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ADC HISTORICAL STUDY NO. 10

CHRONOLOGY
OF
AIR DEFENSE
1914 - 1972



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FOREWORD

This is the third edition of a chronology of the Aerospace Defense Command. The first covered the period 1914-1966, the second, 1914-1969. This edition brings events through Calendar Year 1972.

As with the past two volumes, the effort has been a staff effort, with Mr. John Dennison carrying the work from 1969 through 1972 under the general supervision of the undersigned.

Special thanks are due Mrs. Mary Perry who had the thankless task of working from extremely rough drafts as is usually the case when dealing with historians.

L. H. CORNETT, JR. Chief, Office of Command History

March 1973

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- 18 Jul Aeronautical Division became the Aviation Section.
- 13 Aug First airplane raid on Paris. Paris raided twice by German airships and 44 times by German airplanes during World War I.
- 21 Dec First airplane raid on Britain.

1915

- 19 Jan First German Zeppelin raid on England. During the war, airship raids killed 557 and wounded 1,358. Bombers made 52 separate raids, killing 857 and injuring 2,058.
- 31 May First German Zeppelin raid on London.

1916

- Apr Air-to-air rockets employed by French aircraft brought down German Zeppelin. First time rockets used in aerial combat.
- 2-3 Sep First German Zeppelin shot down by the Royal Flying Corps over Britain.
- 28 Nov First airplane raid on London. A single seaplane dropped six bombs in broad daylight.

1917

- 6 Apr United States entered World War I.
- 7 May First night attack on London by German bombers.
- 13 Jun First daylight raid on London. Fourteen Gotha bombers caused 588 casualties without loss to themselves.
 - Jul General Jan C. Smuts appointed to a small committee to reorganize Britain's air defenses. From

1917 (cont)

this reorganization came the birth of the Royal Air Force.

2 Sep Germany, using Gotha bombers, began a series of moonlight raids on Britain.

1918

- 12 Apr Last German airship raid on England in World War I. During the war, airship raids killed 557 and wounded 1,358.
- 14 Apr Lieutenants Douglas Campbell and Alan F. Winslow, both of the 94th Squadron, 1st Pursuit Group, brought down the first two enemy airplanes downed by the AEF. Fight took place over Toul Airdrome, an AEF base, making this the first air-to-air defense combat in U.S. history.
- 19 May Last German airplane raid over England in World War I.
 - Nov Britain dismantled its elaborate air defense organization, which included fighters, antiair-craft guns, ground observer posts, barrage balloons, and searchlights.

1920

4 Jun Aviation Section removed from the Signal Corps and became the Air Service.

1921

During Maj. Gen. Patrick M. Mason, Chief of Army Air
1921 Service, and Brig. Gen. William Mitchell, Assistant Chief of Army Air Service, declared the Army air arm should be responsible for frontier and coastal air defense.

During Responsibility for the air defense of Great
Britain transferred from the War Office to the
Air Ministry.

27 Sep First "radar" observations made by Dr. Albert
Hoyt Taylor and Lee C. Young, civilian scientists
working with the U.S. Naval Aircraft Radio Laboratory, who detected a steamer on the Potomac River
by radio signals.

1923

During Britain began building her postwar air defenses.

1925

During 1925
U.S. scientists at the Carnegie Institution in Washington, D.C., employed the pulse-technique of radio signal emissions for the first time.

During
1925
General William Mitchell published his book
Winged Defense in which, among other suggestions
for improved U.S. air power, he advocated an air
defense in being.

Jan United Kingdom organization called "Air Defence of Great Britain" formed, including fighters and bombers.

Oct Britain created an Observer Corps under the War Office. RAF assumed command of the organization in January 1929.

1926

A liquid fuel rocket, built by Dr. Robert H. Goddard, at Auburn, Mass., flew.

2 Jul U.S. Army Air Service redesignated the Air Corps.

4 1930 10 Dec Dr. Albert Hoyt Taylor demonstrated the doppler method of detecting aircraft in flight. 1933 During Capt. Claire L. Chennault, at the Air Corps 1933 Tactical School, wrote a study on The Role of Defensive Pursuit, claiming that fighters could successfully intercept bombers if operated with an effective early warning system, and advocated establishment of such a system. A joint Air Corps-Antiaircraft Artillery exercise 27 May was held at Fort Knox, Kentucky, with a rudimentary ground observer corps used in the United States for the first time. 11 Aug The Drum Board of the War Department denied the possibility of a serious air attack on the U.S., and discounted the defensive role of the Air Corps

1934

in favor of support of land operations.

During Unsatisfactory results of air defense exercises in the U.K. caused the Air Ministry to look for a scientific solution to the early warning problem.

18 Jul The Baker Board of the War Department, taking a stand similar to that of the Drum Board (see 11 Aug 1933), discounted the feasibility of an unsupported air attack on the U.S.

1935

During First U.S. appropriation (\$100,000) for radar development made to the Naval Research Laboratory by Congress.

12 Feb British scientist Robert Watson-Watt advocated

1937 (cont) of the approach of hostile aircraft in its R&D program. First radar station to form part of a radar chain May completed at Bawdsey Research Station, England, and handed over to the RAF. May GHQ AF maneuvers at Muroc Lake, California, arranged for an aircraft warning service with the Southern Edison Co. operating observer posts. 18 May First U.S. Army radar, the SCR-268, demonstrated. Ju1 U.S. Air Corps submitted first list of military characteristics for an aircraft detection radar. This request resulted in production of the SCR-270 and SCR-271 radars. Chief Signal Officer, U.S. Army, asked for a 10 Aug large increase in the allotment for aircraft detection. Great Britain decided to press on, with all speed, with an effective antiaircraft artillery defense of the U.K. 1938 Jun Separate Anti-Aircraft Corps formed in Great Britain. Aug Preliminary model of the SCR-270 radar detected a bomber at a range of 75 miles. 5 Aug Air defenses of the U.K. brought to a state of war readiness. A joint Air Corps-AA exercise in North Carolina employed 302 observation posts--the most extensive aircraft warning service in the U.S. to this time.

- 1 Apr Britain's Anti-Aircraft Command formed and put under direction of Fighter Command.
- 9- Entire air defense network of the U.K. operated 11 Aug for the first time as an entity.
- 27 Aug First flight of a jet-propelled aircraft (Heinkel 178) made in Germany.
- 1 Sep World War II began with the German invasion of Poland.
- 16 Oct The Germans made their first World War II raid on England.
 - Nov General H. H. Arnold recommended establishment of a unit to study U.S. needs for air defense. This recommendation resulted in creation of first U.S. Air Defense Command.

- 1 Jan War Department established Signal Company, EW,
 Panama, and 93 men began training with the SCR271 at Sandy Hook. The Company departed for
 Panama in May 1940. Two more companies formed
 in March 1940.
- 26 Feb War Department created Air Defense Command under the command of Brig. Gen. James C. Chaney at Mitchel Field, N.Y., to study air defense problems.
- 1 Mar First Air Warning Company activated at Fort Monmouth, N.J., and assigned to ADC.
 - Apr First SCR-271 fixed early warning radar installed at Twin Lights, N.J.
 - May General George C. Marshall told Congress that although U.S. cities could be raided, continuous attack was impossible until an enemy had bases close to North America. He said that the defense of the country could best be assured by denying potential enemy bases in the Western Hemisphere.

- May U.S. Army officially adopted SCR-270 early warning radar.
- Mid-British scientists developed the resonant cavity 1940 magnetron which made microwave radar practical.
 - Aug British scientific mission under Sir Henry Tizard visited the U.S. and revealed the secrets of the new cavity magnetron tube to American scientists. This cavity magnetron tube paved the way for airborne radar.
- 1923 Aug
 First Army maneuvers in New York used an ADCcontrolled air defense system comprising observers,
 pursuit, antiaircraft artillery, and two SCR-270
 radars. First time all elements of air defense
 employed together in the U.S.
- 24 Aug World War II bombs fell on London for first time.
- 30 Sep The Germans made the last of the great daylight raids on London.
- 7 Oct U.S. Army Signal Corps erected first field radar in Panama.
 - Nov Luftwaffe turned to night bombing raids after failing to gain air supremacy over the RAF during the "Battle of Britain."
 - Nov Sample of the British Mark II IFF brought to the U.S. Mark II IFF adopted as standard in August 1941 with very little modification and designated SCR-535.
 - Nov Northrop began design of P-61 (Black Widow) interceptor.
- 20 Nov First night kill by RAF Beaufighter over England.
- 15 Dec General Chaney, CG, ADC, reported enthusiastically on British air defenses after returning from a trip to England.

- Jan ADC conducted an extensive air defense exercise in northeastern U.S.
- Feb First 13 U.S. early warning radar sites selected.
- 7 Mar War Department directive gave peacetime air defense mission to GHQ AF.
- 17 Mar Four numbered air forces (First through Fourth) created and assigned responsibility, under GHQ AF, for air defense organization and planning.
- 17 Mar GHQ AF assumed air defense mission in the U.S.
- 25 Mar War Department gave responsibility for organization and deployment of detector stations, communications, and observer systems to GHQ AF.
- 25 Mar- ADC conducted an air defense orientation course 12 Apr at Mitchel Field.
 - Apr Radiation Laboratory at M.I.T. began airborne tests of the first U.S. interceptor radar, known originally as the AI-10.
- 15 May The British flew their first jet, a Gloster-Whittle E-28 pioneer experimental aircraft.
- 27 May Five SCR-270 and two SCR-271 crews were in the field, operating and calibrating their equipment.
- 2 Jun First Interceptor Command created. ADC discontinued and its personnel absorbed by First Interceptor Command.
- 18 Jun Existence of radar (then called RDF) disclosed to the public of the U.K.
- 20 Jun U.S. Army Air Forces established under Maj. Gen. Henry H. Arnold. Air defense mission formerly assigned to GHQ AF reassigned to the Chief, USAAF, but delegated to AF Combat Command and its interceptor commands.

- 27 Oct Maj Gordon P. Saville published first manual on air defense doctrine.
- 7 Dec U.S. entered World War II following Japanese air attack on U.S. military installations in the Honolulu-Pearl Harbor, Hawaii, area.

At the time of the attack on Pearl Harbor, eight early warning stations operated in the U.S.: six in California, one in Maine, and one in New Jersey.

The most modern fighters available to the U.S. at the beginning of World War II were the P-39 "Aircobra" and the P-40 "Warhawk." Both fighters were built for defense purposes but neither had target-seeking radar, and neither was of much value in bad weather or darkness. The P-38 "Lightning" had just started to come off the production line when the war began. The P-47 "Thunderbolt" had just entered production and did not see combat until April 1943.

- 8 Dec USAAF fighter units went on air defense alert.
 GOC and Information and Filter Center units activated.
- 11 Dec Territory of the Western Defense Command in the U.S. designated a wartime theater of operations.
- 18 Dec War Department placed its new AA commands under operational control of the interceptor commands.
- 20 Dec Chief, USAAF, delegated responsibility for air defense to the CGs of Eastern and Western Theaters of Operation.
- 24 Dec Eastern Theater of Operations established.
- 31 Dec Twenty-one early warning stations in operation in the U.S.: six in California; four in the Pacific Northwest: seven in the North Atlantic area; and two in the Carolinas.

- Feb Approximately 14,000 Ground Observer Posts established: 9,000 along the East Coast; 2,400 along the West Coast; and 3,000 along the Gulf Coast.
- Mar GHQ AF abolished.
- Mar Second and Third Air Forces relieved of their air defense functions. First Air Force assigned air defense responsibility for the entire Atlantic Coast area; Fourth Air Force assigned air defense responsibility for the Pacific Coast area.
- 20 Mar Eastern Theater of Operations redesignated Eastern Defense Command.
 - Apr War Department published FM 1-15, "Tactics and Techniques of Air Fighting," which described desired air defense tactics. This was the first manual of its type.
 - May Twenty-five early warning radar stations operated on the West Coast.
 - May Six barrage balloon battalions deployed on the West Coast to provide a defense against attacking aircraft. Two battalions deployed in the Panama Canal Zone, one in Hawaii, and one at Sault Ste. Marie (Soo Locks), Michigan.
- 26 May Experimental P-61 (Black Widow) interceptor, designed specifically for air defense use, made its first flight.
- 15 Jul Ground Observer Corps became Army Air Forces Ground Observer Corps.
 - Aug Fifteen early warning radar stations completed on the East Coast. These provided air defense of industrial centers from Maine to Virginia.
- 11 Aug Air Defense Wings and Regions designated.
- 1 Oct First U.S. jet aircraft (Bell's XP-59A) flew at Muroc Lake, California.

Jun There were 76 radar stations fully operational in the U.S. Jul USAAF began accepting delivery of the P-61 "Black Widow" interceptor equipped with SCR-720 radar and four 20-millimeter cannons. It was replaced in the air defense inventory in 1949. 21 Jul War Department published FM 100-20, "Command and Employment of Air Power," which stated that normal composition of an air force included an air defense command. 24 Jul Air Defense Wings redesignated Fighter Wings. 18 Aug War Department ordered barrage balloon battalions inactivated. Ground Observer Corps and Aircraft Warning Corps 4 Oct placed on four-hour-a-week operation and on instant alert status. 27 Oct Western Theater of Operations terminated. Dec SCR-270 radar sets replaced by SCR-271s at sites in the southern U.S.

in northern U.S.

1943

The 6th Fighter Squadron, flying P-70s, reached Guadalcanal. (The P-70 was an A-20 converted for air defense use. It proved unsuccessful for the task but remained in the Pacific until late 1944).

AAF Ground Observer Corps reached its peak World

War II strength, approximately 1,500,000 volunteers.

SCR-270 radar sets replaced by SCR-271s at sites

AAF Aircraft Warning Corps established to operate

First U.S. Ground Control Intercept (GCI) site

established at Hicksville, L.I. (Site 8B).

Information and Filter Centers.

12

Feb

Apr

Apr

Apr

7 May

- Jan First time Germans used metal foil strips for producing false radar echoes (known to the RAF as "windows").
- Jan North American began development of the P-82 (Twin Mustang) interceptor. P-82 was essentially two P-51s mated by a center wing section.
- 30 Mar IX Air Defense Command formed for air defense of all European areas except the forward ground combat zone. It provided air, AA, and signal elements for coordinated air defense of all vital target areas.
- 1 May Fourth AA Command assigned to the Fourth Air Force on the West Coast of the U.S., marking the first time in the Zone of Interior that AA was assigned directly to an air force unit.
- 29 May Ground Observer Corps and Aircraft Warning Corps inactivated.
- 13 Jun First German V-ls fired in combat launched from France against England.
 - Jul Fighter Wings and Regions disbanded.
- 12 Dec Continental Air Forces activated and assigned mission of air defense of the U.S.
- During Luftwaffe decimated in unsuccessful attempt to provide air defense against Allied bomber offensive.

- Jan AAF began development of first air-to-air guided missile (JB-3). JB-3 was a 100-1b. bomb with wings, a guidance system, and a proximity fuse. The project was not successful.
- Feb Bell Laboratories given contract to develop a

surface-to-air missile for air defense use. Project named NIKE.

- Mar Boeing Airplane Co. at Seattle was asked to study possibility of developing a ram-jet vehicle of supersonic speed. This was the GAPA project which led to BOMARC.
- Aug Last U.S. early warning radar stations inactivated.
- Air Materiel Command asked manufacturers to submit design proposals for new all-weather interceptor. Design proposals led to the F-89.
- 29 Nov AAF authorized procurement of P-82s as an all-weather interceptor.
- 3 Dec Lockheed P-80, later to become one of Air Defense Command's interceptors and still later to be modified to provide ADC with its first solely rocket armed (2.75 FFAR) interceptor, delivered to the 412th Fighter Group at March Field, California.

1946

- $\begin{array}{lll} \textbf{Feb} & \textbf{Boeing began design studies and field tests on} \\ & \textbf{the GAPA missile.} \end{array}$
- Mar AAF contract awarded for study of ballistic missile defense.
- 21 Mar ADC organized at Mitchel Field, N.Y., with an interim mission "to organize and administer the integrated air defense system of the Continental U.S....exercise direct control of all active measures, and coordinate all passive means of air defense."
- AAF Air Defense Command activated at Mitchel Field, N.Y. It assumed control of the 414th Night Fighter Squadron, a purely paper organization, and the 425th Night Fighter Squadron, manned by one officer and two enlisted men. Two bases, Mitchel Field and Hamilton Field, California, assigned to ADC.

1 7 7 6

- 29 Mar Lt Gen George E. Stratemeyer assumed command of the Air Defense Command.
 - Apr University of Michigan received contract to study possibilities of development of a supersonic missile capable of reaching altitudes to 500,000 feet. This was the WIZARD program, forerunner of BOMARC.
- 10 Apr Northrop chosen as contractor for the F-89.
- 25 Apr Air National Guard organized.
- 10 Jun ADC mission expanded to the extent that ADC would be required to coordinate within the U.S. the means available from other services for air defense, such as Naval and Marine aircraft units temporarily shore-based.
- 6 Jul U.S. Army Antiaircraft and Guided Missile Center activated at Fort Bliss, Texas.
- 24 Oct AAF outlined need for a 70-Group air force in which 25 groups (75 squadrons) had fighter aircraft.

- 21 May The 505th AC&W Group--first postwar aircraft control and warning organization--activated at McChord Field, Washington.
- 26 Jul President Harry S. Truman signed the National Security Act of 1947 establishing a new defense organization and a separate Department "organized, trained, and equipped primarily for prompt and sustained air offensive and defensive operations."
- 18 Sep USAF established.
- 1 Oct North American XF-86, which later became an ADC interceptor, made its first flight.
- 21 Nov Air Force Chief of Staff approved Plan SUPREMACY

which provided for construction of an elaborate postwar radar network.

17 Dec USAF granted ADC authority to use fighter and radar forces of SAC, TAC, and ANG in an emergency.
ANG constituted the major source of air defense augmentation units.

1948

- 27 Mar USAF directed that radars in the Northwest be placed on 24-hour operation. Directive resulted from international tension due to Communist aggression in eastern Europe.
- 11Key West agreement formulated by military service chiefs. Agreement delineated respective service responsibilities for service roles and missions.
- 14 Apr ADC removed 24-hour AC&W operations requirement placed on radar equipment in the Northwest.
- 21 Apr Secretary of Defense James V. Forrestal assigned USAF the primary responsibility for air defense of the U.S.
- 23 Apr ADC directed to establish radar systems in Northeast, Northwest, and Albuquerque, New Mexico areas.
- 30 Apr The 503rd AC&W Group--first radar unit on the East Coast--formed at Roslyn, N.Y.
- 12 Jun First Air Force ordered to conduct air defense maneuvers.
- 26 Jun Berlin Airlift began.
- 1 Jul An Air Defense Division, headed by Maj Gen Gordon P. Saville, formed in HQ USAF.
- 2- Air defense maneuvers using Canadian "Vampires" 6 Aug as targets held in New York.
- 16 Aug Experimental F-89 made first flight.

1 3 3 7

mission of air defense. ADC remained as an

1948 (cont)

"operational" command but all air defense units were assigned to ConAC. TAC was also placed under ConAC to provide additional fighter strength for air defense. General Stratemeyer became ConAC commander, and General Saville assumed command of ADC.

- Jan Army established formal requirement for a surfaceto-air missile system to combat ballistic missiles.
- Jan USAF Board of Officers recommended development of a single-seat all-weather interceptor. This resulted in the F-86D.
- 10 Jan Northrop authorized to proceed with F-89 construction.
- 15 Jan Lt Gen Ennis C. Whitehead succeeded Lt Gen Stratemeyer as Commander, ConAC.
- 29 Jan Representative Carl Vinson (Ga.) introduced bill to speed guided missile research.
- l Mar Six ConAC air forces relieved of air defense responsibilities which were given to the Eastern and Western Air Defense Liaison Groups.
- 21 Mar Congress approved permanent radar network for the United States and Alaska.
- 21 Mar President Truman signed a bill authorizing an AC&W system (modified program).
- 30 Mar Congress passed Public Law 30 authorizing the Secretary of the Air Force (Sec AF) to construct a radar net costing \$85.5 million in Alaska and the continental U.S.
 - Apr Decision made to use the Hughes Falcon rather than the Ryan Firebird as interceptor armament.
 - Apr North American began modifying two F-86As for use

as air defense interceptors. Modified models were later designated F-86D.

- 16 May USAF Board of Senior Officers accepted General Saville's recommendation that the F-86D be designated a single-seat interceptor.
- Operation BLACKJACK took place in the Northeast-30 Jun first air defense exercise in the postwar era.
- 11 Jun AMC authorized to spend \$7 million on the conversion of the F-86 to interceptor configuration.
 - Sep Maj Gen Gordon P. Saville relieved as Commander, ADC and transferred to USAF headquarters.
- 1 Sep Eastern and Western Air Defense Forces activated.
- 10- Exercise LOOKOUT held in the Northeast--first exercise in the postwar era to employ a Ground Observer Corps.
- 23 Sep President Truman announced that the Russians had exploded an atomic device in August.
 - Oct First production model of E-l fire control system installed in the F-94A. This was the first postwar improvement over the wartime SCR-720.
- 21 Oct Fighter aircraft placed under continuous operational control of Eastern and Western Air Defense Forces.
- 29 Oct Congress appropriated \$85.5 million for construction of the Permanent AC&W system in the United States and Alaska.
- Operation DRUMMERBOY, first large-scale air defense exercise in the Northwest, conducted.
- 7 Nov USAF approved a plan for wider dispersal of the interceptor force. From 20 squadrons on seven bases, the force dispersed to 14 bases by the end of 1950. (Dispersal action actually directed on 17 July 1950).

1949 (cont) USAF ordered Office of the Chief of Engineers 2 Dec to proceed with construction of the first 24 sites of the Permanent AC&W system. 22 Dec North American's YF-86D completed first test flight at Edwards AFB, California. ConAC controlled 20 manned and equipped interceptor End of 1949 squadrons assigned to air defense. Fifteen of these had jets (F-80s, F-84s, and F-86s); five had F-82s. 1950 Fifty electronics firms invited to submit bids Jan for fire control system for the "1954 interceptor" (F-102) F-106). 1 Feb ConAC directed by USAF to establish a Civil Air Raid Warning System. 3 Feb USAF informally authorized ConAC to set up a Ground Observer Corps.

20

Mar

Mar

2 Mar

8 Apr

1 Jun

1 Jun

ADC interceptor squadrons began to receive the

F-94A, the first interceptor designed for air defense use. F-94 was essentially a two-place F-80 with a low power E-1 fire control system and

Construction of Permanent radar system began.

USAF placed a requirement with the JCS for ten

radar-equipped picket ships to be stationed off

ConAC authorized to begin limited identification

ConAC directed to establish a Military Air Raid

LASHUP radar network of 44 radar stations completed.

was armed with machine guns.

the east and west coasts.

Warning system.

intercepts with armed fighters.

Network operated with World War II type radar equipment until construction of the Permanent system.

- 1 Jun First U.S.-Canadian Emergency Air Defense Plan approved.
- 1 Jun ConAC formally authorized to establish Ground Observer Corps.
- Operation WHIPSTOCK, an air defense test in the Northwest, conducted.
- 25 Jun North Korea invaded South Korea.
- 27 Jun Round-the-clock air defense operations began in the U.S.
- 1 Jul \mbox{ADC} discontinued. Air defense mission remained with ConAC.
- 19 Jul The three armed services issued regulations (AFR 60-22) establishing Air Defense Identification Zones (ADIZ).
- An agreement between General J. Lawton Collins
 (U.S. Army) and General Hoyt S. Vandenberg (U.S.
 Air Force) gave air defense commanders operational
 control of Army AA.
- 24 Aug President Harry Truman authorized interception and engagement of aircraft anywhere in the United States.
 - Sep Modification of all tactical aircraft to include Mark X IFF began.
 - Sep Public Law 779 gave CAA the power to govern civil air traffic in peacetime.
- 1 Sep Nineteen contractors invited to submit bids for the 1954 interceptor (F-102/F-106) airframe.
- 2 Oct Hughes awarded contract for the "1954 interceptor"

fire control system. Contract was Project 1179, later the MA-1 FCS.

- Nov First prototype of E-4 fire control system assembled by Hughes.
- 8 Nov First all-jet fighter aerial combat in history occurred in Korea when USAF Lt Russell J. Brown, flying an F-80, shot down a MIG-15.
 - Dec CAA given authority to make the filing of flight plans by civilian pilots (except those on certain local flights) operating within the ADIZs mandatory. ADIZs established in July 1950 by Executive Order 10197 following the passage of PL 778, and set up as coastal, domestic, and international zones. Legislation, coupled with AFR 60-22, afforded the air defense system first real control over peacetime air traffic.
- 15 Dec USAF asked MIT to undertake study of the general problem of air defense. Study became Project CHARLES.
- 22 Dec U.S. Navy began making arrangements to have two picket ships available on 24-hour notice for duty in an emergency off the East Coast.

