

# **657 RADAR SQUADRON (SAGE)**

## **MISSION**

To equip, administer, train, and prepare for combat operations in accordance with current directives issued by higher headquarters. To maintain Radar Surveillance in conjunction with the SAGE System and maintain a manual back-up capability to conduct air defense operations as directed by higher headquarters. To report automatically all functions necessary to maintain combat operational status for accomplishment of air defense functions during SAGE Mode I and II operations. Perform such other duties as may be directed by higher headquarters.

## **LINEAGE**

657 Aircraft Control and Warning Squadron  
657 Radar Squadron (SAGE)

## **STATIONS**

Tinker AFB, OK, 18 Jun 1953-31 Mar 1955

## **ASSIGNMENTS**

## **COMMANDERS**

## **HONORS**

**Service Streamers**

**Campaign Streamers**

**Armed Forces Expeditionary Streamers**

**Decorations**

## **EMBLEM**

## **MOTTO**

## **NICKNAME**

## **OPERATIONS**

M-126/2-126 - Houma LA

In 1955 the 657th AC&W Squadron began operations using AN/MPS-14, AN/TPS-1D, and AN/TPS-10D radars. In 1958 an AN/FPS-20 search radar was in operation along with AN/MPS-14 and AN/MPS-7 units. In 1960 an AN/FPS-6 height-finder radar was added. In 1961 Houma joined the SAGE system. In 1962 the search radar was upgraded to an AN/FPS-67 and the AN/FPS-6B height-finder radar was upgraded to an AN/FPS-90. A prototype AN/FPS-28 was placed at Houma in late 1959 for field testing. The 657<sup>th</sup> was deactivated in September 1970.

M-126 Z-126                      657      Houma AFS, LA                      TPS-1D; TPS-10D; FPS-20/67; MPS-14; FPS-90; FPS-28\*                      FPS-67B; FPS-90                      1955      30-Sep-70                      Site was originally part of Houma NAS.  
\* FPS-28 search radar here was the prototype, and the only one of its kind. The Welcome brochure states that the -28 was put into operation in late 1959, and operated until May, 1965.

TM-196A / M-126A      Z-126A    New Orleans, LA  
FPS-14 FPS-18 Oct-57 1 July 1970      The gap-filler radar annex was located at Camp Leroy Johnson, New Orleans.

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657th Radar. Sq (SAGE): assigned 1 Jan 51 at Ft. Williams, ME, assigned to 540th AC&W Gp; inactivated 18 Oct 51; reactivated 18 Jun 53 at Tinker AFB, OK, assigned to 33rd AI); moved to Houma NAS, LA Mar 55; transferred to 35th AD 10 - Apr 55; transferred to 32nd AD 15 Nov 58; transferred to Montgomery ADS 1 Nov 59; redesignated from AC&W Sq to 657th Radar Sq (SAGE) 1. Mar 61; reassigned to 32nd AD 1 Apr 66; reassigned to 33rd AD 14 Nov 69; reassigned to 20th AD 19 Nov 69; inactivated 30 Sep 70.

The ground work for the 765th Air Defense Group was laid in 1948 when the United States Air Force organized the Air Defense Command (now designated the Aerospace Defense Command) and gave ADC the mission of defending the United States from enemy air attack. The following year the 657th Aircraft Control and Warning Squadron was activated at Dow Field, Bangor,

Maine. In 1950, surveying and construction began on Bull Hill, 30 miles north of Bangor, known locally as Charleston Hill, present site of the 765th. Following completion of facilities in 1951, 90 per cent of the personnel of the 657th AC&W Squadron were transited to the new site. The 657th was replaced at Dow by the 128th Air National Guard AC&W Squadron from Nebraska and Iowa and the 765th AC&W Squadron was born.

