the administrative and logistic offices of the division staffs perhaps the defense wings could be eliminated with an overall savings of manpower.¹⁸

Straightening the Command Line

By late 1952, ADC had acquired a further understanding of organi-

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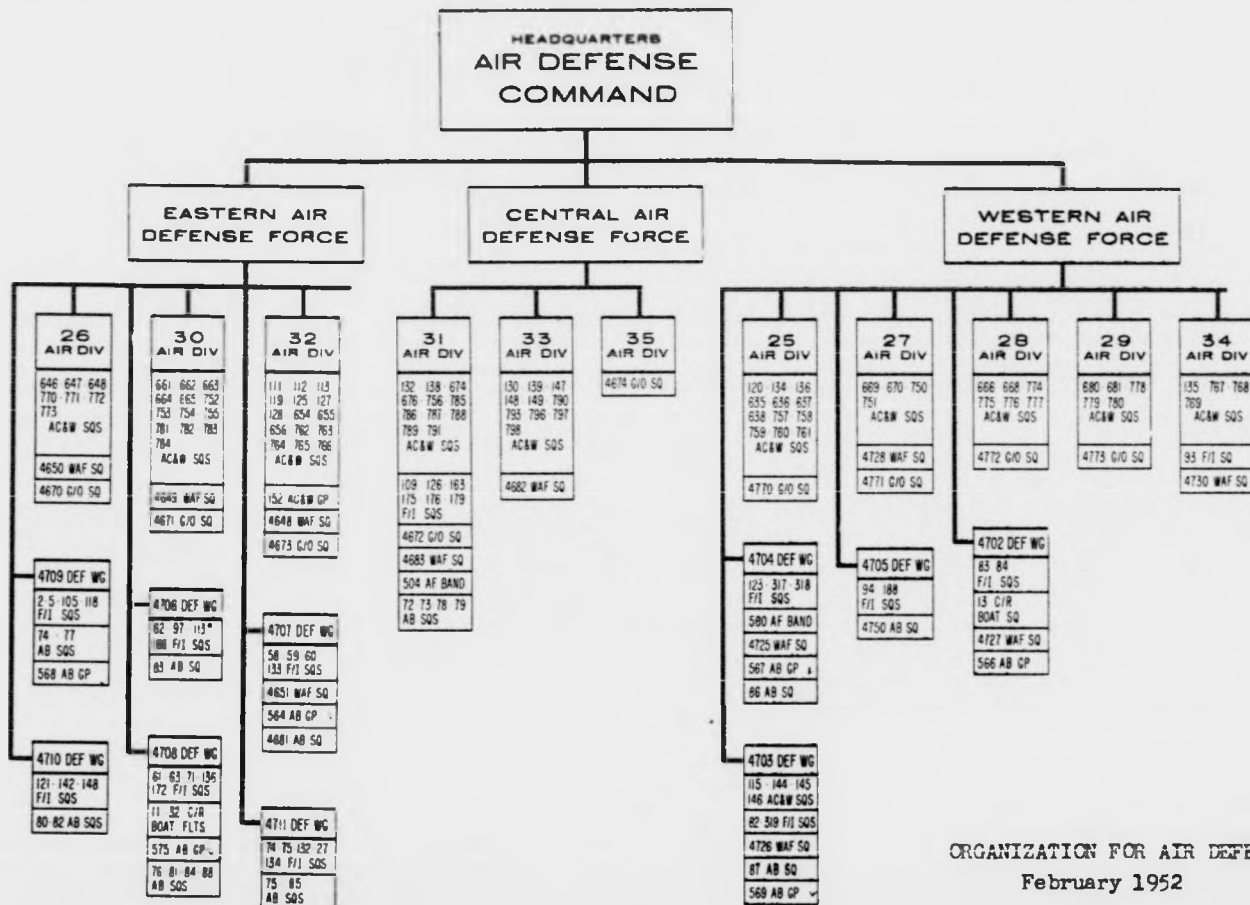


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* TO BE REASSIGNED TO CADF WHEN CONTROL CAPABILITY EXISTS
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zational requirements in the sectors and was ready, once again, to make drastic revisions at that level of operation.

One problem requiring settlement was the unsatisfactory situation that had developed at airbase level since the February 1952 changes. First of all, ADC's experiment in split-authority on the bases had failed. "The presence of two commanders on a station in an equal status," the Command confessed, "tended to create some friction in lack of proper administration of base responsibilities as it placed reliance on cooperation and good will, rather than on command control."¹⁹ In short, higher headquarters' pessimism on the policy of investing command of the base in one officer and command of the tactical squadron in another had been borne out. In a surprisingly large number of cases, the arrangement had worked. But when personalities came into conflict, it broke down. The only solution was to place one man in charge at each base.

The other aspect of the base problem concerned the support of operations at the medium sized bases. The air base squadrons had proved adequate to run a small base, and the six air base groups had adequately supported operations on the six large bases, but neither of the tables of organization under which these units were formed fitted conditions at the medium sized bases.

Trouble on the medium sized bases came as no surprise to the Command. Even before the February 1952 reorganization it had asked that all of the air base units be initially formed on a non-table of organization basis. This would give the command time to learn of its needs at the particular bases. After that, appropriate tables of organization

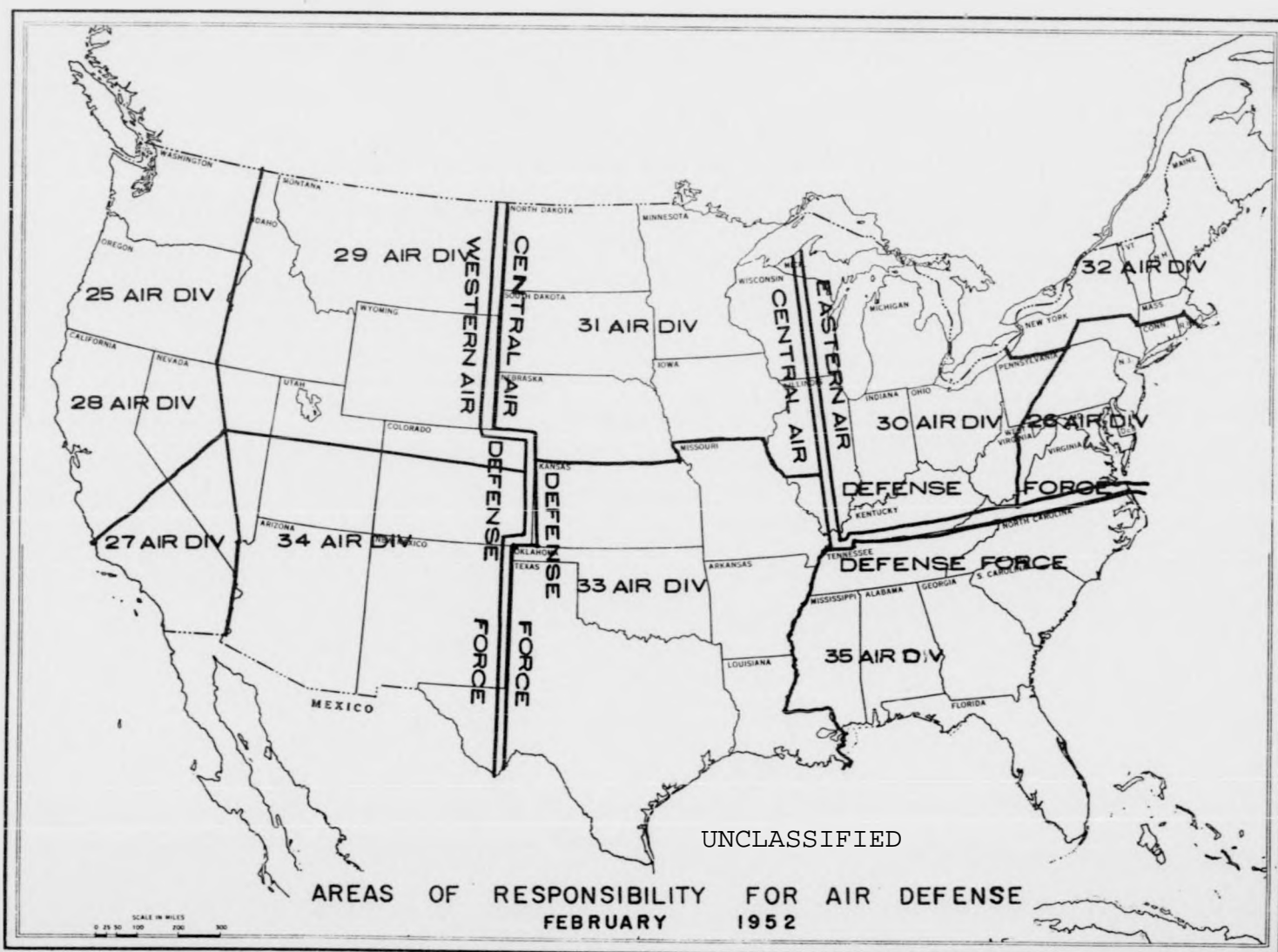
could be drawn up in accordance with actual operating experience. But higher headquarters would not grant the delay, "forcing us [prematurely]," as Major General Frederic H. Smith, Jr. said at the time, "into a T/O&E²⁰ for an Air Base Squadron."

The result was that needs at the medium sized bases were met by augmenting the strength of the air base squadrons with non-table of organization personnel, oftentimes swelling them to almost twice their basic sizes. Experience had proved that approximately four hundred persons was the largest number which a squadron commander could adequately supervise but on some of the bases this figure had run upwards to a thousand men. Only an officer with exceptional ability could dig himself out from under the administrative burden engendered by this situation to pay attention to the needs of the tactical squadron. Even then chances were good that the services which he could provide would be inadequate.^{21*}

Steps to settle this problem were taken almost before the ink dried on the February 1952 reorganization. By mid-1952, a table of organization for air base groups to be formed on the medium sized bases was drawn up. Then, as the split in command responsibility on the bases grew increasingly more troublesome the whole concept of the support organization at base level was revised. By late 1952, the decision was made to establish "Air Defense Groups" on each ADC-owned base. One table

* After a visit to Presque Isle AFB, one of the medium sized bases, in the summer of 1952, Colonel Carl Elver of the Hq USAF manpower office reported to ADC as follows: "I came to the very definite conclusion that so far as that [Air Base] squadron was concerned it was running after a fashion because of the fact you had a damn bright young Lt. Col. running it."

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of organization was drawn up for the groups which would occupy the six large bases and another for those to be established on the smaller bases. Unlike the six air base groups presently in existence, the new air defense groups would command both the tactical and support squadrons on the bases. Thus, in effect the plan called for the institution of a group-base plan²² throughout the command.

Meanwhile, evidence was piling up in favor of assigning all forces in the sectors directly to the air divisions. Upon the conclusion of the organizational experiment in the 31st Division, General Darcy enthusiastically endorsed the alignment of all forces under the division commander. "The outstanding fallacy of the previous organization," he wrote in his final report, "was the divided responsibility for operational command and for administrative and logistical command.... This abnormal and unhealthy situation has been eliminated [in the test organization] with a resultant increase in overall effectiveness in operational, administrative and logistical matters and in a considerable savings of personnel."²³ General Chidlaw and his staff, after studying the results and discussing the matter at great length with all three Air Defense Force commanders and their staffs, concluded that the air defense groups and their fighter and support squadrons should be assigned to the divisions.

All that remained now was to figure out a solution to the span of control problem. In the 31st Division test, all of the radar and fighter organizations, totaling 24 units, had been assigned directly to division. General Darcy believed that his headquarters had been successful in exercising direct control over them, but observers at Headquarters ADC did not agree. The conclusion reached was summed up by General Chidlaw

[REDACTED]

in a briefing for General Vandenberg in August 1952: "I picked out the 31st to try this service test because I believed at that time we could eliminate some headquarters. Now I have found out that we over-²⁴shot entirely on that." In short, while unified control over operations, administration, training and logistics at division level was now known to be feasible, it was also evident that the divisions would not be able to exercise direct command over all of the operating units in their areas, no matter how desirable this was from manpower and funding points of view. Agencies which could perform close administrative and logistic supervision over the tactical units had to be interjected into the chain of command. In other words, the traditional military concepts of concentration of authority and responsibility and limitation of span of control had to be observed.

While the establishment of air defense groups on each base would serve to reduce the span of control which had obtained within the 31st Division during the period of the test, the gap was still too wide. Consequently, the decision was made to retain air defense wings between air defense group and division in those sectors where the bulk of the forces were deployed but to change the function of the wings to include administrative and logistical support of the radar squadrons as well as the air defense groups. In the sectors in the Central and Western regions where few forces were located, the air defense groups and the individual radar squadrons would report directly to division headquarters.

Higher headquarters' approval to establish an air defense group on each base, change the mission of the defense wings to include

administrative and logistic support of the radar as well as the fighter elements, and assign all of the forces within the sectors to the divisions was received in late October. ²⁵ Three months later on 16 February 1953, the new organization went into effect. ^{26*} Evidently, the new organization was the one for which the Command had been searching, for the system continued to operate within that framework two and one-half years later.

The Philosophy of Air Defense Organization

Thus, the struggle for understanding had been a long and tedious one, but by early 1953 ADC believed that it had isolated the basic tenets of air defense organization. As later enunciated by Colonel James R. Wergin, the Command's manpower and organization chief, these were: ²⁷

Air Division Commanders should have control of all air defense tools in his area which are necessary for the active air defense.

With minor exceptions, one man on each ADC operated base should have command of all ADC units located thereon.

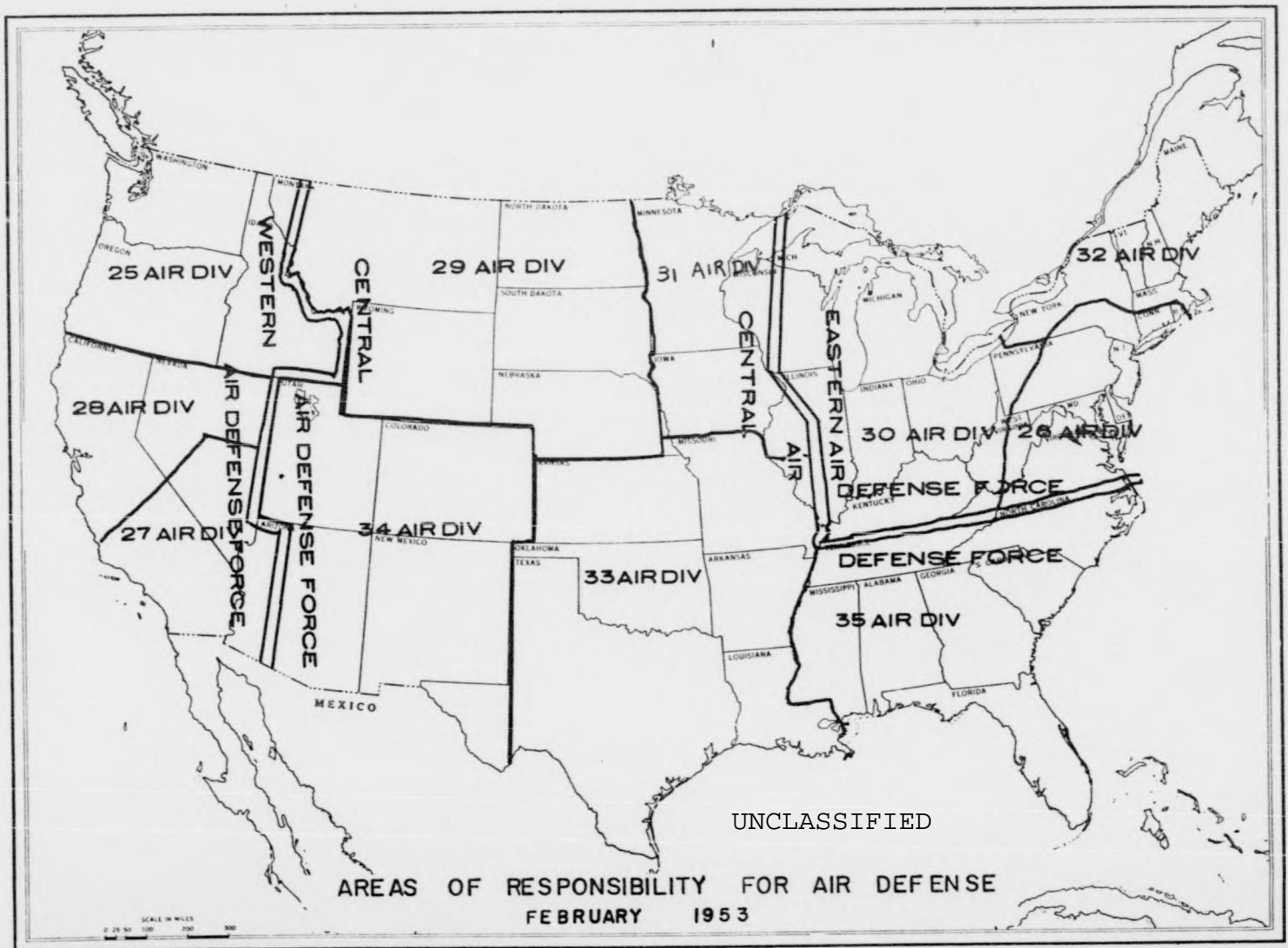
Wings should be injected between the Air Divisions and operating units when a reasonable span of control is exceeded. Because of the homogeneity of ADC units, a maximum of sixteen units is considered satisfactory in some cases.

ADC owned and operated bases [should] be operated by an Air Defense Group.

Austere manning standards preclude authorization of full staffs at all levels of command.