- Jan Continental Air Defense System (CADS) group--a selected group of specialists from Western Electric--formed to recommend improvements in existing radar equipment and logistics.
- ADC reconstituted and ADC General Order No. 2
 established the Command. Command moved from
 Mitchel AFB to Ent AFB in Colorado Springs, Colo.,
 under the command of Lt Gen Ennis C. Whitehead.
 ADC inherited a regular fighter force of 21
 fighter squadrons from ConAC, and 37 ANG fighter
 squadrons assigned an M-day air defense mission
 from the Air National Guard.

- 5 Jan 34th Air Division (Def) activated at Kirtland AFB, New Mexico.
- 12 Jan Boeing designated prime contractor for BOMARC.
- 12 Jan 74th and 75th Fighter Squadrons activated.
- 15 Jan Army Antiaircraft Command (ARAACOM) Headquarters moved from Mitchel AFB to Colorado Springs.
- 23 Jan USAF authorized calling 15 ANG interceptor squadrons into Federal service.
- 1 Feb Fifteen ANG fighter squadrons Federalized and assigned to ADC. This was the first major increment of interceptor strength.
- 20 Feb Operation TUNA began off the East Coast to determine picket ship capabilities. Operation continued through 19 March.
- 1 Mar Central Air Defense Force activated at Kansas City, Missouri.
- 2 Mar Six more ANG fighter squadrons were Federalized--bringing to 21 the number of ANG squadrons Federalized and assigned to ADC.
- 10 Mar ARAACOM assumed command, for the first time, of all antiaircraft forces assigned to air defense.
 - Apr 61st FIS at Selfridge AFB, Michigan, received first F-94B delivered to ADC.
 - Apr ADC first proposed an Airborne Early Warning and Control (AEW&C) capability.
- 14 Apr President Truman approved Radar Extension Program (PINETREE) on Canadian territory.
- 19 Apr 33rd Air Division (Def) activated at Tinker AFB, Oklahoma.
- 21 Apr ADC and TAC signed an agreement whereby TAC committed all units possessing air defense capability

1951 (cont)

(including fighter forces, radar equipment, and personnel) to ADC's use during an emergency. Similar agreements negotiated with SAC, ATRC, and Air Proving Ground Command (APGC).

- Jun 84th FIS at Hamilton AFB, California, received first F-89B delivered to ADC.
- 7 Jun 4750th Air Base Squadron (Gunnery Training), first ADC gunnery training unit, activated at Yuma County Airport, Yuma, Arizona.
- l Jul 35th Air Division (Def) activated at Kansas City, Missouri.
- 10 Jul USAF approved Mobile Radar Program.
- 26 Jul The three armed services agreed to the creation of Project LINCOLN--an armed forces-supported and M.I.T.-managed study of the air defense program.
- 1 Aug Project CHARLES group submitted report.
- 1 Aug United States and Canada ratified an agreement for construction of the PINETREE radar net in Canada.
- 22 Aug 81st Fighter Wing and its 91st, 92nd, and 116th Fighter Interceptor Squadrons transferred out of ADC for duty in England.
- 25 Aug Lt Gen Benjamin W. Chidlaw succeeded Lt Gen Whitehead as ADC commander.
 - Sep Convair awarded contract for a prototype of the "1954 interceptor." Prototype later became the F-102A.
 - Sep Republic given contract for development of an F-103 interceptor. Contract cancelled in September 1957.
 - Sep 35th Air Division (Def) headquarters moved from Kansas City, Missouri to Dobbins AFB, Georgia.

- 25th Air Division (Def) headquarters moved from
 Sep Silver Lake, Washington, to McChord AFB, Washington.
- 19 Sep Congress, in passing Public Law 150, directed that USAF would have three major commands: air defense command, strategic air command, and tactical air command, and such other commands and organizations as may be established from time to time by the Secretary of the Air Force. (See 6 Aug 1958).
 - Oct ADC fighter program cut from 61 to 57 fighter squadrons.
 - Dec President Truman ordered procedures set up for control of electromagnetic radiations (CONELRAD) during an emergency.
- During Development of Data Link--a system for presentation of data on a radar scope rather than through voice radio communications--began. System came into use in May 1956.

- Jan F-82F/G interceptors phased out of the ADC
 inventory.
- Jan 74th FIS at Presque Isle AFB, Maine, received first F-89C delivered to ADC.
- ADC proposed deployment of Mobile radar stations on the principle of strengthening a "double perimeter" defense of the Northeast, Northwest, and California areas.
- 18 Jan ADC proposed a requirement for small unmanned radars--later designated Gap Filler radars.
- 31 Jan ADC requested development of nuclear armament for interceptors.

- Feb Yuma County Airport (Arizona) target range selected as the site of ADC's first weapons employment center to provide tactical interceptor squadrons with live gunnery training.
- 8 Feb Reorganization of ADC ended the wing-base plan and created defense wings.
- 15 Feb 32nd Air Division (Def) headquarters moved from Stewart AFB, N.Y., to Hancock Field, N.Y.
- 20 Feb Maj. Gen Frederic H. Smith Jr. became Vice Commander of ADC. (He remained in that position until December 1956).
- 25 Feb Army NIKE I test-fired at the White Sands Proving Ground (WSPG) range.
- 1 Mar 319th FIS transferred out of ADC for duty over-
- 10 Mar First Multiple Corridor System for identification of traffic coming in from overseas placed in operation off San Francisco, California.
- 10- Operation PORPOISE conducted in WADF area to test 31 Mar the Multiple Corridor System of identification.
 - Apr First F-86F interceptors delivered to ADC.
- 1 Apr Multiple Corridor System, under the title Operation PERMA-PORPOISE, made an integral part of 28th Air Division identification system.
- 17 Apr ADC, for the first time on the basis of reported "unknowns," declared an actual command-wide condition of Air Defense Readiness.
- 1 May TAC began maintaining a daily air defense fighter alert at three bases. Condition continued until 1 September 1952.
- 27 May Original construction program for the Permanent radar net completed. (See Mar 1950).

- 29 May USAF asked Air Research and Development Command (ARDC) to study feasibility of arming interceptors with nuclear weapons. (See 31 Jan 1952).
 - Jun USAF approved establishment of an interim passive detection system in ADC.
 - Jun Air Materiel Command (AMC) announced successful completion of equipment installation scheduled for the Permanent radar net.
- Summer A group of scientists, representing M.I.T's
 Lincoln Laboratory and organizations outside
 Lincoln Laboratory, convened to discuss technical difficulties in air defense. Group became
 known as the "Lincoln Summer Study Group."
- 2 Jul USAF disclosed a new jet fighter, the Lockheed F-94C Starfire. First USAF fighter-interceptor armed solely with rockets (2.75 FFAR).
- 5 Jul ADC proposed establishment of a second phase of Mobile Radar Program with 35 additional radars.
- 14 Jul Operation SKYWATCH, 24-hour operation of the Ground Observer Corps in selected areas, began.
- 15 Jul The Secretary of Defense and Secretary of Commerce approved a plan for the security control of air traffic (SCATER).
- 22 Jul First successful flight of a production line NIKE missile made.
- Operation SIGN POST, first nationwide air defense exercise in the U.S., conducted.
 - Aug Lincoln Summer Study Group urged that a line of radars be constructed along the 70th parallel, connecting Alaskan radars with those operated by Northeast Air Command (NEAC).
- 3 Sep First fully configured Sidewinder air-to-air missile successfully flown at Naval Ordnance Test Station, Inyokern, California.

- 10 Sep First BOMARC test launching made at Cape Canaveral, Florida.
- 11 Sep Detachment 1, 59th FIS, began limited operations at Thule Air Base. (318th FIS replaced the detachment in July 1953.)
- 16 Sep USAF approved the two-base concept for the AEW&C program, selecting McClellan AFB, California, and Otis AFB, Massachusetts.
- 23 Sep First picket ship placed on 24-hour operation (off the East Coast).
- 24 Sep Lincoln Laboratory proposed that offshore radar towers be substituted for picket ships.
 - Oct 59th FIS transferred from ADC to NEAC for duty at Goose Bay.
- l Oct Project EAST RIVER (Civil Defense) completed.
 Report concluded that civil defense was almost useless without a strong, active air defense program.
- l Oct First Canadian Ground Observer Corps units organized.
- 18 Oct USAF approved second phase of the Mobile Radar Program.
 - Nov USAF decided that the F-102 would use the E-9 interim fire control system instead of the MA-1 system of the F-106.
- 1 Nov First hydrogen bomb exploded at AEC's Eniwetok proving ground.
- l Nov Fourteen ANG fighter squadrons, Federalized since 10 February 1951, released from active duty with ADC and returned to state control. Fourteen new regular USAF squadrons activated in ADC on 1 November to replace outgoing ANG units. USAF squadrons inherited ANG aircraft, equipment, and regular

County AFB, New York.

42nd FIS and 331st FIS activated at O'Hare International Airport, Chicago, Illinois, and Suffolk

24 Feb

- Mar 437th FIS at Otis AFB, Massachusetts, received first F-94Cs delivered to ADC.
- Mar F-89B interceptor phased out of ADC inventory.
- Mar Lockheed given contract to develop YF-104.
- 1 Mar Two ANG F-51 interceptors placed on five-minute alert status during daylight hours at Syracuse, New York, and Hayward, California, to test feasibility of using ANG units to stand five-minute alert. Test ran until 30 June.
 - Apr First F-86Ds delivered to ADC. Several squadrons received them about the same time.
- 1 Apr All ADC-manned PINETREE radar stations became operational in a LASHUP status.
- 1 Apr 82nd FIS transferred from ADC to MATS for duty overseas.
- 2 Apr Canada granted U.S. permission to conduct site surveys for stations of the Mobile Radar Program on Canadian territory.
- 7 Apr ADC submitted to USAF a requirement for a long range interceptor.
- 10 Apr USAF decided to adopt the Lincoln Transition System, later renamed Semi-Automatic Ground Environment (SAGE) system.
- 12 Apr Last of the Permanent radar net stations became operational, making "P" system fully operational.
- 20 Apr 325th, 15th, and 31st FISs activated at Hamilton AFB, California, Davis-Monthan AFB, Arizona, and Larson AFB, Washington.
- 27 Apr 13th (F-86D), and 438th (F-94B) FISs activated at Selfridge and Kinross AFBs.
- 25 May 357th FIS transferred from ADC to USAFE for overseas duty.

- 1 Jun 45th FIS transferred from ADC to USAFE for overseas duty.
- 20 Jun 318th FIS transferred from ADC to NEAC for duty overseas.
- 22 Jun 431st FIS transferred from ADC to USAFE for overseas duty.
- 10 Jul 61st FIS transferred from ADC to NEAC for overseas duty.
- 11- TAILWIND, second nationwide air defense exercise, 12 Jul conducted.
- 22 Jul Continental Defense Committee, under Maj Gen Harold Bull, reported defense programs inadequate.
- 27 Jul Armistice signed in Korea.
- 12 Aug Thermonuclear explosion took place in Russia.
 - Aug Flight testing of the E-9 fire control system began.
- 1 Sep Training unit at Yuma County Airport, Yuma, Arizona, raised to Wing status, becoming the 4750th Training Wing (Air Defense).
 - Oct USAF authorized ARDC to proceed with engineering to make the J-75 engine compatible with the F-106. The J-75 was an advanced version of the J-57 used in the F-102.
- 1 Oct 470lst AEW&C Squadron--first airborne early warning and control unit--activated at McClellan AFB, California.
- National Security Council approved NSC Paper No. 162, which incorporated most of the "Lincoln Summer Study Group" recommendations, including the DEW Line proposal.
- 21 Oct First Falcon missile fired from an airborne platform--the F-89D.

1953 (cont)

- 22 Oct General Nathan F. Twining, USAF Chief of Staff, and Admiral Robert Carney, Chief of Naval Operations, agreed to USAF providing AEW aircraft and the Navy providing picket ships and lighter-than-air aircraft for air defense. Agreement not formalized until 24 Dec.
- 24 Oct Experimental F-102 flew for the first time. Model did not have "coke bottle" configuration of the ultimate production model.
 - Oct Canadian-U.S. Military Study Group recommended establishment of Mid-Canadian Line for early warning along the 55th parallel.
 - Nov Project LOCK-ON tests of F-94C completed.
 - Dec F-80C interceptors phased out of ADC inventory.
 - Dec ADC fighter program increased from 57 to 69 squadrons.
- 18 Dec 326th FIS (F-86D) activated at Fairfax Field, Kansas.
- 24 Dec U.S. Air Force and U.S. Navy reached agreement on the seaward extension of radar and DEW Line barriers.

1954

- 7 Jan 18th FIS at Minneapolis-St. Paul, Minnesota, received first F-89D interceptor delivered to ADC.
- 11 Jan USAF approved construction of five Texas Towers (only three--No. 2, 3, and 4--actually constructed).
- 11 Jan USAF approved Gap Filler radar program.
- 11 Jan USAF approved Phase Three of Mobile Radar Program.
- 22 Jan JCS agreed to establish a JCS command for continental air defense.

- Rocketry training and controller's proficiency course began at Weapons Employment Center at Yuma County Airport, Yuma, Arizona.
- 4 Feb Eastern Air Defense Force instructed to establish Interim Corridor Identification System in New York-Atlantic City area.
- 16 Feb 444th FIS (F-86D) activated at Charleston AFB, South Carolina.
- 24 Feb President Eisenhower approved recommendation of NSC that Distant Early Warning (DEW) Line be built. Canada added approval in late 1954.
 - Mar F-86A interceptor phased out of ADC inventory.
 - Mar Project LOCK-ON--test of F-86D--completed.
 - Mar Project PULL OUT--modification program involving approximately 300 individual changes--began on F-86D fleet.
 - Mar USAF decided that E-9 fire control system was not sufficiently sophisticated for the F-102. E-9 used in version of the F-89 (F-89H) equipped with Falcon missiles.
- 5 Mar First test flight of the F-104 made.
- 18 Mar 460th FIS (F-86D) activated at McGhee-Tyson Municipal Airport, Tennessee.
 - Apr F-86E interceptor phased out of ADC inventory.
- 1 Apr 539th FIS (F-86F) activated at Stewart AFB, New York.
- 2 Apr JCS approved use of nuclear warheads in air-to-air rockets.
- l May Russia displayed a jet bomber for first time.
- 1 May ADIZ boundaries altered in Eastern and Central Air Defense Force areas.

34 1954 (cont) 1 May 8th Air Division activated at McClellan AFB, California, to supervise buildup of AEW&C force. 15 May SKYSCAN, nationwide study to determine the effectiveness of the Ground Observer Corps under alert conditions, began about this date. 28 May Design competition for Long-Range Interceptor (LRIX) organized with eight airframe contractors participating. 31 May 440th and 496th FISs transferred from ADC to USAFE for overseas duty. Jun Project HOP UP began on F-94C fleet. USAF authorized procurement of data link equipment Jun (AN ARR-39). Wright Air Development Center (WADC), however, recommended withholding engineering approval of the specified equipment until further studies made. ADC favored development of the McDonnell F-101 for use as an interceptor in preference to adapting the F-100 for air defense or developing an advanced version of the F-89. 2 Jun Canadian-U.S. Military Study Group recommended that the two governments agree in principle to establish DEW Line. 2 Jun ADC submitted requirement to USAF for a second weapons training center similar to the one at Yuma County Airport, Yuma, Arizona. 4 Jun Interim Maneuver Identification System (IMIS) put into operation in the New York area. 21-USAF air-to-air rocketry meet, interceptor phase, 27 Jun held at Yuma County Airport, Yuma, Arizona. 30 Jun Canadian government agreed to build Mid-Canada Line. Ju 1 F-94A/B interceptors phased out of ADC inventory.

- Jul 456th FIS (F-86D) activated at Truax Field, Wisconsin.
- 6 Jul Last conventional-type interceptor aircraft removed from ADC inventory.
- 8 Jul 337th (F-89D) and 413th (F-86D) FISs activated at Minneapolis-St. Paul Municipal Airport, Minnesota, and Truax Field, Wisconsin.
- 10- CHECK POINT, third nationwide air defense exercise. 11 Jul conducted.
- 20 Jul 433rd FIS transferred from ADC to AAC for duty in Alaska.
 - Aug USAF-RCAF Military Characteristics Committee established to develop DEW Line criteria mutually acceptable to both U.S. and Canada.
 - Aug 318th FIS returned to U.S. after serving overseas with NEAC and was reassigned to ADC.
- 1 Aug Airborne early warning operations began off West Coast.
- 6 Aug 74th FIS transferred from ADC to NEAC for duty overseas.
- 15 Aug Eight ANG fighter squadrons assigned to ADC began standing five-minute alerts with two interceptors from dawn to dusk. Another nine squadrons were added on 1 October 1954, bringing to 17 the number of ANG fighter squadrons standing dawn-to-dusk alerts.
- 1 Sep Continental Air Defense Command (CONAD) activated at Ent AFB, Colorado.
- 1 Sep Naval Forces CONAD (NAVFORCONAD) established at Ent AFB, Colorado.
- 1 Sep 18th FIS transferred from ADC to AAC for duty in Alaska.

- 29 Sep Experimental F-101 made first flight. Interceptor version became the F-101B Voodoo.
 - Oct F-89C interceptors phased out of ADC inventory.
 - Oct 57th FIS transferred from ADC to duty overseas.
 - Oct 82nd FIS returned to U.S. after an overseas assignment with MATS and was reassigned to ADC.
- 8 Oct 9th Air Division (Def) activated with headquarters at Geiger Field, Washington.
- 30 Nov WADC concluded that none of the proposals submitted in connection with LRIX design competition met military specifications.
 - Dec ADIZs reorganized.
 - Dec 530th FIS (F-86D) activated at Geiger Field, Spokane, Washington.
- 8 Dec 519th FIS (F-86D) activated at Sioux City Municipal Airport, Iowa.
- 20 Dec F-102A--"coke bottle" version of the F-102--made first flight.
- 21 Dec 87th FIS transferred from ADC to USAFE for overseas duty.
- 1954 Project HOT WHEELS began on F-86D fleet.

- Jan 518th FIS (F-86D) activated at George AFB, California.
- Jan F-86F interceptors phased out of ADC inventory.
- Feb USAF approved development of F-101 as an interceptor for ADC use and designated the interceptor version F-101B.

- Feb USAF approved ADC's "double perimeter" identification plan.
- 5 Feb ADC's second weapons employment center for live rocketry training opened at Moody AFB, Georgia, to train two-place interceptor (F-94C and F-89D) pilots. Moody replaced by Tyndall AFB on 1 July 1957.
- 15 Feb ADC's regular fighter force, for the first time, was completely equipped with all-weather fighter interceptor aircraft.
- 8 Mar 960th AEW&C Squadron activated at Otis AFB, Massachusetts, and the 963rd and 964th AEW&C Squadrons at McClellan AFB, California.
- 15 Mar M.I.T's Project LAMPLIGHT report recommended that Frequency Diversity radars be installed in the air defense system.
- 18 Mar Revised Fourth Phase Mobile Radar Program submitted by ADC to USAF.
- 21 Mar USAF approved Project ARROW, which redesignated fighter interceptor units to favor those with long historical and combat traditions.
- 23 Mar Test model of the F-104 flew at a speed of Mach 1.9 and reached an altitude of 60,000 feet.
- 10 Apr ADC requested that 38 programmed passive detection stations be cancelled.
- 20 Apr ADC submitted first SAGE operational plan to USAF.
 - May ADC spelled out requirement for arming the F-89D (redesignated F-89J upon modification) with two nuclear-tipped MB-1 unguided, air-to-air rockets.
- 1 May 8th Air Division reassigned from Western Air Defense Force to HQ ADC.

- 1 May Hughes Aircraft Co. began production of E-9 fire control system for F-89H.
- 5 May U.S. reached agreement with Canada regarding the establishment of DEW Line stations in Canadian territory.
- 20 May 'First Texas Tower, No. 2, built by Bethlehem Steel Co. at Quincey, Massachusetts, launched.
- 31 May General Benjamin W. Chidlaw retired from active Air Force service and from command of ADC/CONAD.
- 31 May Maj Gen Frederic H. Smith, Jr., became acting commander of ADC pending arrival of the designated commander, General Earle E. Partridge. General Partridge arrived 20 July.

- 12 Jul Texas Tower No. 2 towed to permanent location on Georges Shoal, approximately 110 miles off Cape Cod.
- 20 Jul General Earle E. Partridge assumed command of ADC and CONAD,
- 30 Jul First West Coast picket ship station manned on full-time basis.
- 8 Aug 965th AEW&C Squadron activated at McClellan AFB, California.
- 16 Aug First Army Hawk missile fired at WSPG.

- 18 Aug Thirty-three fighter interceptor squadrons redesignated in accordance with Project ARROW.
- 8 Sep 37th, 58th, and 85th Air Divisions activated at Truax Field, Wright-Patterson AFB, and Andrews AFB.
- 1 Oct Air Training Command began placing two of its allweather fighter interceptors at Perrin AFB, Texas, on full-time 5-minute alert duty with ADC.
- USAF air-to-air rocketry meet, interceptor phase,Oct held at Yuma, Arizona.
- 8 Oct 20th Air Division (Def) activated at Grandview AFB, Missouri.
- 8 Oct 465th FIS (F-89D) reactivated at Griffiss AFB, New York.
- 18 Oct 456th FIS (F-86D) reactivated at Castle AFB, California. The squadron had been inactivated on 18 August 1955 at Truax Field, Wisconsin, and replaced by the 325th FIS.
- 19 Oct Federal Communications Commission (FCC) authorized American Telephone and Telegraph Co (AT&T) to start work on SAGE radar warning network.
 - Nov Bids accepted and contracts awarded for construction of Texas Towers No. 3 and No. 4.

- l Nov 319th FIS returned to U.S. after an overseas assignment with FEAF and was reassigned to ADC at Bunker Hill AFB, Indiana
- Navy began placing fighter aircraft at San Diego, California, on air defense alert.
- 1 Dec New perimeter identification system put into operation around the continental United States.
- 2 Dec USAF assumed beneficial occupancy of Texas Tower No. 2.
- 5- Exercise CRACKERJACK, fourth nationwide air defense exercise, conducted. (Note: Nationwide exercises were not held in 1956 or 1957).

1956

- 17 Jan $\,$ OSD revealed to the public the existence of the SAGE program.
- 1720 Jan First worldwide radar evaluation conference held at ADC Headquarters.
 - Feb Flight testing of MG-3, radar element of MG-10 fire control system for the F-102A, began.
 - Feb USAF approved extensions of the Western DEW Line from Alaska to Midway Island, and Eastern DEW Line from Greenland to the Azores.
 - Feb ADC tactical evaluation team performed first tactical evaluation of an ADC unit.
 - Mar 98th FIS (F-89D) activated at Dover AFB, Delaware.
 - Mar Initial version of the radar-controlled air-toair missile (GAR-1) became operational with the 445th FIS at Wurtsmith AFB, Michigan.
 - Mar Project BELL BOY, conversion of F-89Ds to F-89Js, began.

- Mar First operational F-89H delivered to ADC received by 445th FIS at Wurtsmith AFB.
- Mar ADC designated as USAF's responsible agency for developing "an orderly program" to integrate air defense and air traffic control.
- 8 Mar First airborne test firing of MB-1 rocket took place at Holloman AFB, New Mexico. Rocket fired from an F-89D.
 - Apr 327th FIS at George AFB, California, received first F-102A delivered to ADC.
 - Apr USAF approved assignment of five F-104 squadrons to ADC.
- 8 Apr 482nd FIS activated at Seymour-Johnson AFB, North Carolina, with F-86D aircraft.
- 8 Apr 87th FIS reactivated at Lockbourne AFB, Ohio, with F-86Ds.
 - May Flight testing of the MG-12 fire control system for F-89J began.
 - May ADC submitted a plan to reduce Ground Observer Corps operations.
 - May Project FOLLOW-ON, conversion of F-86Ds to F-86Ls, began. Installation of data link (FDDL) equipment was a part of the modification made during the conversion.
- 7 May Texas Tower No. 2 began limited operations with an FPS-3A (later converted to an FPS-20A) search radar and two FPS-6 height finder radars. This was the first Texas Tower to become operational.
- 21 May First airborne H-bomb dropped from a B-52.
 - Jun Undeveloped F-102B redesignated F-106.
- 8 Jun 31st FIS reactivated at Wurtsmith AFB, Michigan, with F-102A aircraft.