The aircraft warning stations were elements in the first and southernmost of three radar lines constructed across the continent. The Pine Tree Line, lying wholly within the United States, the Mid-Canada Line, and the Distant Early Warning (DEW) Line. Construction on the Pine Tree Line began before the outbreak of hostilities in Korea and was accelerated in the fall of 1950. The stations built by the New England Division looped around the eastern and northern perimeters of New England from North Truro on Cape Cod, to Saint Albans Vt. on Lake Champlain, with intermediate stations at Charleston, Bucks Harbor, and Caswell, Maine.

At Topsham, Maine, the division constructed a large control center that tied together the eastern stations of the Pine Tree Line. Charleston Air Force Station was the home of the 765th Radar Squadron and Detachment 6, 14th Missile Warning Squadron. Ground work for the 765th Radar Squadron was laid in 1948 when the United States Air Force organized the Air Defense Command, and tasked ADC with the mission of defending the United States against enemy air attack. The following year the 657th Aircraft Control and Warning (AC&W) Squadron was activated at Dow Field, Bangor, Maine.

In 1950 surveying and construction began on Bull Hill, which is located 30 miles north of Bangor, and in 1951 the 765th AC&W Squadron became operational at Charleston AFS. Ninety percent of the personnel at the 657th AC&W were transferred to the new site. Charleston AFS was fully manned by early 1952 and placed on standby operational status. On 1 June of that year the 765th AC&W Squadron became operationally ready and assumed an air defense commitment. The Squadron conducted air defense operations as an Air Defense Direction Center with manual capability from 1952 through 1959.

In May of 1959, the squadron converted to the Semi-Automatic Ground Environment (SAGE) system and was renamed the 765th Radar Squadron (SAGE). The unit was under the operational control of the Bangor Air Defense Sector and 26th Air Division (SAGE), and provided search and height finder radar data. On 1 March 1963, the 765th Radar Squadron began back-up Interceptor Control (BUIC) I operations and assumed additional responsibility as a CONRAD Control Center. BUIC I was operational until March of 1966, at which time the Squadron mission was again revised after the installation of BUIC II.

This system was replaced by BUIC III, which became operational in December 1969. Implementation of BUIC III increased operational responsibilities of the 765th, and in March 1970 the unit became an Air Defense Group under the command of the 21st Air Division and the NORAD Region at Hancock Field, Syracuse, New York.

In September of 1972 the 765th Air Defense Group was placed in a semi-active mode of BUIC III operations, along with the other BUIC sites throughout the country. In January of 1974 BUIC III was deactivated and the unit became the 765th Radar Squadron. Detachment 6, which was located at Charleston Air Force Station, became operational in 1967 as part of the 71st Missile Wing, McGuire AFB, New Jersey.

One of seven SLBM detachments, it was administratively under the command of the 14th Missile Warning Squadron located at MacDill AFB, Florida and the 14th Aerospace Force (ADCOM) with headquarters at Ent AFB, Colorado. The 765th Operating Location AA (OLAA) was located at Bangor International Airport and was formed in June of 1971. Facilities were owned and operated at Bangor by the 765th Radar Squadron under the operational control of OLAA.

The squadron's mission was to provide search and height radar to the semi-automatic ground environment (SAGE) system at the 21st NORAD Region, Hancock Field, NY, and to provide ground to air communications and aircraft control as a backup to the SAGE system. The squadron also provided support to Detachment 6, 14th Missile Warning Squadron. The mission of Detachment 6, 14th Missile Warning Squadron, was to detect and provide warning of sea launched ballistic missiles (SLBM).

The SLBM detection system guarded the eastern, western, and southern approaches to North America. The AN/FSS-7 radar was used to search for, and track missiles. Squadron Headquarters was located at Tampa, Florida, and the SLBM detection system was linked to the NORAD Combat Operations Center, SAC Command Post, and the National Military Command Center in Washington, D.C.