Throughout the organizational planning which took place during the following years, these principles, which in total comprised a sort of philosophy of air defense organization, were scrupulously attended.

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CHAPTER VII

AIR DEFENSE ORGANIZATION IN MID-PASSAGE
1954-1955

Developments in the Warning and Control System

The air defense system remained sub-divided into three Air Defense Force regions and 11 Air Division sectors until late 1954. Then, a new division was activated in the Northwest. By the end of the following year, four additional divisions had been formed. To explain adequately these changes and the organizational plans beyond the 1955 time-period, it is necessary to discuss briefly certain developments which took place within the radar system during 1951-1953.

*
The Permanent Radar Program, it will be recalled, had been regarded as only the first link in the radar warning and control system. Additional ground radar stations (both manned and unmanned), picket vessels, airborne early warning and control aircraft, and other facilities would be required to fill the gaps in P-system coverage and extend coverage to the North and seaward.

The first increase in the system was authorized in July 1951, at which time higher headquarters approved the construction of 44 additional, manned radar stations (under the terms of the Mobile Radar Program).¹ By early 1952, ADC had decided to deploy the new stations to form or begin to form, double perimeter radar fences around the Northeast,

* See Chapter II, p. 17.

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Northwest, and California target areas. The rationale of the plan, as explained by General Bergquist, was as follows: "initial detection of an enemy...should be accomplished approximately 250 miles from the target area. To achieve this detection capability for altitudes down to 5,000 feet, a double perimeter of radar surveillance should be established around the target area with the radar sited on the inner perimeter... 70 miles out from the edge of the target area and the outer perimeter established...120 miles outside the inner perimeter."²

USAF approved the deployment plan in March 1952.³ Thereafter, future additions to the radar warning and control system were justified and located in conformance with this double perimeter concept of operations.

Concurrent with the action being taken to complete and extend the radar system, research and development on an improved means for displaying and transmitting tactical data within the system was underway. The slowness with which data on the air situation was compiled and displayed in the radar stations where interceptor guidance took place and forwarded to adjacent stations and control centers at division had long been a critical defect in the system. The problem had been first pointed out by General Myer's, ConAC's Vice Commander, in July 1950. "Methods now employed in transmission and display of information in our Aircraft Control and Warning nets are inadequate to use the full capabilities of our defensive radar and aircraft," he had said. "The manual observing, telling and plotting procedures in current use introduce errors, omissions and delays into the operation of our AC&W net which seriously degrade the effectiveness of our defense system."⁴ He had then asked higher head-

quarters to initiate a crash program for the development of an electronic means for the automatic performance of these functions.

In response, USAF began to explore the possibility of adapting a version of the British Comprehensive Display System for use within the radar net. The heart of this system was a World War II developed digital computer, an electronic "store" into which information on aircraft tracks could be placed and retained until summoned for presentation on display boards. Or, as General Bergquist more graphically described it, a device into which "...you [throw] a bucket full of blips... somebody sorts [them] out... puts them in slots, and [you] put in a nickle for whatever kind of blip you want."⁵

While the British had not brought their system to the point where data stored in one computer was transferable to another, the United States scientists believed that such a development was possible. If so, it would solve the Air Defense Command's problem. Consequently, the Air Force in 1951 authorized the Laboratory for Electronics of Boston, Massachusetts, to study the British system and to develop a plan for producing the equipment using American radar and American parts.

The device conceived by this firm was designated the ACDS, the "American Comprehensive Display System." By the spring of 1952, the Pentagon had decided that the ACDS promised a significant enough improvement in data processing efficiency and track handling capacity to warrant procurement and directed ADC to develop a plan for incorporating it into the double perimeter concept of operations.⁶


The 1955 Organization Plan


The plan drawn in Air Defense Command Headquarters was titled the 1955 Organizational Plan, on the assumption that the ACDS would be ready for operational use by that time.

As explained by General Smith, ADC's Vice Commander, the nation under the 1955 plan would be divided into electronic areas, in which the ACDS equipment would be used, and non-electronic areas. The electronic areas would be located in the areas of heavy air traffic within the double perimeters of the Northeast, Northwest, and California. The areas outside the double perimeters, where air traffic was lighter and where there were fewer important targets, would be the non-electronic areas.

Division/sector boundaries in the electronic areas would be located according to the number and character of probable targets in each sector and the forces which would be assigned and deployed under the double perimeter concept of operations by 1955. The ACDS equipment had the capacity to handle one hundred simultaneous tracks. Consequently, to reduce the size of the sectors to this probable track penetration level, seven new divisions would have to be created in the electronic areas.

In the non-electronic areas, the radar stations would be furnished equipments then under development (Target Position Indicators) to increase their display capability. Data transmission would continue to be performed manually. No new divisions would be required in these areas.

Thus, the 1955 plan called for an increase in the total number of air divisions from eleven to eighteen. Because it was desirable to



have the area of each double perimeter completely within one Air Defense Force region, the 1955 plan also included a provision to alter the boundaries of the Defense Forces to fit both the double perimeter and the ACDS scheme of things.

Area Boundary Changes of February 1953

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The 1955 plan was approved in principle by USAF on 22 August 1952 and in late October, the specific requirement for the seven additional Air Divisions was confirmed.

To facilitate the transition from the existing system to the 1955 system, ADC asked permission in November 1952 to realign region and sector boundaries in the forthcoming reorganization of the Command to correspond, insofar as possible, to the boundaries which would be in force in 1955. The request was approved in late December.

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Accordingly, on 1 February 1953, at the same time the defense wings were assigned to the divisions and the air defense groups formed, region boundaries were changed to correspond to the 1955 double perimeter and ACDS concept of operations. This required an extension of the Eastern Air Defense Force boundary westward to encompass territory and units formerly assigned the Central Air Defense Force. It also meant moving Central's western boundary farther west by reassigning the 29th and 34th Air Divisions, whose areas of coverage were outside the Northwest and California double perimeters, from Western Air Defense Force to Central. The changes would leave an adequate span of control in each air division during the remainder of the period before the new radar facilities and the ACDS equipment came into being except in the case of the

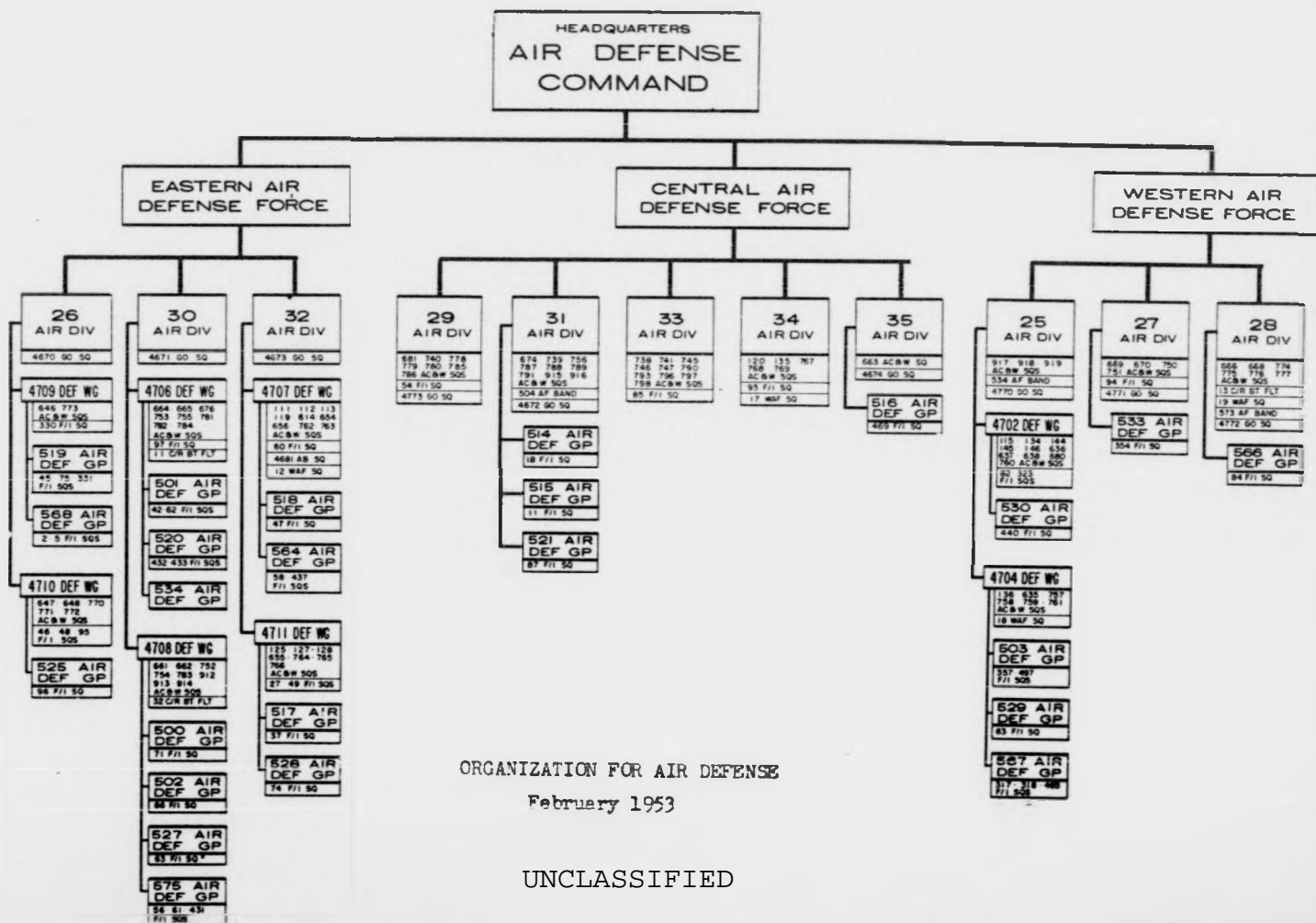
31st Air Division. Here, it will be recalled, no intermediary organizations existed between division headquarters and the operating forces. To resolve this span of control problem, the 29th Air Division boundary was extended eastward to encompass some of the 31st's units, thus ob-¹⁰viating the need to activate defense wings in this area.

Advent of the SAGE System

To overcome the problem of transmitting data from one ACDS computer to another, the Air Force turned to the University of Michigan's Willow Run Research Center. In September 1952 that organization proposed to build an electronic system which would completely integrate the ground and air electronic environment using the ACDS as the basic component with digital magnetic drum storage. This system came to be called the Air Defense Integrated System (ADIS). In mid-October higher headquarters instructed ADC to work closely with the Willow Run Research Center on its¹¹ development.

Meanwhile, since mid-1951, the Massachusetts Institute of Technology, was working on another version of an electronic display and transmission system in its Lincoln Laboratory. Called the "Lincoln Transition System," it was being designed to perform "all the functions of data processing, threat evaluation, weapon assignment and weapon control centralized at the Air Defense Control Center ¹²[In the Air Division headquarters]."⁷ Through 1952, there was little information available on the status of this project and ADC had presumed that its completion was a much longer way off than that of the ADIS.

Early in 1953, General Earle E. Partridge, then commanding the



Air Research and Development Command, said that USAF Headquarters, in order to "produce in the shortest possible time the most effective Air Defense Electronic Environment," was going to support fully the projects underway in both the University of Michigan and MIT. The Air Defense Command, for its part, was requested to extend "similar support...to the development of the Transition system that you accorded the ADIS program."¹³

But, in May 1953, this instruction was suddenly withdrawn and the startling announcement made that work on the ADIS system would cease. "The Air Force has found it necessary," General Partridge said, "to initiate a unilateral approach to the solution of its research and development problems in the field of Air Defense Electronic Environments. This single approach will be oriented toward the Lincoln Laboratory Transition Air Defense System and the ADIS program at RADC will be phased out completely...."¹⁴

The decision to cancel the ADIS project and devote full effort to the Semi Automatic Ground Environment (SAGE) system, as the Lincoln system came to be called, made it necessary to reevaluate future organizational plans. While the SAGE system was not due to become operational until the 1957-1960 time period, the double perimeter defenses would be well along to completion by late 1955 and early 1956. The problem, then, was how to mesh the organization which would be required in 1956 with the organization which would be placed into effect once the SAGE system came into being.

On 18 January 1954, an initial study of the organization which

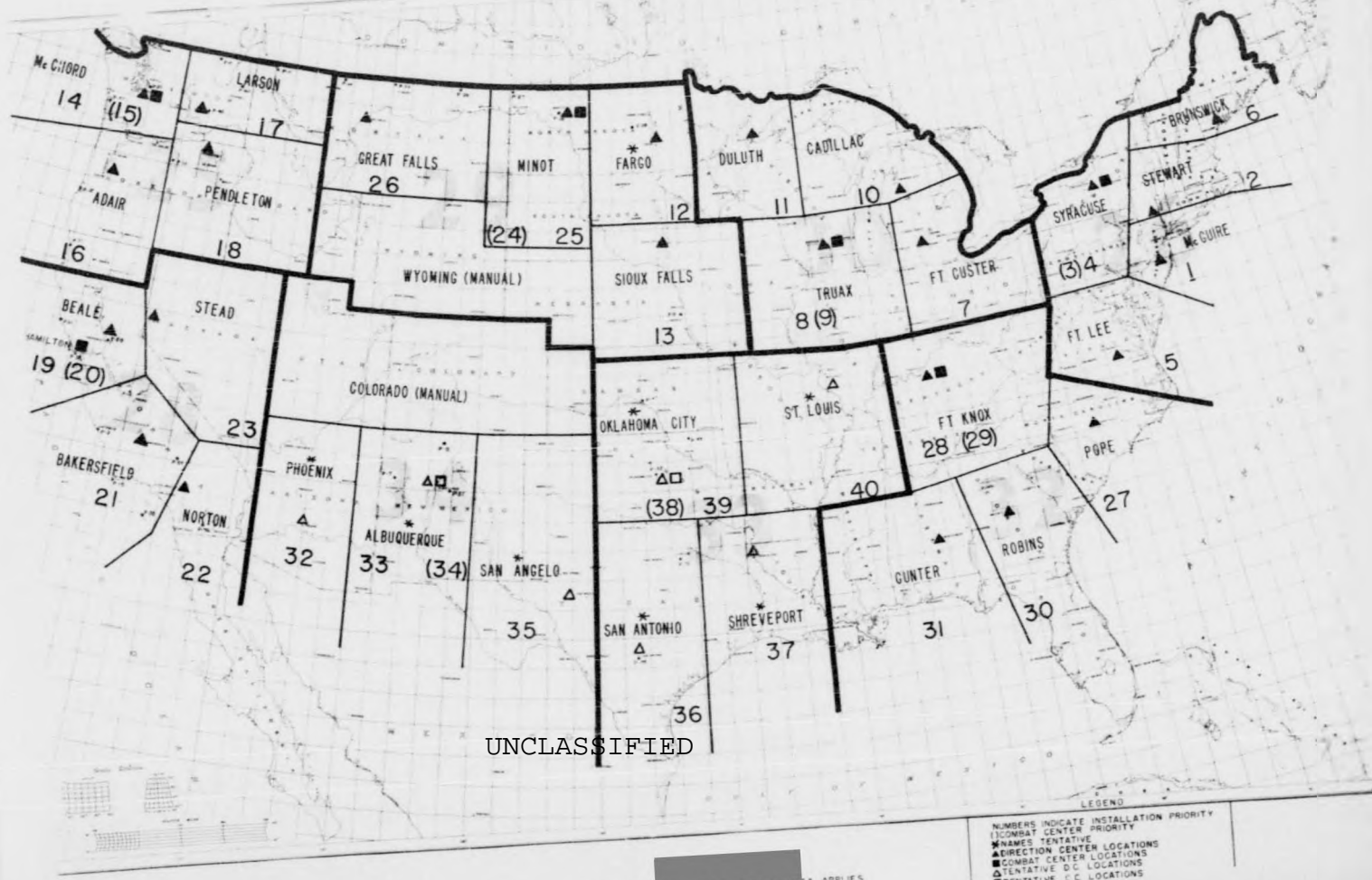
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would be required under the SAGE system was completed in Headquarters, Air Defense Command. Under this plan, the nation was divided into 16 air divisions. This corresponded exactly with the numbers of air divisions which the command had by then decided would be needed for adequate span of control purposes once the double perimeters were completed and for the remainder of the manual operation period.¹⁵ Thus, the path which ADC believed it could follow seemed a simple one at this time: build-up from 11 to 16 divisions as the additional radar forces came into being, keeping area boundaries during the remainder of the manual period as closely aligned with future SAGE boundary plans as possible and, then, simply phase-over when the SAGE equipment arrived.

This plan soon proved invalid. A salient feature of the SAGE system was that it would permit further decentralization of control of the air battle from division where it had reposed since 1948, to so-called "subsectors." In the January study, the system had been broken down into 46 such subsectors, but certain features of that alignment had been highly unsatisfactory. For one thing, the target areas of Chicago and Washington were positioned in such a manner that specific subsector responsibilities for their defense were unclear. For another, the Detroit-Cleveland target complex fell into two subsectors. Also, the small size of certain subsectors threatened to complicate the weapons handover and radar overlap functions. Finally, the existence of a great number of irregularly formed subsectors promised to create a technical problem insofar as their display on the cathode ray tubes was concerned. What better type of organization would result, ADC asked itself, if (1) the number of radar inputs

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AIR DEFENSE BOUNDARIES (SAGE)
SECRET



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into a computer was increased 10 to 15 percent, and (2) no attempts were made to retain the same number of air divisions needed under the manual system after the SAGE system came into operation?¹⁶

As the result of a study made on the basis of these criteria, the planned number of subsectors under SAGE was reduced from 46 to 42 in March 1954. Of these, the two located in the Colorado-Wyoming-Utah area would remain on manual operations. The new plan would place each target well within one subsector area, improve weapons handover by enlarging on the size of the subsectors, and improve the display function. Further, the reduction from 46 to 40 SAGE equipped subsectors would save tremendously in manpower and money.