1956 (cont) 8 Jun 484th FIS activated at K.I. Sawyer AFB, Michigan. F-89D/H aircraft authorized but not delivered until much later. 8 Jun 518th FIS reactivated at Klamath Falls International Airport, Oregon, with F-86D aircraft. 1 Jul For the first time, an Air Force Reserve unit having an M-day assignment with ADC--the 319th Fighter Bomber Wing at Memphis, Tennessee--began standing 5-minute alerts with two aircraft for 14 hours each day (dawn to dusk). 1 Jul Limited operations on the Newfoundland-Azores extension of the DEW Line began. Aug All ADC wings operating a direction center redesignated ADC sectors. Texas Tower No. 3 launched. During August, Tower No. 3 was towed to Nantucket Shoal, approximately 7 Aug 100 miles southeast of Rhode Island and erected. 8 Aug USAF approved ADC's proposal to reduce Ground Observer Corps operations. 9 Aug GAR-2A (infrared guidance) Falcon missile successfully fired at Holloman AFB, New Mexico. Initial airborne test firing of the GAR-4 (ad-Sep vanced infrared Falcon missile) took place. Yuma County Airport, one of ADC's two weapons employment centers, renamed Vincent AFB in honor 1 Sep of Brig Gen Clinton D. Vincent. General Vincent served as ADC's Deputy for Operations at the time of his death in 1956. 10 Sep ADC presented to USAF a plan for deployment of 40 squadrons of BOMARC missiles. USAF disapproved ADC plan for deployment of 40

of 22 squadrons.

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BOMARC missile squadrons and proposed deployment

42

13 Sep

- 17 Sep CONAD and ADC formally separated. General Partridge relieved of the ADC command, retaining only CONAD command position.
- 22 Sep Lt Gen Joseph H. Atkinson assumed command of ADC.
 - Oct 49th FIS at Hanscom Field, Massachusetts, received first F-86L delivered to ADC.
- 8 Oct 4604th AC&W Squadron (Texas Towers) activated at Otis AFB, Massachusetts, to provide logistical support for Texas Towers.
- 13- USAF Fighter Weapons Meet, interceptor phase, 18 Oct held at Vincent AFB, Yuma, Arizona. (No meet held in 1957).
 - Nov USAF ruled out development of a Medium Range Interceptor (MRIX) for air defense use.
- 6 Nov Joint CAA/ADC Radar Planning Group met for first time.
- 18 Nov 398th FIS activated at Hamilton AFB, California, with F-104 aircraft.
- 26 Nov OSD transferred responsibility for TALOS from USAF to the Army and issued a directive clarifying the roles and missions of the services.
- 29 Nov ADC assumed beneficial occupancy of Texas Tower No. 3.
 - Dec 4604th AC&W Squadron (Texas Towers) redesignated 4604th Support Squadron (Texas Towers).
 - Dec Construction of Texas Tower No. 4 underway at South Portland, Maine.
 - Dec Flight testing of the MA-1 control system for F-106A began.
 - Dec 84th FIS at Hamilton AFB, California, received first F-89J interceptors delivered to ADC.

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1956 (cont)

1956 Ryan Q-2A "Firebee" target drone became available to ADC.

- Jan Initial flight test of F-106 made.
- 1 Jan ADC's first nuclear armament capability achieved at Hamilton AFB.
- 8 Jan New York Air Defense Sector (ADS) activated and assigned to 26th Air Division.
- 8 Jan Detroit ADS activated and assigned to 30th Air Division.
- 8 Jan Washington ADS activated and assigned to 85th Air Division.
- 8 Jan Boston ADS activated and assigned to 26th Air Division.
- 8 Jan Bangor ADS activated and assigned to 32nd Air Division.
- 20 Jan ADC forwarded to USAF first concrete proposal for use of Frequency Diversity (FD) radars.
 - Feb USAF appointed Board of Officers to determine specifications for LRIX, designated F-108. North American, winner of the 1956 design competition, was to build the airframe.
 - 13 Feb First fully automatic tactical launching of BOMARC successfully conducted.
- 8 Mar Chicago ADS activated and assigned to the 37th Air Division.
- 27 Mar F-101B--interceptor version of the F-101--made its maiden flight.

- 1 Apr 59th, 61st, and 74th FISs reassigned to ADC when NEAC disbanded.
- 15 Apr ADC assigned operational control of DEW Line with inactivation of NEAC. 64th Air Division transferred from NEAC to ADC and assumed operational control of the DEW Line.
- 29 Apr First USAF test flight of F-106 made at Edwards AFB, California.
 - May Project FAST DRAW, confidence testing of GAR-1D missile from the F-102A, began.
- 16 May BOMARC IM-99B ordered into production.
- 28 Jun Texas Tower No. 4 towed to New York Shoal, approximately 80 miles southeast of New York City, and erected.
 - Jul ADC's first FPS-20 became operational at Palermo AFS, New Jersey.
- 1 Jul Navy Squadron ZW-1 began operating a blimp early warning station off the East Coast.
- 1 Jul Atlantic DEW Line sea barrier became fully operational.
- 1 Jul 73rd Air Division (Weapons) activated at Tyndall AFB, Florida, and ADC assumed control of Tyndall AFB for use as a Weapons Employment Center, replacing the facility at Moody AFB, Georgia.
- 1 Jul 8th Air Division at McClellan AFB inactivated.
- 15 Jul DEW Line from Cape Dyer to Cape Lisburne declared technically ready.
- 19 Jul USAF fired its first and only armed air-to-air nuclear defense rocket, the MB-1 Genie, from an F-89J over Yucca Flats, Nevada.
- 24 Jul Falcon GAR-2A successfully tested.

- - 31st and 317th Fighter Interceptor Squadrons Aug transferred from ADC to AAC for duty in Alaska.
 - Aug 18th FIS returned to the U.S. from Alaska and was reassigned to ADC at Wurtsmith AFB, Michigan, with F-102A aircraft.
- 1 Aug U.S. and Canada announced, jointly, agreement to integrate air defense forces and set up an integrated air defense command.
- 1 Aug East and west portions of the DEW Line placed under operational control of ADC and AAC, respectively.
- 13 Aug USAF took formal possession of the DEW Line from Western Electric, the prime contractor.
- 14 Aug ADC proposed that the entire Ground Observer Corps be placed on a ready reserve status.
- 15 Aug 64th FIS transferred from AAC to ADC and assigned to McChord AFB, Washington, with F-102A aircraft.
 - First combined Tactical Evaluation Operational Sep Readiness Inspection conducted on an ADC division-the 64th Air Division.
- Montgomery ADS activated and assigned to 35th Air 8 Sep Division.
- NORAD established at Ent AFB, Colorado. Depart-12 Sep ment of the Air Force appointed General Partridge, the CONAD commander, as Commander-in-Chief NORAD. He also retained his position as CINCONAD.
- 16 Sep First launching of BOMARC IM-99A missile at a QF-80 target proved successful

4 Oct SPUTNIK I launched by the USSR.

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- 8 Oct Duluth ADS activated and assigned to 37th Air Division.
- 23 Oct USAF BOMARC IM-99A, within two minutes from beginning of alert, successfully intercepted and knocked down a QB-17 target at a distance of 100 miles over the Atlantic.
 - Nov First Baker-Nunn precision optical satellite tracking camera installed at White Sands, New Mexico.
 - Nov 96th and 97th FISs inactivated at New Castle County Airport, Delaware. Both had F-94Cs at the time of inactivation.
 - Nov ADC assumed beneficial occupancy of Texas Tower No. 4.
- 1 Nov 65th and 433rd FISs transferred from AAC to ADC. 65th assigned to Richards-Gebaur AFB, Missouri, and 433rd went to Minot AFB, North Dakota.
- 7 Nov GOR 156, "Ballistic Missile Defense System," provided for a three-station radar complex together with computing, communications, and ZI display facilities to generate at least 15-minute warning of a missile attack.
 - Dec 469th FIS, using F-86D aircraft, inactivated at McGhee-Tyson Municipal Airport, Knoxville, Tennessee.
- 8 Dec Grand Forks ADS activated and assigned to 31st Air Division.
- 20 Dec Duluth ADS transferred from 37th Air Division to 31st Air Division.

- Jan F-102A Modification/IRAN program began.
- 1 Jan All 24-hour Ground Observer Corps posts and filter centers reduced to ready reserve status.

48 1958 (cont) 1 Jan Mid-Canada Line declared fully operational. 432nd FIS, with F-89H aircraft, inactivated at 2 Jan Minneapolis-St. Paul Municipal Airport. 8 Jan Seattle ADS activated and assigned to 25th Air Division. 8 Jan 42nd FIS at Stewart AFB, New York (F-86D); 63rd FIS at O'Hare International Airport, Chicago (F-86L); 65th FIS at Richards-Gebaur AFB (no acft asgd); 66th FIS at Oxnard AFB (no acft asgd); 354th FIS at McGhee-Tyson Municipal Airport (F-86D); and 433rd FIS at Minot AFB (no acft asgd) inactivated. DOD and Department of Commerce reached agreement 9 Jan on the integration of air traffic control and air defense radar facilities. 10 Jan USAF approved ADC's operational concept for FD radar system. OSD authorized USAF to proceed immediately with 14 Jan development of a Ballistic Missile Early Warning System (BMEWS), 4751st Air Defense Missile Wing activated at Eglin 15 Jan AFB (#9), Florida to develop and train BOMARC units. 26 Jan 83rd FIS at Hamilton AFB, California, received first F-104 delivered to ADC. 31 Jan EXPLORER I, first U.S. earth satellite, launched. 8 Feb RCA given prime contractor responsibility for construction and initial operation of BMEWS radar network. 15 Feb ADC given operational control and contract administration for DEW Line--except for the Aleutian extension which was under AAC. Mar WEX-VAL--WSEG ECM Evaluation Exercise of SAGE-tests began.

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- 19 Mar DEW Line (Greenland) extension approved by Denmark.
 - Apr F-86D interceptors phased out of ADC's inventory.
 - Apr 324th FIS transferred from ADC to USAFE for duty overseas.
- 15 Apr 4601st Support Squadron activated at Paramus, New Jersey, to represent ADC in contract administration of the DEW Line.
- 1 May Project RED SEA to determine operational capability of the DEW Line to detect, identify, and report to NORAD and RCAF/ADC combat operations centers, began. Project continued through 2 September 1958.
- 7 May F-104, flown by Maj Howard C. Johnson, USAF, set 90,249-foot world altitude record at Edwards AFB, California.
- 16 May Capt Walter W. Irwin, flying an F-104A over a tenmile course at Edwards AFB, set world speed record of 1404.10 mph.
- 22 May First guided airborne firing of an unarmed GAR-11 occurred.
- 10 Jun CINCONAD's terms of reference revised to authorize subordinate headquarters.
- 20 Jun 497th FIS transferred from ADC to USAFE for duty overseas.
- 23 Jun Atomic Energy Commission authorized to develop nuclear warhead for the GAR-11 missile.
- 25 Jun 74th FIS (F-89C) inactivated at Thule AB, Greenland.
 - Jun F-89D interceptor phased out of ADC's inventory.
 - Jul Construction of four Greenland DEW Line sites along the 67th parallel began.
- l Jul Pacific sea barrier became fully operational with four DERs and four AEW&C aircraft patrolling from Midway Island to Kodiak, Alaska.

- 1 Jul 46th FIS inactivated at Dover AFB, Delaware.
 - Aug ECCM test conducted in 37th Air Division area which ran through October.
- 1 Aug USAF approved inactivation of Ground Observer Corps effective 1 January 1959.
- 85th Congress passed PL 85-599, the DOD Reorganization Act of 1958, amending PL-150 to eliminate the part which made it directive upon the USAF to have an air defense command, strategic air command, and tactical air command as part of the USAF structure. PL 85-599 gave the Secretary of the Air Force authority to establish such commands as he deemed necessary (See 19 Sep 1951).
- 15 Aug 32nd Air Division inactivated.
- 15 Aug Bangor ADS transferred from 32nd Air Division to 26th Air Division.
- 15 Aug Syracuse ADS transferred from 32nd Air Division to 26th Air Division.
- 15 Aug 26th Air Division (SAGE) headquarters moved from Roslyn AFS, New York, to Syracuse AFS, New York.
- 15 Aug First successful launching of a BOMARC missile from Cape Canaveral, Florida, on signal from the SAGE control center at Kingston, New York took place.
- 17 Aug Texas Tower No. 2 became fully operational, and in September it became SAGE-operational.
- 1 Sep Washington ADS transferred from 85th Air Division to 26th Air Division.
- 1 Sep Portland ADS activated and assigned to 25th Air Division.
- 1 Sep 85th Air Division at Andrews AFB, Maryland, inactivated.
- 8 Sep Spokane ADS activated and assigned to 25th Air Division.

- 15 Sep Boston ADS became operational.
- 20 Sep Exercise TOP HAND, a nationwide air defense exercise, conducted.
 - Oct Texas Tower No. 3 became operational.

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- 30 Oct William Tell I, sixth annual USAF air-to-air rocketry meet, interceptor phase, held at Tyndall AFB, Florida.
- 21 Oct Two BOMARC missiles under SAGE control launched 12 seconds apart against a QB-17 target, successfully intercepted target.
 - Nov F-102A Modification/IRAN program completed.
- 8 Nov Sault Ste. Marie ADS activated and assigned to 37th Air Division.
- 15 Nov 32nd Air Division (SAGE) reactivated at Dobbins AFB, Georgia, replacing the 35th Air Division which discontinued.
- 15 Nov Montgomery ADS transferred from 35th Air Division to 32nd Air Division.
- 15 Nov 35th Air Division at Dobbins AFB, Georgia, discontinued.
 - Dec SAGE Combat Center No. 1 at Hancock Field, New York, (26th Air Division), became operational.
 - Dec Hanscom Field (SPACETRACK) control center established by AFSC.
- Late USAF, in conjunction with RCAF, embarked on a program called CADIN to integrate U.S.-Canadian air defense systems.

1959

Early "Configuration 5" F-102A modification program began.

- l Jan Executive agency control of CONAD transferred from the Air Force to the JCS.
- 1 Jan Grand Forks ADS transferred from 31st Air Division to 29th Air Division.
- l Jan Duluth ADS transferred from 31st Air Division to 37th Air Division.
- 1 Jan 46th Air Defense Missile Squadron activated at McGuire AFB, New Jersey.
- 5 Jan 60th FIS at Otis AFB, Massachusetts, received first F-101B delivered to ADC.
- 5 Jan Canada and the United States agreed in principle to a cost-sharing arrangement for joint air defense programs in Canada. This was for the CADIN program.
- 15 Jan First BOMARC interceptor missile launching from ADC's Missile Employment Facility at Santa Rosa Island, Florida, took place. Prior launchings had been made from Cape Canaveral.
- 31 Jan All Ground Observer Corps units discontinued.
 - Feb F-94C interceptors phased out of ADC's inventory.
- 1 Feb Gulf of Mexico Coastal ADIZ established.
- 1 Feb 58th Air Division (Def) at Wright-Patterson AFB, Ohio, discontinued.
- 1 Feb 6th Air Defense Missile Squadron activated at Suffolk County AFB, New York.
- 1 Feb Mark X IFF, with SIF, turned on in U.S.
- 1 Feb RCAF assumed responsibility for manning of DEW Line operational positions in Canada.
- 1 Feb Washington ADS became operational.
- 5 Feb ADC Super Combat Center plan approved.

- 15 Feb ADC officially assumed contract administration responsibility for DEW Line.
- 15 Feb Reno ADS activated and assigned to 25th Air Division.
- 15 Feb Los Angeles ADS activated and assigned to 27th Air Division.
- 15 Feb San Francisco ADS activated and assigned to 28th Air Division.
- 16 Feb 484th FIS (F-89D/H) inactivated at K.I. Sawyer AFB, Michigan.
- 1 Mar 26th Air Defense Missile Squadron activated at Otis AFB, Massachusetts.
- 1 Mar Great Falls ADS activated and assigned to 29th Air Division.
- 1 Mar Bangor ADS became operational.
- 1 Mar 26th Air Division became SAGE-operational.
- 18 Mar JCS approved locating new NORAD COC under Cheyenne Mountain at Colorado Springs, Colorado.
 - Apr Texas Tower No. 4 became operational manually, completing the Texas Tower program.
 - Apr Rocketry training of ADC interceptor crews stopped at the Vincent AFB, Arizona, Weapons Employment Center in preparation for moving the function to MacDill AFB, Florida.
 - Apr Installation of heavy BMEWS radar equipment began at Thule AB, Greenlard.
- 1 Apr Duluth ADS transferred from 37th Air Division to 30th Air Division.
- 1 Apr Sault Ste. Marie ADS transferred from 37th Air Division to 30th Air Division.

- 1 Apr 37th Air Division (Def) at Truax Field, Wisconsin,
 discontinued.
- 1 Apr 30th Air Division (Def) redesignated 30th Air Division (SAGE), and its headquarters moved from Willow Run Airport, Detroit, Michigan, to Truax Field, Madison, Wisconsin.
- 1 Apr Chicago ADS transferred from 37th Air Division to 30th Air Division.
- l Apr Eastern, Western, and Presque Isle ADIZs deleted.
- 1 Apr Minot ADS activated and assigned to 29th Air Division.
- 1 Apr Aleutian extension of the DEW Line--DEW West--became operational.
 - May Category III testing of F-101B began at Otis AFB, Massachusetts.
 - May 498th FIS at Geiger Field, Spokane, Washington, received first F-106A delivered to ADC.
- 22 May DOD, USAF, and FAA agreed to integrate and collocate air defense and air traffic control operations at Super Combat Centers.
 - Jun DOD's Master Air Defense Plan reduced BOMARC deployment to 18 sites, two of them in Canada. Manned interceptor units dropped to 44 squadrons.
 - Jun One of ADC's two Weapons Employment Centers moved from Vincent AFB to MacDill AFB.
 - Jun Project HEAD START, to provide experience in the training of USAF personnel to maintain SAGE computers, authorized.
- 15 Jun Phoenix ADS activated and assigned to WADF.
- 1 Jul 85th FIS at Scott AFB (F-86L); 518th FIS at Kingsley Field, Oregon (F-86D); and 330th FIS at Stewart AFB (F-86D/L) inactivated.

- 1 Jul 30th Air Division transferred from EADF to ADC.
- 1 Jul USAF cancelled requirement for DEW Line radar improvements.
- 1 Aug 26th Air Division transferred from EADF to ADC.
- 1 Aug 32nd Air Division transferred from EADF to ADC.
- 1 Aug 32nd Air Division (SAGE) headquarters moved from Dobbins AFB, Georgia, to Oklahoma City AFS, Oklahoma.
- 1 Aug General Laurence S. Kuter succeeded General Earle E. Partridge as CINCONAD and CINCNORAD.
 - Sep F-89H phased out of ADC's inventory.
 - Sep SAGE System Training Program (SSTP) began in ADC.
 - Sep SAGE Combat Center No. 2 (30th Air Division) became operational.
- 1 Sep 46th Air Defense Missile Squadron at McGuire AFB, New Jersey--the first BOMARC squadron--became operational.
- 1 Sep Detroit Air Defense Sector DC became operational.
- 1 Sep Testing of IM-99B BOMARC began at Cape Canaveral, Florida.
- 1 Sep 22nd Air Defense Missile Squadron activated at Langley AFB, Virginia.
- 3 Sep BOMARC IM-99A made its first successful interception of a supersonic target--a Regulus rocket.
- 14 Sep DOD authorized USAF to implement a third BMEWS site (Fylingdales, England).
- 17 Sep USAF cancelled requirement for a follow-on AEW&C aircraft.
- 23 Sep USAF cancelled development of F-108 advanced long range interceptor for ADC.

1959 (cont) 1 Oct 27th Air Division (Def) inactivated. 1 Oct Los Angeles ADS transferred from 27th Air Division to WADF. Chicago Air Defense Sector became operational. 1 Oct 1 Oct Sioux City ADS activated and assigned to 20th Air Division. 13 Oct William Tell II, the seventh annual USAF air-toair rocketry meet, held at Tyndall AFB, Florida. 14 Oct NIKE Zeus made its first test flight. Exercise PLAY BALL, a NORAD air defense exercise, 3-5 Nov held in Alaska, Western Canada, and Western U.S. 14 Nov F-106A Category III tests began. Tests continued through 15 June 1960. 15 Nov Duluth Air Defense Sector became operational. 20 Nov Memo of Understanding between ADC and U.S. Weather Bureau outlined joint use of ADC radar facilities. Dec "Configuration 5" modification to F-102A fleet completed. 1 Dec Second BOMARC site, manned by 6th Air Defense Missile Squadron, became operational at Suffolk County AFB, New York. F-104C piloted by Capt J. B. Jordon climbed to a 14 Dec new world's record of 103,389 feet. 15 Dec F-106A piloted by Maj J. W. Rogers set a world speed record of 1,595 mph. 15 Dec Grand Forks Air Defense Sector became operational.

1960

Jan USAF Chief of Staff General Thomas D. White testified before the House Appropriations Committee,

agreeing with compromise solutions in the Master Air Defense Plan of 1959 which cut BOMARC and SAGE programs.

- Jan SPACETRACK National Space Surveillance and Control Center at Bedford, Massachusetts, began operations.
- 1 Jan 33rd Air Division (Def) redesignated 33rd Air Division (SAGE) transferred from CADF to ADC, and its headquarters moved from Oklahoma City AFS, Oklahoma, to Richards-Gebaur AFB, Missouri.
- 1 Jan 20th Air Division (Def) redesignated 29th Air Division (SAGE) and transferred from CADF to ADC.
- 1 Jan 29th Air Division (Def) redesignated 29th Air Division (SAGE) and transferred from CADF to ADC.
- 1 Jan Kansas City ADS activated and assigned to 33rd Air Division.
- l Jan Oklahoma City ADS activated and assigned to 33rd Air Division.
- l Jan Sioux City ADS transferred from 20th Air Division to 29th Air Division.
- 1 Jan Albuquerque ADS activated at Kirtland AFB, New Mexico.
- 1 Jan 34th Air Division (Def) at Kirtland AFB, New Mexico, discontinued.
- l Jan 33rd Air Division (SAGE) headquarters moved from Oklahoma City AFS to Richards-Gebaur AFB, Missouri.
- 1 Jan 31st Air Division (Def) headquarters at Fort Snelling, Minnesota, discontinued.
- 1 Jan Eastern and Central Air Defense Forces discontinued.
- 6 Jan President Eisenhower issued rules for the safe handling of the MB-1.

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- 12 Jan ADC commanders authorized to scramble one aircraft, instead of two, to perform identification intercepts of unknowns.
- 15 Feb Great Falls ADS became operational.
- 15 Feb Memo of Agreement between the U.S. and the U.K. established third BMEWS site at Fylingdales Moor, Yorkshire, England.
 - Mar Test flying of ASG-18 began.
 - Mar Third BOMARC installation, manned by 26th Air Defense Missile Squadron, became operational at Otis AFB.
 - Mar F-102 "Configuration 6" modification started.
- 1 Mar 86th FIS (F-102A) at Youngstown Municipal Airport, Ohio, 321st FIS (F-89J) at Paine AFB, Washington, and 56th FIS (F-104) at Wright-Patterson AFB, Ohio, discontinued.
- 15 Mar Seattle Air Defense Sector DC became operational.
- 15 Mar 465th FIS (F-86L) at L.G. Hanscom Field inactivated.
- 24 Mar USAF testified before the House Appropriations Committee, proposing a drastic cut in procurement of BOMARC IM-99B.
- 25 Mar DOD announced a high priority for the MIDAS project.
- 25 Mar USAF announced further reductions in BOMARC missile squadrons and elimination of hardened SAGE combat center program (Super Combat Centers).
- 25 Mar 327th FIS (F-102A) discontinued.
- 25 Mar Navy picket ships withdrew from Atlantic DEW Line barrier.
 - Apr Texas Tower No. 4 began SAGE operations.