Houma Air Force Station is situated in the marshes of South Louisiana, approximately 60 miles southwest of New Orleans, Louisiana, and 3 miles southeast of Houma. This station was activated on 1 April 1955, when the Air Force assumed beneficial occupancy of approximately 96 acres of land from the Navy. The station became an active part of the Air Defense Command on 7 December 1955. When activated, the Air Force constructed Quanset type metal buildings for dining and living facilities. A masonry type dining hall and airman dormitory was completed in June 1966 to make the station more appealing and comfortable for the enlisted personnel. The NCO'S still occupy a metal building, but a permanent type is programmed for the bachelor officers and NCO's.

In May 1959, twenty-seven (27) family housing units were accepted, which improved the morale of the personnel since most of the housing in the area was below Air Force standards. In conjunction with the family housing, sanitary sewage was connected to the Houma sewage system and the septic tanks discontinued.

To insure sufficient water pressure for the station and housing area, the Air Force constructed & 100,000 gallon water storage tower that was put into operation in mid 1960.

A test FD Radar system (AN/FPS-28) was constructed on the station and put in operation in late

1959. This unit was operated as a test facility until May 1965 when it was closed as no longer being useful to the Air Force. This equipment is now being processed for disposal. Our radar system presently include the AN/FPS-67B for search and the AN/FPS-90 and AN/MPS-14 for height. We also have the AN/FPS-18 for our Gap Filler in New Orleans.

Other equipment is as follows: AN/UPA-35, Plan Position Control Scopes for our weapon Controllers, an AN/UPX-14, Interrogator Set, AN/GPX-20 Coder/ Decoder Set, AN/GPS-T4 Aircraft Flight Simulator, AN/GPS-TeA Actor 9 AN/GPST2 Simulator, AN/FST-1 Coordinate Transmitter, AN/FST-2B Coordinate Data Transmitter, AN/GKA-5 Data Link Transmitter Set, AN/GRT-3 Transmitter, AN/GRC-27 Multiple Transmitter;, AN/GRR-7 Receiver, and AN/FSW-1 Data Monitor.

For communications we have an M-28ASR Teletype Printer and Transmitter, an M-28RO Teletype Receiver, and a KW-7 Digital Crypto Set. Our telephone lines are owned by the Southern Bell Telephone Company.

A. Base Population Data:

1. The number of military personnel living in dormitories is 500
2. There are 29 military personnel, living in the family housing area, and 10 personnel living in the trailer park.
3. There are 110 military dependents living in base housing and trailer park.
4. There are 47 military personnel living off-base.

B. Lands: (Acres)

1. There are 94 of fee purchase land.
2. There are 2 acres of leased land.

C. Other Pavements and Roads: (Square Yards)

1. There are 21,973 square yards of paved roads.
2. There are 600 square yards of unpaved roads.
3. There are 5.9630 square yards of parking area.
4. There is no paved storage area.
5. There is no unpaved but stabilized storage area.

D. Structures: (Square Feet)

1. Airmen Dormitories: 10,951 square feet,
2. There is no BOQ.
3. The Civil Engineering facility consist of a power building with an 800KW generator and associated equipment, and a preventive maintenance building with carpenter and mechanical tools. Maintenance of all facilities is performed by the PM crew without assistance from the support base. The 800KW generator is an automatic starting unit which provides 24 hour back-up power.
4. The transportation section is authorized only a dispatcher, so maintenance on the three Air Force vehicles is performed by the Support Base. The six (6) GSA Vehicles are maintained by GSA in New Orleans, Louisiana.

5. Operations consist of a shielded operations building of 13,474 square feet, a GATR building of 2,093 square feet, a search radar and two (2) height finders.
6. There is no oil and grease storage. The paint is stored in an 8' x 12' frame structure situated approximately 100 ft from the Civil Engineering Building.
7. The station has a two (2) man medical team and dispensary. The present dispensary and dental facility is scheduled to move into the former dining hall building pending project approval by Hq USAF. A local doctor (Civil Service Position) provides medical service that is beyond the capability of the technicians.
8. The headquarters building consist of 4,442 square feet, and is shared by Base Supply and Air Police sections. Base Supply and Air Police sections are on the first floors, and Headquarters Administrative Section is on the second floor.
9. Until June 1966, the Dining Hall was a metal semi-permanent building which has been replaced by a new concrete building of 2,580 square feet and a seating capacity for 44 men.