Finally, the new study called for a reduction in division headquarters and sectors after SAGE came in from 16 to 9. "This arrangement," the Air Defense Command stated, "provides adequate span of control and defines the area of supervision for a sector commander as one in which weapons can be allocated for the successful conduct of any given air battle in his area."

By September 1955, one further revision of note had been made in SAGE area organization planning. The number of planned subsectors was again reduced from 42 to 34, and the division/sectors from nine to eight.¹⁷ The map on the preceding page shows the area boundary alignment as it was to exist after the advent of the SAGE system, as planned in September 1955.

Area Organization: 8 October 1955

The expense of building up to 16 divisions during the remainder
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of the manual period and, then, dropping to eight following the arrival¹⁸ of the SAGE equipment was questioned by higher headquarters. Consequently, in July and August 1954, ADC carefully restudied the problem to see if there was some other and cheaper means of meeting it. In the end, however, the Command stood fast on its original plan. As General F. H. Smith pointed out, "...the increase in numbers and complexity of radar and fighter organizations requires the build-up...to provide adequate control under the Manual Air Defense System."¹⁹

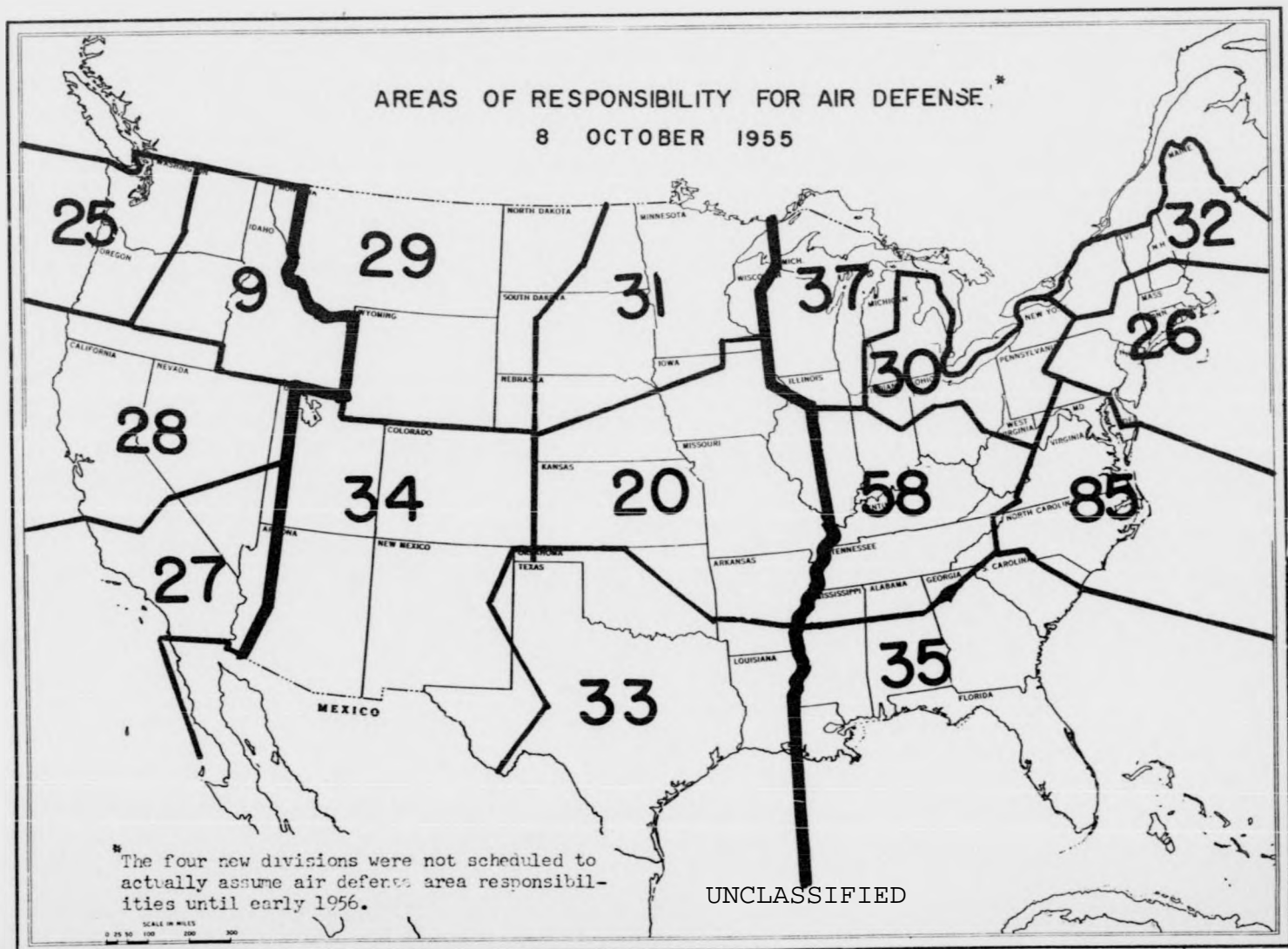
In the alignment of the boundaries of the 16 divisions nothing would be gained, it was figured, by attempting to make them conform to sector boundaries as they would exist under the SAGE system. Consequently, they were drawn as best fitted double perimeter dictates. On the other hand, it was quite feasible to realign the regions so that the areas which probably would be assigned the Defense Force commanders following the conversion to the SAGE system could be under their control²⁰ during the remainder of the manual period. Accordingly, on 10 April 1955, the 35th Air Division was reassigned from the Central to the²¹ Eastern Air Defense Force.

Activation of the five new divisions began on 8 October 1954²² with the forming of the 9th at Geiger Field, Washington. It was another year, however, before conditions warranted the activation of the remaining four. Then, on 8 September 1955, the 85th was established at Andrews Air Force Base, Maryland, and the 58th at Wright-Patterson Air Force Base, Ohio. On the same date, the 37th was formed at Truax

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Field, Wisconsin. The 20th was activated at Grandview on the 8th of
23*
the following month.

* See Appendix D for organizational chart of the Air Defense
Command as of 8 October 1955.



CHAPTER VIII

ESTABLISHMENT OF THE CONTINENTAL AIR DEFENSE COMMAND

From the first it was clear that defense of the Continental United States against air attack was not something which the Air Force could handle alone. Army antiaircraft weapons and Navy picket vessels were required as integral parts of the air defense system. And Navy fighters would be needed to augment the Air Force's interceptor resources. The big questions facing the early planners were who would command these forces in an emergency and how might they be readied for their air defense roles before the outbreak of hostilities?

In reply to ADC's queries on this score in early 1946, the Army Air Forces had stated that a theater organization would be established as soon after the initial stages of an attack as possible to take charge of the total defense effort. In the time between the initial attack and the establishment of the theater command, control of the forces would probably be invested in the Air Defense Command.

This pronouncement failed to come to grips with the basic problem, General Stratemyer believed. What he wanted was a written instruction from the Joint Chiefs to all services stating that control of the forces would pass to him when war broke out and remain with him until the theater command came into being. On the basis of that ruling he could then begin immediately to negotiate with Army Ground Forces

* See Chapter I, p. 3, fn.

and Navy commanders on their wartime air defense responsibilities.¹

Further action on the matter was postponed until after Unification in 1947. Then, at Key West in early 1948 General Stratemeyer's views were for the most part confirmed and written into official doctrine. It was agreed that the Air Force (through the Air Defense Command) would command the forces of all services in an emergency until subsequent orders were issued by the Joint Chiefs. By the same token, this coordinated defense system would be operated on the basis of previously executed mutual agreements.

In the five years following the Key West meeting, the Joint Chiefs periodically considered going a step beyond the Key West agreement by broadening the peacetime air defense organization to include members of the other services on its staffs. One indication of this showed up in General Norstad's answer in mid-1950 to General Whitehead's recommendation that a third Air Defense Force be established. At this time, it will be recalled, General Norstad said that the creation of a "Unified Command" for air defense was under consideration. Presumably, like the unified command headquarters which operated during World War II, this was to be a separate staff composed of members of all three services placed over Air Force, Army, and Navy commands assigned an air defense mission. Whatever these proposals were, nothing came of them and matters remained as established at Key West until 1954.

Meanwhile, the Air Force and the other services were forging out a workable means of interservice cooperation for air defense under

* See Chapter V, p. 51. UNCLASSIFIED

the "mutual agreement" clause of the Key West document. * In mid-1950, the Army established the Army Antiaircraft Command, under Major General Willard W. Irvine, to assume command of the antiaircraft batteries allocated to the air defense mission. Later in the year, the Headquarters of the new organization was located at Mitchel Field where it could work in close harmony with General Whitehead and his staff. By this time, too, sub-commands had been created alongside the Air Force headquarters at the several echelons within the air defense system. When the Air Defense Command was formed and moved to Colorado Springs in early 1951, General Irvine and his staff moved with it. By late 1954, the Air Defense Command's radars and fighters and the Army Antiaircraft Command's forces were operating as one system.

Relations with the Navy, too, had come a long way since Key West by late 1954. Agreements for the emergency employment of naval fighters and radars had been drawn up between the Air Defense Force and Sea Frontier commanders, and picket vessels were in operation off the East Coast. Here, however, there still remained one major impediment to efficient coordination -- the absence of actual naval representation at Command, Air Defense Force and division levels.

Early in 1954, the Joint Chiefs of Staff once again began an examination of the possibility of broadening the organization for air defense. In January, the Joint Strategic Plans Committee was

* This subject is discussed in detail in ADC Historical Study #1, Army Antiaircraft in Air Defense, 1946-1954; and ADC Historical Study #5, Emergency Air Defense Forces, 1946-1954.

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directed to prepare and submit for approval the Terms of Reference for a joint command. This report, completed in March, recommended that the views of the Army, Navy and the Air Defense Command be obtained on the matter.

General Chidlaw completed his reply in early May. He proposed that a joint command (which he tentatively labeled the United States Air Defense Command) be formed directly under the Joint Chiefs with the Air Force to serve as the executive agency. Joint headquarters would then be established at each echelon of the existing Air Defense Command structure through air division. The staffs of the joint headquarters would be comprised of the staffs of the present Air Defense Command headquarters, plus a small number of Army, Navy and Marine Corps personnel, and be commanded by the ADC commanders. Sub-commands would be the Air Defense Command, the Army Antiaircraft Command, and a Navy command yet to be formed. Overall responsibility for air defense would then be reinvested from the Air Defense Command in the new organization, which, in an emergency, would exercise operational control over the forces assigned to the sub-commands of the three services.

The joint organization proposed by General Chidlaw had no precedent in the organizational history of the armed forces. It was a unique organization intended to solve the problems which had arisen as a result of the requirement to defend the United States against air attack with every resource available to the nation. The broad principles on which it was based, in his own words, were as follows:

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Lieutenant General Stanley R. Mickelsen
Commanding General, Army Antiaircraft Command

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Air Defense of the Continental United States is recognized as a prime mission of the United States military establishment. Since all U.S. military services possess Air Defense capabilities to some degree, the greatest effectiveness is gained for 'home' defense by employing all of them jointly. However, joint operations do not, themselves, tend toward simplicity -- in Air Defense the required combined operation of forces of the several Services is in itself a complication. Therefore, when a joint command is established for Air Defense, it is essential that unity of command and simplicity of operation be overriding considerations. Additional important considerations are: A clear analysis of the threat; a command structure which is simple, clear, and direct; and a sound plan, directive upon all Services.

Defense of the United States against air attack is a functional mission, limited geographically only by international agreement and the practical range of air defense weapons. The statement of mission is simple -- its implementation extremely complex. Successful accomplishment requires a force, in being, capable of maximum combative effort on extremely short notice at any unknown time. The operating command for air defense must be organized on a geographical basis, with sub-commands, all having the same mission -- that of air defense of a geographical area. For example, Eastern Air Defense Force is responsible for air defense of the vital Eastern "region" of the United States; and the 26th Air Division, a sub-command of EADF, is responsible for air defense of the New York-Washington 'sector.' It is imperative that all Air Defense Forces in these areas be under the operational control of the Air Defense Commander of the particular region or sectors concerned.

Because air defense of the U.S. is a functional mission carried out on a geographical basis, no other existing joint command can be used directly for organizational comparison. The Strategic Air Command, a JCS Specified Command, is closest perhaps to the proposed United States Air Defense Command in type mission; but, because it is primarily unilateral in structure cannot be used as a model. As a result, the organization and command arrangements herein proposed may not appear too familiar to anyone not intimate with air defense requirements and operations.

The functions of command required by Commander-in-Chief, United States Air Defense Command, are those involving the composition of subordinate forces, the assign-

ment of tasks, the designation of objectives, and the authoritative direction necessary to accomplish the mission.

The peculiarities of the various existing Service and Command arrangements from an administrative and logistics standpoint are such that major changes in existing procedures would inevitably result in confusion. I therefore recommend, at this time, no fundamental changes in present administrative or logistics support procedures.

In conclusion, he stated that his proposed organization was the most efficient one, in terms of manpower and other support costs, which he could devise. It would, he believed, "promote intimate staff relations, mutual trust, respect, and understanding, at the same time making possible ...minimum joint staff responsibilities."

In early August, the Joint Chiefs directed the establishment of the joint command substantially as proposed by General Chidlaw. In JCS SM-688-54, dated 2 August, establishment of the Continental Air Defense Command (CONAD) "as a joint command of the United States," with Headquarters at Ent Air Force Base was ordered. The Department of the Air Force was designated the executive agency.

The Terms of Reference, the mission of the joint organization, and the responsibilities of the Army Antiaircraft Command, the Naval component (which would soon be formed), and the Air Defense Command were issued on 27 August. As prescribed in these directives,

The existing organization of the USAF Air Defense Command, with its air defense system for surveillance, warning and control, and combat is the basic structure which will be utilized for the Joint Command. Each USAF Headquarters from command down to air division level will be additionally designated as a joint headquarters commanded by an Air Force officer and with appropriate repre-

* These are included verbatim in Appendix C.

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Rear Admiral Albert K. Morehouse
Commander, Naval Forces
Continental Air Defense Command

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resentation from each Service.

The Army Antiaircraft Command and the Naval Command will parallel this organization through the regional level and with a Component Commander or staff representation below regional level as experience dictates. The numbers of personnel who will represent each component commander at the Joint Regional Air Defense Force level will be a matter for agreement between him and the Commander, Joint Regional Air Defense Force.

The Service component commanders at regional or lower levels, in addition to their uni-service functions, shall be Army Deputy and Navy Deputy, respectively, to the joint commanders for matters of concern to their Services.

The Component Commanders will be responsible for the military command of their components in accordance with directives and procedures of their Services. Logistic and administrative support of the Service components will be provided as directed by the Service concerned.

The Joint manning of the staff of the Commander-in-Chief, due to the proximity of the headquarters of the component commands should be kept to a minimum.

The Continental Air Defense Command, in accordance with these instructions, was established on 1 September 1954 with General Chidlaw
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as its first Commander-in-Chief. Lieutenant General Stanley R. Mickel-
*
sen, Commander of the Army Antiaircraft Command, became his advisor on antiaircraft matters, in accordance with the Terms of Reference, and
**
Rear Admiral Albert K. Morehouse, who was appointed to the command of the Naval forces for CONAD upon the establishment of the Headquarters of

* Lieutenant General John T. Lewis had replaced General Irvine as the ARAACOM Commander in May 52. Upon his retirement in September 1954, he was succeeded by General Mickelsen, who officially assumed command on 1 October. See Appendix B for a brief biography of General Mickelsen.

** See Appendix B for brief biography.

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that command at Ent Air Force Base in late 1954, his advisor on the employment of naval forces in air defense.

Effective the same date, overall responsibility for the air defense of the nation passed from the Air Defense Command to the new organization.*

Joint Air Defense Force and Joint Air Division headquarters, as depicted on the following chart, were formed throughout the organization on the same date.⁹ By early 1955, naval components had been created under Admiral Morehouse alongside the Army and the Air Force commands at the several echelons of the organization through air division.

In mid-1955, command of the new organization passed from General Chidlaw, upon his retirement, to General Earle E. Partridge.** By the end of its first year, the new command had made considerable progress in the revision of operating procedures to fit the new situation and in working out the minor kinks which cropped up in inter-staff relations. That the new organization was a tremendous forward stride was an irrefutable fact; that it was the final answer to the efficient and operationally effective conduct of the tri-service mission of continental air defense only time would tell.