- l Apr Navy picket ships withdrew from Pacific DEW Line barrier.
- 1 Apr Goose ADS activated and assigned to 64th Air Division.
- 1 Apr 74th Air Defense Missile Squadron activated at Duluth Municipal Airport, Minnesota.
- l Apr l4th FIS (F-86L) discontinued at Sioux City Municipal Airport, Iowa.
- 4 Apr Project TRAILSMOKE, to determine feasibility of air traffic advisory service within SAGE, conducted.
- 13 Apr First BOMARC IM-99B missile launched from ADC's facility at Santa Rosa Island. Prior launchings had been from Cape Canaveral, Florida.
- 28 Apr First underground test firing of NIKE Zeus proved successful.
 - May SAGE Combat Center No. 3 (25th Air Division) became operational.
- 1 May 37th FIS (F-102A) discontinued at Ethan Allen AFB, Vermont.
- 4 May Fire in transmitter building at BMEWS Site No. 2 slowed construction.
- 24 May MIDAS II test satellite successfully orbited from AMR by an Atlas-Agena launch vehicle.
- 26 May 64th Air Division headquarters moved from Pepperrell AFB to Stewart AFB, New York.
 - Jun Congress restored BOMARC B program.
 - Jun F-86L interceptors phased out of ADC's inventory.
 - Jun Fourth BOMARC site, manned by 30th Air Defense Missile Squadron, became operational at Dow AFB, Maine.

- ADC's Weapons Employment Center at MacDill AFB, Florida, discontinued, leaving ADC only the Tyndall AFB Weapons Employment Center.
- Equipment installation began at BMEWS Site No. 2.
- 1 Jun 35th Air Defense Missile Squadron activated at Niagara Falls Municipal Airport, New York.
- 1 Jun Canadian Ground Observer Corps south of the 55th parallel discontinued.
- IM-99A BOMARC missile in ready storage at McGuire 7 Jun AFB caught fire and was destroyed. Although the nuclear warhead also burned, no atomic explosion resulted.
- 9 Jun BOMARC IM-99A successfully passed target discrimination tests.
- 10 Jun Army revealed that a NIKE Hercules missile shot down a Corporal missile--first known incident of one guided missile intercepting another.
- 15 Jun Sault Ste. Marie Air Defense Sector became operational.
- 16 Jun OSD authorized tracking radars for BMEWS Sites 1 and 2.
- 1 Jul ADC assumed responsibility for inspecting and training ANG units from ConAC.
- Navy blimp Squadron ZW-1 stopped manning a station 1 Jul in the Atlantic and dropped air defense as a primary mission.
- l Jul 47th FIS (F-102A) at Niagara Falls Municipal Airport, 323rd FIS (F-102A) at Ernest Harmon AFB, and 538th FIS (F-104A) at Larson AFB, discontinued.
- 1 Jul Detachment 1, 59th FIS established at Ernest Harmon AFB.

- 1 Jul 28th Air Division (Def) redesignated 28th Air Division (SAGE) and transferred from WADF to ADC.
- 1 Jul WADF discontinued.
- 1 Jul Reno ADS transferred from 25th Air Division to 28th Air Division.
- 1 Jul Phoenix ADS transferred from WADF to 28th Air Division.
- l Jul Los Angeles ADS transferred from WADF to 28th Air Division.
- 1 Jul 25th Air Division transferred from WADF to ADC.
- 8 Jul The 93rd FIS (F-86L) at Kirtland AFB and 337th FIS (F-104A) at Westover AFB discontinued.
- 8 Jul BOMARC IM-99B intercepted a supersonic target (Regulus), marking the first time an IM-99B had been launched at any target.
- 25 Jul The 61st FIS (F-102A) inactivated at Truax Field, Wisconsin.
- 19 Aug BOMARC IM-99A Category II tests completed.
 - Sep Last F-104 interceptor left the ADC inventory. (It rejoined ADC in 1963).
 - Sep Project ICE CUBE began: It established the command's capability to detect, track, and intercept extremely high altitude targets, and to develop, if needed, new high altitude tactics and training techniques.
 - Sep F-102A "Configuration 6" modification completed.
 - Sep First of three phases of Project WILD GOOSE began on the F-106A fleet. Generally complete by year's end.
- 10 Sep Exercise SKYSHIELD I, first continentwide NORAD

exercise, featuring grounding of all non-exercise air traffic in the U.S. and Canada, conducted.

- Oct Fifth BOMARC site, manned by 22nd Air Defense Missile Squadron, became operational at Langley AFB.
 Virginia.
- Oct Category III test period of the IM-99A BOMARC missile began. Actual launching of the first Category III missile delayed until 17 Jan 1961.
- 1 Oct BMEWS Site I, at Thule, Greenland, reached initial operational capability. This was the first operation of the BMEWS system.
- 5 Oct The moon, rising from the horizon, triggered a BMEWS Site I alarm level five--highest at the time--at NORAD COC.
- 10 Oct OSD transferred responsibility for further development of SPADATS from ARPA to the USAF.
 - Nov "Configuration 7/GAR-11" modification of the F-102A fleet began.
- 7 Nov JCS gave NORAD operational control and CONAD operational command of Space Detection and Tracking System.
- 10 Nov DOD placed Navy SPASUR and USAF SPACETRACK under NORAD for military functions.
 - Dec F-89J phased out of the ADC inventory.
 - Dec San Francisco ADS became operational.
 - Dec Project BROAD JUMP began on the F-106A fleet.
- 1 Dec NIKE Zeus with guidance successfully fired.
- 25 Dec 54th FIS (F-89J) at Ellsworth AFB, South Dakota, and 58th FIS (F-89H/J) at Walker AFB, New Mexico, inactivated.
- Late Construction started on BMEWS Site 3 at Fylingdales 1960 Moor, England.

- Early ADC's regular fighter-interceptor force completed transition to Century Series all-weather interceptors (F-101B, F-102A, and F-106A).
- 3 Jan President Eisenhower severed diplomatic relations with Cuba.
- 5 Jan CONAD published "Contingency Plan for Augmenting the Air Defense of Southern Florida." The plan resulted from the emergence of a Communist state off the Florida coast.
- 15 Jan Texas Tower No. 4, located on a shoal 80 miles southeast of New York City, collapsed with a loss of 28 lives.
- 19 Jan USAF-FAA Memorandum of Understanding outlined operational and support responsibilities at joint use long range radar sites.
- 23 Jan Phase II of three-phased Project WILD GOOSE began on F-106A fleet. Phase II was completed in May 1961.
- 30 Jan BMEWS Site 1, Thule, Greenland, became automatically operable. Estimated final cost of the site totalled \$425 million.
- 31 Jan BOMARC IM-99B Category II testing started.
- 15 Feb Great Falls ADS became operational.
- 2 Mar Last manned interceptor designed specifically for air defense use--an F-101B--delivered to 84th FIS at Hamilton AFB, California.
- 8 Mar President Kennedy directed the Administrator of the FAA to review air traffic control in the U.S.
- 30 Mar BOMARC IM-99B intercepted a subsonic QB-47 at a distance of 205 miles.

First squadron equipped with BOMARC IM-99Bs--37th Air Defense Missile Squadron at Kincheloe AFB,

Michigan -- became operational.

1 Jun

- 12 Jun Canada and the United States reached agreement on the transfer of 66 F-101Bs from USAF ADC to RCAF ADC. First aircraft delivered October 1961.
- 12 Jun SPADATS Operations Center at Ent AFB, Colorado, became operational.
- 15 Jun Project KITTY CAR, a radar modification under the Interceptor Improvement Program (IIP), began on F-101B fleet.
- 15 Jun Minot ADS became operational.
- 26 Jun First surveys began at various airfields for the purpose of selecting dispersal bases for ADC's regular interceptor force.
 - Jul Modifications made to BMEWS Sites I and II to preclude satellite data from triggering false alarms.
- Summer ADC invited to participate in planning a new allweather, joint service 2.5 Mach aircraft called TFX.
 - Jul 482nd FIS at Seymour-Johnson AFB, North Carolina, began deploying F-102A aircraft to Florida in support of SOUTHERN TIP operations.
- l Jul Oklahoma City ADS transferred from 33rd Air Division to 29th Air Division.
- 1 Jul Kansas City ADS transferred from 33rd Air Division to 29th Air Division.
- 1 Jul Texas Tower No. 4 disposed of by USAF.
- 1 Jul Twenty-five of 29 ANG fighter interceptor squadrons assigned M-day missions with ADC began standing constant 24-hour, five-minute alert vigils.
- 1 Jul 33rd Air Division (SAGE) discontinued.
- 1 Jul ADC assumed contract administration responsibility for the Greenland extension of DEW East.
- l Jul Basic Mark X IFF discontinued in the continental ACW system.

- l Jul National Space Surveillance and Control Center (NSSCC) discontinued and the new SPADATS Center went into operation at Ent AFB, Colorado. This marked the beginning of ADC's aerospace defense operations.
- 1 Jul 29th Air Division (SAGE) headquarters moved from Malmstrom AFB, Montana, to Richards-Gebaur AFB, Missouri.
- 1 Jul FPS-17 radar at Laredo AFS, Texas, taken over by ADC.
- 3 Jul SPADATS Center began performing interim operations at Ent AFB, Colorado.
- 9 Jul USSR unveiled bombers in the Mach 2 class at the Tushino Air Show, outside of Moscow.
- 12 Jul MIDAS III successfully launched into orbit.
- 15 Jul 9th Aerospace Defense Division activated at Ent AFB, Colorado.
- 20 Jul Final production model of F-106A accepted from Convair.
 - Aug Project DART BOARD, part of the IIP program, began on the F-106A fleet.
 - Aug Oklahoma City ADS became operational.
- 1 Aug Four Greenland sites of DEW East became operational.
 This represented completion of the entire DEW chain.
- 1 Aug 32nd Air Division headquarters moved from Dobbins AFB, Georgia, to Oklahoma City AFS, Oklahoma.
- 1 Aug Seventh BOMARC installation, manned by the 74th Air Defense Missile Squadron at Duluth Municipal Airport, Minnesota, became operational.
- 15 Aug Lt Gen Robert M. Lee succeeded Lt Gen Joseph H. Atkinson as ADC commander.

- 22 Aug Specific Operational Requirement (SOR) for NUDETS published.
- 7 Sep BOMARC IM-99B Category I testing completed.
 - Sep ADC-ANG use of GAR-11 nuclear missiles in F-102As approved.
- 1 Sep 4752nd Air Defense Wing activated at Oklahoma City AFS, Oklahoma.
- 11 Sep Project BEACON report submitted by FAA Administrator.
- 17 Sep BOMARC IM-99A Category III testing began.
- 18 Sep F-106A Project WILD GOOSE modifications completed.
- 30 Sep BMEWS Site II, Clear, Alaska, achieved initial operational capability.
 - Oct MIDAS IV successfully detected launch of a Titan ICBM from Cape Canaveral, Florida.

- 9 Oct Three ANG F-104-equipped squadrons having M-day assignments with ADC were Federalized and subsequently transferred to Germany for duty with TAC during the Berlin crisis: 141st FIS (ANG) at Knoxville, Tennessee; 157th FIS (ANG) at Eastover, South Carolina; and 197th FIS (ANG) at Phoenix, Arizona.
- 14- Exercise SKYSHIELD II, second continentwide air 15 Oct defense exercise, conducted.
- 15 Oct First height finder radar installed at Key West, Florida, GCI facility.
- 17 Oct QF-104 flew first mission as a BOMARC target.

23 Oct William Tell III, interceptor phase of 1961 USAF air-to-air rocketry meet, held at Tyndall AFB, Florida. The meet ran through 3 November 1961. Dec SAGE Direction Center at Sioux City became operational, completing the SAGE program in the continental United States. 31 Dec "Tracker" at BMEWS Site I (Thule, Greenland) achieved full operational capability. 31 Dec BMEWS Site No. II (Clear, Alaska) became fully operational. Cost of the site estimated at \$350 million. During F-102A "Configuration 7/GAR-11" modification 1961 completed. 1962 1 Jan Kansas City ADS discontinued. 5 Jan ADC took possession of BMEWS Sites I and II from AFSC. 19 Jan First successful ground launching of a GAR-9 rocket occurred. Back-Up Interceptor Control (BUIC) system, which 13 Mar provided back up for SAGE, approved to be implemented in two phases. 10 May BOMARC IM-99A Category III testing completed. 16 May BOMARC IM-99B Category II testing completed. 25 May First successful air-to-air launching of GAR-9 rocket occurred. Remote Combat Center at Hamilton AFB (28th Air Jun Division) became operational.

1961 (cont)

Project ended 17 November 1963.

Project HIGH SPEED--F-106 versus F-4H--began.

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23 Oct

- 27 Jun BOMARC IM-99A testing ended.
 - Jul Remote Combat Center at Richards-Gebaur AFB (29th Air Division) became operational.
 - Jul 57th FIS at Keflavik Airport, Iceland, transferred from MATS to ADC.
- 1 Jul ADC assumed training responsibility for its own pilots when the 4780th Air Defense Wing (Training) at Perrin AFB, Texas, was turned over to ADC by Air Training Command.
- 23 Jul Department of Defense and Federal Aviation Agency signed an agreement for joint use of ADC radar facilities in "Northern Tier" locations.
- 31 Jul General Laurence S. Kuter retired as Commander-in-Chief of CONAD and NORAD, being succeeded by General John K. Gerhart.
- 14 Aug Secretary of Defense McNamara visited ADC CONAD headquarters and was briefed on ADC's requirement for an Improved Manned Interceptor (IMI).
- 17 Aug GAR-9 rocket successfully launched at the direction of ASG-18 control system and scored a direct hit on a QF-80 drone.
- 24 Aug New communications trouble-shooting facility known as Communication Outage Restoration Section (COORS) Center activated by ADC at Ent AFB and placed in operation to serve NORAD.
- 1 Sep The Bomb Alarm System, built and operated for the Air Force by the Western Union Company, was turned over to the Air Defense Command. System linked some 100 key metropolitan and strategic centers with pole-mounted sensors, responsive to nuclear detonations.
- 12 Oct Mt Hebo FPS-24 rigid radome destroyed by high winds.
- 22 Oct President Kennedy publicly announced that Russian missiles had been erected in Cuba and that the U.S. intended to have them removed...

- 31 Oct First radar station in the United States powered by a nuclear reactor turned over to the Air Defense Command. Site located near Sundance, Wyoming.
- 23 Nov The Cuban crisis, which began on 22 October 1962, ended.
- 1 Dec 10th and final BOMARC site became operational at La Macaza, Canada, manned by the 447th Surface-to-Air Missile Squadron.

1963

- Jan "Continental Air Defense Study" (CADS) of the air defense system began. Study completed and reported on in May 1963.
- 2 Jan BOMARC ALRI testing began.
- 8 Jan Air Force announced decision to decommission Texas Towers.
- 15 Jan Texas Tower No. 2 decommissioned.
- MarApr
 The F-104 rejoined ADC during this period in the 319th FIS at Homestead AFB, Florida, and the 331st FIS at Webb AFB, Texas. It left the inventory on 15 November 1969.
 - Mar First ALRI (Airborne Long Range Input) station became operational in the SAGE net. Last station became operational in August 1963.
- 1 Mar 73rd Air Division (Weapons) redesignated 73rd Air Division.
- 1 Mar 319th FIS transferred from Chicago ADS to Montgomery ADS.
- 7 Mar Dedication of new ADC Headquarters Building, the Chidlaw Building, part of the Ent AFB complex in Colorado Springs.
- 25 Mar Texas Tower No. 3 decommissioned.

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- 5 Apr Air Force announced dispersal plans for more than 100 ADC jet interceptors to reduce their vulnerability to missile attack.
 - May BUIC I--first phase of SAGE decentralization program--completed.
- 15 May SAGE Direction Centers at Minot AFB and Beale AFB ceased operations.
- l Jun Spokane and Larson SAGE Direction Centers ceased operations.
- 10 Jun Texas Tower No. 2 disposed of.
- 25 Jun 4752nd Air Defense Wing discontinued.
- 25 Jun Oklahoma City Air Defense Sector reactivated and assigned to 29th Air Division.
- 26 Jun Last of 11 Air Force-manned sites of the PINETREE Radar system turned over for operation to the Royal Canadian Air Force (RCAF).
- 30 Jun Texas Tower No. 3 disposed of.
 - Jul United States and Canada agreed to close 28 small DEW Line stations.
- 1 Jul SAC took control of Grand Forks AFB from ADC.
- 1 Jul 64th Air Division discontinued.
- l Jul Goose ADS transferred from 64th Air Division to 26th Air Division.
- l Jul Air Forces Iceland reassigned from 64th Air Division to 26th Air Division.
- 1 Jul 498th FIS moved from Spokane International Airport to McChord AFB, Washington, and assigned to 325th Fighter Wing.
- 1 Jul 84th Fighter Group at Spokane International Airport discontinued.
- 1 Jul 4604th Support Squadron (Texas Towers) discontinued.

- 1 Jul Montgomery ADS transferred from 32nd Air Division to 26th Air Division.
- 1 Jul All radar unit site numbers designated "Z" instead of P, M, SM and TM as previously.

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- 1 Jul DEW Line functions transferred from 64th Air Division to 26th Air Division.
- 8 Jul USAF informed ADC that OSD recommended phase out of BOMARC IM-99A missiles.
- 15-17 Jul F-106As deployed from McChord AFB (325th Fighter Wing) to Elmendorf AFB (AAC), Alaska, to bolster the interceptor forces in Alaska.
- 1 Aug Lt Gen Herbert B. Thatcher succeeded Lt Gen Robert M. Lee as ADC commander.
- 1 Aug San Francisco ADS discontinued.
- 15 Aug Minot ADS discontinued.
- 17 Aug Canada agreed to permit use of nuclear warheads on BOMARC IM-99Bs based in Canada.
- 19 Aug BOMARC IM-99B Category III testing began.
 - Sep ADC mission expanded to give ADC responsibility for operating "the combat crew training school for USAF personnel."
- 1 Sep Spokane ADS discontinued.
- 1 Sep Detroit ADS transferred from 30th Air Division to 26th Air Division.
- 4 Sep Syracuse ADS discontinued.
- 4 Sep 32nd Air Division discontinued.
- 4 Sep Air Forces Iceland transferred from 26th Air Division to Goose ADS.
- 17 Sep BMEWS Site III achieved initial operational capability.

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1963 (cont)

- 15 Nov 10th Aerospace Defense Squadron organized at Vandenberg AFB, California, and assigned to ADC.
- 17 Nov BOMARC IM-99B Category III testing ended.
- 27 Nov OSD directed that four SAGE direction centers and two SAGE combat centers be deleted in FY 1968.
- 15 Dec Sault Ste. Marie ADS discontinued.
- 15 Dec Grand Forks ADS discontinued.
- 30 Dec ADC mission again expanded to include antisubmarine warfare.

1964

- 1 Jan Exercise GIN TONIC directed by USAF, Actual deployment began on 6 January 1964.
- 1 Jan K.I. Sawyer AFB, Michigan, transferred from ADC to SAC.
- 15 Jan BMEWS Site III at Fylingdales Moor, England, became operational, completing BMEWS network.
- l Mar lst Fighter Wing (F-106) at Selfridge AFB, Michigan, deployed to Alaska in support of Operation WHITE SHOES. 325th Fighter Wing (F-106) redeployed to its home station at McChord AFB, Washington.
- 27 Mar Alaska hit by a major earthquake.
 - Jul Last FPS-3 long range radar phased out of ADC radar network at Havre AFS, Montana.
 - Jul FPS-7B radar at Burns AFS, Oregon, destroyed by fire.
- 1 Jul FPS-49 radar at Moorestown, New Jersey, transferred from AFSC to ADC.
- 1 Jul ADC declared 477L system (NUDETS) an experimental system according to an agreement reached between ADC, ESD, and AFLC.

SECRET

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1964 (cont)

- l Jul Lt Gen Henry Viccellio became Vice Commander of ADC, replacing Lt Gen Robert H. Terrill who retired from active USAF service.
- 6 Jul Exercise CASHEW TEE conducted in Panama Canal Zone, involving RC+121s and F-102s from ADC to test ground environment and command and control systems in Panama.
- 15 Jul SPACETRACK radar at Laredo, Texas, inactivated.
- 23 Jul BOMARC IM-99A phased out of ADC's inventory as a tactical weapon. Last missile removed from operational status at Suffolk County AFB, New York, by 6th Air Defense Missile Squadron.
- (S) ADC notified USAF that it supported a minimumcost interim SLBM system. On the east coast the
 Moorestown radar was to be diverted from its SPACETRACK role at an appropriate DEFCON to an SLBM
 detection and warning role. Facing the Caribbean
 the FPS-85 phased array radar at Eglin AFB provided
 the needed capability. On the west coast, minimumcost modifications of the FPS-35 radars at Baker,
 California, and Boron, Oregon, were to be made to
 give them an SLBM capability. For an extension of
 this capability, ADC supported immediate development of an Over-the-Horizon prototype radar in the
 continental United States.
 - Aug First U.S. bombing of North Vietnam occurred.
- 1 Aug 10th Aerospace Defense Squadron transferred from HQ ADC to 9th Aerospace Defense Division.
- 15 Aug Air Marshal C. Roy Slemon, Deputy CINCNORAD since September 1957, retired from active RCAF service. He was succeeded by Air Marshal C. R. Dunlap.
- 15 Sep OSD directed establishment of a DOD-FAA unit to resolve problems associated with establishment of a National Surveillance and Control System.
- 17 Sep President Johnson announced development of two weapon systems capable of intercepting and destroying orbiting armed space satellites. President

Johnson also revealed development of an "over-the-horizon" radar that could "look around the curve of the Earth" and detect a missile attack "within seconds" after its launching. The President said that the satellite-interceptor systems were already in place and that the new radar was being installed. ADC crews manned the Air Force portion of the system employing the Thor missile.

- 21 Sep First production model of the GSA-51 BUIC computer delivered to North Truro AFS (Z-10), Massachusetts.
- 30 Sep YF-12A unveiled to the public at Edwards AFB, California.
- 1 Oct Montgomery ADS transferred from 26th Air Division to ADC.
- 16 Oct The Chinese Communists exploded an atomic device in the western region of China.
- 17 Oct F-111 fighter, formerly known as the TFX, displayed to the public at Fort Worth, Texas.
- 30 Oct NORAD began manning the COC under Cheyenne Mountain.
- 16 Nov USAF directed inactivation of the 15th FIS effective 24 December 1964.
- 27 Nov USAF approved ADC's recommendation for the BUIC III system.
- 30 Nov 325th Fighter Wing at McChord AFB relieved 1st Fighter Wing in Operation WHITE SHOES deployment to Alaska.
- 8 Dec CINCNORAD advised the JCS that he favored the F-12A to fill the IMI requirement.
- 11 Dec USAF directed AFSC to proceed, within the funds available, with the transition into BUIC III.
- 15 Dec 6th Air Defense Missile Squadron at Suffolk County AFB and 30th Air Defense Missile Squadron at Dow AFB inactivated.

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1964 (cont)

- 15 Dec ADC, NORAD, and ESD representatives completed selection of sites for both BUIC III and BUIC III.
- 15 Dec Cottonwood AFS (Z-150) ceased operation; it was the first of 16 ADC radar stations to be closed during the next three years.

1965

- During Navy began phase down of operations on its Pacific barrier to two aircraft and eliminated three picket ship stations on the East Coast.
- During
 Jan
 (S) NORAD Alert Warning System (NAAWS) deemed
 unreliable and returned to AT&T for re-engineering.
 AT&T proposed an improved system, acceptable to
 NORAD and ADC, to be operational by 1 Feb 1966.
- l Jan 4684th Civil Engineering Squadron and 4684th Support Squadron at Sondrestrom Air Base inactivated.
- 4 Jan

 RCA selected as the contractor for installation of a new tracker at the BMEWS site at Clear,
 Alaska. Though essentially the same as the FPS-49 used at Sites 1 and 3, the tracker was designated FPS-92.
- 5 Jan (S) Category 2 testing of the FSR-2 optical sensor at Cloudcroft, New Mexico, began. Results indicated that the sensor did not meet specifications.
- 5 Jan FPS-85 phased-array radar at Eglin AFB almost entirely destroyed by fire.
- 19 Jan First BOMARC A (CIM-10A) launched as a target for ADC interceptors.
- During Proposed doctrine for air defense operations pre-Feb pared by HQ ADC and forwarded to USAF.
- During OSD announced the phase out of East and West Coast Feb picket ship operations.