#### D. Community Facilities: (Square Feet)

1. The Base Exchange, occupying a 704 square foot area in the Multi purpose Building, is scheduled to move into a 2,750 square foot area of the former dining hall, pending project approval by Hq USAF.
2. A new masonry building of 1,456 square feet has just been completed for the NCO Club.
3. There is no Officer's Club at this station.
4. The two (2) lane bowling alley is located in the multi-purpose building.
5. The station has no commissary.
6. A 28,000 gallon swimming pool is situated on station. A bath house has recently been built.

#### F. Facility Summary:

1. Facility Characteristics (less family housing). (Square Feet).
  - a. Permanent buildings 20,099 square feet.
  - c. Temporary structure – 17,269 square feet.
2. Family Housing Characteristics:
  - a. Units – 29.
  - b. Individual Buildings – 29.
  - c. Square Footage = 50,966.
  - d. Leased Units – None.

#### G. Water Facilities:

1. Water is purchased from the City of Houma.
2. Consumption – 26,000,000 gallons per year.
3. One booster pump is located at the water tower and has the capacity of 70 gallons per minute.
4. Distribution System - One 10,046 lineal feet.
5. Storage - One 100,000 gallon water tower storage tank.

#### H. Sewage Facilities (Air Force Owned):

1. Collection System – 9,200 lineal feet.

2. Lift Stations - There are three (3) lift stations: One on station with a capacity of 50 gallons per minute, and one in the housing area with 200 gallons per minute. One at the trailer court with a capacity of 30 gallons per minute.
3. One 1,000 gallon septic tank is in use at the old receiver building.
4. There is no treatment plant on station. Station sewage is pumped directly into the City of Houma sewage system.

I. Electrical Power Facilities: (Number, Make and Rating).

1. Source: Louisiana Power and Light Company; delivery voltage, 13,800 to station and housing area. The Air Force has not been successful in negotiating a contract with the power company. Peak demand, KW 870 Summer, 615 winter.
2. Engine-Generator - 800KW Generator powered by a 1,135 H.P. Nordberg Diesel engine.

J. Refrigeration and Air Conditioning: (Tons)

1. The station equipment and personnel are cooled by 51 air conditioning units with a combined capacity of 565 tons. The AF owns 16 tons of refrigeration equipment on this station. 6

K. POL: (Storage in Bbl)

1. Diesel Fuel - 1,030 barrels storage capacity.

L. Gas Supply:

1. Gas is purchased from the City of Houma.

M. Heating Facilities: (Capacity in BTU)

1. This station does not have a central heating plant. The buildings are heated with individual furnaces or boilers that have a combined capacity of 7,000,000 BTU's.

N. Heating Fuel Storage: (#Bbl Capacity)

1. Natural gas is used for heating on this station.

O. Refuse and Garbage Collection and Disposal: (Cost or Contract and Amount Collected).

1. Garbage and Refuse is collected and Disposed of under the same contract. Average collection is 32 Cu. yards per week, and the cost of the contract is \$5,520.00 per year.

P. Entomology

1. Entomology service is under contract, cost of the contract is \$1,175.00.

Q. Fire Protection System:

1. Three (3) buildings are protected by a central systems and five (5) have independent local alarm systems.

R. Gap Filler:

1. We have an FPS-18 Gap Filler located sixty-five (65) miles away at New Orleans. One 60 KW Allis-Chalmers Generator set furnishes back-up power.

S. GATR:

1. The former transmitter site was converted into a GATR Site and is approximately 600 feet from the Operations Building.

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Air Force Lineage and Honors

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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.

The Institute of Heraldry. U.S. Army. Fort Belvoir, VA.