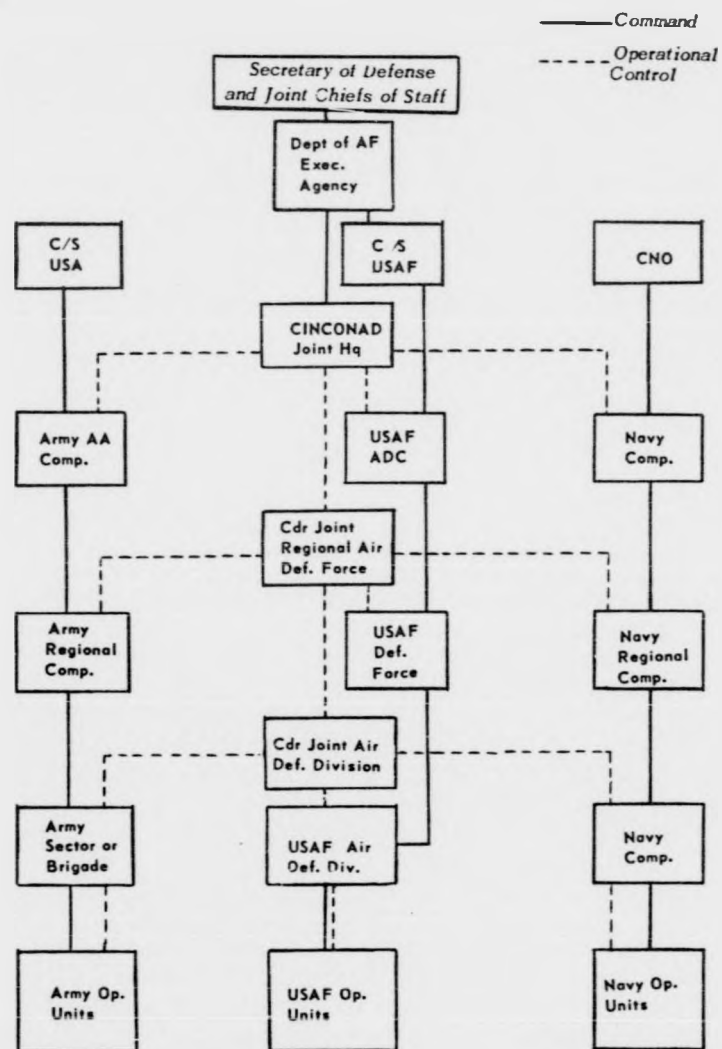
* Actual revision of the Air Force mission regulation for the Air Defense Command (AFR 23-9) was not made until 24 August 1955. Whereas the former editions of this directive had stated "The Air Defense Command is organized primarily to provide for and conduct the air defense of the United States," the new one read: "...is organized primarily to discharge Air Force responsibilities for the air defense of the United States."⁶ (Italics, the author's)

** See Appendix B for a brief biography.

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ORGANIZATION
CONTINENTAL AIR DEFENSE COMMAND



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APPENDIX A
COMMANDER'S ROSTER

	<u>Date of Office</u>
I. AIR DEFENSE COMMAND (Mar 1946-Nov 1948)	
A. <u>Commander:</u>	
Lt Gen George E. Stratemeyer.....	Mar 46-Nov 48
B. <u>Vice Commander:</u>	
Maj Gen Charles B. Stone III.....	Mar 46-Oct 47
Maj Gen Howard M. Turner.....	Jan 48-Nov 48
C. <u>Deputy for Operations:</u>	
Col James H. Wallace.....	Apr 46-Aug 46
Col Keith K. Compton.....	Aug 46-Jul 47
Col Bruce K. Holloway.....	Jul 47-Apr 48
Col Jacob E. Smart.....	May 48-Nov 48
II. CONTINENTAL AIR COMMAND (Dec 1948-Dec 1950)	
A. <u>Commander:</u>	
Lt Gen George E. Stratemeyer.....	Dec 48-Apr 49
Lt Gen Ennis C. Whitehead.....	Apr 49-Dec 50
B. <u>Vice Commander:</u>	
Maj Gen Howard M. Turner.....	Dec 48-May 49
Maj Gen Charles T. Myers.....	May 49-Dec 50
C. <u>Deputy for Operations:</u>	
Col Jacob E. Smart.....	Dec 48-Jul 49
Brig Gen Herbert B. Thatcher.....	Aug 49-Dec 50



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	<u>Date of Office</u>
III. AIR DEFENSE COMMAND (Jan 1951-Sep 1955)	
A. <u>Commander:</u>	
Lt Gen Ennis C. Whitehead.....	Jan 51-Aug 51
Gen Benjamin W. Chidlaw.....	Aug 51-May 55
Gen Earle E. Partridge.....	Jul 55-To date
B. <u>Vice Commander:</u>	
Maj Gen Charles T. Myers.....	Jan 51-Mar 52
Maj Gen Frederic H. Smith, Jr.....	Mar 52-To date
C. <u>Chief of Staff:</u>	
Office non-existent.....	Jan 51-Feb 52
Maj Gen Jarred V. Crabb.....	Feb 52-Jul 54
Maj Gen George F. Smith.....	Aug 54-To date
D. <u>Deputy for Operations:</u>	
Brig Gen Herbert B. Thatcher.....	Jan 51-Aug 51
Maj Gen Kenneth P. Bergquist.....	Aug 51-May 55
Brig Gen Clinton D. Vincent.....	May 55-(Deceased)
Maj Gen Hugh A. Parker.....	Sep 55-To date
IV. COMMANDERS, NUMBERED AIR FORCES (Mar 1946-Sep 1950)	
A. <u>1st Air Force</u>	
Maj Gen Robert W. Douglass, Jr.....	Mar 46-Jul 47
Maj Gen Robert M. Webster.....	Jul 47-Aug 49
Maj Gen Glenn O. Barcus.....	Sep 49-Jul 50
Maj Gen Willis H. Hale.....	Jul 50-thru Sep 50
B. <u>2d Air Force (inactivated, Jun 1948)</u>	
Maj Gen Frederick W. Evans.....	Jun 46-Jun 47
Brig Gen Walter R. Peck.....	Jun 47-Sep 47
Maj Gen Paul L. Williams.....	Sep 47-Jun 48
C. <u>4th Air Force</u>	
Maj Gen Willis H. Hale.....	Jul 54-Oct 47
Brig Gen Ned Schramm.....	Nov 47-Jan 48
Maj Gen John E. Upston.....	Jan 48-thru Sep 50

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	<u>Date of Office</u>
D. <u>9th Air Force</u> (Assigned from TAC to ConAC Dec 48 - Reassigned TAC Sep 50)	
Maj Gen William D. Old.....	Dec 48-Oct 49
Maj Gen Willis H. Hale.....	Oct 49-Jul 50
Maj Gen Willard R. Wolfinbarger.....	Jul 50-thru Sep 50
E. <u>10th Air Force</u>	
Maj Gen Howard M. Turner.....	Jun 46-Dec 47
Brig Gen Harry A. Johnson.....	Jan 48-Jun 48
Maj Gen Paul L. Williams.....	Jul 48-Apr 50
Maj Gen Harry A. Johnson.....	Apr 50-thru Sep 50
F. <u>11th Air Force</u> (inactivated, Jun 1948)	
Maj Gen Thomas J. Hanley, Jr.....	Jun 46-Jan 48
Brig Gen Ralph A. Snavely.....	Jan 48-Jun 48
G. <u>12th Air Force</u> (Assigned from TAC to ConAC Dec 48 - discontinued July 1950)	
Maj Gen Glenn O. Barcus.....	Dec 48-Sep 49
Maj Gen Alden R. Crawford.....	Sep 49-Jun 50
V. AIR DEFENSE FORCES	
A. EASTERN AIR DEFENSE FORCE (Sep 49-Sep 55)	
1. <u>Commander:</u>	
Maj Gen Robert M. Webster.....	Sep 49-Jun 50
Maj Gen Frederic H. Smith, Jr.....	Aug 50-Feb 52
Brig Gen Russell J. Minty.....	Feb 52-Jun 52
Maj Gen Morris R. Nelson.....	Jun 52-To date
2. <u>Vice Commander:</u>	
Brig Gen George R. Acheson.....	Nov 49-Mar 51
Brig Gen Jacob E. Smart.....	Mar 51-Nov 51
Brig Gen George F. Smith.....	Nov 51-Aug 54
Brig Gen Donald F. Smith.....	Aug 54-Sep 55

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	<u>Date of Office</u>
3. <u>Deputy for Operations:</u>	
Col Joseph A. Cunningham.....	Nov 49-Aug 50
Col Edwin L. Tucker.....	Aug 50-Nov 50
Col Henry Vicellio.....	Nov 50-May 51
Brig Gen George F. Smith.....	May 51-Nov 51
Col Ernest H. Beverly.....	Dec 51-Jul 52
Col Carroll W. McColpin.....	Jul 52-Jul 54
Col Arthur C. Agan, Jr.....	Aug 54-To date
B. WESTERN AIR DEFENSE FORCE (Sep 1949-Sep 1950)	
1. <u>Commander:</u>	
Maj Gen John E. Upston.....	Sep 49-Nov 49
Maj Gen Hugo P. Rush.....	Nov 49-Sep 51
Maj Gen Herbert B. Thatcher.....	Sep 51-Jan 52
Maj Gen Walter E. Todd.....	Feb 52-Sep 55
Maj Gen Roy H. Lynn.....	Sep 55-To date
2. <u>Vice Commander:</u>	
Col Robert S. Israel.....	Sep 49-Dec 49
Brig Gen William O. Morgan.....	Dec 49-Jul 51
Brig Gen Hugh A. Parker.....	Jul 51-Jul 53
Brig Gen Clinton D. Vincent.....	Aug 53-Jun 55
Brig Gen Edwin L. Tucker.....	Jun 55-To date
3. <u>Deputy for Operations:</u>	
Col Robert S. Israel.....	Dec 49-
Col Hugh A. Parker.....	Aug 50-Jul 51
Col Loring F. Stetson, Jr.....	Jul 51-Sep 51
Col William H. Wise.....	Sep 51-Sep 52
Col Loring E. Stetson, Jr.....	Sep 52-Dec 52
Col Harrison R. Thyng.....	Dec 52-Aug 54
Col Clayton B. Claassen.....	Aug 54-To date
C. CENTRAL AIR DEFENSE FORCE (Mar 1951-Sep 1955)	
1. <u>Commander:</u>	
Maj Gen George R. Acheson.....	Mar 51-Feb 53
Maj Gen Delmar T. Spivey.....	Feb 53-Jul 54
Maj Gen Jarred V. Crabb.....	Jul 54-To date

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	<u>Date of Office</u>
2. <u>Vice Commander:</u>	
Brig Gen Frank H. Robinson.....	Mar 51-Jan 54
Brig Gen Edward W. Suarez.....	Feb 54-To date
3. <u>Deputy for Operations:</u>	
Col George F. McGuire.....	Apr 51-Nov 51
Col Charles B. Overacker.....	Dec 51-Sep 54
Col Clifford H. Rees.....	Oct 54-To date

VI. COMMANDERS, AIR DIVISIONS (DEFENSE)

A. <u>25th Air Division</u> (Oct 1948-Sep 1955)	
Brig Gen Ned Schramm.....	Oct 48-Nov 48
Maj John C. Burnett.....	Nov 48-Apr 49
Col Clinton D. Vincent.....	Apr 49-Mar 52
Brig Gen T. Alan Bennett.....	Sep 54-To date
Brig Gen Romulus W. Puryear.....	Sep 54-To date
B. <u>26th Air Division</u> (Nov 1948-Sep 1955)	
Brig Gen Russell J. Minty.....	Nov 49-Apr 53
Brig Gen James W. McCauley.....	May 53-To date
C. <u>28th Air Division</u> (Dec 1949-Sep 1955)	
Col William A. Matheny.....	Dec 49-Feb 51
Col Hobart R. Yeager.....	Feb 51-Apr 52
Brig Gen James W. Andrew.....	Jun 52-Apr 54
Brig Gen Monro MacCloskey.....	Apr 54-To date
D. <u>30th Air Division</u> (Dec 1949-Sep 1955)	
Col James B. Burwell.....	Dec 49-Dec 50
Brig Gen Edwin L. Tucker.....	Dec 50-Aug 55
Brig Gen Benjamin J. Webster.....	Sep 55-To date
E. <u>32d Air Division</u> (Dec 1949-Sep 1955)	
Lt Col John A. H. Miller.....	Dec 49-Jan 50
Lt Col Otto G. Quanrud.....	Jan 50-Feb 50
Col Fred T. Crimmins.....	Feb 50-Jun 50
Brig Gen Jacob E. Smart.....	Jul 50-Feb 51
Col Fred T. Crimmins, Jr.....	Feb 51-Apr 51

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	<u>Date of</u> <u>Office</u>
Col Arthur C. Agan, Jr.....	Apr 51-Aug 51
Col Grover C. Wilcox, Jr.....	Aug 51-Nov 51
Brig Gen James W. McCauley.....	Nov 51-Apr 53
Brig Gen Robert S. Israel.....	May 53-To date
F. <u>27th Air Division (Sep 1950-Sep 1955)</u>	
Brig Gen Donald R. Hutchinson.....	Sep 50-Apr 54
Brig Gen James W. Andrew.....	Apr 54-To date
G. <u>31st Air Division (Oct 1950-Sep 1955)</u>	
Col Harold W. Grant.....	Jan 51-Jun 51
Brig Gen Thomas C. Darcy.....	Jul 51-Jun 53
Brig Gen William A. Matheny.....	Jun 53-To date
H. <u>34th Air Division (Jan 1951-Sep 1955)</u>	
Brig Gen William A. Matheny.....	Mar 51-Jun 53
Brig Gen Wendell W. Bowman.....	Jul 53-To date
I. <u>29th Air Division (Mar 1951-Sep 1955)</u>	
Col Paul E. Greiner.....	Mar 51-Aug 52
Col Edward N. Backus.....	Aug 52-Aug 53
Brig Gen James O. Guthrie.....	Aug 53-To date
J. <u>33d Air Division (Mar 1951-Sep 1955)</u>	
Brig Gen Victor H. Strahm.....	Mar 51-May 52
Brig Gen Romulus W. Puryear.....	Jun 52-Sep 54
Brig Gen William P. Nuckols.....	Sep 54-To date
K. <u>35th Air Division (Jul 1951-Sep 1955)</u>	
Col M. C. Woodbury.....	Aug 51-Jan 54
Brig Gen John B. Cary.....	Feb 54-To date
L. <u>9th Air Division (Sep 1954-Sep 1955)</u>	
Col Harrison R. Thyng.....	Oct 54-Jan 55
Brig Gen Sam W. Agee.....	Jan 55-To date
VII. COMMANDERS, ARMY ANTI-AIRCRAFT COMMAND (Jul 1950-Sep 1955)	
Maj Gen Willard W. Irvine.....	Jul 50-May 52
Lt Gen John T. Lewis.....	May 52-Sep 54
Lt Gen Stanley R. Mickelsen.....	Oct 54-To date

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Date of
Office

VIII. COMMANDERS, NAVY FORCES FOR CONAD (Sep 1954-Sep 1955)

Rear Admiral Albert K. Morehouse..... Sep 54-To date

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APPENDIX B

B I O G R A P H I C A L S K E T C H E S

Lieutenant General George Edward Stratemeyer*

George E. Stratemeyer was born in Cincinnati, Ohio, November 24, 1890. He spent most of his early life in Peru, Indiana, graduating from high school there in 1909. He was graduated from the U. S. Military Academy at West Point, New York, and commissioned a second lieutenant of Infantry June 12, 1915.

He first was assigned to the Seventh Infantry at Galveston, Texas, and served with the Seventh and 34th Infantry at Galveston and El Paso, Texas, and Douglas and Nogales, Arizona, until September, 1916, when he was detailed to the Aviation Section at Rockwell Air Force Base, San Diego, California. Upon completion of flying training, he was assigned to the First Aero Squadron at Columbus, New Mexico.

In 1917, he was ordered to organize and command the School of Military Aeronautics at Ohio State University. This assignment lasted until January, 1918, when he was assigned to Kelly AFB, Texas, first as chief test pilot and later as commanding officer of the Air Service Mechanical School. From Kelly AFB he moved the Air Service Mechanics School at Chanute AFB, Illinois, where he remained as its commanding officer during the summer of 1921.

Meanwhile, on July 1, 1920, he transferred from the Infantry to the Air Service.

In the fall of 1921, he was transferred to Luke AFB, Hawaii, to command the 10th Air Park. In December of that year he moved to Schofield Barracks, Hawaii, to organize and command the Division Air Service. From April, 1922, until August 1924, he commanded Luke AFB and also served as department air officer.

His next assignment was instructor in tactics at the U. S. Military Academy, and in 1929 he entered the Air Corps Tactical School at Langley AFB, Virginia. After graduating in June, 1930, he entered the Command and General Staff School at Fort Leavenworth, Kansas. Upon graduation in 1932, he was assigned to remain at the school as an instructor, which position he held for four years.

In July, 1936, he became commanding officer of the Seventh Bombardment Group at Hamilton AFB, California. He kept the seventh group until he was enrolled in the Army War College at Washington, D. C., in September, 1938. Following graduation in 1939, he was assigned to the office of the

* As of November 1948.



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Chief of Air Corps, as chief of the Training and Operations Division. He became executive officer to the Chief of Air Corps in April, 1941. In January, 1942, he was assigned to command the Southeast Air Corps Training Center at Maxwell AFB, Alabama, and in June of that year was called back to Washington to become Chief of the Air Staff at Air Force Headquarters.

On August 5, 1943, he became commanding general of the India-Burma Sector and air advisor to the commanding general of the China-Burma-India theater. On December 15, 1943, he was appointed air commander of the Eastern Air Command. In the reorganization of that theater in November, 1944, he became commanding general of the Army Air Forces in the India-Burma theater, and in July, 1945, was appointed commander of the AAF in the China theater, with headquarters at Chungking, and later at Shanghai.

In February, 1946, he was recalled from overseas to assume command of the Air Defense Command, with headquarters at Mitchel AFB, New York. Plans for this organization were formulated during the latter part of February and early March, with General Stratemeyer assuming command on March 29, 1946.

In November, 1948, he was appointed commanding general of the newly-organized Continental Air Command, with headquarters at Mitchel AFB, a Command designed to strengthen the Air National Guard and Air Reserve programs and to provide for Air Force command areas identical with those of the Department of the Army.