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1965 (cont)

- 4 Feb ADC fighter pilots scored first interception of a BOMARC drone target. Target flew at more than 1,500 miles per hour at an altitude of more than 50,000 feet.
- 7 Feb President Johnson ordered an air strike on North Vietnamese installations. CONAD went on DEFCON 4.
- 11 Feb ADC requested USAF permission to delete nine gapfiller radars. Permission received on 22 March 1965 with an operational cut-off date of 1 April 1965.
- 12 Feb USAF approved the reorganization concept proposed in the ADC plan of 1 September 1964.
- 12 Feb (S) USAF approved ADC's proposal to conduct a site survey in New Zealand to determine the operating location for an additional Baker-Nunn camera.
- 15 Feb Electronics System Division (ESD) began SLBM detection tests at Z-65, Manassas AFS, using an FPS-35 and an FST-2.
- 23 Feb DOD told USAF that it authorized an accelerated rebuilding program for the phased-array radar which burned at Eglin AFB.
- 1 Mar Five radar sites phased out of the SAGE system: Z-13, Z-24, Z-55, Z-67, and Z-177.
- 6 Mar USAF informed informed ADC that the RCAF might not allow any BUIC III stations on its territory.
 ADC was cautioned to plan a fall-back position by deleting all proposed Canadian sites.
- 10 Mar ADC and TAC concurred in a near-term AWACS, but expressed disapproval with the radar system characteristics.
- 11 Mar ADC submitted a QOR for a satellite classification and mission assessment capability (SCAMAC) to accomplish the identification function in space defense.
- 18 Mar Category II testing on FPS-80 radar at Shemya began (Project BLUE FOX).

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1965 (cont)

- 22 Mar ADC proposed to USAF that the existing ground guidance station at Johnston Island be replaced with the AF Titan I radar, mated to the Univac 642B computer.
- Air Staff and OSD supported ADC's requirement for a third computer in the Cheyenne Mountain Center to be used to augment SPACETRACK computer capability. The SCAF computer at Hanscom would be installed in the CMC for this purpose.
- 31 Mar General John K. Gerhart, CINCNORAD, retired from the Air Force and was succeeded by General Dean C. Strother.
- 31 Mar The radio station at Sondrestrom AB burned down at a loss of approximately \$200,000.
- 31 Mar Mid-Canada Line ceased operations.
- During NORAD informed that NUDETS Phase 2 cancelled.

 Apr (OSD terminated the entire NUDETS program on 31 August 1965, effective first quarter Fiscal 1967).
- During
 Apr
 Two six month studies began to determine the most suitable aircraft for a near-term AWAC system.
 Compatability of the airframe, radar, and non-radar avionics and a determination of the command and control relationship of AWACS to other TAC and ADC command and control systems were to be studied. In March 1965 USAF had authorized AFSC \$2 million for airframe definition studies and \$300,000 for AWACS communications studies.
- 8 Apr ADC accepted FPS-80 tracking radar at Shemya.
- 20 Apr (S) ADC received notice that Canada approved resurvey of four Canadian bases for the ADC fighter dispersal program. Bases were at Namao, Cold Lake, Val d'Or, and Portage.
- 26 Apr Thirty-three additional B-57s programmed for ADC.
 Consideration given to establishing a fourth Defense
 System Evaluation Squadron as a result.

- 30 Apr The U.S. State Department requested the government of New Zealand authorize a site survey for a Baker-Nunn camera to be installed on the southern island.
- During YF-12A set four world speed and altitude records May at Edwards AFB.

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- During

 DOD authorized two AWACS programs. The first was to produce two prototype AWAC aircraft by the end of CY 1969. Three airframe manufacturers were asked to submit studies by December 1965, to define their proposals. Funding was \$750,000 on an openend contract or \$250,000 per company. The second program developed an overland radar capability and was funded at \$40 million. Airframe study contracts went to Douglas, Lockheed and Boeing. Aircraft were to be of the jet cargo type.
- During ADC deployed a F-104 squadron to support the con-May tingency operation in the Dominican Republic.
- 1 May Pacific element of DEW Line extension ceased operations.
- 13 May
 OSD approved a computer to be installed in the Hamilton Combat Center and the complete closure of the Reno SAGE facility by the end of FY 4/66.
 GSA-51 computer was to be operational by 1 July 1966. The Reno Direction Center ceased operations on 1 April 1966.
- 18 May The 931 AC&W Sq at Thule AFB was relieved of air defense commitments but continued to operate the prime radar for support of RAPCON at Thule.
- 20 May USAF directed ADC to continue WHITE SHOES deployment until FY 1.67 because large Southeast Asia commitments prevented TAC from assuming the mission as acheduled.
- 21 May ADC told CSAF of the requirement for four C-130 aircraft for logistic support for nuclear weapons.
- 9 May (S) Air Force Weapons Laboratory conducted a feasibility program to determine the possibility of

80

1965 (cont)

(S) developing a guided nuclear missile directly adaptable to the F-101B and F-106 airframes and fire control systems. A QOR was declared valid by ASD on 28 July 1965.

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- 23 Jun General Electric awarded a contract to install parametric amplifiers on BMEWS detection radars for a contract price of \$787,974.
- 25 Jun 647, 654, 681, 706, 781, and 822 Radar Sqs (SAGE) discontinued.
- l Jul Picket ships on both the East and West Coasts completed phase out.
- 1 Jul 482 FIS at Seymour-Johnson AFB released from alert for decommissioning. Squadron relieved of its alert commitment at Key West on 1 August, being replaced by the 326 FIS from Richards-Gebaur AFB.
- 1 Jul At Thule AB, 4683rd Air Def Wing, Air Police Sq, Civil Eng Sq, Consolidated Acft Maint Sq, Supply Sq, and Transportation Sq were discontinued, as was the 332nd FIS.
- 1 Jul Jurisdiction for USAF facilities on Dauphin Island AFS transferred from AFLC to ADC.
- 1 Jul (S) All ADC/ANG units required to maintain three aircraft on five or fifteen minute alert.
- 11 Jul . An EC-121 AEW&C aircraft of the 551st AEW&C Wing at Otis AFB ditched in the Atlantic off Nantucket, Massachusetts. Of the crew of 19, including two passengers, only three survived.
- 25 Jul 4758 Defense System Evaluation Squadron moved from Biggs AFB to Davis-Monthan AFB.
- 28 Jul (S) ASD validated ADC's QOR for an improved missile for the F-101 F-106 aircraft in the post-1966 time period.
- 1 Aug Lt Gen Charles B. Westover was assigned Vice Commander of ADC, replacing Lt Gen Henry Viccellio who became Deputy Commander in Chief of STRICOM.

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1965 (cont)

- 1 Aug Last F-86 left the air defense inventory. The aircraft had been employed by the 196th FIS of the ANG at Ontario, California.
- 15 Aug BUIC II NCC at Z-10, North Truro AFS, Massachusetts, became fully operational, thereby making its AN/GSA-51 the first fully operational computer in the BUIC II program.
- 18 Aug OSD directed USAF to proceed with the installation of a receiver station in the over-the-horizon radar program in the United Kingdom.
- 18 Aug Canadian government approved the installation of two BUIC III stations on Canadian territory.
- 18 Aug USAF approved ADC's proposal to implement the ADC reorganization plan concurrently with the ground environment reconfiguration on 1 April 1966.
- 26 Aug (S) OSD authorized a total of 19 BUIC III facilities and specifically excluded the 20th asked for by ADC.
- 31 Aug ADC directed 9th Aerospace Defense Division to coordinate the necessary actions to establish a single integrated space defense center in the Cheyenne Mountain Complex no later than 3 Sep 1965.
- 1 Sep COMNAVFORCONAD phased out concurrent with the phasing out of the DEW Line extension and the Barriers.
- 3 Sep Space Defense Center in Colorado Springs activated.
- 8 Sep TAC presented ADC with its AWACS deployment concept which coincided with the ADC position on every substantial issue.
- 8 Sep (S) ADC concurred in the choice of Tokorozawa in Japan as a site for the proposed third over-the-horizon radar forward scatter transmitter facility.

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9 Nov

5 Dec

14 Dec

1965 (cont)

23 Sep Niagara Falls Municipal Airport (MAP) redesignated Niagara Falls International Airport (IA). USAF approved locating 14th AF at Gunter AFB. 30 Sep Oc t Boeing, Douglas, and Lockheed presented AWACS study progress reports to ASD. 4 Oct An agreement between the governments of the United States and Canada for the overall control of nuclear weapons concluded. 6 Oct USAF decided to transfer additional B-57 aircraft from ADC to PACAF, 8 Oct 482nd FIS at Seymour-Johnson inactivated. 18 Oct ADC requested that USAF furnish \$500,000 in additional funds for commercial studies of AWACS. 18 Oct Deputy Under Secretary of the Air Force for International Affairs told USAF to consider Korea as the site for one of the OTH transmitter sites. ADC asked USAF to provide 34 B-66 ECM aircraft to 19 Oct take the place, in part, of B-57s transferred to PACAF. 1 Nov 82nd FIS at Travis AFB, California, relieved of all alert requirements prior to its movement to Okinawa. ADC requested of USAF an ECCM capability in the 1 Nov

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design of the AWACS system.

detection system.

affect ADC tactical air posture.

in-flight refueling capability.

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Power failure in northeastern United States caused only minor communications outages and did not

AVCO Corporation awarded contract to install SLBM

AWACS working group recommended addition of an

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1965 (cont)

- 16 Dec National Guard Bureau asked USAF to assign five F-101 squadrons to the ANG in FY 1968 on inactivation of the units.
- 17 Dec As a result of a satisfactory system performance demonstration of the basic NORAD COC on 15 December, ADC, NORAD, and CMCMO signed an operational turnover agreement.
- 30 Dec (S) AFLC directed that ADC return all 20 millimeter combat ammunition and 2.75 FFARs for use in Southeast Asia.

1966

- 6 Jan DOD approved ADC plans to install five FPS-6/90 height finders at FAA surveillance area sites during FY 1967.
- 8 Jan OSD approved deletion of an additional gap-filler site from the force structure in FY 1966. ADC selected Z-59A, Shafter, California, for deletion.
- 10 Jan SMAMA met with representatives of the Burroughs Co. in an effort to speed up delivery of spare parts for the GSA-51 BUIC II computer.
- 8 Feb Final acceptance of the NORAD Cheyenne Mountain Complex.
- 14 Feb 82nd FIS deployed from Travis AFB, California, to Naha AB, Okinawa, for participation in Southeast Asia operations.
- 18 Feb MITRE completed a study on the role of the FPS-85 as a back up to the Space Defense Center.
- 21 Feb Nuclear Detection and Reporting System (NUDETS) operation ceased.
- 1 Mar Keno AFS, Blaine AFS, Cape Charles AFS, Fortuna AFS, and Charleston AFS became operational as BUIC II sites.

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1966 (cont)

- 4 Mar Acceptance testing of the third Philco 2000 computer for the NCMC began.
- 11 Mar 325th FIS, Truax Fld, Wisconsin, relieved of alert duties.
- 25 Mar 64th FIS, Paine Fld, Washington, relieved of alert duties.
- 25 Mar USAF directed ADC to initiate planning for movement of the 325th FIS from Truax Fld, Wisconsin, to Misawa AB, Japan.
- 1 Apr Havre AFS, Finland AFS, and Mt Laguna AFS became operational as BUIC II sites.
- 1 Apr Reorganization and reconfiguration of ADC became effective.
- Numbered Air Forces organized as follows: First Air Force at Stewart AFB, New York: HQ Fourth Air Force at Hamilton AFB, California; HQ Tenth Air Force at Richards-Gebaur AFB, Missouri; and HQ Fourteenth Air Force at Gunter AFB, Alabama.
- Ten new air divisions organized: HQ 20th Air Division at Truax Fld, Wisconsin, HQ 21st Air Division at McGuire AFB, New Jersey: HQ 27th Air Division at Luke AFB, Arizona; HQ 31st Air Division at Oklahoma City AFS, Oklahoma: HQ 32nd Air Division at Gunter AFB, Alabama: HQ 33rd Air Division at Fort Lee AFS, Virginia; HQ 34th Air Division at Custer AFS, Michigan; HQ 35th Air Division at Hancock Fld, New York; HQ 36th Air Division at Topsham AFS, Maine; and HQ 37th Air Division at Goose AB, Labrador.
- 1 Apr The 4624th Air Base Squadron organized at Hancock Fld, New York; 4626th AB Sq at Topsham AFS, Maine; 4627th AB Sq at Custer AFS, Michigan; and 4644th AB Sq at Sioux City MAP, Iowa.
- 1 Apr 4630th Support Squadron (SAGE) organized at Goose AB, Labrador.

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- The following units discontinued: HQ 73rd Air Division at Tyndall AFB, Florida; HQ Bangor ADS at Topsham AFS, Maine; HQ Boston ADS at Hancock Fld, New York; HQ Chicago ADS at Truax Fld, Wisconsin; HQ Detroit ADS at Custer AFS, Michigan; HQ Duluth ADS at Duluth IA, Minnesota; Goose ADS (Manual) at Goose AB, Labrador; HQ Great Falls ADS at Malmstrom AFB, Montana; HQ Montgomery ADS at Gunter AFB, Alabama; HQ New York ADS at McGuire AFB, New Jersey; HQ Oklahoma City ADS at Oklahoma City AFS, Oklahoma; HQ Phoenix ADS at Luke AFB, Arizona; HQ Portland ADS at Adair AFS, Oregon; HQ Seattle ADS at McChord AFB, Washington; HQ Sioux City ADS at Sioux City MAP, Iowa; and HQ Washington ADS at Fort Lee, Virginia.
- 1 Apr The following unit redesignations made:
 25th Air Division (SAGE) to 25th Air Division;
 26th Air Division (SAGE) to 26th Air Division;
 28th Air Division (SAGE) to 28th Air Division;
 30th Air Division (SAGE) to 30th Air Division.
- 1 Apr Units moved as follows: HQ 26th Air Division (SAGE) from Stewart AFB, New York, to Adair AFS, Oregon: HQ 28th Air Division (SAGE) from Hamilton AFB, California, to Malmstrom AFB, Montana; HQ 29th Air Division (SAGE) from Richards-Gebaur AFB, Missouri, to Duluth IA, Minnesota; and HQ 30th Air Division (SAGE) from Truax Fld, Wisconsin, to Sioux City MAP, Iowa. These moves were made without personnel or equipment
- 1 Apr The following reassignments occurred as a result of the ADC reorganization and reconfiguration:

UNIT	FROM	то
Air Forces Iceland	Goose ADS (Manual)	37th ADiv
Los Angeles ADS	28th ADiv (SAGE)	4AF
Reno ADS	28th ADiv (SAGE)	4AF
25th ADiv	ADC	4AF
26th ADiv	ADC	4AF

UNIT	FROM	то
28th ADiv	ADC	10AF
29th ADiv	ADC	10 A F
30th ADiv	ADC	10AF
lst Ftr Wg (AD)	Detroit ADS	34th ADiv
52nd Ftr Wg (AD)	New York ADS	21st ADiv
78th Ftr Wg (AD)	28th ADiv (SAGE)	26th ADiv
325th Ftr Wg (AD)	Seattle ADS	25th ADiv
328th Ftr Wg (AD)	Sioux City ADS	30th ADiv
507th Ftr Wg (AD)	Duluth ADS	29th ADiv
551st AEW&C Wg	26th ADiv (SAGE)	1AF
552nd AEW&C Wg	28th ADiv (SAGE)	4AF
4756th Air Def Wg	73rd ADiv	14AF
4780th Air Def Wg	73rd ADiv	14AF
57th Ftr Gp (AD)	Seattle ADS	25th ADiv
327th Ftr Gp (AD)	Chicago ADS	20th ADiv
343rd Ftr Gp (AD)	Duluth ADS	29th ADiv
408th Ftr Gp (AD)	Portland ADS	26th ADiv
414th Ftr Gp (AD)	Los Angeles ADS	27th ADiv
4603rd AB Gp	26th ADiv (SAGE)	1AF
4621st AB Gp	Detroit ADS	34th ADiv
4683rd AB Gp	Goose ADS (Manual)	37th ADiv
4684th AB Gp	Goose ADS (Manual)	37th ADiv

UNIT				FROM	то
4601st	Spt	Sq	(SAGE)	26th ADiv (SAGE)	1AF
4624th	Spt	Sq	(SAGE)	Boston ADS	35th ADiv
4625th	Spt	Sq	(SAGE)	Portland ADS	26th ADiv
4626th	Spt	Sq	(SAGE)	Bangor ADS	36th ADiv
4627th	Spt	Sq	(SAGE)	Detroit ADS	34th ADiv
4629th	Spt	Sq	(SAGE)	Phoenix ADS	27th ADiv
4631st	Spt	Sq	(SAGE)	30th ADiv (SAGE)	20th ADiv
4632nd	Spt	Sq	(SAGE)	Oklahoma City ADS	31st ADiv
4637th	Spt	Sq	(SAGE)	New York ADS	21st ADiv
4638th	Spt	Sq	(SAGE)	Washington ADS	33rd ADiv
4642nd	Spt	Sq	(SAGE)	Great Falls ADS	28th ADiv
4644th	Spt	Sq	(SAGE)	Sioux City ADS	30th ADiv
4645th	Spt	Sq	(SAGE)	Duluth ADS	29th ADiv
4648th	Spt	Sq	(SAGE)	Montgomery ADS	32nd ADiv
4660th	Spt	Sq	(SAGE)	29th ADiv (SAGE)	10AF
4661st	Spt	Sq	(SAGE)	28th ADiv (SAGE)	4AF
4677th	Def	Sys	Eval Sq	28th ADiv (SAGE)	4AF
4758th	Def	Sys	Eval Sq	29th ADiv (SAGE)	14AF
4754th	Rada	r E	val Sq	28th ADiv (SAGE)	4AF
4751st	Air	De f	Sq (Msl)	73rd ADiv	4756th AD Wg
22nd Ai	r De	ef M	s 1 Sq	Washington ADS	33rd ADiv
26th Ai	r De	f M	sl Sq	Boston ADS	35th ADiv
35th Ai	r De	f M	sl Sq	Detroit ADS	34th ADiv

46th Air Def Msl Sq New York ADS 21:	th ADiv st ADiv th ADiv F
46th Air Def Msl Sq New York ADS 21s 74th Air Def Msl Sq Duluth ADS 29s 425th Mun Maint Sq 26th ADiv (SAGE) 1A3 573rd AF Band 28th ADiv (SAGE) 4A3 579th AF Band 26th ADiv (SAGE) 1A3 724th AF Band 25th ADiv (SAGE) 4A3	st ADiv th ADiv F
74th Air Def Msl Sq Duluth ADS 29th 425th Mun Maint Sq 26th ADiv (SAGE) 1A1 573rd AF Band 28th ADiv (SAGE) 4A1 579th AF Band 26th ADiv (SAGE) 1A1 724th AF Band 25th ADiv (SAGE) 4A1	th ADiv
425th Mun Maint Sq 26th ADiv (SAGE) 1A1 573rd AF Band 28th ADiv (SAGE) 4A1 579th AF Band 26th ADiv (SAGE) 1A1 724th AF Band 25th ADiv (SAGE) 4A1	F
573rd AF Band 28th ADiv (SAGE) 4A1 579th AF Band 26th ADiv (SAGE) 1A1 724th AF Band 25th ADiv (SAGE) 4A1	F
579th AF Band 26th ADiv (SAGE) 1A1 724th AF Band 25th ADiv (SAGE) 4A1	F
(onor) 441	
642nd USAF Dispensary 4624th Spt So (SAGE) 462	F
	24th AB Sq
644th USAF Dispensary 4627th Spt Sq (SAGE) 462	
645th USAF Dispensary 4625th Spt Sq (SAGE) 462	
4616th USAF Dispensary 4644th Spt Sq (SAGE) 464	
EAL DIG	h ADiv
13th FIS Great Falls ADS 28t	h ADiv
18th FIS Duluth ADS 29t	h ADiv
27th FIS Bangor ADS 36t	h ADiv
29th FIS Great Falls ADS 28t	h ADiv
48th FIS Washington ADS 33r	d ADiv
49th FIS Boston ADS 35t	h ADiv
59th FIS Goose ADS 37t	h ADiv
60th FIS Boston ADS 35t	h ADiv
62nd FIS Duluth ADS 29th	h ADiv
75th FIS Bangor ADS 36th	h ADiv
82nd FIS Portland ADS 26th	

UNIT	FROM	то
87th FIS	Detroit ADS	34th ADiv
95th FIS	New York ADS	21st ADiv
319th FIS	Montgomery ADS	32nd ADiv
329th FIS	Los Angeles ADS	27th ADiv
331st FIS	Oklahoma City ADS	31st ADiv
444th FIS	Washington ADS	33rd ADiv
445th FIS	Detroit ADS	34th ADiv
456th FIS	Los Angeles ADS	26th ADiv
539th FIS	New York ADS	21st ADiv
609th Radar Sq (SAGE)	Montgomery ADS	32nd ADiv
612th Radar Sq (SAGE)	Phoenix ADS	26th ADiv
625th Radar Sq (SAGE)	Sioux City ADS	30th ADiv
627th Radar Sq (SAGE)	Montgomery ADS	32nd ADiv
632nd Radar Sq (SAGE)	Washington ADS	33rd ADiv
634th Radar Sq (SAGE)	Reno ADS	26th ADiv
636th Radar Sq (SAGE)	Reno ADS	26th ADiv
637th Radar Sq (SAGE)	Seattle ADS	25th ADiv
644th Radar Sq (SAGE)	Montgomery ADS	32nd ADiv
645th Radar Sq (SAGE)	Montgomery ADS	32nd ADiv
646th Radar Sq (SAGE)	New York ADS	21st ADiv
648th Radar Sq (SAGE)	Boston ADS	35th ADiv
649th Radar Sq (SAGE)	Washington ADS	33rd ADiv

UNIT				FROM	то
655th	Radar	Sq	(SAGE)	Boston ADS	35th ADiv
656th	Radar	Sq	(SAGE)	Boston ADS	35th ADiv
657th	Radar	Sq	(SAGE)	Montgomery ADS	32nd ADiv
658th	Radar	Sq	(SAGE)	Reno ADS	26th ADiv
660th	Radar	Sq	(SAGE)	Montgomery ADS	32nd ADiv
661st	Radar	Sq	(SAGE)	Detroit ADS	34th ADiv
662nd	Radar	Sq	(SAGE)	Detroit ADS	34th ADiv
664th	Radar	Sq	(SAGE)	Detroit ADS	34th ADiv
665th	Radar	Sq	(SAGE)	Duluth ADS	29th ADiv
666th	Radar	Sq	(SAGE)	Portland ADS	26th ADiv
669th	Radar	Sq	(SAGE)	Los Angeles ADS	27th ADiv
6 7 0th	Radar	Sq	(SAGE)	Los Angeles ADS	27th ADiv
671st	Radar	Sq	(SAGE)	Montgomery ADS	32nd ADiv
674th	Radar	Sq	(SAGE)	Duluth ADS	29th ADiv
676th	Radar	Sq	(SAGE)	Chicago ADS	20th ADiv
678th	Radar	Sq	(SAGE)	Montgomery ADS	32nd ADiv
679th	Radar	Sq	(SAGE)	Montgomery ADS	32nd ADiv
680th	Radar	Sq	(SAGE)	New York ADS	21st ADiv
682nd	Radar	Sq	(SAGE)	Los Angeles ADS	26th ADiv
684th	Radar	Sq	(SAGE)	Phoenix ADS	27th ADiv
685th	Radar	Sq	(SAGE)	Phoenix ADS	27th ADiv
689th	Radar	Sq	(SAGE)	Portland ADS	25th ADiv

4 1

UNIT	FROM	то
691st Radar Sq (SAGE)	Montgomery ADS	32nd ADiv
692nd Radar Sq (SAGE)	Duluth ADS	29th ADiv
693rd Radar Sq (SAGE)	Montgomery ADS	32nd ADiv
694th Radar Sq (SAGE)	Great Falls ADS	28th ADiv
695th Radar Sq (SAGE)	Sioux City ADS	30th ADiv
698th Radar Sq (SAGE)	Montgomery ADS	32nd ADiv
701st Radar Sq (SAGE)	Washington ADS	33rd ADiv
702nd Radar Sq (SAGE)	Montgomery ADS	32nd ADiv
716th Radar Sq (SAGE)	Great Falls ADS	28th ADiv
731st Radar Sq (SAGE)	Sioux City ADS	30th ADiv
738th Radar Sq (SAGE)	Sioux City ADS	30th ADiv
739th Radar Sq (SAGE)	Duluth ADS	29th ADiv
750th Radar Sq (SAGE)	Los Angeles ADS	27th ADiv
751st Radar Sq (SAGE)	Los Angeles ADS	27th ADiv
752nd Radar Sq (SAGE)	Detroit ADS	34th ADiv
753rd Radar Sq (SAGE)	Duluth ADS	29th ADiv
754th Radar Sq (SAGE)	Detroit ADS	34th ADiv
755th Radar Sq (SAGE)	Chicago ADS	20th ADiv
756th Radar Sq (SAGE)	Duluth ADS	29th ADiv
757th Radar Sq (SAGE)	Seattle ADS	25th ADiv
758th Radar Sq (SAGE)	Seattle ADS	25th ADiv
759th Radar Sq (SAGE)	Seattle ADS	25th ADiv