The Command includes the units and functions formerly assigned to Air Defense Command and Tactical Air Command, which continue as operational headquarters at Mitchel AFB and Langley AFB, Virginia, respectively.

It has direct control over six regional Air Forces, which are responsible for Air Force matters within the identical limits served by each of the six Department of the Army areas. The six regional Air Forces, with their headquarters, are: First Air Force, Fort Slocum, New York; Fourth Air Force, Hamilton AFB, California; Ninth Air Force, Greenville, South Carolina; 10th Air Force, Ft. Benjamin Harrison, Indiana; 12th Air Force, Brooks AFB, Texas, and 14th Air Force, Langley AFB, Virginia.

General Stratemeyer has been awarded the Distinguished Service Medal with two Clusters, Distinguished Flying Cross, and Air Medal.

His foreign decorations include the British Order of Companion of the Bath; the Chinese Special Tashou Cloud Banner and the Ho Tu Medal of the Chinese Air Force; the Polish Order of Polonia Restituta, Commander's Cross; the Yugoslavian pilot's badge, with honorary membership in the respective Air Forces.

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He is rated a Command Pilot, Combat Observer, Aircraft Observer, and Technical Observer.

PROMOTIONS: He was promoted to first lieutenant (permanent) on July 1, 1916; to captain (permanent) on May 15, 1917, and to major (temporary) on August 20, 1920. He reverted to the rank of captain on November 2, 1922, and was promoted to major (permanent) on August 28, 1925; to lieutenant colonel (temporary) on June 16, 1936; to lieutenant colonel (permanent) on January 1, 1937; to colonel (temporary) on March 1, 1940; to brigadier general (temporary) on August 4, 1941; to major general (temporary) on February 16, 1942; to colonel (permanent) on May 31, 1944; to lieutenant general (temporary) on May 28, 1945; to brigadier general (permanent) on June 28, 1946; to major general (permanent) on August 1, 1947.

Major General Gordon Philip Saville*

Gordon P. Saville was born at Macon, Georgia, September 14, 1902. He attended the University of Washington, Antioch College, and then University of California and was commissioned a second lieutenant in the Infantry Reserve November 5, 1923.

He became a flying cadet in March 1926 and entered the primary flying school at Brooks Field, Texas. In September of that year he was transferred to the advanced flying school at Kelly Field, Texas, from which he was graduated in February 1927. That same date he was commissioned a second lieutenant in the Air Reserve and assigned to the Fifth Observation Squadron at Mitchel Field, New York. In June 1927, he was appointed a second lieutenant in the Air Corps of the Regular Army.

He became adjutant of Crissy Field, California, in December 1928, and two years later transferred to Mather Field, California, where he was appointed adjutant of the field, and the 20th Pursuit Group. In 1932, he went to Barksdale Field, Louisiana, with the 20th Pursuit Group. He entered the Air Corps Tactical School at Maxwell Field, Alabama. In August 1933, and after graduating in May 1934 remained at the school as an instructor. In July 1935, he was named recorder of the Air Corps Board at Maxwell Field, in addition to his duties as fighter aviation instructor.

He entered the Command and General Staff School at Fort Leavenworth, Kansas, in September 1938, and was graduated the following June. He then was assigned to Washington, D. C. as assistant to the chief of the Plans Division in the office of the Chief of Air Corps. He became assistant intelligence and operations officer of the Air Defense Command at Mitchel Field, New York, in March 1940.

* As of February 1950.

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In October of that year he went to London, England, for temporary duty as a military air observer, and returned to Mitchel Field the following December to become executive officer of the First Interceptor Command. In August 1941, he returned to London and served there until December 1941, when he was assigned to AAF headquarters in Washington as Director of Air Defense. In March 1943, he became Director of Tactical Development at the AAF School of Applied Tactics at Orlando, Florida.

The following July he was ordered to the North African theater where he became chief of staff of the Mediterranean Air Command. In October 1943, he was appointed commander of the 12th Fighter Command and in January 1944 was named deputy commander of the 12th Air Support Command in the Mediterranean. This unit was later redesignated the 12th Tactical Air Command. He assumed command of the First Tactical Air Force in January 1945.

The following month he returned to the United States for temporary assignment to AAF headquarters, and in March 1945 became commander of the Third Tactical Air Command at Barksdale Field. Two months later he was appointed deputy commander of Air Transport Command at Washington.

In January 1947, he became chief of the Air Section of the Joint Brazil-United States Military Commission, with station at the American Embassy at Rio de Janeiro.

He returned to the United States in July 1948 for assignment to Air Defense Command headquarters at Mitchel AFB, New York, and the following November was named commanding general of ADC.

He was appointed head of the newly-established Directorate of Requirements in the Office of the Deputy Chief of Staff for Operations at USAF headquarters in September 1949. The following January he became Deputy Chief of Staff for Development, a new staff section at USAF headquarters.

General Saville has been awarded the Distinguished Service Medal with one Oak Leaf Cluster, the Legion of Merit, the Distinguished Flying Cross, the Bronze Star Medal, and the Air Medal.

He is rated a Command Pilot, Combat Observer, Aircraft Observer, and Technical Observer.

PROMOTIONS: He was promoted to first lieutenant (permanent) on October 17, 1933, and to captain (temporary) on March 11, 1935. He reverted to his permanent rank of first lieutenant on June 16, 1936 and was promoted to captain (permanent) on June 30, 1937; to major (temporary) on January 5, 1942; to colonel (temporary) on March 1, 1942; to brigadier general (temporary) on November 2, 1942; to major (permanent) on June 30, 1944;

to brigadier general (permanent) on February 19, 1948, with date of rank from November 2, 1942; to major general (temporary) on February 19, 1948; with date of rank from October 8, 1947; to major general (permanent) on January 27, 1950, with date of rank from June 7, 1944.

Lieutenant General Ennis C. Whitehead*

Lieutenant General Ennis C. Whitehead was born at Westphalia, Kansas, on September 3, 1895. He attended the University of Kansas and entered the Army as a flying cadet on August 16, 1917. From June 1917 until November 1917, he was stationed at Chanute Field, Illinois where he was commissioned a first lieutenant in the Aviation Section of the Signal Officers Reserve Corps on November 20, 1917.

During World War I, General Whitehead served in France from November 1917 until the Armistice at the 3rd Aviation Instruction Center, Issoudun, France, successively as an instructor and a test pilot. In June 1918 he was named Assistant Chief Test Pilot and served in that capacity until November 1918, when he was returned to the United States.

General Whitehead was honorably discharged on January 9, 1919, at which time he returned to the University of Kansas to complete his college education. On graduation in 1920 he received the degree of Bachelor of Arts and was shortly thereafter commissioned a first lieutenant in the Air Service of the Regular Army, July 1, 1920.

General Whitehead's first peacetime assignment immediately following his commissioning was at Camp Funston, Kansas, as Assistant Supply Officer of the 55th Infantry. In October of the same year he went to March Field, California, as an instructor.

In February 1921 he went to Kelly Field, Texas, as an Engineering Officer of the 94th Squadron, and in July 1921 he was transferred to Langley Field, Virginia. In October 1921 he went to Ellington Field, Texas, and in July 1922 was transferred to Selfridge Field, Michigan, where he had charge of aeronautical repair units.

He entered the Air Service Engineering School at McCook Field, Ohio, in July 1925, and was graduated in June 1926. On graduation, he was assigned as Assistant Chief of Maintenance at the Fairfield Air Intermediate Depot in Ohio. In December 1926 he was designated Assistant Engineering Officer and Pilot for the Pan-American Flight from Miami, Florida, to Panama under the command of the late Major General Herbert A. Dargue.

* As of February 1950.

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In May 1927 General Whitehead went to Wright Field, Ohio, as Assistant Chief of the Maintenance Engineering Branch in the Air Corps Materiel Division. In July 1928 he became Chief of the Aircraft Engine and Spare Parts Branch there, and in August 1930, he entered the Air Corps Tactical School at Langley Field, Virginia. He was graduated in June 1931 and assigned to Selfridge Field, Michigan, as Commanding Officer of the famed 36th Pursuit Squadron.

General Whitehead went to Albrook Field, Panama Canal Zone, in November 1932, as Operations Officer and Intelligence Officer. He returned to the United States in December 1934, and was stationed at Barksdale Field, Louisiana, as Assistant Operations Officer. In March 1935 he went to Langley Field, Virginia, as Assistant to the Plans and Training Officer, G-3, of the General Headquarters Air Force. In July 1935 he became Inspector of the General Headquarters Air Force with station at Langley Field, Virginia, and in August 1937, he entered the Command and General Staff School, Fort Leavenworth, Kansas, from which he was graduated in June 1938.

Upon graduation from the Command and General Staff School, General Whitehead was appointed Chief of the Field Service Section of the Supply Division, Office of the Chief of Air Corps, Washington D. C. In September of that year he was transferred to the Military Intelligence Division, G-2, of the War Department General Staff for duty in the Balkans and Near East Section of that office. Two years later he was made Chief of the Aviation Section, Military Intelligence Division. In February 1941, he was assigned as Commanding Officer of the Air Corps Advanced Flying School at Phoenix, Arizona, until July 1942 when he was appointed Deputy Commander, Fifth Air Force in the Southwest Pacific.

General Whitehead became Commanding General of the Fifth Air Force in June 1944, serving in this position throughout the remainder of World War II and until March 1946 when he was made Commanding General of the Far East Air Forces.

After nearly seven years of continuous duty overseas, General Whitehead returned to the United States to become Commanding General of the Continental Air Command at Mitchel Air Force Base, New York, on April 15, 1949. He served as Commanding General of ConAC until he was appointed Commanding General of the Air Defense Command on 8 January 1951.

General Whitehead is rated a Command Pilot, Combat Observer, and Technical Observer. He was promoted to Lieutenant General on June 5, 1945.

He has been awarded the Distinguished Service Cross; the Distinguished Service Medal with Oak Leaf Cluster; the Silver Star; the Distinguished Flying Cross; and foreign decorations from the governments of Chile, Peru, Venezuela, and Bolivia.

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General Benjamin Wiley Chidlaw*

Benjamin W. Chidlaw was born at Cleves, Ohio, near Cincinnati, on December 18, 1900.

Soon after graduation from Woodward High School in Cincinnati, he entered the U. S. Military Academy at West Point, New York. He was graduated from the Academy and appointed a second lieutenant of Air Service on June 13, 1922.

From September, 1922, until January, 1924, he took primary flight training at Brooks Air Force Base, Texas, and advanced training at Kelly AFB, Texas, specializing in "Fighter" aviation.

He remained on duty at Kelly AFB as a flying instructor until June 1924 when he was ordered to the Philippine Islands for duty with the 3d Pursuit (Fighter) Squadron at Clark Field. After two years duty in the Philippines, he returned to Brooks AFB, San Antonio, Texas, for duty in the air training establishment. In October 1928, he was named assistant stage commander and final check pilot at that station.

He entered the Air Corps Engineering School at Wright-Patterson AFB, Ohio, in July 1930, and was graduated the following June.

The following four years he served as project officer of the Aircraft Branch, Air Corps Materiel Division, at Wright-Patterson AFB, where he was concerned with aircraft design, development, and testing. In early 1934, he spent three months helping the Air Corps inaugurate its flying of the air mail.

In August 1935, he entered the Air Corps Tactical School at Maxwell AFB, Alabama, and following graduation in June 1936, entered the Command and General Staff School at Fort Leavenworth, Kansas. He completed the course in June 1937, and went to Langley AFB, Virginia to join the Second Bombardment Group, which was then engaged in the initial service testing of the original B-17 bombardment aircraft. He became Operations Officer of the group in May 1938, and the following January was named Technical Assistant for Materiel at General Headquarters Air Force at Langley AFB.

Following a short period of temporary duty at Wright-Patterson AFB, he went to Washington, D. C., in March 1939, for duty in the Supply Division of the office of the Chief of Air Corps. Three months later he became Chief of the Engineering Section of that Division. His duties at this time were principally concerned with Research and Development. It was during this period that General Chidlaw was assigned by General Arnold the task of monitoring and directing the development and tests of the original American jet engine and jet airplane. He was among the first to "flight test" the original jet fighter which wrote the foreword

*As of March 1952.

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for a new chapter of American aviation history.

In March 1943, he was designated as Chief of the Materiel Division. During this time he represented the Army Air Forces on several joint RAF-AAF technical missions held in London.

In April 1944, General Chidlaw began his second overseas tour of duty as Deputy Commanding General of the 12th Tactical Air Command in the Mediterranean theater. Following the invasion of Southern France, in which the 12th TAC participated, he returned to the Mediterranean theater to organize and command the 22d Tactical Air Command which blasted the way up the Italian Peninsula for General Mark Clark's Fifth Army early in 1945, promoted to Major General, he assumed command of the Mediterranean Allied Tactical Air Forces, composed of the American 12th Air Force, the British Desert Air Force, and numerous other Allied air units.

Upon successful conclusion of hostilities and the surrender of the German forces in the Mediterranean theater, he returned to the United States for duty as Deputy Commanding General for Operations of the Air Technical Service Command (later redesignated Air Materiel Command) at Wright-Patterson Air Force Base at Dayton, Ohio. In this capacity, he handled the engineering and maintenance phases of the Command's operations.

In October 1947, he was promoted to Lieutenant General, and transferred from his specialized research, development, and engineering duties to the position of Deputy Commanding General of Air Materiel Command.

He became Commanding General of the Air Materiel Command in September 1949, serving in that capacity nearly two years.

In August 1951, Lieutenant General Chidlaw was assigned to command the Air Defense Command and shortly thereafter, in October 1951, was promoted to four-star rank.

General Chidlaw has been awarded the Distinguished Service Medal, Legion of Merit, Air Medal, and Bronze Star Medal. His foreign decorations include the French Croix de Guerre with Palm and Legion of Honor; the Brazilian Commander, Order of the Southern Cross, and Aeronautical Medal of Merit; the Polish Cross of Valor, the British Commander, Order of the British Empire. He also wears the American Defense ribbon, American theater ribbon, European-African-Middle East ribbon with five Bronze Stars and Victory Medals for both World Wars.

He is rated a Command Pilot and Combat Observer with nearly 7,000 flying hours, including numerous combat missions over Europe in World War II.

A husky six-footer, General Chidlaw enjoys golf, generally touring the course in the high 70's. His main interest centers around

the Air Force, for which he speaks often at various civilian and military meetings.

He and his wife, the former Miss Lillian Marie Braun, of Cincinnati, Ohio, have one son, Ben Evan Chidlaw, who served with the Air Force during World War II and is a graduate of Harvard University, Class of 1950. He is now on duty as a Second Lieutenant with the Air Force at Langley Field, Virginia.

PROMOTIONS: He was promoted to first lieutenant (permanent) on April 26, 1927; to captain (permanent) on August 1, 1935; to major (temporary) on March 1, 1940; to major (permanent) on September 8, 1941, to lieutenant colonel (temporary) on September 8, 1941, to lieutenant colonel (permanent) on June 13, 1945; to colonel (temporary) on March 1, 1942; to brigadier general (temporary) on November 2, 1942; to major general (temporary) on April 9, 1945; to lieutenant general (temporary) on October 1, 1947; to major general (permanent) on February 19, 1948, with date of rank from December 22, 1942; to general (temporary) October 29, 1951.

General Earle E. Partridge*

Earle Everard Partridge was born at Winchendon, Massachusetts, on July 7, 1900. He enlisted in the Army July 10, 1918, at Fort Slocum, New York, and was assigned to the Fifth Engineer Training Regiment at Camp Humphries, Virginia. General Partridge went to France in August 1918, and served in the Argonne offensive with the 79th Division. When the division returned to Camp Dix, New Jersey, in June 1919, he was honorably discharged.

Following a year at Norwich University, General Partridge re-enlisted in June 1920. A year later he was appointed to the U. S. Military Academy, was graduated June 12, 1924, and commissioned a second lieutenant of Air Service in the Regular Army. Entering Primary Flying School at Brooks Field, Texas, he was graduated from Advanced Flying School at Kelly Field, Texas. After serving ten months in the Third Attack Group there he was appointed as Instructor at the Advanced Flying School there in July 1926. He became an instructor in mathematics at the Military Academy in September 1929.

Going to the Panama Canal Zone in October 1930, he was assigned to the Seventh Observation Squadron at France Field, and was later transferred to the Sixth Composite Group there.

In December 1932, General Partridge was assigned to Selfridge Field, Michigan, and in July 1936, went to Wright Field, Ohio, as a test pilot. Entering the Air Corps Tactical School at Maxwell Field, Alabama, in September of that year, he was graduated the following June, and was

* As of 1 June 1955.

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assigned to the Command and General Staff School at Fort Leavenworth, Kansas. He then returned to Maxwell Field as an instructor in the Pursuit Section of the tactical school. Transferring to the Southeast Air Corps training command in June 1940, he took a major part in establishing flying schools in the Southeast. On October 1, 1940, he was sent to Barksdale Field at Shreveport, Louisiana, to start an advanced single-engine flying school. He went to Dothan, Alabama, in May 1941, to supervise construction of the single-engine advanced flying school there.

Five months later he was assigned to Air Force headquarters as a member of the Air War Plans Division, and in March 1942, was made a member of the War Department General Staff to serve on the Joint Strategic Committee, Joint Chiefs of Staff. He assumed command of the New York Air Defense Wing in January 1943.

The following Spring he joined the Northwest African Air Force as operations officer and chief of staff of the 12th Bomber Command and later became chief of staff and deputy commander of the 15th Air Force. In January 1944, General Partridge moved to England and became deputy commander of the Eighth Air Force, and the following June assumed command of the Third Bombardment Division. At the close of hostilities in the European theater, General Partridge became deputy commander, and later assumed command, of the Eighth Air Force and assisted in its reorganization and movement to Okinawa in August 1945.

Returning to Air Force headquarters in January 1946, he became Assistant Chief of Staff for Operations. In October of the following year he was appointed Director of Training and Requirements in the office of the Deputy Chief of Staff, Operations, there. Assigned to the Fifth Air Force at Nagoya, Japan, in August 1948, he assumed command the following October, and took the Fifth to Korea in July 1950.

General Partridge was named acting commanding general of the Air Research and Development Command at Wright-Patterson Air Force Base, Ohio, in June 1951, and on July 28, 1951, was designated commanding general of that Command, which had moved to Baltimore, Maryland. He became Deputy Chief of Staff, Operations, at Air Force headquarters, on June 30, 1953.

On April 1, 1954, General Partridge assumed command of the Far East Air Forces, at Tokyo, Japan.

On June 1, 1955 the General assumed command of the Continental Air Defense Command at Colorado Springs, Colorado, at that time the only truly unified all-services organization operating within the limits of the United States.

His decorations include the Distinguished Service Medal, Legion of Merit, Distinguished Flying Cross, Bronze Star Medal, and the Air Medal with three Oak Leaf Clusters. For his service in the Korean campaign he was also awarded the Distinguished Service Cross, Silver Star, two Oak

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Leaf Clusters to the DFC, and seven Oak Leaf Clusters to the Air Medal. His foreign decorations include the French Legion of Honor and Croix de Guerre with two Palms; the Polish Order of Polonia Restituta, Chevalier, with Commander's Cross with star; the British Companion of the Order of the Bath; and the Belgian Croix de Guerre with Palm. General Partridge won the Distinguished Aerial Gunner's Medal in 1926, 1927, and 1928. He is rated a command pilot, combat observer, and aircraft observer.

General Partridge married Miss Katherine L. Holder on January 27, 1928. They have two daughters, Patricia Earle and Kay Blythe.

PROMOTIONS: He was promoted to first lieutenant December 15, 1928, to captain (temporary) April 20, 1935; to captain (permanent) August 1, 1935; to major (temporary) March 11, 1940; to major (permanent) June 12, 1940; to lieutenant colonel (temporary) November 15, 1941; to colonel (temporary) March 1, 1942; to brigadier general (temporary) December 9, 1942; to major general (temporary) May 31, 1944; to brigadier general (permanent) February 19, 1948; to major general (permanent) June 11, 1948; to lieutenant general (temporary) April 11, 1951; to general (temporary) April 1, 1954.

Lieutenant General Stanley Raymond Mickelsen*

Stanley R. Mickelsen was born at St. Paul, Minnesota, October 8, 1895. After attending the University of Minnesota, he was commissioned a second lieutenant in the Coast Artillery Corps Reserve August 15, 1917. He received his regular commission as a second lieutenant of Coast Artillery October 26, 1917.

His first assignment was with the Anti-Aircraft Artillery Board at Fort Monroe, Virginia. In June 1918, he was transferred to Fort Hamilton, New York, and a month later was ordered to Fort Amador, Panama Canal Zone, for duty with the Panama Coast Artillery District. He remained at Fort Amador in various duties in connection with antiaircraft artillery batteries and submarine mines, and as Post and Department Adjutants until his return to the United States.

In November 1921, he returned to the United States for duty at Fort Terry, New York; and in January 1923, he became an instructor with the Connecticut National Guard at Bridgeport. He entered the Coast Artillery School at Fort Monroe, Virginia, in September 1927, and upon graduation the following June took the Advanced Engineering course at that school, which he completed a year later. He then remained at Fort Monroe as an instructor.

He went to Fort Mills, Philippine Islands, in July 1933 to join

* As of November 1954.

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the 59th Coast Artillery, and returned to the United States two years later to enter the Command and General Staff School at Fort Leavenworth, Kansas. Upon graduation in June 1936, he was appointed a member of the Coast Artillery Board, with station at Fort Monroe, Virginia.

In August 1937, he entered the Army War College at Washington, D.C.; and after graduating the following June, he became assistant secretary of the War Department General Staff in Washington. He assumed command of the 74th Coast Artillery at Camp Pendleton, Virginia, in October 1941.

The following March he became commander of the 47th Artillery Brigade at Camp Davis, North Carolina, and a month later took it to Iceland.

He returned to the United States in November 1943, to assume command of the Antiaircraft Artillery Training Center at Fort Bliss, Texas.

A year later he went to Europe to join the Supreme Headquarters Allied Expeditionary Forces where he served as Chief of Displaced Persons Branch. In January 1947, he was named Director of the Civil Affairs Division of the European Command with station at Frankfurt, Germany.

In September 1947, General Mickelsen became Assistant Commandant of the Artillery School at Fort Sill, Oklahoma. He was appointed Chief of the Guided Missiles Group, Department of the Army General Staff, and member of the Military Liaison Committee to the Atomic Energy Commission in October 1949. Upon the reorganization of Army headquarters March 1950, he was designated Deputy Assistant Chief of Staff for Operations (Guided Missiles). General Mickelsen was given additional duty as Deputy for Special Weapons to the Assistant Chief of Staff for Logistics at Department of the Army headquarters in January 1951. These positions he held until assuming command of the AA and CM Center at Fort Bliss, Texas, on July 19, 1952.

He was named Commanding General, Army Antiaircraft Command, Colorado Springs, Colorado, on October 1, 1954 and, on the same day, was nominated for promotion to lieutenant general.

General Mickelsen has been awarded the Distinguished Service Medal and the Legion of Merit.

PROMOTIONS: He was promoted to captain (temporary) June 24, 1918; to captain (permanent) July 1, 1920; to major (permanent) August 1, 1935; to lieutenant colonel (permanent) August 18, 1940; to colonel (temporary) December 24, 1941; to brigadier general (temporary) March 15, 1942. He reverted to the temporary rank of colonel March 5, 1946, and was promoted to colonel (permanent) October 1, 1946; to brigadier general (temporary) June 17, 1949, with date of rank from May 22, 1949; to brigadier general

(permanent) February 3, 1950, with date of rank from June 18, 1949; to major general (temporary) May 1, 1952, with date of rank from May 4, 1944; to major general (permanent) January 26, 1954, with date of rank May 5, 1953; and to lieutenant general (temporary) October 1, 1954.

Rear Admiral Albert K. Morehouse

Rear Admiral Morehouse was born in Brooklyn, N. Y., on April 29, 1900. He was appointed to the U.S. Naval Academy in 1918 and graduated as Ensign with the class of 1922.

After graduation he served aboard the battleship USS Maryland before reporting to Naval Air Station, Pensacola, Florida for flight training. He received his wings on March 16, 1925.

Between 1925 and the outbreak of World War II Admiral Morehouse served with various aviation units throughout the Naval establishment. December 7, 1941 found him serving as a special naval observer at the American Embassy, London, England.

He commanded the seaplane tender USS Chandeleur and in 1943 was transferred to the staff of Commander Aircraft, South Pacific Force. Admiral Morehouse was awarded the Bronze Star Medal for "meritorious service" in this assignment.

In 1944, he left the South Pacific Force and ultimately took command of the escort carrier Natoma Bay. During the Battle of Samar Island in late 1944 he was awarded the Navy's second highest award, the Navy Cross. Admiral Morehouse also received the Legion of Merit with Combat "V" for his service aboard the Natoma Bay.

After duty as chief of staff to Commander Carrier Division FOUR, he took command of NAS, Miami, Fla., and in 1946 was assigned to the staff of the Chief of Naval Air Advanced Training, Jacksonville, Fla.

In 1947, he took command of the USS Midway and in 1948 became chief of staff to Commander, Naval Air Forces, Atlantic Fleet. With the outbreak of Korean hostilities he was assigned to duty as chief of staff for Naval Forces Far East.

In 1951 Admiral Morehouse was designated as Chief of Naval Air Advanced Training at Naval Air Station, Corpus Christi, Texas. Two years later he assumed command of Carrier Division FOUR.

He was ordered to his present post in August 1954.

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APPENDIX C

ORGANIZATION AND MISSION
CONTINENTAL AIR DEFENSE COMMAND*

Terms of Reference and Mission

1. The Continental Air Defense Command (CONAD) is established as a joint command for the defense of the continental United States against air attack. The Department of the Air Force has been designated as the executive agency therefor. Headquarters USAF Air Defense Command is additionally designated as Headquarters, CONAD, the staff of which will be augmented by appropriate representation from all Services.

2. The Commander-in-Chief (CINC) CONAD will exercise operational control over all forces assigned or otherwise made available by the Joint Chiefs of Staff or other proper authority, for defense of the continental United States against air attack. The command will be established in accordance with the appropriate provisions of Joint Action Armed Forces (JAAF), and the directives contained herein. The command shall consist initially of the U. S. Air Force Air Defense Command, the U. S. Army Antiaircraft Command, and a Naval Command composed of the naval forces of the contiguous radar coverage system. During the periods that augmentation forces of the Army, Navy/Marine Corps, and Air Force are employed in air defense of the continental United States, operational control of such forces shall be temporarily vested in CINCONAD.

3. The CINCONAD will be a U. S. Air Force general officer who will be designated Commander, U. S. Air Force Air Defense Command. The Commanding General, Antiaircraft Command, will be the principal advisor to CINCONAD on Army matters pertaining to the CONAD. An appropriate Naval Command, under a flag officer, will be established with Headquarters at ENT Air Force Base and the Commander will also be the principal advisor to CINCONAD on Navy matters pertaining to the CONAD. An appropriate Marine Corps representative will be assigned to the Staff of CINCONAD as principal advisor on Marine Corps matters pertaining to the CONAD. In the absence of the Joint Commander, the Senior Component Commander will assume temporary command.

4. Forces and operations of the seaward extensions of the early warning system will continue under the Commander in Chief, Atlantic (CINCLANT), and the Commander-in-Chief, Pacific (CINCPAC), and early warning installations in Alaska and the Northeast Command under the Commander-in-Chief, Alaska (CINCAL) and the Commander-in-Chief, Northeast

* As appended to Ltr, USAF to ADC, "Continental Air Defense Command (CONAD)," 27 Aug 1954 (document 204, in supporting documents).

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Command (CINCNE). However, the above commanders will support CINCONAD in accordance with plans approved by the Joint Chiefs of Staff and mutual agreements by the Commanders concerned, to insure that plans for, and the operations of, these elements of the early warning system will be responsive to the needs of CINCONAD.

5. The mission of the CINCONAD will be to:

a. Defend the continental United States against air attack.

b. Support CINCPAC, CINCLANT, CINCARIB, COMSAC, CINCAL and CINCNE in their missions to the maximum extent consistent with the primary mission outlined in subparagraph a. above.

6. In carrying out his mission, CINCONAD will:

a. Conduct operations to the limit of the capabilities of available forces in the defense of the continental United States against air attack.

b. Prepare joint plans and requirements for the defense of the continental United States against air attack and submit these plans and requirements to the Joint Chiefs of Staff for approval.

c. Implement JCS approved plans, through the appropriate component commands; and exercise such emergency powers as may be delegated to him by proper authority.

d. Coordinate plans, operations and exercises with appropriate United States Commanders and with Canadian and Mexican Commanders in accordance with agreed Canada-United States and Mexico-United States defense policies.

e. In coordination with ^{*}appropriate U. S. and Allied commanders, plan for early warning systems and procedures which will provide early warning of air attack for the defense of the continental United States to insure that these systems are designed and operated in a manner responsive to continental air defense requirements and in consonance with national policy.

f. In coordination with commanders concerned, establish procedures and methods of operation for all forces allocated, attached or otherwise made available for the air defense of the continental United States.

* "In coordination with" whenever used in this paper is as defined in the "Dictionary of U.S. Military Terms for Joint Usage (Second Revision).

g. In coordination with commanders concerned, prepare and submit to the Joint Chiefs of Staff for approval, plans for the full utilization of all military forces, including reserve forces, which have an air defense capability and which can temporarily augment the air defense forces in event of emergency.

h. When there exists an imminent threat of air attack upon the continental United States, or in case such an attack develops, assume operational control of those forces specifically having been made temporarily available from other commands (augmentation forces). Such operational control over forces having been made temporarily available from other commands, will be relinquished when the imminence of the threat has dissipated or when the attack is ended. In the event that the Commander who made the forces available should consider that his primary mission requires their return to their permanent command assignments, he should first make appropriate requests to the Air Defense commander; if such request is not granted his next recourse is to the Joint Chiefs of Staff.

i. Plan for and conduct air defense exercises, including participation by augmentation forces, coordinating plans as appropriate with other U. S. commands and military agencies of Canada and Mexico.

j. Plan for, train, exercise and operate in coordination with appropriate authorities a Ground Observer Corps of necessary military personnel, and civilian volunteers.

k. Coordinate with appropriate military governmental and non-governmental agencies in the development of plans, policies and procedures for the security control of air traffic, the control of electromagnetic radiations, and the control of illumination and, when appropriate, initiate implementing actions therefor in the defense of continental United States against air attack.

l. Coordinate with the Federal Civil Defense Administration, State Civil Defense agencies, and other non-military agencies on matters of participation in air defense.

7. Based on missions or tasks assigned by CINCONAD in consonance with JCS approved plans, detailed planning as to forces and their deployments will be accomplished by component commanders coordinated as necessary with other commanders of their Services.

8. In matters not covered by JCS approved joint plans, doctrines or procedures, interim directives, promulgated by CINCONAD will govern all Air Defense operations. These will be formulated in consonance with existing inter-Service and inter-Command agreements and decisions of the Joint Chiefs of Staff.

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Responsibilities of the Commanding General
Army Antiaircraft Command

1. Serve as the Commander of the Army Component of the CONAD.
2. Command all Army forces assigned or otherwise made available for air defense of the continental United States.
3. Provide above forces for operational control by the CINCONAD, in accordance with Incl 4, on the basis of JCS approved plans, doctrines and procedures pertaining to the air defense of the continental United States.
4. Develop detailed plans for Army forces and their deployments allocated for the air defense of the United States based on missions or tasks assigned by the CINCONAD in consonance with approved JCS plans.
5. Organize and establish a suitable Headquarters and subordinate Headquarters and commands as deemed necessary to accomplish the assigned missions or tasks.
6. Participate in ground defense, harbor defense, disaster relief, and other domestic emergencies when such participation will not interfere with the air defense mission.
7. Coordinate with the Department of the Army and other Army agencies on matters pertaining to the support, administration, organization, and equipping of Army units assigned or otherwise made available for the air defense mission.
8. Prepare combat Army air defense units for overseas deployment as required, to include organizing, training, and equipping.

Responsibilities of the Commander,
Naval Forces... /CONAD/

1. Organize a suitable command under a flag officer with appropriate headquarters necessary to meet the requirements set forth by higher authority.
2. Serve as the Commander of the Naval component command of the CONAD.
3. Coordinate with the other Service component commanders on matters of mutual interest.
4. Command all Naval forces assigned or otherwise allocated for employment in the contiguous radar coverage of the continental United States air defense system.
5. Coordinate with appropriate fleet and training command for provision of naval augmentation forces for continental air defense.
6. Provide above forces for operational control by the CINCONAD in accordance with Incl 4, on the basis of JCS approved plans, doctrines and procedures pertaining to the air defense of the United States.
7. Provide appropriate Air Defense Commanders with required information relative to the status and operating characteristics of all Naval forces allocated for the air defense of the continental United States, and Naval augmentation forces and facilities capable of emergency employment in air defense of the United States.
8. Provide for the control of fire of the Antiaircraft batteries of vessels in port by the Air Defense Commander through the local Army, Antiaircraft Control Center, if one is established, otherwise through a Navy AA Control Center.

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Command Arrangements

SECTION I

Operational Control

1. The operational control exercised by CINCONAD over all forces assigned or otherwise made available, will consist of the following:

- a. Direct the conduct of the tactical air battle including the engagement and disengagement of air defense weapons.
- b. Control of fighters.
- c. Specify the conditions of alert.
- d. Station the early warning elements of the command and their control elements.
- e. Locate and deploy the combat elements of the command in accordance with plans approved by the Joint Chiefs of Staff.

SECTION II

Implementation of Operational Control

2. Operational control as defined above will be implemented in accordance with the chart, shown in Incl 5, in the following manner:

- a. When reporting on station, naval forces in contiguous radar coverage system come under operational control of the appropriate regional headquarters through the appropriate naval regional component channel.
- b. Naval surface forces made available in case of emergency will report for operational control to the Commander-in-Chief through the appropriate Naval Regional Component Commander. Limitations on the deployments of these surface forces may be prescribed by the fleet commander making the forces available.
- c. Naval aviation augmentation forces, provided in case of emergency, will report for operational control to the appropriate Air Division Command. The Fleet or Naval Air Training Command Commander making the forces available will prescribe whether such forces may be deployed to other than home bases.

d. Operational control, as defined in paragraph 1 Section I, above, will be exercised by the joint air defense commanders in accordance with the chart in Incl 5.

e. Operational control will be exercised over all forces assigned or otherwise made available in a geographical area by the appropriate joint regional or sector air defense commander thereof.

f. Army antiaircraft units will pass to the operational control of the appropriate air defense commander upon deployment to tactical air defense positions.

SECTION III

Organization and Command Arrangements

1. The mission of air defense is a functional mission carried out on a geographical basis. Since time of reaction to the threat is all-important, successful Air Defense must be predicated upon decentralization of control. The United States is now divided into three Air Defense regions which are further subdivided into sectors; each region having an Air Defense Force Commander responsible for the defense of his area against air attack and utilizing all available forces of the military establishment which have an air defense capability.