UNIT		FROM	то
761st Radar	Sq (SAGE)	Portland ADS	26th ADiv
762nd Radar	Sq (SAGE)	Boston ADS	35th ADiv
763rd Radar	Sq (SAGE)	Detroit ADS	34th ADiv
764th Radar	Sq (SAGE)	Boston ADS	35th ADiv
765th Radar	Sq (SAGE)	Bangor ADS	36th ADiv
766th Radar	Sq (SAGE)	Bangor ADS	36th ADiv
770th Radar	Sq (SAGE)	Washington ADS	33rd ADiv
771st Radar	Sq (SAGE)	Washington ADS	33rd ADiv
772nd Radar	Sq (SAGE)	New York ADS	21st ADiv
773rd Radar	Sq (SAGE)	New York ADS	21st ADiv
774th Radar	Sq (SAGE)	Los Angeles ADS	26th ADiv
775th Radar	Sq (SAGE)	Los Angeles ADS	27th ADiv
776th Radar	Sq (SAGE)	Portland ADS	26th ADiv
777th Radar	Sq (SAGE)	Portland ADS	26th ADiv
778th Radar	Sq (SAGE)	Great Falls ADS	28th ADiv
779th Radar	Sq (SAGE)	Great Falls ADS	28th ADiv
780th Radar	Sq (SAGE)	Great Falls ADS	28th ADiv
782nd Radar	Sq (SAGE)	Chicago ADS	20th ADiv
783rd Radar	Sq (SAGE)	Detroit ADS	34th ADiv
784th Radar	Sq (SAGE)	Chicago ADS	34th ADiv
785th Radar	Sq (SAGE)	Duluth ADS	29th ADiv
786th Radar	Sq (SAGE)	Great Falls ADS	28th ADiv

UNIT			FROM	то
787th F	Radar S	Sq (SAGE)	Sioux City ADS	30th ADiv
788th F	Radar S	Sq (SAGE)	Chicago ADS	20th ADiv
789th F	Radar S	Sq (SAGE)	Sioux City ADS	30th ADiv
790th F	Radar S	Sq (SAGE)	Chicago ADS	20th ADiv
791st F	Radar S	Sq (SAGE)	Chicago ADS	20th ADiv
792nd F	Radar S	Sq (SAGE)	Washington ADS	33rd ADiv
793rd F	tadar S	Sq (SAGE)	Sioux City ADS	30th ADiv
798th F	ladar S	Sq (SAGE)	Chicago ADS	20th ADiv
801st R	tadar S	Sq (SAGE)	Great Falls ADS	28th ADiv
810th R	ladar S	Sq (SAGE)	Washington ADS	33rd ADiv
821st R	lad ar S	Sq (SAGE)	Reno ADS	26th ADiv
823rd R	tadar S	Sq (SAGE)	Seattle ADS	25th ADiv
827th R	ladar S	Sq (SAGE)	Portland ADS	26th ADiv
858th R	adar S	Sq (SAGE)	Reno ADS	26th ADiv
859th R	ladar S	Sq (SAGE)	Portland ADS	26th ADiv
861st R	adar S	Sq (SAGE)	Montgomery ADS	32nd ADiv
865th R	ladar S	iq (SAGE)	Phoenix ADS	27th ADiv
866th R	ladar S	Sq (SAGE)	Reno ADS	26th ADiv
902nd R	adar S	iq (SAGE)	Great Falls ADS	28th ADiv
903rd R	ladar S	Sq (SAGE)	Sioux City ADS	30th ADiv
907th R	adar S	Sq (SAGE)	Bangor ADS	36th ADiv
908th R	adar S	iq (SAGE)	Montgomery ADS	32nd ADiv

UNIT	FROM		то
640th ACW Sq	Goos	e ADS (Manual)	37th ADiv
641st ACW Sq	Goos	e ADS (Manual)	37th ADiv
921st ACW Sq	Goos	e ADS (Manual)	37th ADiv
922nd ACW Sq	Goos	e ADS (Manual)	37th ADiv
923rd ACW Sq	Goos	e ADS (Manual)	37th ADiv
924th ACW Sq	Goos	e ADS (Manual)	37th ADiv

- 4- 4758th Defense System Evaluation Sq moved from Biggs AFB, Texas, to Holloman AFB, New Mexico.
- 12 Apr Viet Cong mortar attack on Tan Son Nhut AB at Saigon wounded ten members of ADC's BIG EYE detachment.
- 20 Apr NORAD COC moved from Ent AFB to Cheyenne Mountain which had been accepted on 8 February.
- 22 Apr Fallon AFS became operational as a BUIC II site.
- 6 May Secretary of Defense issued orders reducing the continuous airborne alert of B-52s because "our radar warning system is good enough to get bombers off the ground before enemy missiles can destroy the aircraft."
- 10 May General Raymond J. Reeves, CINCAL, was appointed by President Johnson to succeed General Dean C. Strother as CINCNORAD/CINCONAD effective 1 August 1966.
- 20 May NORAD Attack Warning System (NAWS) became operational after acceptance on 22 April.
- 31 May USAF advised ADC that OSD had disapproved the proposal to deploy 325th FIS from Truax Fld, Wisconsin, to Misawa AB, Japan.

- 3 Jun Secretary of the Air Force Harold Brown quoted in Time magazine as saying, "I think it would take a decade before the Chinese could develop a nuclear capability that could severely threaten the U.S."
- 6 Jun 64th FIS deployed from Paine Fld, Washington, to Clark AB, Philippine Islands, and on 10 June was reassigned from 57th Fighter Group to PACAF.
- 15 Jun 498th FIS moved from McChord AFB, Washington, to Paine Fld, Washington.
- 15 Jun 4751st Air Defense Sq (Ms1) reassigned from 4756th Air Defense Wing (Tng) to Fourteenth Air Force.
- 25 Jun 4631st Air Base Squadron organized at Truax Fld, Wisconsin, and assigned to 20th Air Division.
- 25 Jun 4631st USAF Dispensary organized at Truax Fld, Wisconsin, and assigned to 4631st Air Base Squadron.
- 25 Jun 325th Consolidated Aircraft Maintenance Squadron organized at McChord AFB, Washington, and assigned to 325th Fighter Wing.
- 25 Jun 82nd FIS reassigned from 26th Air Division (ADC) to PACAF and its home base officially changed from Travis AFB to Naha AB, Okinawa.
- 25 Jun 498th FIS reassigned from 325th Fighter Wing to 57th Fighter Group.
- 25 Jun Los Angeles ADS at Norton AFB, California discontinued,
- 25 Jun Reno ADS at Stead AFB, Nevada discontinued.
- 25 Jun 4640th Support Squadron (SAGE) at Norton AFB, California discontinued.
- 25 Jun 4634th Support Squadron (SAGE) at Stead AFB. Nevada, discontinued.

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- 25 Jun 759th Radar Squadron at Naselle AFS, Washington, discontinued.
- 25 Jun 774th Radar Squadron at Madera AFS, California, discontinued.
- 25 Jun 782nd Radar Squadron at Rockville AFS, Indiana, discontinued.
- 25 Jun 327th Fighter Group at Truax Fld, Wisconsin, discontinued.
- 25 Jun 327th Consolidated Aircraft Maintenance Squadron, 327th Combat Support Squadron, 327th Supply Squadron, 327th USAF Dispensary, at Truax Fld, Wisconsin, discontinued.
- 25 Jun 325th FIS at Truax Fld, discontinued.
- 25 Jun 325th Armament and Electronic Maintenance Squadron, 325th Field Maintenance Squadron, and 325th Organizational Maintenance Squadron at McChord AFB, Washington, discontinued.
- l Jul Radar Site at Mather AFB, California (Z-58), ceased operations.
- 15 Jul Construction of first BUIC III site began at North Truro, Massachusetts.
- 22 Jul Construction of second BUIC III site began at Tyndall AFB, Florida.
- 3 Aug ADC recommended moving Baker-Nunn cameras at Sand Island and Oslo to Australia and Spain.
- 20 Aug Fire at gap-filler radar at Middle River, Minnesota (Z-132 B) destroyed three power units at a cost of \$30,000.
- 1 Sep Joint ADC/TAC ROC for AWACS published.
- 1 Sep Det 4, HQ 71 Surveillance Wing (BMEWS) discontinued.

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1966 (cont)

- 1 Sep 4683rd USAF Hospital, Thule, Greenland, discontinued.
- 14 Sep (C) NORAD confirmed that automated data transmission system required to 1980.
- 15 Sep 1st Munitions Maintenance Sq organized at Selfridge AFB, Michigan.
- 15 Sep 78th Munitions Maintenance Sq organized at Hamilton AFB, California.
- 15 Sep 328th Munitions Maintenance Sq organized at Richards-Gebaur AFB, Missouri.
- 15 Sep 426th Munitions Maintenance Sq organized at Suffolk County AFB, New York.
- 15 Sep 4756th Munitions Maintenance Sq organized at Tyndall AFB, Florida.
- 15 Sep -4780th Munitions Maintenance Sq organized at Perrin AFB, Texas.
- 15 Sep 52nd Armament and Electronics Maintenance Sq redesignated and reorganized as 52nd Communications and Electronics Maintenance Sq.
- 15 Sep 78th Armament and Electronics Maintenance Sq redesignated and reorganized as 78th Communications and Electronics Maintenance Sq.
- 15 Sep 328th Armament and Electronics Maintenance Sq redesignated and reorganized as 328th Communications and Electronics Maintenance Sq.
- 15 Sep 4756th Armament and Electronics Maintenance Sq redesignated and reorganized as 4756th Communications and Electronics Maintenance Sq.

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1966 (cont)

- 15 Sep 4780th Armament and Electronics Maintenance Sq redesignated and reorganized as 4780th Communications and Electronics Maintenance Sq.
- 20 Sep (C) First launching of a CQM-10A drone in an extended Category III test of the drone.
- 21 Sep YF-12A successfully intercepted a QB-47 drone flying at an altitude of 600 feet.
- 22 Sep OSD disapproved SAF reclama objecting to inactivation of nine F-101B interceptor squadrons by the end of FY 1969.
- 30 Sep Canadian radar stations at Pagwa, Ontario (C-14) and Puntzi Mt, B.C. (C-19) ceased feeding data into the SAGE system.
- 1 Oct Det 1 (NORAD) of 4608th Support Sq at Ent AFB, Colorado discontinued.
- 1 Oct Det 5 (Northern NORAD Region) of 4608th Support Sq at North Bay, Ontario, discontinued.
- 9 Oct Location of 669th Radar Sq (SAGE) changed from Lompoc AFS, California, to Vandenberg AFB, California.
- 15 Oct OSD approved extension of the life of the 57th FIS at Keflavik, Iceland to FY 3/68.
- 19 Oct Kingman AFS, Arizona, disposed of as surplus.
- 7 Nov First class to be given Phase I, B-57 training by ADC began at Hill AFB, Utah.
- 8 Nov ADC cancelled CEIP involving installation of FPS-27 radars at Makah, Washington (Z-44), and Kalispell, Montana (Z-179) because of lack of funds.
- 10 Nov Construction of third BUIC III site began at Fort Fisher, North Carolina.

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1966 (cont)

- 9 Dec 59th FIS (flying F-102s) at Goose AB, Labrador, ceased active operations.
- 15 Dec 326th FIS (flying F-102s) at Richards-Gebaur AFB Missouri, ceased operations.
- 16 Dec ADC submitted an ROC requesting development of a Space Countermeasures System.
- 31 Dec 331st FIS (F-104s) at Webb AFB, Texas, ceased active operations.

1967

- l Jan HQ 73rd Aerospace Surveillance Wing organized at Ent AFB, Colorado.
- 2 Jan 59th FIS, Goose AB, Labrador, and 326th FIS, Richards-Gebaur AFB, Missouri, inactivated. Both had F-102 interceptors.
- 6 Jan (S) ADC's SPACETRACK sensor at Diyarbakir, Turkey, tracked the Soviet Union's Luna 13 satellite on its trajectory to the moon.
- ADC-operated SPACETRACK cameras at Sand Island, in the Pacific, and Edwards AFB, California, recorded 106 photos of the apogee motor burn required to place the telecommunications satellite Lani Bird II in stationary orbit. The satellite was approximately 18,000 miles in space at the time of photography.
- 16 Jan 71st FIS moved from Selfridge AFB to Richards-Gebaur AFB and reassigned from 1st Fighter Wing to 328th Fighter Wing.
- 17 Jan (S) Official deployment of COLLEGE GOOSE (six F-106A interceptors) force to Goose AB, Labrador, began.
- 24 Jan (S) ADC expressed to the Air Staff the viewpoint that NORAD should continue to be assigned the air defense mission but that the space defense mission should remain with the U.S. under a separate command.

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1967 (cont)

- 29 Jan (S) ADC tasked by USAF to activate, base, equip, train, and prepare an EC-121 unit for deployment to Southeast Asia to carry out an urgent mission.
- 30 Jan (S) ADC resubmitted requirements for a method of secure identification and ECM protection.
- 31 Jan

 (S) USAF directed ADC to analyze ECCM techniques used by the North Vietnamese and to recommend tactics and techniques to counter the SAM and AA threat to U.S. strike forces operating in North Vietnam.
- 2 Feb FPS-26A height finder at Highlands, New Jersey, dropped from ADC inventory. SAGE operations stopped on 1 April 1966 but ADC operated the radar for FCC until this date.
- 6 Feb ADC Space Defense Center began operating from its new location 1500 feet under Cheyenne Mountain at Colorado Springs, Colorado.
- 8 Feb (S) First crated F-104A received at King Hussein AB, Jordan, under terms of Project COLLEGE RUN (training of Jordanian personnel in flying and maintenance of F-104 aircraft).
- 8 Feb (S) ADC tasked by USAF to provide B-57 Phase II crew training for aircrews destined for Vietnam.
- 13 Feb ADC recommended to USAF that the 73rd Aerospace Surveillance Wing be relocated from Ent AFB to Tyndall AFB.
- 14 Feb Prototype FYQ-40 Common Digitizer installed at Jacksonville AFS (Z-114), Florida, removed and shipped to Hanscom Fld, Massachusetts, for further shipment to Southeast Asia to support Project SEEK DAWN.
- 19- (C) COLLEGE EYE forward operating base moved from 21 Feb Tan Son Nhut AB, South Vietnam to Ubon RTAFB, Thailand.
- 24 Feb (S) Last of six F-104 aircraft under Project COLLEGE RUN assembled at King Hussein AB, Jordan.

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1967 (cont)

- These units organized at Otis AFB, Massachusetts: 553rd Reconnaissance Wing, 553rd Reconnaissance Sq, 553rd Organizational Maintenance Sq, 553rd Field Maintenance Sq, 553rd Electronics Maintenance Sq, and 554th Reconnaissance Sq. 553rd Recon Wg assigned to First Air Force. Other units assigned to 553rd Recon Wg.
- 25 Feb (S) F-104 ground school training for Royal Jordanian Air Force pilots began at King Hussein AB, Jordan.
- 27 Feb (S) HQ USAF provided \$24,699,000 for modification of 30 EC-121K aircraft. These aircraft would be equipped with special electronic equipment for support of COLLEGE NINE and assigned to ADC.
- 27 Feb Nuclear power plant (PM-1) at Sundance AFS, Wyoming, established a continuous power run record for U.S. military and commercial nuclear power plants. The Sundance plant operated continuously from 9 September 1966 to 27 February 1967--a run of 4,101 hours.
- 28 Feb Construction at ADC Dispersed Operating Bases (DOB) completed. Funds originally appropriated in Military Construction Program for FY 1964. Total construction costs about \$30 million.
- 28 Feb ADC accepted TITAN/UNIVAC 642B installation on Johnston Island.
- 28 Feb (S) All six F-104 aircraft of COLLEGE RUN program available at Mafraq, Jordan.
- 1 Mar (S) USAF approved installation of Satellite Communications Ground Terminal No. 1 at Peterson Field, Colorado Springs, Colorado.
- 1 Mar (C) 331st FIS, Webb AFB, Texas, inactivated. It became the 4760th Combat Crew Training School, established to provide F-104 training to Jordanian personnel (Project STRETCH RUN).
- 6 Mar (S) USAF informed ADC of OSD decision to withdraw AIM-26A missiles from all ANG F-102 interceptor squadrons.

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1967 (cont)

- 8 Mar (S) ADC instructor and Jordanian student killed in COLLEGE RUN training accident in Jordan.
- 15 Mar FPS-6 height finders at Guthrie AFS and Baker AFS, an FPS-90 height finder at Winnemucca AFS, and an MPS-14 height finder at Miles City AFS phased out.
- 17 Mar

 (S) DOD approved release of \$43 million in development funds for YF-12A program in Fiscal Years 1967-1968. Still awaiting decision remained \$55 million (of total \$98 million) the Air Force requested for F-12 development in FY 67/68.
- 17 Mar New Required Operational Capability (ROC) on Satellite Interceptor System (SIS) published.
- 17 Mar OSD advised FAA to proceed with procurement of FYQ-40 Common Digitizers for both FAA and ADC use.
- 19 Mar (S) Six 552nd AEW&C EC-121Ds deployed from McClellan AFB to Howard AFB, Canal Zone, for participation in COLLEGE TONIC exercise. Aircraft returned to home station on 26 March 1967.
- 21 Mar

 (C) Interceptor aircraft shot down a BOMARC missile for the first time. The aircraft was an F-106 assigned to the 94th FIS, Selfridge AFB, Michigan, undergoing weapons training at Tyndall AFB, Florida. Target was a CIM-10A missile in drone configuration (CQM-10A) flying at a speed of 1550 miles per hour. Air-to-air missile was an infra-red Falcon (AIM-4G) at an altitude of 55,000 feet. The direct hit was especially significant in that the CIM-10A in drone configuration approximated the size, weight, cruise speed, and altitude of the newest air-to-surface supersonic cruise missiles and submarine-launched cruise missiles.
- 30 Mar (S) Third Combat Training Launch (Program 437).
- 1 Apr (S) ADC assumed responsibility for provision of THOR launches from Vandenberg AFB, California, in support of Army test program at Kwajalein Island.

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1967 (cont)

- 1 Apr FPS-6A height finder at Hanna City AFS phased out.
- 3 Apr (S) STRETCH RUN training of Jordanian personnel began at Webb AFB, Texas.
- 5 Apr 552nd AEW&C Wg began third year of operations in Southeast Asia.
- 11 Apr (S) OSD decided last two of 21 ADC/ANG squadrons would retain F-89J aircraft through FY 1969 and not convert to F-102A.

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- 15 Apr (S) Modification of MacDill AFB FPS-26 to SLBM detection and warning system configuration began.
- 20 Apr (S) ADC ROC for a non-cooperative friend or foe identification system submitted to USAF.
- 27 Apr (S) ESD advised ADC that the SLBM detection and warning system would reach initial operational capability (IOC) in February 1968.
- 1 May Fort Fisher AFS FPS-26 height-finder radar removed from SAGE operations in preparation for modification to convert it to an SLBM detection and warning sensor.
- 3 May (S) Required operational capability (ROC) to replace FPS-24 and FPS-35 search radars forwarded to USAF by ADC.
- 4 May (C) Final launch of 10-launch extended Category III test of the BOMARC drone (CQM-10A) completed.
- 9 May (S) ADC informed by USAF that OSD decided to reduce the interceptor force at the end of FY 1969 from 20 squadrons to 18 squadrons.
- 15 May
 U.S. Weather Bureau used ADC radars to track
 weather balloons to check winds and fallout over
 the U.S. from nuclear explosive tests at the
 Nevada proving ground. Testing continued until
 15 May 1968.

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1967 (cont)

- 15 May Five Federal Electric Corporation civilian employees killed in a C-46 crash at DYE MAIN DEW Line station.
- 23 May (S) All three BMEWS sites subjected to strong solar flare interference.
- 27 May (S) COLLEGE EYE augmentation force arrived at Ubon RTAFB, Thailand.
- 29 May (S) 4713th DSES departed Stewart AFB on a COLLEGE CAPER deployment to Sembach AB, Germany (the squadron returned to Stewart AFB about 30 June 1967).
- 31 May

 (S) Commander of F-104 (COLLEGE RUN) training detachment in Jordan informed USAF and ADC that he had reliable information that King Hussein of Jordan would request removal of detachment because of unsettled conditions in the Middle East.
 - Jun Federal Electric Corporation awarded contract for operation and maintenance of the DEW Line.
- 1 Jun (S) COLLEGE GOOSE deployment force (Goose AB, Labrador) changed from six F-106As to six F-101Bs.
- l Jun (S) ADC directed Fourth Air Force to begin onesortie-a-day manning of East Coast AEW&C Station 8 until 551st AEW&C Wg resumed station keeping. 552nd's 966 AEW&C Sq manned the station until 5 June 1967.
- 1 Jun 539th FIS (F-106A), McGuire AFB, New Jersey, relieved of alert duty.
- 2 Jun USAF approved regular use of CQM-10A drone as a target for interceptor training. Training became program known as COLLEGE BLAST.
- 5 Jun (S) Middle East war began. All ADC COLLEGE RUN aircraft and personnel safely evacuated from Jordon.
- 15 Jun (S) USAF approved relocation of COLLEGE EYE forward operating base from Ubon to Udorn in July 1967 and from Udorn to Korat in October 1967 (all locations in Thailand).

- 20 Jun (S) After a long period of resistance to collocation of SAC dispersal forces and ADC interceptors, ADC agreed to SAC emergency dispersal of 8 KC-135 tankers at McChord AFB, Washington, and 10 KC-135 tankers at Otis AFB, Massachusetts. Proposed SAC dispersal to Duluth Intl Aprt, Minnesota, and Phelps-Collins ANG Base, Michigan, not approved.
- 20 Jun (C) OSD decided that training of Jordanian students in the U.S. would continue. Therefore, STRETCH RUN (U.S. equivalent of COLLEGE RUN) training program at Webb AFB, Texas, continued through FY 1968, providing F-104 aircrews and maintenance training for Jordanian students.
- 26 Jun (S) FPS-30 radome at DEW Line station DYE-4 destroyed by high winds.
- 30 Jun

 (S) 4713th DSES redeployed 15 EB-57 aircraft from Sembach AB, Germany, through Moron AB, Spain, and Lages AB, Azores, to Stewart AFB, New York. Redeployment returned COLLEGE CAPER aircraft to home station.
- 1 Jul (S) Oslo Baker-Nunn camera withdrawn from service.
- 8 Jul AF Chief of Staff made public statement that the Air Force proposed to develop an area defense against the ICBM.
- 15 Jul Maj Gen J. C. Jensen became Vice Commander, ADC, replacing Lt Gen C. B. Westover.
- 17 Jul 73d Surveillance Wing, responsible for detecting and tracking objects in space, became operational at Tyndall AFB, Florida.
- 21 Jul (S) QRC-248 Equipment actively employed for first time in COLLEGE EYE aircraft.
- 26 Jul FPS-24 antenna bearing failed at Baudette AFS (Z-132), Minnesota.
- 27- (S) COLLEGE EYE forward operating base moved from 28 Jul Ubon RTAFB to Udorn RTAFB.

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1967 (cont)

- 31 Jul 329th FIS, George AFB, California, discontinued.
- 1 Aug Lt Gen Arthur C. Agan assumed command of ADC, vice Lt Gen Herbert B. Thatcher.
- 1 Aug (S) Formal COLLEGE CADENCE plan published by ADC.
 Provided for emergency deployment of F-106A interceptors throughout the world.
- 3 Aug Lockheed completed company testing of the new J79-19 engine for the F-104A.
- 8- (S) 552nd AEW&C Wing supported CINCSTRIKE low-level 12 Aug detection test in Little Rock AFB, Arkansas, area.
- 9 Aug FPS-85 phased array radar at Eglin AFB Florida, successfully tracked an object in space.
- 14 Aug FAA advised ADC that it would not support proposed modifications for the FPS-24 radars.
- 15 Aug ADC informed SMAMA of continued concern over extended operational degradation resulting from non-availability of replacement parts for the bomber defense radars.
- 21 Aug FPS-24 antenna bearing failed at Malmstrom AFB (Z-147), Montana.
- 24 Aug FPS-35 antenna bearing failed at Finley AFS (Z-29), North Dakota.
- 31 Aug 539th FIS, McGuire AFB, New Jersey, discontinued.
- 1 Sep ADC published feasibility study of USAF air defense joint use of the FAA National Airspace System centers.
- 6 Sep U.S. Ambassador at Ottawa presented the Canadian Government a note announcing U.S. willingness to enter into negotiations for renewal of the NORAD agreement.
- 6 Sep (S) 11th FIS (Duluth) deployed four F-106A interceptors to Alaska under COLLEGE SHOES.