2. The existing organization of the USAF Air Defense Command, with its air defense system for surveillance, warning and control, and combat is the basic structure which will be utilized for the Joint Command. Each USAF Headquarters from command down to air division level will be additionally designated as a joint headquarters commanded by an Air Force officer and with appropriate representation from each Service. The Army Antiaircraft Command and the Naval Command will parallel this organization through the regional level and with a Component Commander or staff representation below regional level as experience dictates. The numbers of personnel who will represent each component commander at the Joint Regional Air Defense Force level will be a matter for agreement between him and the Commander, Joint Regional Air Defense Force.

3. The Chart, Incl 5, shows the lines of operational control and command as set forth in Incl 4.

4. The Service component commanders at regional or lower levels, in addition to their uni-service functions, shall be Army Deputy and Navy Deputy, respectively, to the joint commanders for matters of concern to their Services.

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5. The Component Commanders will be responsible for the military command of their components in accordance with directives and procedures of their Services. Logistic and administrative support of the Service components will be provided as directed by the Service concerned.

6. The Joint manning of the staff of the Commander-in-Chief, due to the proximity of the headquarters of the component commands should be kept to a minimum. Thus, augmentation of the Command will be approximately as follows:

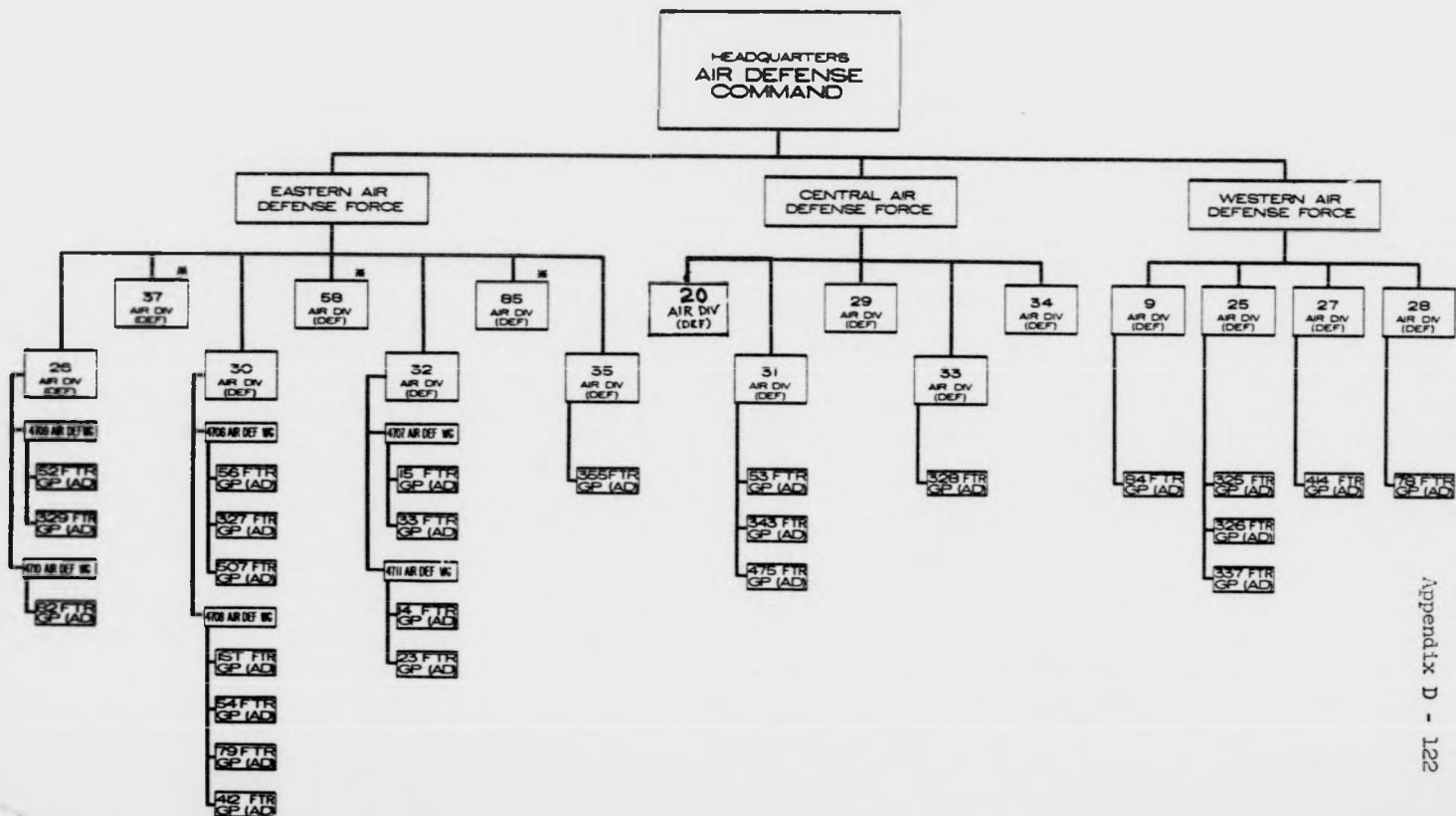
	<u>ARMY</u>	<u>NAVY</u>	<u>MARINE</u>
Operations and Training	1	1	-
Operations Analysis	1	1	-
Communication and Electronics	1	1	-
Plans and Requirements	1	2	-
Assistant to the DCS/O	1	1	1
Intelligence	1	1	-
Materiel	-	1	-
Comptroller	-	1	-
Information Services	1	1	-
	<u>7</u>	<u>10</u>	<u>1</u>

7. The command of naval forces in the contiguous radar coverage system will be exercised at the regional (second echelon) level for the east and west coasts.

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ORGANIZATIONAL CHART
AIR DEFENSE COMMAND

8 OCTOBER 1955



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(ADC-5025-5)

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5. Ibid., p. 2.
6. Ibid.
7. Ltr, USAF to ADC, "Constitution and Activation of the Hq 503d Aircraft Control and Warning Group...", 19 May 48 (DOC 25).
8. Msg, ADC to 4AF, 22 Apr 48 (DOC 26).
9. Ltr, USAF to ADC, "Air Defense of the Continental United States," 23 Apr 48 (DOC 27).
10. Ltr, USAF to ADC, "Reorganization of the Air Defense Command," 17 Dec 47 (DOC 28).
11. Ltr, Gen Stratemeyer to Gen Thomas T. Handy, CG Fourth Army, and other Army commanders, 18 Jun 48 (DOC 29).
12. Ltr, ADC to C/S USAF, "Plan for Reorganization of the Air Defense Command," 29 Jan 48 (DOC 30); also, Ltr, ADC to Numbered AFs, "Reorganization of the Air Defense Command," 18 Dec 47 (DOC 31).
13. Ltr, USAF to ADC, "Plan for Reorganization of the Air Defense Command," 10 Jun 48 (DOC 32). See also: Ltr, ADC to Numbered AFs, "Reorganization of the Air Defense Command," 18 Jun 48 (DOC 33); and Ltr, ADC to Numbered AFs, "Reorganization of Air Defense Command," 25 Jun 48 (DOC 34).
14. Hq ADC General Orders No. 51, 24 Jun 48 (DOC 35). See also: Ltr, USAF to ADC, "Inactivation of the Headquarters of the Second and Eleventh Air Forces," 21 Jul 48 (DOC 36); and Msg, ADC to Numbered AFs, 15 Jun 48 (DOC 37).
15. Ltr, Gen Stratemeyer to C/S USAF, "Plan for Reorganization of Air Defense Command," 30 Jun 48 (DOC 38).

NOTES

to

Chapter III

1. Hq USAF Press Release, 18 Nov 48 (DOC 49).
2. Ltr, Hq USAF to ConAC, ADC, TAC, "Establishment of the Continental Air Command and Designation of Air Defense Command and Tactical Air Command as Operational Air Commands," 19 Nov 48, with amendment dtd 14 Dec 48 (DOC 50). See also: Hq ConAC General Orders No. 1, 1 Dec 48 (DOC 51); and Hq ConAC General Orders No. 2, 1 Dec 48 (DOC 52).
3. For more detailed information on the reorganization of 1 December 1948, see History of the Continental Air Command, 1949, Vol I.
4. For a more detailed accounting of the increase in fighter strength for air defense resulting from the reorganization of 1 December 1948, see History of the Air Defense Command, Jan-Jun 1951, Part III.
5. AF Regulation 23-1, 11 Jan 49, with amendment dtd 25 May 49 (DOC 53).
6. ConAC Regulation 21-1, 31 Jan 49 (DOC 54).
7. Transcript of Speech by Lt Col John B. Cary, Hq ADC, at War College, 25 Mar 49 (DOC 55).
8. Ltr, ConAC to Chief, WADLG, "Mission and Responsibility of the Western Air Defense Liaison Group," 23 Mar 49 (DOC 56), and Ltr, ConAC to Chief, EADLG, "Mission and Responsibility of the Eastern Air Defense Liaison Group," 23 Mar 49 (DOC 57).
9. Ltr, Gen Stratemeyer to 10AF, "Air Defense Responsibilities," 1 Feb 49 (DOC 58).
10. Ltr, ConAC to 4AF, "Air Defense Responsibilities," 9 Mar 49 (DOC 59); and Ltr, ConAC to IAF, "Air Defense Responsibilities," 29 Mar 49 (DOC 60). See also, Ltr, ConAC to 9AF, "Air Defense Responsibilities," 1 Feb 49 (DOC 61).

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NOTES
to
Chapter I

1. For a detailed and very readable account of the evolution of Air Force organization principles during World War II and their application in the postwar reorganizations, see *History of the Air Defense Command, Vol. I, "Evolution of the Mission, March 1946-June 1947," Chapter I*. This study was issued on 15 June 1947. For general information on the Air Defense Command for the period March 1946-June 1947 the reader is referred to this work and the volume bearing the same title completed in November 1948.
2. Ltr, War Dept to CG Army Air Forces, "Establishment of Air Defense /Sic/ Strategic Air, and Tactical Air Commands.....," 21 Mar 46 (DOC 1).
3. Hq ADC General Orders No. 1, 27 Mar 46 (DOC 2).
4. Ltr, Gen Carl Spaatz to CG ADC, "Interim Mission," 12 Mar 46 (DOC 3).
5. Hq ADC Operational Directive No. 1, 5 Apr 46, with amendment, 3 May 46 (DOC 4).
6. Ltr, Col R. E. Beebe, AC/S A-5 Hq ADC to Maj Gen Lewis Norstad, AC/S A-5 Hq AAF, "Air Defense of the United States," 3 May 46 (DOC 5).
7. Ltr, Gen Norstad to Col Beebe, "Air Defense of the United States," 13 Jun 46 (DOC 6).
8. Ltr, Lt Gen I. C. Eaker, Deputy Commander AAF, to CG ADC, "Investment of Command Responsibilities of the Land, Sea and Air Forces in Event of an Air Invasion," 10 Jun 46 (DOC 7).
9. Ltr, Maj Gen Charles B. Stone III, C/S Hq ADC, to CGs 1st and 4th AFs, "Air Defense of Continental United States," 17 Jun 46 (DOC 8). See also, Ltr, ADC to CGs Numbered AEs, "Air Defense of the Continental United States," 12 Aug 46 (DOC 9).
10. Ltr, Maj Gen C. C. Chauncey, Deputy Chief of Air Staff Hq AAF, to CG ADC, "Interim Mission," 5 Jun 46 (DOC 10). See also, Ltr, Gen Stratemyer to CGs Numbered AFs, "Mission of the Air Defense Command," 11 Jun 46 (DOC 11).
11. Ltr, ADC to CG AAF, "Mission of the Air Defense Command," 31 Jul 46, with 1 Incl, ADC Regulation 20-7, "Relationship of Air Defense Command with Military and Civilian Agencies," 31 Jul 46 (DOC 12). See also, Ltr, ADC to CGs Numbered AFs, "Air Defense Command Regulation 20-7," 12 Aug 46 (DOC 13); Ltr, ADC to Other Major Air Force Commands, "Mission of Air Defense Command," 12 Aug 46 (DOC 14); Ltr, Gen Stratemyer to CG AAF, "Relationship of Air Defense Command with Military and Civilian Agencies," 18 Aug 47 (DOC 15); and Ltr, Gen Stratemyer to Gen Eaker, 13 Nov 46 (DOC 16).

NOTES
to
Chapter II

1. For a more detailed account of Plan SUPREMACY see *History of Air Defense Command, Jan-Jun 1951, Chapter Three*.
2. Hq ADC General Orders No. 53, 14 May 47 (DOC 24).
3. See Hq ADC Historical Study No. 1, *The Air Defense of Atomic Energy Installations, Mar 1946-Dec 1951, p. 1*.
4. Ibid.

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11. Hq ConAC General Orders No. 34, 24 Mar 49 (DOC 62).
 12. ConAC Regulation 25-2, 24 Mar 49 (DOC 63).
 13. Ltr, ConAC to 25ADiv, "Air Defense Area of Responsibility," 8 Jun 49 (DOC 64).
 14. Ltr, ConAC to CG 26ADiv, "Air Defense Area of Responsibility," 8 Jun 49 (DOC 65).

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Chapter IV

1. Hq ConAC General Orders No. 94, 31 Aug 49 (DOC 74), and Hq ConAC General Orders No. 99, 21 Sep 49 (DOC 75).
2. Memo, Hq ConAC Deputy for Air Defense to AG, 6 Sep 49 (DOC 76). See also, History of Eastern Air Defense Force, Sep-Dec 1949.
3. Ltr, ConAC to 4AF, "Organization of Hq and Hq Squadron, Western Air Defense Force," 14 Sep 49, with attached Hq ConAC Memo KDOC 77. See also: Ltr, Gen C. T. Myers, VC ConAC, to Gen Upstan, 3 Nov 49 (DOC 78).
4. ConAC Regulation 25-1, 2 Nov 49 (DOC 79), and ConAC Regulation 25-2, 2 Nov 49 (DOC 80).
5. Hq IAF General Orders No. 116, 16 Nov 49 (DOC 81).
6. Ltr, Gen Upstan to ConAC, "Organization and Mission, Western Air Defense Force," 5 Nov 49 (DOC 82).
7. See Histories of IAF and 4AF, Jul-Dec 1949.
8. For activation orders on the 30th and 32d Divisions, see: 10AF General Orders No. 131, 13 Dec 49 (DOC 83); and IAF General Orders No. 125, 5 Dec 49 (DOC 84). See History of 4AF, Jul-Dec 49, for the activation authority for the 28th Division.
9. Hq EADF General Orders No. 3, 17 Feb 50 (DOC 85) and 3d Ind, EADF to ConAC 4 Oct 49, to Ltr, ADC to EADF, "Air Defense Training," 1 Sep 49 (DOC 86). See also, WADF General Orders No. 1, 1 Jan 50 (DOC 87); WADF General Orders No. 2, 16 Jan 50 (DOC 88); WADF General Orders No. 4, 1 Feb 50 (DOC 89); and WADF General Orders No. 7, 1 Mar 50 (DOC 90).
10. See (DOC 43), previously cited.
11. Ltr, Gen Myers to EADF, "Operational Control in the Conduct of Air Defense and Air Defense Systems Training," 9 Nov 49 (DOC 91).
12. Hq ConAC General Orders No. 122, 10 Nov 49 (DOC 92). See also, Msg, EADF to 26ADiv, 18 Nov 49 (DOC 93).
13. 1st Ind, ConAC to EADF, 30 Nov 49, to Ltr, EADF to ConAC, "ConAC Fighter Forces Committed to Eastern Air Defense Force for Emergency Air Defense Operations," 21 Oct 49 (DOC 94).
14. ConAC Regulation 25-4, 16 Dec 49 (DOC 95).
15. See Ltr, ConAC to I, O, and 10AFs, "Commitment of Fighter-Interceptor Forces to EADF," 2 May 50 (DOC 96); and Ltr, ConAC to EADF, "ConAC Fighter Forces Committed to EADF for Emergency Operations," 19 May 50, with 1 Ind (DOC 97).