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1967 (cont)

- 11 Sep (S) Operations Plan 38-66, COLLEGE KEY, which called for deployment of six F-102A interceptors from Tyndall AFB, Florida to Key West NAS, Florida, rescinded. Deployment continued, but henceforth as a part of the regular mission of the 32nd Air Division.
- 13 Sep First group of Greek and Turkish F-102A maintenance personnel (trained under Project PEACE POPPY PEACE VIOLET) began training at Perrin AFB, Texas.
- 15 Sep (S) Six F-101B interceptors of the 60th FIS (Otis AFB, Massachusetts) deployed to Goose Bay, Canada, under COLLEGE GOOSE.
- 18 Sep (S) ADC restated need for the Cloudcroft electrooptical detection sensor (FSR-2).
- 21 Sep Replacement radome at DEW Line site DYE-4 damaged by high winds.
- During (S) 553rd Reconnaissance Wing began deploying to Oct Southeast Asia. Deployment completed in December.
- 3 Oct Westinghouse completed test of ORT radar.
- 9 Oct 71st Fighter Interceptor Squadron, Richards-Gebaur AFB, Missouri, became first ADC squadron to convert completely to inflight refuelable F-106 aircraft.
- 11 Oct (C) BURNER II launching from Vandenberg AFB, California.
- 16- (S) COLLEGE EYE forward operating base moved from 17 Oct Udorn RTAFB to Korat RTAFB.
- 20 Oct (S) Canada announced intention to close the base at Val d'Or, Quebec. ADC planned to use Val d'Or as a dispersal base for interceptors.
- 24 Oct _ COLLEGE EYE Task Force credited with MIG kill assist.
- 27 Oct Hughes completed testing of ORT radar.

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1967 (cont)

- 31 Oct Air Defense Weapons Center organized at Tyndall AFB, Florida.
- 1 Nov (S) Four F-106A interceptors of the 27th FIS, Loring AFB, Maine, deployed to Alaska as part of COLLEGE SHOES.
- 3 Nov OSD announced that the USSR was developing a fractional orbit bombardment system (FOBS).
- 3 Nov FPS-35 radars at Selfridge, Antigo, and Baker placed on standby status because of antenna bearing problems.
- 6 Nov (S) OSD approved expansion and acceleration of OTH to meet suspected Russian FOBS development.
- 13 Nov FPS-24 at Oakdale Army Installation (Z-32) removed from the network in preparation for prototype hydrostatic bearing test.
- 18 Nov Direction centers at McGuire AFB and Truax Field ceased operation in preparation for phase out.
- 18 Nov Twenty gap-filler radars placed in "caretaker" status pending further instructions from USAF.
- 20 Nov First mass cross-country flight of 10 F-106A air-craft equipped for in-flight refueling flew non-stop from McChord AFB, Washington, to Tyndall AFB, Florida. F-106A aircraft belonged to the 318th FIS, McChord AFB.
- 20 Nov (C) Six Turkish instructor pilots began training in F-102A aircraft at Perrin AFB, Texas. Training conducted under the terms of Project PEACE VIOLET.
- 21 Nov FPS-35 antenna bearing failed at Fallon NAS (Z-156), Nevada.
- 29 Nov (S) ADC asked USAF for site at Jupiter, Florida for a new Baker-Nunn space camera.

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1967 (cont)

- 30 Nov (S) COLLEGE GOOSE terminated with return of six F-101B interceptors of the 60th FIS from Goose Bay to Otis AFB, Massachusetts.
- 30 Nov AFSC tests of J79-19 engine for F-104A completed at Edwards AFB, California.
- During RCA workers at the BMEWS station at Clear, Alaska Dec went on strike.
- 1 Dec (S) USAF directed conversion of 30 ADC F-101B interceptors to reconnaissance configuration.
- 4 Dec ADC informed AFLC of concern over unsatisfactory performance of ESSCO-manufactured radomes.
- 7 Dec FPS-24 antenna bearing failed at Eufaula AFS (Z-199), Alabama.
- 10 Dec Hurricane hit housing area at Tyndall AFB, Florida. Sixty-nine duplex apartments damaged or destroyed.
- 15 Dec (S) Four F-106A interceptors of the 318th FIS, McChord AFB, Washington, deployed to Alaska as part of COLLEGE SHOES.
- 31 Dec USAF approved continued tests of Raytheon's ORT radar.
- 31 Dec 4760th CCTS at Webb AFB, Texas, discontinued.
- 31 Dec COLLEGE GOOSE deployment of F-106A aircraft to Goose AB discontinued.

1968

- 1 Jan

 (C) Direct tactical teletype circuit activated between the 440L Over-the-Horizon radar system correlation center at Aviano, Italy, and NORAD Combat Operations Center.
- 1 Jan Air Defense Weapons Center activated at Tyndall AFB, Florida.

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1968 (cont)

- 3 Jan USAF advised ADC (via telephone) that OSD approved an ADC proposal to reconfigure the Bomb Alarm System as an Attack Assessment System.
- 6 Jan ADC F-106s for the first time flew non-stop from Richards-Gebaur AFB, Missouri, to Elmendorf AFB, Alaska, using air-to-air refueling.
- 10 Jan

 (S) Three B-57s assigned to the 4713th Defense System Evaluation Squadron at Stewart AFB, New York, deployed to Sembach Air Base, Germany, to provide ECM training for USAFE forces. Destination later changed to Ramstein Air Base. B-57s arrived Ramstein on 14 January.
- 15 Jan Air Defense Command redesignated Aerospace Defense Command.
- 15 Jan (C) The Satellite Communications Ground Terminal (AN TSC-54) scheduled for installation at Shemya, Alaska, arrived on site via MAC aircraft.
- 17 Jan ADC received USAF approval to use \$375,000 in FY 1968 funds to defray initial charges for Bomb Alarm System reconfiguration.
- 17 Jan Second tactical teletype circuit between the 440L OTH radar system correlation center at Aviano and the NORAD Combat Operations Center at Colorado Springs, Colorado, completed.
- 21 Jan (S) SAC B-52 bomber, armed with nuclear bombs, crashed seven miles southwest of Thule AB, Greenland, while attempting an emergency landing.

 Resulting program to remove radioactive debris from the area named CRESTED ICE. Program directed by SAC and supported (with men and equipment) by ADC.
- 29 Jan (C) USAF approved the establishment of an interim Baker-Nunn camera facility at Jupiter, Florida.
- 2- High winds at Mt Hebo AFS, Oregon, destroyed 13
 4 Feb panels near the top of the ESSCO-manufactured radome covering the FPS-24 antenna.

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1968 (cont)

- 8 Feb (S) 440L OTH radar system receiver site at Rothwesten, Germany, R-4, began operating. Vanmounted facility previously located at San Pablo, Spain.
- 11 Feb (S) 318th FIS (F-106 aircraft) from McChord AFB, Washington, arrived at Naha, Okinawa, as a part of U.S. reaction to North Korean seizure of U.S.S. Pueblo. This was the initial deployment under ADC COLLEGE CADENCE plan of worldwide mobility for refueled F-106 aircraft. Unit later (18 Feb) moved to Osan, Korea.
- 14 Feb Simultaneous transmission of 440L OTH radar system warning information over dual routes began.
- 18 Feb (C) Radome covering FPS-24 antenna at Mt Hebo destroyed by 75-knot winds. Antenna and ancillary equipment received extensive damage.
- 1 Mar

 (S) 75th FIS at Dow AFB, Maine, and 13th FIS at Glasgow AFB, Montana, ceased standing air defense alert. The squadrons were the first two F-101B squadrons to be lost by ADC as part of a plan to reduce the number of ADC F-101B squadrons from 15 to 6 by the end of FY 1969.
- 5 Mar Canadian Forces expressed their desire to participate in the common digitizer radar program.
- 18 Mar Operational capability date of the FPS-85 Phased Array radar at Eglin AFB, Florida, slipped from 1 April 1968 to 1 July 1968.
- Radar sites at Vandenberg AFB (Z-15), California; Guthrie AFS (Z-43), West Virginia: Miles City AFS (Z-98), Montana; Winnemucca AFS (Z-127), Nevada; and Baker AFS (Z-149), Oregon, phased out. Fifty-one gap-filler radar sites also phased out. Three Canadian sites--Hopedale, St Anthony, and Cartwright-ceased operations but the DCA Tropo Link through each of these continued in operation.
- 1 Apr (S) The 14th and 15th Missile Warning Squadrons redesignated 14th and 15th Communications Squadrons.

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1968 (cont)

- 1 Apr (S) The 440L OTH radar system receiver site at Larissa, Greece, relocated on the Island of Cyprus.
- 2 Apr (C) USAF informed ADC that Fourteenth Air Force would be discontinued concurrent with the discontinuance of the combat center at Gunter AFB (SCC-9) during the first quarter of FY 1969.
- 27 Apr (S) 29th FIS, Malmstrom AFB, Montana, ceased standing air defense alert—the third F-101B squadron lost to ADC.
- .28 Apr (S) First of 15 RIVET GYM EC-121D aircraft departed for Southeast Asia. The aircraft arrived at Korat RTAFB, Thailand, on 5 May.

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- 29 Apr 437th FIS at Oxnard AFB, California, ceased standing air defense alert. This was the fourth F-101B squadron lost to ADC.
- 14 May Only active Nuclear Reactor Power Plant in the Air Force, 731st Radar Squadron, Sundance AFS, Wyoming, closed.
- 20 May USAF approved ADC's Communications-Electronics Implementation Plan (CEIP) for installation of an interim Baker-Nunn camera at Jupiter, Florida.
- 22 May

 (C) BURNER II satellite successfully launched from Vandenberg AFB, California, by 10th Aerospace Defense Group (ADC). Launch supported an AFSC development program.
- 24- (S) 496L (SPACETRACK) System Program Office advised 30 May ADC that \$2.5 million approved for the FSR-2 Electro-Optical Surveillance System for FY 1969.
- l Jun (S) British (Royal Air Force) assumed responsibility for the operation and maintenance of the 440L OTH radar system receivers at Ayios Nikolaos, Cyprus (R-1), and Feltwell, England (R-5).
- 5 Jun Category II testing of the FPS-85 Phased Array radar at Eglin AFB, Florida, began.

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1968 (cont)

- 6 Jun
 (S) First increment of personnel from 48th FIS
 Langley AFB, Virginia, departed for Osan, Korea.
 48th FIS replaced 318th FIS (McChord AFB, Washington), which made the original COLLEGE CADENCE deployment to the Far East in February 1968.
- 21 Jun (S) USAF identified Tokorozawa, Japan, as a permanent transmitter location for the 440L OTH radar system. Site previously designated a temporary location.
- 1 Jul 14th Air Force, Gunter AFB, Alabama, deactivated.
- 1 Jul 9th Aerospace Defense Division redesignated 14th Aerospace Force.
- 1 Jul 71st FIS moved from Richards-Gebaur AFB, Missouri, to Malmstrom AFB, Montana.
- 1 Jul Federal Electric Corp. awarded \$22,342,357 contract for operations and maintenance of the DEW Line during Fiscal Year 1969.
- 1 Jul Eleven radars removed from service. Radars included FPS-7 at Kirksville AFS (Z-64); FPS-66s at Hutchinson AFS (Z-47) and Pickstown AFS (Z-134); FPS-67s at Oklahoma City AFS (Z-52), Amarillo AFB (Z-88) and Hastings AFS (Z-133); and FPS-91As at Texarkana AFS (Z-91) and West Mesa AFS (Z-94).
- 2 Jul 456th FIS moved from Castle AFB, California, to Oxnard AFB, California.
- 5 Jul Contract awarded for modification of Mt Hebo FPS-24 radar located at Miles City AFS, Montana.
- 5 Jul Four F-101B squadrons: 49th FIS (Griffiss AFB, New York), 84th FIS (Hamilton AFB, California), 87th FIS (Lockbourne AFB, Ohio), and 444th FIS (Charleston AFB, South Carolina), ceased standing alert. Administrative inactivation occurred on 30 Sep 1968.
- 10 Jul ADC submitted to USAF a Required Operational Capability (ROC) document for an advanced manned interceptor.

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1968 (cont)

- 11 Jul 48th FIS from Langley AFB, Virginia, replaced 318th FIS of McChord AFB, Washington, as the COLLEGE CADENCE squadron of F-106A aircraft assigned to Osan, Korea.
- 18 Jul Designation of the fighter interceptor squadron at Oxnard AFB, California, changed from 456th to 437th. 29th FIS, Malmstrom AFB, Montana, discontinued.
- 26 Jul 98th FIS (F-101B) ceased standing alert at Suffolk County AFB, New York. Administrative inactivation occurred on 30 Sep 1968.
- 1 Aug 11th FIS, Duluth IAP, Minnesota, replaced four interceptors of the 438th FIS of Kincheloe AFB, Michigan, in Alaska as part of the continuing COLLEGE SHOES rotation to Alaska.
- 2 Aug First deployment of a CONUS ANG interceptor squadron to Alaska. 196th FIS of California ANG (Ontario) flew F-102A aircraft.
- 12 Aug USAF approved replacement of Bucks Harbor FPS-24 with FPS-66A from Pickstown AFS.
- 30 Aug In COLLEGE SHOES rotation, 27th FIS, Loring AFB, Maine, relieved 5th FIS, Minot AFB, North Dakota.
- 9 Sep (S) ADC informed USAF that it would no longer seek the "single beam" modification for the FPS-27.
- 17 Sep FPS-85 Category II tests completed.
- 23 Sep DYE-4 radome and radar antenna destroyed by high winds. DYE-4 was located on Kulusuk Island, off the east coast of Greenland.
- 24 Sep ADC submitted to USAF Required Operational Capability (ROC) 18-68 "Anti-Satellite Weapon System."
- 26 Sep (S) ADC asked USAF to give the AWACS System Project Officer (SPO) formal approval to insert the BIG PLUG requirement in the Requests for Proposals (RFPs) being readied for contractors.

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1968 (cont)

- 27 Sep JCS approved the use of ADC EC-121H aircraft to fill the hole left in radar coverage over the Straits of Denmark when DYE-4 was destroyed.
- 30 Sep Fletcher Construction Ltd. of Christchurch, New Zealand, awarded contract for preparation of Baker-Nunn camera site at Mt John, New Zealand.
- 30 Sep CINCNORAD directed ADC to deploy two EC-121H aircraft from Otis AFB to Keflavik, Iceland. Aircraft deployed the following day.
- 30 Sep PEACE VIOLET (Greek) training began.
- 30 Sep The 498th FIS at Paine Field, Washington, moved to Hamilton AFB, California. 438th FIS at Kincheloe AFB, Michigan, moved to Griffiss AFB, New York. 87th FIS moved from Lockbourne AFB, Ohio to Duluth International Airport, Minnesota, without personnel and equipment.
- 30 Sep Designation of six FISs changed as follows:

Location	Old No.	New No.
Kingsley AFB, Ore.	322	59
Wurtsmith AFB, Mich.	445	75
Griffiss AFB, N.Y.	438	49
Hamilton AFB, Calif.	498	84
Duluth IAP, Minn,	11	87
Oxnard AFB, Calif.	437	460

The change gave the affected units designations of units with a more distinguished history.

- Oct ANSER published Concept Formulation Package describing Over-the-Horizon Backscatter (OTHB) system.
- Oct (S) Boeing, and McDonnell-Douglas given contracts for design, construction, and testing of a surveillance simulation model rotodome for AWACS search antenna. Hughes and Westinghouse received contracts for building a full-scale, high-pulse repetition frequency, pulse-doppler surveillance radar for further clutter rejection testing.

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1968 (cont)

- 7 Oct Flight testing of T-4 tactical doctrine began this date and ended 21 October 1968. SAGE direction for the test came from the 27th Air Division at Luke AFB, Arizona. F-102, F-101B, and F-106 aircraft participated.
- 22 Oct COLLEGE GOLD test of the AIR-2A (GENIE) Rocket conducted.
- 12 Nov FPS-35 antenna bearing replaced at Boron AFS.
- 20 Nov USAF published a Systems Management Directive (SMD-8-203-411L-(2)-AWACS) directing a two-phased contract definition program to begin 60 days from the date of the Request for Proposal (RFP).
- 21 Nov Program 437 launching from Johnston Island.
- l Dec First BUIC III site became operational at Senneterre Air Station (C-8), Quebec, Canada.
- 2 Dec (S) USAF directed ADC to make site surveys in Thailand in preparation for relocation of FPS-49A at Moorestown, New Jersey. U.S. Embassy in Thailand authorized the survey on 13 March 1969. ADC survey team left Colorado Springs on 24 March and returned during June 1969.
- 6 Dec First BUIC III site in the U.S. became operational at Fort Fisher AFS (Z-115), North Carolina.
- 9 Dec COLLEGE SHOES rotation: F-106A aircraft of the 460th FIS, Oxnard AFB, California, and the 95th FIS, Dover AFB, Delaware, replaced the 87th FIS (formerly 11th FIS), Duluth IAP, Minnesota, and 27th FIS, Loring AFB, Maine.
- 11 Dec Request for Proposal (RFP) for AWACS procurement issued to Boeing, and McDonnell-Douglas Aircraft Companies.
- 20 Dec FPS-85 turned over to ADC by AFSC.
- 23 Dec The 71st FIS of Malmstrom AFB, Montana, replaced the 48th FIS of Langley AFB, Virginia, as the COLLEGE CADENCE squadron in Korea.

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1969

- 3 Jan FPS-85 Category III testing began. Testing completed on 28 January.
- 6 Jan A 41-man GEEIA team arrived at Mt Hebo to install FPS-27 radar as replacement for FPS-24 (see 18 Feb 1968 and 5 Jul 1968).
- 18 Jan (S) Program Change Decision (Z-9-002), "Continental Air Defense", directed full integration of air defense and air traffic control functions into the new National Airspace System traffic control centers and reorientation, once AWACS became operational, of other elements of the existing ground environment to a peacetime capability only.
- 26 Feb (S) General Agan told General Ryan that the force structure directed in PCD Z-9-002, "Continental Air Defense" introduced concepts not operationally feasible and serious gaps in ADC's air defense capability would result.
- 5- (S) FPS-92 tracking radar at Clear BMEWS used in 12 Mar SECEDE III tests to determine effects of nuclear bursts on communications.
- 17 Mar Contract awarded on modification of Bucks Harbor search radar tower to accept FPS-66A instead of FPS-24.
- 18 Mar (S) General McConnell tasked ADC to resume planning with FAA for use of 11 austere joint control centers for peacetime identification and weapons control.
- 29 Mar JCS transferred operational control of EC-121H aircraft in Iceland from CINCNORAD to CINCLANT. Actual transfer took place 3 April 1969.
- 31 Mar- 87th FIS, Duluth IAP, Minnesota, replaced the 460th FIS, Oxnard AFB, California, in COLLEGE SHOES rotation.
- 1 Apr (S) Ten Soviet aircraft in four flights entered Alaskan NORAD Region radar coverage at low altitude at 0550Z.

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1969 (cont)

- 2 Apr (S) Twenty more Soviet bombers entered Alaskan NORAD Region radar coverage at low altitude between 2313Z on 1 April and 0037Z on 2 April 1969.
- 78 Apr 48th FIS, Langley AFB, Virginia, replaced the 95th FIS, Dover AFB, Delaware, in COLLEGE SHOES rotation.
- 7-12 Apr COLLEGE KEY II test of BMEWS conducted.
- 14 Apr (S) ADC recommended to SAMSO that Waverly AFS, Iowa, be used as the CONUS Program 949 ground station.
- 15 Apr GEEIA team completed removal of Bucks Harbor FPS-24.
- 15 Apr (S) F-106A interceptors of the 71st FIS began flying combat air patrol in the area over the Sea of Japan where a Navy EC-121M reconnaissance aircraft had been shot down by North Korean fighters about 9 hours earlier. Similar missions continued until 24 May 1969.
- 18 Apr A \$2,115,000 contract awarded to Danish Arctic Contractors for DYE-2 life extension program.

 OSD had authorized \$2,272,000 in February.
- 20 Apr Italian Ministry of Defense approved right-ofentry for ADC survey of the San Vito de Normanni Air Base as a Baker-Nunn Camera site.
- 1 May 152nd FIS, Tuscon IAP, Arizona (Arizona Air National Guard) ceased standing air defense alerts.
- 7 May First contingent of ADC personnel arrived at Mt John, New Zealand, to staff the Baker-Nunn Camera site.
- 15 May 124th FIS, Des Moines MAP, Iowa (Iowa Air National Guard), ceased standing air defense alerts.
 - Jun (S) Technical facilities for the permanent 440L Over-the-Horizon transmitter site at Tokorazawa, Japan, completed at a cost of \$521,000.

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1969 (cont)

- 2 Jun (S) Part of new antenna system for the 440L Overthe-Horizon transmitter site at Tokorazawa, Japan, collapsed during Category II tests. Another portion collapsed on 12 June.
- 5 Jun Formal Memorandum of Understanding signed by NASA and the Air Force covering joint testing of the F-12.
- 5- In COLLEGE SHOES rotation, the 84th FIS, Hamilton 7 Jun AFB, California, replaced the 87th FIS, Duluth IAP, Minnesota.
- 7 Jun 94th FIS, Selfridge AFB, Michigan, replaced 71st FIS, Malmstrom AFB, Montana, as the COLLEGE CADENCE squadron in Korea.
- 19 Jun ADC formally asked USAF for authority to apply the "Tyndall Twenty" fire control modifications to the F-102 interceptors under direct ADC control (training aircraft at Perrin AFB, detachment at Key West and 57th FIS at Keflavik, Iceland).
- 1 Jul 966th AEW&C Sq transferred from 552nd AEW&C Wing to 551st AEW&C Wing.
- 1 Jul Twenty-seven ADC prime radar sites reduced from dual to single height finder status.
- 1 Jul FPS-27s at Chandler AFS (Z-18), Minnesota; Bellefontaine AFS (Z-73), Ohio; and Waverly AFS (Z-81), ceased SAGE operations. FPS-66 removed from service at Perrin AFS (Z-78), Texas. FPS-67s at Arlington Heights AI (Z-31), Illinois, and Sweetwater AFS (Z-89), Texas, turned off.
- 10-11 Jul Four F-106s of 5th FIS (Minot) replaced similar number from 48th FIS (Langley) in COLLEGE SHOES rotation to Alaska.
- 22 Jul (S) Seventh Burner II test launched from Vandenberg AFB, California.
- 31 Jul 960th AEW&C Sq discontinued at Otis AFB, Massachusetts. It had been released from its mission on 3 Jul.

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1969 (cont)

- Aug Gen Seth J. McKee assumed command of CONAD and NORAD.
- 2 Aug 123rd FIS (ANG-Portland, Oregon) deployed 13 F-102 interceptors to Alaska. Unit redeployed to Portland on 16 August 1969. This was Phase I of Exercise COOL RIDE II.
- 4 Aug USAF Chief of Staff Gen John D. Ryan advised commanders of major air commands that new restraints on defense spending would eliminate \$3 billion from the FY 1970 budget.
- 4 Aug USAF issued a Modification Program Directive (MPD) allocating \$7,126 million of FY 1970 funds for MEISR modifications.

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- 12 Aug HQ ADC recommended that systems be deleted in the following order to meet OSD budget reductions:

 SLBM D&W system; detachment of F-102s at Key West NAS; squadron of F-104s at Homestead AFB; SAGE DCs and Air Division headquarters; three F-101B squadrons; BOMARC; and East Coast EC-121s.
- 14 Aug Gen Agan recommended strongly that five of six BOMARC units be retained. He also recommended keeping two combat centers and phasing out all direction centers.
- 16 Aug 178th FIS (ANG-Fargo, North Dakota) deployed to Alaska. Redeployed to Fargo on 30 August 1969. This was Phase II of Exercise COOL RIDE II.
- 2 Sep Convair began tests of the feasibility of mounting a 20-mm gun on the F-106 interceptor (Project SIXSHOOTER). Contractor flight tests, conducted at Edwards AFB, California, ended on 23 September 1969.
- 8- COLLEGE SHOES rotation, aircraft of the 49th FIS (Griffiss) replaced those of the 84th FIS (Hamilton).
- 15 Sep Revised BMEWS attack assessment programs placed in continuous operation at Thule and Clear.