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to
Chapter V

1. Hq ADC, Memo for the Record, Col. John B. Cary, 20 Oct 47 (DOC 112).
2. Ibid.
3. Ltr, Gen Whitehead to AG USAF, "Deletion of Continental Air Command Responsibilities," 28 Dec 50, with attached memo (DOC 113).
4. Ltr, Gen Whitehead to C/S USAF, "Separation of the Hq Air Defense Command from Hq Continental Air Command," 24 Oct 50 (DOC 114).
5. Ibid.
6. Ibid., 1st Ind, USAF to ADC, 17 Nov 50.
7. Ltr, USAF to ConAC, "Designation of Tactical Air Command and Air Defense Command as Major Air Command," 10 Nov 50, with amendment, Ltr, USAF to ConAC, same title, 4 Dec 50 (DOC 115). See also: Ltr, USAF to ConAC, "Movement Directive, Hq & Hq Sq, Air Defense Command," Dec 50 (DOC 116); and Hq ADC General Orders No. 2, 1 Jan 51 (DOC 117).
8. AF Regulation 23-9, 15 Nov 50 with amendment, AFR 23-9A, 8 May 51 (DOC 118). For later revisions of this regulation see AFR 23-9, 13 Mar 53 (DOC 119); AFR 23-9, 5 Apr 54 (DOC 120); and AFR 23-9, 10 Sep 1954 (DOC 121).
9. AF Bulletin No. 39, 24 Sep 51 (DOC 122).
10. Ltr, USAF to ConAC, "Air Defense Control Center Conference," 24 Apr 50, with minutes of meeting attached (DOC 123).
11. Ltr, USAF to ConAC, "Detailed Cost Data on Programmed Aircraft Control and Warning Systems in Continental United States and Alaska," 23 Dec 48 (See DOC 70 in History of Air Defense Command, Jan-Jun 1951).
12. Transcript of Speech by Lt Col John B. Cary, Hq ADC, at War College, 25 Mar 49 (DOC 55). See also, Ltr, ConAC to 14th AF, "Air Defense Organization in Continental United States," 17 Jun 49 (DOC 124).
13. Ltr, ConAC to USAF, "Construction Priorities, Permanent Air Control and Warning System" 4 Jan 50 (See DOC 78, History of Air Defense Command, Jan-Jun 1951).
14. Ltr, USAF to Chief of Engineers, USA, "Authorization - Z. L. Aircraft Control and Warning System No. ZI-le-50," 25 Apr 50 (DOC 125).
15. Ibid. See also: Ltr, ConAC to EADF, "Air Defense Control Center Areas of Responsibility," 11 May 50 (DOC 126); and Memo, Hq ConAC, "Air Defense Control Center Areas of Responsibility," 7 Jul 50 (DOC 127).
16. Ltr, ConAC to 4AF, "Designation and Organization of Headquarters, Albuquerque, Air Defense Area, Provisional," 1 May 50 (DOC 128). See also, 4AF General Orders No. 53, 3 May 50 (DOC 129).
17. WADF General Orders No. 28, 15 Aug 50 (DOC 130).
18. WADF General Orders No. 36, 20 Sep 50 (DOC 131). Originally the 27th Division was scheduled for activation at Kirtland. For the reasons why it was formed at Norton instead, see: Ltr, ConAC to USAF, "Relocation of Aircraft Control and Warning Units in Support of ConAC SREWP 1-49 and Permanent Aircraft Control and Warning System," Jan 50 (DOC 132).

19. WADF General Orders No. 38, 13 Oct 50 (DOC 133), and EADF General Orders No. 36, 5 Dec 50 (DOC 134).
20. EADF General Orders No. 16, 7 Oct 50 (DOC 135).
21. WADF General Orders No. 1, 3 Jan 51 (DOC 136).
22. WADF General Orders No. 19, 23 Feb 51 (DOC 137).
23. EADF General Orders No. 34, 13 Mar 51 (DOC 138).
24. CADF General Orders No. 22, 26 Jun 51 (DOC 139).
25. Ltr, Lt Gen Whitehead to C/S USAF, "Establishment of a Central Air Defense Force," 27 Jul 50 (DOC 140). See also, Ltr, Gen Whitehead to Gen Vandenberg, 12 Sep 50 (DOC 141).
26. Ltr, Lt Gen Norstad to CG ConAC, "Establishment of a Central Air Defense Force," 5 Oct 50 (DOC 142).
27. Ibid., 1st Ind, Gen Whitehead to C/S USAF, 11 Oct 50.
28. Ltr, Gen N. F. Twining, Vice Chief of Staff, USAF, to CG ConAC, "Establishment of a Central Air Defense Force," 13 Dec 50 (DOC 143).
29. Msg, ADC to USAF, 26 Jan 51 (DOC 144).
30. Ltr, Gen Whitehead to C/S USAF, "Location of Headquarters of Proposed Central Air Defense Force," 6 Sep 50 (DOC 145).
31. ADC General Orders No. 17, 10 Feb 51 (DOC 146).
32. ADC General Orders No. 35, 9 May 51 (DOC 147).

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to

Chapter VI

1. For detailed information on these problems, see the semiannual histories of Headquarters Air Defense Command, the Defense Forces, and the Air Divisions from January 1951 through June 1952.
2. Ltr, ADC to Defense Forces, "Organization for Air Defense," 27 Apr 51 (DOC 84, History of Air Defense Command, Jul-Dec 1952).
3. Ltr, Gen Chidlaw to C/S USAF, "Reorganization of Air Defense Command," 24 Sep 51 (DOC 148).
4. Ltr, ADC to USAF, "Reorganization of Air Defense Command..." 2 Oct 51 (DOC 149).
5. Ltr, Brig Gen R. J. Browne, Deputy Director M&O, Hq USAF to CG ADC, "Reorganization of Air Defense Command," 12 Oct 51 (DOC 150).
6. Msg, Gen Chidlaw to DCS/Operations, Hq USAF, 8 Dec 51 (DOC 151); and Msg, USAF to CG ADC, 17 Dec 51 (DOC 152).
7. Ltr, USAF to ADC, "Reorganization of Air Defense Command," Nov 51 (DOC 153); Ltr, USAF to ADC, "Reorganization of Air Defense Command," 20 Dec 51 (DOC 154); Ltr, ADC to WADF, "Reorganization of Air Defense Command," 4 Jan 52 (DOC 155); Ltr, USAF to ADC, "Reconstitution, Redesignation, and Activation of ... Air Force Units," 3 Jan 52 (DOC 156); ADC General Orders No. w, 11 Jan 52 (DOC 157); ADC General Orders No. 3, 11 Jan 52 (DOC 158); and ADC General Orders No. 4 (DOC 159).

8. For a fuller account of the inadequacies of the Wing-Base Plan for continental air defense, its abolishment in 1952, and the fighter organization which was substituted in its stead see History of the Air Defense Command, Jan-Jun 1952, Chapter Four, pp. 141-193.

9. See History of the Air Defense Command, Jan-Jun 1951, Chapter Six for an account of the squadron deployment requirement.

10. As in fn 8, above.

11. See (DOC 149), previously cited.

12. As in fn 8 above, p. 178. See also, Ltr, ADC to USAF, "Reorganization of the Air Defense Command," 8 Nov 51 (DOC 160).

13. As in fn 8, above.

14. See (DOCS 157, 158, and 159), previously cited.

15. Ibid.

16. See (DOC 149), previously cited.

17. Ltr, 25th ADiv to WADF, "Organization of 25th Air Division (Defense)," 11 Dec 50 (DOC 161); and 505th AC&W Gp General Orders No. 7, 16 Dec (DOC 162).

18. As in fn 8, above. See also, Ltr, ADC to CADF, "Organizational Test, 31st Air Division," 27 Feb 52 (DOC 163).

19. See Hq ADC's final report on 31st ADiv test, /co./ Aug (DOC 164).

20. History of Air Defense Command, Jun-Dec 1952, p. 107. See Chapter Four of this work for a more detailed discussion of organizational problems encountered during 1952.

21. Ltr, ADC to USAF, "Proposed Air Base Group T/O's," 28 Aug 52 (DOC 165), see also, Ltr, ADC to EADF, "Proposed Air Base Group T/O's," 29 Feb 52 (DOC 166).

22. Ltr, ADC to USAF, "Air Defense Command Organization," 11 Sep 52 (DOC 167). See also, Ltr, ADC to WADF, "Reorganization of Air Defense Command," 12 Nov 52 (DOC 168); Ltr, ADC to USAF, "Air Defense Command Reorganization," 14 Nov 52 (DOC 169); and Memo, Hq ADC 21 Nov 52 (DOC 170).

23. Ltr, Brig Gen T. C. Darcy, CG, 31st ADiv to CG CADF, "Organization Progress Report," 3 May 52, with 1 Ind, CADF to ADC, 22 May 52 (DOC 171).

24. Transcript of ADC Briefing for Gen Vandenberg, 11 Aug 52, p. 49. Cited in History of Air Defense Command, Jun-Dec 1952, p 103.

25. Ltr, USAF to ADC "Air Defense Command Organization," 30 Oct 52 (DOC 172).

26. Ltr, USAF to ADC, "Reconstitution, Redesignation and Activation of ... USAF Units," 21 Jan 53 (DOC 173); ADC General Orders No. 11, 10 Feb 53 (DOC 174). ADC General Orders No. 12, 10 Feb 53 (DOC 175); ADC General Orders No. 13, 10 Feb 53 (DOC 176).

27. Ltr (prepared by Col J. R. Wergin), ADC to WADF, "Air Defense Command Organization," 26 May 54 (DOC 177).

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to

Chapter VII

1. For information on the Meble Radar Program, see semiannual Histories of the Air Defense Command, Jan 1951-June 1955.

3. Ibid, 1st Ind, Maj Gen R. M. Ramey, Dir of Ops, USAF, 21 Mar 52.
4. Ltr, Gen Myers to USAF, "Improvement of Means for Handling AC&W Informations," 22 Jul 50 (DOC 178).
5. History of Air Defense Command, Jun-Dec 1952, p 120. See Chapter Five, this study, for additional information on the ACDS.
6. Ltr, USAF to ADC, "Employment of An Americanized Version of the Comprehensive Display System (ACDS)," 12 Jun 52 (DOC 179).
7. Ltr, Gen Smith to Dir of Req, USAF, "Plan for Employment of the Americanized Version of the Comprehensive Display System," 21 Jul 52 (DOC 180).
8. Ibid., 1st Ind, USAF to ADC, 22 Aug 52.
9. Ltr, ADC to USAF, "Air Defense Boundaries," 5 Nov 52, with 1 Incl (DOC 181).
10. ADC General Orders No. 10, 9 Feb 53 (DOC 182), and ADC General Orders No. 14, 10 Feb 53 (DOC 183).
11. As in fn 5, above, pp. 126-7.
12. Written record of a verbal briefing to Gen Chidlaw by Lt Col O. T. Holey, Chief of the Hq ADC SAGE Project Group, on 23 Jan 53 (in & q ADC Historical Reference Files 104.2).
13. Ltr, Gen Partridge to Gen Chidlaw, 11 Feb 53 (Document 7 in History of Air Defense Command, Jan-Jun 1953).
14. Ltr, Gen Partridge to Gen Chidlaw, 11 Feb 53 (Document 9 in History of Air Defense Command, Jan-Jun 1953).
15. Hq ADC Publication, "Transition System Program," 18 Jan 54 (Document I, Appendix VII, History of Air Defense Command, Jan-Jun 1954).
16. Ltr, ADC to EADF, "Readjustment of Transition System Boundaries," 13 Mar 54 (DOC 184). See also: Hq ADC Staff Study, "Activation of Additional Air Divisions," 23 Nov 53 (DOC 185). Memo, Hq ADC, "Revised Boundaries for Transition System," 17 Apr 54 (DOC 186); Ltr, Gen F. H. Smith, Jr. to C/S USAF, "Selection of Transition System Direction Center Location," 30 Apr 54 (DOC 187), and Memo, Hq ADC "AC&W Program," 3 May 54 (DOC 188).
17. Ltr, Gen F. H. Smith, Jr., to Dir of Ops, "Readjustment of SAGE Boundaries and Reduction of Sectors and Subsectors," 29 Jan 55 (DOC 189); and Ltr, USAF to ADC, "Readjustment of SAGE Boundaries and Reduction of Sectors and Sub Sectors," 3 Mar 55 (DOC 190).
18. Ltr, USAF to ADC "Selection of Transition System Direction Center Locations," 17 May 54 (DOC 191).
19. Ibid., 1st Ind, Gen F. H. Smith, Jr. to Dir of Ops, USAF, 11 Aug 54. See also, Mag, ADC to USAF, 11 Jun 54 (DOC 192).
20. Ltr, ADC to EADF, "Proposed 1956 Air Defense Force and Air Division (Defense) Boundaries," 17 Sep 54 with 1 Incl, EADF to ADC, 11 Oct 54 (DOC 193); and Ltr, Gen Bergquist to CG EADF, "Proposed 1956 Air Defense Force and Air Division (Defense) Boundaries," 29 Nov 54 (DOC 194).
21. Hq ADC General Orders No. 8, 29 Mar 55 (DOC 195).
22. Hq ADC General Orders No. 25, 26 Jul 54 (DOC 196).
23. Hq ADC General Orders No. 20, 25 May 55 (DOC 197), and Hq ADC General Orders No. 31, 25 Jun 55 (DOC 198).

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24. Hq ADC General Orders No. 35, 18 Jul 55, as amended by GOs No. 37, 19 Jul 55, and No. 41, 2 Aug 55 (DOC 199); Hq ADC General Orders No. 36, 19 Jul 55 (DOC 200); and Hq ADC General Orders No. 38, 20 Jul 55 (DOC 201).

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to

Chapter VIII

1. Ltr, Gen Stratemeyer to CG AAF, "Responsibility of the Air Defense Command," 13 Sep 46; and copy of lecture, Gen Stratemeyer before faculty and students of Air University, 15 Oct 46 (appended as documents 9 and 18, respectively, to History of Air Defense Command, Jan-Jun 1951).
2. Ltr, USAF to ADC, "Command Arrangements for the Air Defense of the United States," 7 Apr 54 (DOC 202).
3. Ltr, Gen Chidlow to C/S USAF, "Command Arrangements for the Air Defense of the United States," 11 May 54 (DOC 203).
4. Ibid.
5. Ltr, USAF to ADC, "Continental Air Defense Command (CONAD)," 27 Aug 54 (DOC 204).
6. Ibid.
7. Hq CONAD General Orders No. 1 1 Sep 1954 (DOC 205).
8. AF Regulation 23-9, 24 Aug 1955 (DOC 206).
9. As in fn 7, above.
10. Hq CONAD General Orders No. 7, 20 Jul 1955 (DOC 207); and Hq ADC General Orders No. 39, 20 Jul 1955 (DOC 208).

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CORRECTION SHEET - Reference Notes

Chapter I (con't)

12. See ADC Regulation 20-1, 29 Jul 1946, and amendment, 28 Jul 1946 (DOC 17). See also, ADC Staff Memo 20-23B, 30 Jun 1946 (DOC 18); and Ltr, Gen Stratemyer to CG AAF, "Mission of the Air Defense Command," 5 Aug 1946 (DOC 21).
13. Presentation, Col R. C. Candee, DC/S Hq ADC, to Advisory Board of the Chief of Staff of the Army, 25 Oct 1946 (DOC 19).
14. AAF Regulation 20- (Draft), written 11 Feb 1947 (DOC 20).
15. Ibid., see note at bottom of draft.
16. As in note 1, above.
17. See note 1, Chap V.
18. AF Regulation 20-13, 19 Dec 1947 (DOC).

Chapter II (con't)

16. Hq ConAC General Orders No. 69, 1 Jun 1949 (DOC 39).
17. Ltr, ADC to C/S USAF, "Preliminary Action for Activating Air Defense Division Headquarters," 25 Aug 1948, with 1 Ind (DOC 40).
18. Ltr, USAF to ADC, "Establishment of the 25th Air Defense Division; etc.," 27 Sep 1948 (DOC 41). See also: Hq ADC General Orders, 6 Oct 1948 (DOC 42); and 25th ADiv General Orders No. 1, 25 Oct 1948 (DOC 43).
19. Ltr, ADC to C/S USAF, "Request for the Activation of an Air Defense Division," 28 Sep 1948, with 1 Ind (DOC 44).
20. Ltr, USAF to ADC, "Establishment of the 26th Air Defense Division; etc.," 21 Oct 1948 (DOC 45). See also: Hq ADC General Orders No. 111, 4 Nov 1948 (DOC 46); and Hq IAF General Orders No. 90, 16 Nov 1948 (DOC 47).
21. Presentation, Gen Saville to Secretary of Defense, 9 Sep 1948, appended as document 18 to History of ADC, Jan-Jun 1951. See Chapter V of this study for a more complete account of Plan SUPREMACY.
22. Ltr, USAF to ADC, "Interim Program for Employment of Aircraft Control and Warning Radar," 20 Oct 1948 (DOC 48).

Chapter III (con't)

15. Msg, ConAC to 4AF, 22 Jun 1949 (DOC 66).
16. Msg, 4AF to ConAC, 28 Jun 1949 (DOC 67).
17. Msg, 25 ADiv to ADC, 8 Jul 1949 (DOC 68).
18. Memo, Gen Saville to Gen Whitehead, 5 Jul 1949 (DOC 69).
19. Hq ConAC General Orders No. 80, 14 Jul 1949 (DOC 70).
20. Msg, Gen Whitehead to Gen Upstan, 8 Jul 1949 (DOC 72).
21. Hq ConAC Office Memo No. 5, "DAD Organization," 9 Aug 1949 (DOC 73).

Chapter IV (con't)

16. Ltr, Gen Myers to CG TAC, "Long Range Planning in Headquarters Continental Air Command," 6 Apr 1950 (DOC 98).

17. Ltr, Gen Whitehead to C/S USAF, "Proposed Internal Reorganization of the Continental Air Command," 2 May 1950 (DOC 99).
18. Hq ConAC General Orders No. 38, 23 Jun 1950 (DOC 100). See also: Msg, ConAC to WADF, 4AF, and 12AF, May 1950 (DOC 102); Hq ConAC Memo, "ConAC Reorganization Plans," 23 May 1950 (DOC 103); and Hq ConAC General Orders No. 60, 5 Aug 1950 (DOC 104).
19. Hq ConAC General Orders No. 51, 20 Jul 1950 (DOC 101).
20. History of EADF, January-December 1950, p. 11.
21. See: ADC Regulation 23-1, 18 Jul 1951 (DOC 105); ADCR 23-1, 17 Sep 1951 (DOC 106); ADCR 23-1, 6 Mar 1952 (DOC 107); ADCR 23-1, 18 Sep 1952 (DOC 108); ADCR 23-2, 18 Sep 1952 (DOC 109); ADCR 23-3, 18 Sep 1952 (DOC 110); and ADCR 23-1, 20 May 1954 (DOC 111).