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1969 (cont)

- 15 Sep FPS-35 at Boron AFS (Z-59) turned off in preparation for replacement with an FPS-60 series radar.
- 22 Sep Secretary of the Air Force Robert C. Seamans, Jr., announced that USAF personnel strength would be cut by 45,000 airmen, 5,000 officers and 13,000 civilians.
- 5 Oct Cuban pilot landed a MIG-17 at Homestead AFB after making an unchallenged and undetected flight from Santa Clara, Cuba.
- 13 Oct Baker-Nunn camera facility at Mt John, New Zealand, accepted by ADC.
- 13- COLLEGE SHOES rotation, aircraft of the 318th FIS 14 Oct (McChord) replaced those of the 5th FIS (Minot).
- 16 Oct (S) Dual track-dual slave capability--known as the ANDERS interface--installed in the ADC FPS-80 and the USAFSS Elint tracker at Shemya, Alaska, accepted.
- 18- (S-NF) Increased readiness posture of the inter-28 Oct ceptor force increased to test stamina of the maintenance organization.
- 22 Oct FPS-24 at Malmstrom AFB (Z-147), Montana, ceased SAGE operations. FPS-8 placed in service to satisfy FAA air traffic control requirements.
- 24 Oct FPS-20 at Oakdale AI (Z-62), Pennsylvania, ceased SAGE radar operations. FPS-20 had been substituted for the site's FPS-24 when that radar's prototype hydrostatic bearing suffered a catastrophic failure on 12 January 1969.
- 26 Oct (S-NF) Twenty-eight F-102 aircraft deployed from Perrin--14 to Richards-Gebaur AFB, Missouri, and 14 to Stewart AFB, New York to test the readiness posture of training aircraft. Aircraft returned to Perrin on 31 October 1969.
- 29 Oct Secretary of Defense Laird announced military cuts that caused ADC to inactivate First and Tenth Air

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1969 (cont)

- 29 Oct Forces and their combat centers, the 31st, 32nd, and 34th Air Divisions, and their direction centers, six radar squadrons, and three F-101B squadrons.
- 30 Oct Three F-101B squadrons--2nd FIS at Suffolk County AFB, New York; 59th FIS at Kingsley AFB, Oregon; and 75th FIS at Wurtsmith AFB, Michigan--ceased operations.
- 31 Oct FPS-27 at Mt Hebo AFS (Z-100), Oregon became operational. This was a replacement for the FPS-24 previously installed at the site (see 18 Feb 1968, 5 Jul 1968, and 6 Jan 1969).
- 31 Oct 35th Air Defense Missile Squadron (BOMARC) at Niagara Falls, New York, ceased operations.
- 4 Nov Five ADC radars eliminated: FPS-7 at Luke Range (Z-181), Arizona; FPS-27 at Las Vegas (Z-163), Nevada, FPS-35 at Thomasville AFS (Z-197), Alabama; FPS-67 at Mt Lemmon AFS (Z-92), Arizona; and FPS-91A at Lackland AFB (Z-75), Texas, The FPS-91A was the last in the ADC inventory.
- 6 Nov Contract awarded for construction of Baker-Nunn camera facility at San Vito de Normanni Air Base, Italy.
- 14 Nov 552nd AEW&C Wing released from NORAD mission on West Coast during peacetime operations.
- 14 Nov Final AEW&C missions flown off East Coast.
- 14 Nov SAGE direction centers at Gunter AFB and Custer AFB and the manual direction center at Oklahoma City AFS ceased operations.
- 15 Nov 319th FIS (F-104) at Homestead AFB, Florida, ceased operations.
- 15 Nov 95th FIS (Dover) replaced 94th FIS (Selfridge) as the F-106 squadron deployed to South Korea under operation COLLEGE CADENCE.

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1969 (cont)

- 15 Nov ADC detachment of eight F-102 aircraft at Key West ceased operations, CINCLANT/CINCSTRIKE assumed responsibility for the air defense of southern Florida. F-4 aircraft used.
- 17 Nov Regular use of T-4 interceptor tactics began.
- 8- COLLEGE SHOES rotation, aircraft of the 27th FIS 9 Dec (Loring) replaced those of the 49th FIS (Griffiss).
- 12 Dec Jurisdiction over training to be conducted by the proposed ANG F-102 CCTS at Ellington AFB, Texas, transferred from the 31st Air Division (Oklahoma City, Oklahoma) to ADWC (Tyndall).
- 17 Dec (C) Last PEACE STRETCH students (Jordanians training in F-104) graduated from Homestead.
- 31 Dec 551st AEW&C Wing and its operational and support squadrons inactivated at Otis AFB.
- 31 Dec Det 2, 552nd AEW&C Wing activated at McCoy AFB, Florida.
- 31 Dec Moorestown FPS-49A placed in caretaker status.

 It had been removed from service on 7 November.

1970

- 5 Jan BUIC III radar system became fully operational with acceptance of the facility at the 780th Air Defense Group, Fortuna AFS, North Dakota.
- 2- COLLEGE SHOES rotation, aircraft of the 71st FIS (Malmstrom) replaced aircraft of the 318th FIS (McChord).
- 1 Mar Lt Gen Thomas K. McGehee assumed command of ADC.
- 2 Mar The only FPS-65 in the ADC inventory, an FPS-65 at Palermo AFS (Z-54), New Jersey, removed from service.

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1970 (cont)

- 24 Mar First launching of the BOMARC "B" guided missile, using the new Back-Up Interceptor Control (BUIC) III computerized command and control equipment, completed at Tyndall AFB, Florida.
- 25 Mar- "Sick-out" of FAA air controllers disrupted ADC 4 Apr interceptor training.
- 25 Mar FPS-66A at Bucks Harbor AFS (Z-110), Maine, accepted by ADC. The FPS-66A replaced an FPS-24 removed on 21 April 1969.
- 28 Mar (S) Sixth Program 437 Combat Evaluation Launch made from Johnston Island.
- 30- In COLLEGE SHOES rotation, aircraft of 87th FIS 31 Mar (Duluth) replaced those of 27th FIS (Loring).
- 1 Apr FPS-7 at Luke Range (Z-181), Arizona, removed from the air defense radar network.
- 9 Apr First EC-121T delivered to 552nd AEW&C Wing at McClellan AFB, California. EC-121T was a Super Constellation modified to comply with Seventh Air Force SEAOR-62 specifications for interface with an automated ground-based command and control system.
- 16 Apr USAF directed that COLLEGE CADENCE deployment to South Korea end by 1 May 1970.
- 20 Apr USAF informed ADC of proposals concerning the Defense budget for FY 1972 (Exercise 72-B2).
- 22 Apr FPS-24 at Winston-Salem AFS (Z-130), North Carolina, ceased SAGE operations.
- 24 Apr Communist China launched its first Experimental Space Vehicle.
- 25 Apr (S-NF) First Special Defense Program Launch occurred at Johnston Island.
- 1 May FPS-27 at San Pedro Hill AFS (Z-39) ceased SAGE radar operations. An FAA ARSR radar began supplying air defense and air traffic control data.

1970 (cont)

- 13 May Task force of Soviet TU-95 bomber aircraft arrived in Cuba flying non-stop from bases in northern Soviet Union.
- 20 May USAF forwarded to ADC revised proposals for FY 1972 budget (Exercise 72-B3).
- 28 May SEED CLEAR modification in FPS-27 at Mt Hebo accepted.
- l Jun ADC accepted the SLBM D&W system in an interim capability configuration.
- 3 Jun Six F-106 aircraft of the 48th FIS deployed to Homestead to initiate operations under Plan COL-LEGE SAND--a mission permanently assigned to the 48th.
- 15- In COLLEGE SHOES rotation, aircraft of 84th FIS 16 Jun (Hamilton) replaced those of 71st FIS (Malmstrom).
- 29 Jun (S) CETF withdrew from Korat RTAFB and moved to Itazuke AB, Japan. During 1 April 1965-29 June 1970 deployment to Southeast Asia, CETF flew 4,688 sorties and 48,879.9 hours in support of Seventh Air Force operations in Southeast Asia.
- 1 Jul 866th Radar Squadron, Tonopah AFS (Z-164), Nevada, inactivated.
- 1 Jul Wadena AFS (Z-17), Condon AFS (Z-32), Burns AFS (Z-118), Houma AFS (Z-126), Red Bluff AFS (Z-157), Dauphin Island AFS (Z-196), and Saglek AS (C-29). ceased operations.
- 5 Jul First contract for the new Airborne Warning and Control System (AWACS) aircraft let to Boeing Company. AWACS fleet would serve as airborne combat direction centers for ADC.
- 31 Jul 810th Radar Squadron, Winston-Salem AFS (Z-130), North Carolina, inactivated.

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1970 (cont)

- 31 Jul 924th AC&W Squadron, Saglek AS (C-29), Labrador, inactivated.
- ADC advised USAF that it would give up the FPS-43 at Trinidad rather than assume full ownership of it. The FPS-43 had been operated by AFETR and supplied SPACETRACK data on a cooperative basis.
- 6 Aug FPS-67 at Red Bluff AFS (Z-159), California, transferred to FAA.
- 21 Aug FPS-66 at Cross City AFS (Z-200), Florida, transferred to FAA.
- 14 Sep (S) CETF began redeployment of three EC-121s to Korat RTAFB to support Seventh AF operations in Southeast Asia. First aircraft arrived on 15 September and first mission flown on 16 September.
- 24 Sep (S) ADC personnel launched an HAP missile from Johnston Island. All other responsibilities associated with the test rested with the Defense Atomic Support Agency.
- 24 Sep (S) HQ ADC advised air divisions and SLBM sites that no FSS-7 would operate in the SAGE-BUIC mode until futher notice.
- 30 Sep 634th Radar Squadron, Burns AFS (Z-118), Oregon, 636th Radar Squadron, Condon AFS (Z-32), Oregon, 657th Radar Squadron, Houma AFS (Z-126), Louisiana, 691st Radar Squadron, Cross City AFS (Z-200), Florida, 693rd Radar Squadron, Dauphin Island AFS (Z-196), Alabama, 739th Radar Squadron, Wadena AFS (Z-17), and 859th Radar Squadron, Red Bluff AFS (Z-159), California, inactivated.
- 30 Sep 801st Radar Squadron reactivated at Malmstrom AFB (Z-147), Montana.
- 1 Oct (S) Program 437 reduced from 24-hour alert to 30-day alert. Missiles and personnel transferred back to the CONUS.

1970 (cont)

- 1 Oct DEW Line site FOX-1, on Rowley Island, NWT, relieved of its air defense mission.
- SAC assumed command jurisdiction for USAF facilities at Saglek AS, Labrador. AFCS assumed responsibility for operation and maintenance of the communications facilities required for support of Canadian Department of Transportation. ADC operations at the site terminated on 1 July 1970.
- 2 Oct (S-NF EXCAN) ADC COLLEGE SHOES deployments to Alaska end.
- 8 Oct 4683rd USAF Dispensary (Class A), Thule, Greenland, inactivated while a USAF Hospital, Thule, activated.
- 16 Oct FPS-65A removed from Palermo AFS (Z-54), New Jersey, and sent to Malmstrom AFB (Z-147), Montana, for installation.
 - 23 Oct First EC-121T aircraft arrived at Itazuke AB, Japan. First EC-121T mission flown on 28 Oct 1970.
 - 3 Nov (S-NF EXCAN) Thirteen BOMARC missiles of the 74th Air Defense Missile Squadron (Duluth) inadvertently erected to firing position.
 - 6 Nov (S-NF) First launch of a satellite for DSP. The launch was but a partial success.
 - 21 Nov (POUO) Two 552nd AEW&C Wing EC-121Ts flew support for the Son Tay POW Camp raid near Hanoi.
 - 29 Nov (S) Redeployment of CETF from Itazuke, Japan, to Korat RTAFB, Thailand, ended. CETF forces returned to Itazuke.
 - 9 Dec San Vito, Italy, Baker-Nunn camera placed in limited operation.

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1971

- 1 Jan Niagara Falls, IAP, New York, transferred from ADC to Air Force Reserve.
- 15 Jan DEW Line site FOX-1, on Rowley Island, NWT, inactivated.
- 15 Feb The Itazuke-based portion of CETF moved to Kwang Ju AB, Korea.
- 26 Feb (S) HQ Seventh Air Force asked CINCPACAF for further CETF support in Southeast Asia. CINCPACAF agreed on 16 March and the last of five aircraft arrived at Korat on 23 March 1971.
- 9 Mar 18th FIS (F-101B) ceased operations at Grand Forks AB, North Dakota.

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- 11 Mar Phase I/Phase III plan for interceptor dispersal took effect when the last tactical aircraft withdrew from all dispersal bases except Kingsley.
- 26 Mar Contract for Westinghouse SEED CLEAR modification to FPS-27 search radars signed.
- 31 Mar FPS-35 removed from Fallon AFS (Z-156), Nevada, to make room for FPS-66 from Burns AFS (Z-118). Installation of the FPS-66 at Failon scheduled for completion by February 1972.
 - Apr (S) Detachment of six F-106 aircraft from the 95th FIS (Dover) temporarily relieved the usual detachment of the 48th FIS (Langley) at Homestead AFB, Florida.
- 1 Apr 60th FIS (F-101B) ceased operations at Otis AFB, Massachusetts. 62nd FIS (F-101B) ceased operations at K.I. Sawyer AFB, Michigan.
- 4 Apr FPS-65A installation completed at Malmstrom AFB (Z-147), Montana. Flight checks continued until about 2 June 1971, when radar transferred from ADC to FAA,

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1971 (cont)

- 8 Apr HQ USAF told HQ ADC that Melville AS (C-24) and Stephenville AS (C-23) not funded in the FY 1972 budget and that there were no plans to maintain manpower resources at these locations beyond 30 June 1971.
- 5 May (S-NF) Second satellite (first completely successful launch) for DSP up.
- 6 May Radar operations ceased at Stephenville AS (C-23), Newfoundland.
- 10 May HQ USAF directed HQ ADC to reactivate the FPS-49A at Moorestown, New Jersey.
- 11 May 460th FIS (F-106), formerly at Kingsley Field, Oregon, became preponderantly operational at Grand Forks AFB, North Dakota.
- 23 May 87th FIS (F-106), formerly at Duluth IAP, Minnesota, became preponderantly operational at K.I. Sawyer AFB, Michigan.
- 1 Jun 440L OTH Forward-Scatter radar system receiver sites, correlation center, and communications segment attained interim capability.
- 2 Jun FPS-67 at Boron AFS (Z-59), California became operational.
- 7 Jun18 Oct
 An unofficial strike over wages at Clear AFS,
 Alaska jeopardized BMEWS operation and the contractor's ability to provide continuous site
 operation. A two-year contract that provided for
 wage increases of 70 cents an hour the first year
 and 50 cents an hour the second year resolved
 labor problems, at least temporarily.
- 19 Jun The CETF MSB at Tainan AB, Taiwan, ceased operations. Personnel and aircraft transferred to Kwang Ju.

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1971 (cont)

- 24 Jun (S) YF-12A lost in a major accident.
- 30 Jun 640th AC&W Squadron, Stephenville AS (C-23), Newfoundland, 641st AC&W Squadron, Melville AS (C-24), Labrador, and 694th Radar Squadron, Lewistown AFS (Z-178), Montana, inactivated.
- 30 Jun 801st Radar Squadron, Malmstrom AFB, (Z-147), Montana, reactivated.
- 30 Jun FPS-90 height-finder radar placed in service at Malmstrom to replace a coverage loss that resulted from phaseout of Lewistown AFS (Z-178), Montana.
- 30 Jun 965th AEW&C Squadron, McClellan AFB, California, inactivated.
 - Jul ADC assumed responsibility for the MACE Missile program at Eglin AFB, Florida, from TAC.
- 1 Jul 4759th Air Defense Squadron replaced 965th AEW&C Squadron at McClellan AFB, California.
- l Jul (S) ADC assumed responsibility for the Data Analysis Center at McGuire AFB, New Jersey, as part of the 440L turnover.
 - Aug (S) Erroneous calculations by the computer in the MA-1 fire control system of the F-106 caused ADC to request a study of the MA-1 computer.
- 1 Sep 17th Radar Squadron activated at Ko Kha ASN, Thailand, as the COBRA TALON radar neared operational status.
- 26 Sep High winds damaged one of two rigid radomes (CW-396) at Stephenville AS, Newfoundland.
 - Oct (S-NF) SAMSO informed HQ USAF that ADC's concept designated Project SPIKE (an air-launched antisatellite system using F-106 interceptors equipped with modified Standard ARM--anti-radiation--type missiles) appeared feasible.

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1971 (cont)

- Oct (S-NF EX UK) First 706 computer (part of the postwhitening modification to the 440L system) became operational at Aviano.
- 1 Oct (S) POW-3, Flaxman Island, Alaska, phased out.
 It had been relieved of its operational mission on 2 July.
- 8 Oct Tyndall AFB, Florida, became the first operational common digitizer site.
- An AN-24 transport from Havana, Cuba, crossed the United States Aircraft Defense Identification Zone 200 miles out over the Gulf of Mexico and was undetected until the pilot asked for landing instructions 25 miles out of Moisant International Airport, New Orleans, Louisiana. The event prompted reestablishment of air defense capability across the southern United States.
- 4 Nov (S) A specially-equipped EC-121 made the first successful data-link controlled intercept of a Soviet intruder.
- 5(C) Twenty-four F-106 aircraft took part in CORONET ORGAN, a type of dissimilar aircraft training in which ADC played the "aggressor" to give TAC
 F-4 aircrews experience in dealing with an aggressive defense.
- 15 Nov (S) Post-whitening modification declared operational in the 440L system.
- 1 Dec In HQ ADC, Deputy Chief of Staff for Materiel became Deputy Chief of Staff for Logistics, as directed by Air Force.
- 9 Dec (S) CETF reassumed mission in SEA providing warning, surveillance, and control for U.S. aircraft operating in Laos. It had been released by HQ 7th Air Force on 20 July 1971.

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1971 (cont)

- 27 Dec (S) ADC assumed operational command responsibilities for the Moorestown, New Jersey, radar site. The radar site gained an initial operational capability in an SLBM detection and warning configuration on 1 January 1972. Detachment 1, 4783rd Surveillance Squadron, the operating unit, organized 1 April 1972.
- 31 Dec (S) Joint ADC/TAC/NASA program to develop the F-12 as a high-speed, high-altitude test vehicle ended when USAF concluded that benefits did not justify the cost of a continuing test effort.

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- 1 Jan 4602nd Computer Services Squadron designated and activated at Ent AFB, Colorado.
- 15 Jan (FOUO) The AN/FPS-85 Phased Array Radar, Eglin AFB, Florida, undertook the responsibility of Alternate Space Defense Center as an added mission.
- 1 Feb (S) A pulse compression modification to improve FPS-92 accuracy in tracking space objects completed and accepted at Clear AFS, Alaska.
- 18 Feb HQ USAF approved the move of 11 EB-57A aircraft to the Aircraft Storage and Disposition Center at Davis-Monthan AFB, Arizona, for salvage of reusable components needed in the conversion of EB-57B aircraft under a Class V Modification (FS-2719).
- 1 Mar (S) Modification of SLBM Software (MOSS) completed at all sites. MOSS system turned over to ADC on 28 April 1972.
- 1 Mar (S-NF) Third satellite of a satellite-borne ballistic missile attack warning and surveillance system, Program 647, launched.
- 16 Mar (S) Main bearing of the AN/FPS-24 search radar at Point Arena, California, failed. Bearing replacement completed 11 April 1972.

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1972 (cont)

- 21 Mar (S) Test program began to determine the technical capability of AWACS under operational conditions.
- 1 Apr 4614th Procurement Squadron activated at Ent AFB, Colorado.
- 1 Apr Four BOMARC squadrons, 26th ADMS, Otis AFB,
 Massachusetts, 74th ADMS, Duluth IAP, Minnesota,
 446th SAM Squadron, North Bay, Ontario, and 447th
 SAM Squadron, La Macaza, Quebec, ceased operations.
- 13 Apr (S) As part of the satellite early warning system ADC accepted a multipurpose facility at Lowry AFB, Denver, Colorado. It provided a training facility and a systems analysis, data processing, and computer program development capability.
- 15 Apr Because F-12 test effort ended, the 4786th Test Squadron, Edwards AFB, California, inactivated.
- 16 Apr (S) Category II testing of SPACETRACK computer modification F-2021 at Diyarbakir ended,
- 28 Apr AN/FPS-107 Single-Beam Modification of the AN/FPS-7 completed at North Truro, Massachusetts, the last of 11 scheduled ADC sites to be so modified.
- 30 Apr 26th ADMS at Otis AFB, Massachusetts, and 74th ADMS at Duluth IAP, Minnesota, inactivated.
- 30 Apr 319th Fighter Interceptor Squadron, Malmstrom AFB, Montana, inactivated.
- 29 May (S) SPACETRACK computer modification F-2021 began at Shemya.
- 1 Jun 83rd Fighter Interceptor Squadron, Loring AFB, Maine, halted active air defense operation.
- l Jun (S-NF EX AUS) Overseas segment of the Defense Support Program moved from "interim" capability to initial operational capability and was accepted by ADC.

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1972 (cont)

- 1 Jun (S-NF) ADC accepted the DSP data distribution center at Denver, Colorado. The center had been moved from Sunnyvale, California, to Colorado in November 1971.
- 22 Jun (S) FPS-49 at Moorestown Missile Tracking Site placed on "standby immediate recall" basis.
- 27 Jun First CIM-10B prototype drone target launched.
- 30 Jun 83rd Fighter Interceptor Squadron at Loring AFB, Maine, inactivated.
- 30 Jun (C) The ITT-ASI contract to operate and maintain sites at Thule and Clear expired. In the earlier bidding for a 33-month contract, ITT-ASI lost the contract to RCA. RCA scheduled to assume responsibilities on 1 October 1972. ITT-ASI received a contract for temporary operation from 1 July-30 September 1972.
- l Jul lst Aerospace Control Squadron, NCMC, Ent AFB, Colorado, assumed combined NORAD/ADC Cosmos program maintenance responsibility.
- 8 Jul 14th Missile Warning Squadron, Laredo, Texas, activated and assumed operational responsibilities for the SLBM D&W System.
- 1 Aug 630th Radar Squadron, Houston City, Texas, activated.
- 26 Aug Main bearing failed at 776th Radar Squadron, Point Arena AFS, California.
- 28 Aug (S) Crew 313, aboard DISCO Ø3, an EC-121 aircraft, operating from forward operating base (CETF) Korat RTAFB, Thailand, credited with an assist in a MIG kill that made Captain Steve Ritchie, the first USAF jet ace of the Vietnamese War.
- 31 Aug 4677th Defense Systems Evaluation Squadron, moved from Hill AFB, Utah, to Malmstrom AFB, Montana.

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1972 (cont)

- 56 Sep
 (C) Four Soviet Naval Aviation TU-95 Bear Delta reconnaissance aircraft deployed to Cuba, two aircraft arriving at Jose Marti International Airport on 5 September and two more on 6 September. The latter flight, the ninth in the series, was the first time that more than two Soviet aircraft were on the ground in Cuba at the same time. In another change of pattern, two of the deployed Bear Deltas conducted an approximate 10-hour reconnaissance mission over the Atlantic on 9 September.
- 15 Sep Two F-102 aircraft from the 57th FIS, Keflavik International Airport, Iceland, made the 1000th intercept of a Soviet aircraft. F-102 aircraft arrived at Keflavik in 1963.
- 15 Sep 4713 DSES (ADC) moved from Otis AFB, Massachusetts, to Westover AFB, Massachusetts.
- 26 Sep Main bearing of the AN/FPS-24 failed at 754th Radar Squadron, Port Austin AFS, Michigan.

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- 2 Oct 4677th Defense Systems Evaluation Squadron, Malmstrom AFB, Montana, reassigned from HQ ADC to 24th Air Division.
- 6 Oct Initial increment of Southern Air Defense System became operational.
- 18 Oct 4600th Air Base Wing moved from Ent AFB, Colorado to Peterson Field, Colorado.
- 27 Oct 754th Radar Squadron, Port Austin AFS, Michigan, AN/FPS-24 main bearing change completed.
- 31 Oct 46th Air Defense Missile Squadron, McGuire AFB, New Jersey, inactivated.
- 31 Oct 22nd Air Defense Missile Squadron, Langley AFB, Virginia, deactivated. Unit ceased operational status 1 October 1972. This closed out BOMARC interceptor activity.

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1972 (cont)

l Nov Fort Fisher BUIC facility reduced to "semi-active" mode of operation. Action left Tyndall as the sole active BUIC facility in CONUS.

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