

689 RADAR SQUADRON



MISSION

LINEAGE

689 Aircraft Control and Warning Squadron
Redesignated 689 Radar Squadron

STATIONS

Portland International Airport, OR, #1954
Mt Hebo, OR

ASSIGNMENTS

COMMANDERS

Maj Joseph D. Elsberry, #1954
Maj R.R. Robinson, #1963

HONORS

Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

MOTTO

Semper Vigilans

NICKNAME

OPERATIONS

689th Aircraft Control & Warning Squadron

Equipment: AN/MPS-11 (1957), late 1950s an AN/GPS-3 search radar replaced the AN/MPS-11.

689th Radar Sq (SAGE): activated 1 Oct 53 at Portland IAP, OR, assigned to the 4704th Def Wg; transferred to the 25th AD 8 Oct 54; moved to Mt. Hebo AFS, OR in Summer of 56; transferred to Portland ADS 1 Mar 60; redesignated from AC6W Sq to 689th Radar Sq (SAGE) 15 Jul 60; transferred to 25th AD . 1 Apr 66; redesignated 689 Radar Sq 1 Feb 74; inactivated 30 Jun 79.

689; Det. 2, 14 MWS Mount Hebo AFS, OR FPS-4; MPS-11; GPS-3; FPS-24; FPS-6,-6B/-90; FPS-26A (FSS-7) FPS-27; FPS-90; (FSS-7) 1957 01-May-79 This site had one of only two AN/FPS-24's covered with a radome (first one burned, then replaced; next one blew off in storm, 1968). FPS-26A modified to FSS-7 radar. GATR retained until JSS switchover. Site now restored to natural state.

The 689th AC&W Squadron began operations with AN/FPS-4 and AN/FPS-6 height-finder radars and an AN/MPS-11 search radar in 1957. In the late 1950s an AN/GPS-3 search radar replaced the AN/MPS-11. The AN/FPS-4 radar subsequently was replaced by an AN/FPS-6B set. By 1963 the 689th Radar Squadron (SAGE) began operating an AN/FPS-24 search radar, and AN/FPS-26 and AN/FPS-90 height-finder radars; the AN/MPS-11 search radar was retired later that year. Mt. Hebo became an FAA/ADC joint-use facility around 1966. Also that year, the AN/FPS-26A height-finder radar was converted into an AN/FSS-7 SLBM detection-and-warning radar, operated by Detachment 2 of the 14th Missile Warning Squadron (ADCOM). The AN/FPS-24 search radar was replaced in 1968 by an AN/FPS-27 set relocated from the recently-deactivated Miles City AFS, MT (Z-98). The 689th Radar Squadron was deactivated 1 May 1979. Det 2, 14th MWS was deactivated Sep 1980.

30 Sep 61 Used shotguns to blast ice buildup off the FPS-24 search radar antenna.
30 Sep 62 Construction of the first rigid radome for the FPS-24 search radar began. Installation of the FPS-26 height finder radar began.
11 Oct 62 First FPS-24 rigid radome destroyed during construction in winds of 85 knots.
12 Oct 62 MPS-11 search radar damaged and inflatable radome destroyed in winds of 170 mph. Inflatable radome for the FPS-6 height finder radar destroyed.
15 Oct 62 Damage to FPS-24 antenna assessed and reported.
22 Oct 62 Air Defense Command (ADC) and 25th Air Division direct restoration of site radar

systems.

- 31 Dec 62 Commander, Major Robinson
- 27 Aug 63 Dining Hall improvements completed.
- 31 Aug 63 Rigid radome installed by GEEIA on the FPS-18 Gap Filler radar at site Z-100A.
- 30 Sep 63 Installation of the second rigid radome for the FPS-24 was completed by the Southwestern Transfer Company under contract to General Electric. Depot Level Maintenance of radar systems at Gap Filler site Z-100A.
- 31 Dec 63 AS-505 radio antennas at the Ground/Air Transmitter/Receiver (GATR) Site replaced by AS-1097 radio antennas. Radar data from the FPS-24 and FPS-18 (Gap Filler radar at Z-100A) connected to the Semi-Automatic Ground Environment (SAGE) system. MPS-11 shut down and prepared for removal.
- 31 Jan 64 Second FPS-24 rigid radome destroyed during high winds.
- 5 Aug 64 Vietnam Era (5 Aug 64 to 7 May 75)
- 1 Mar 65 Construction of a new, two-story, 89 man barracks underway.
- 31 Mar 65 Commander, Major (later LTC) Walter O. Reil. FPS-24 antenna damaged from ice and 100 knot winds. Antenna parts from the FPS-24 at Cottonwood, Idaho received as replacements.
- 3 May 65 Construction of additional pedestrian tunnels connecting site buildings begins.
- 30 Jun 65 New 89 man barracks about 55 percent complete. FPS-24 antenna damage can not be repaired without major overhaul. Site survey for the third FPS-24 rigid radome conducted.
- 1 Jul 65 Construction of the third FPS-24 rigid radome begins. Designated CW-798, this radome is a space frame design by ESSCO (now L3 Communications – ESSCO).
- 30 Aug 65 During construction, many panels in the third FPS-24 radome are damaged by high winds.
- 11 Sep 65 Additional FPS-24 radome panels are damaged by high winds.
- 28 Sep 65 The third radome for the FPS-24 is complete, but some panels are still being repaired.
- 13 Nov 65 All damaged FPS-24 radome panels repaired by ESSCO.
- 31 Dec 65 High winds (90 knots) cause many tears in FPS-24 radome panel fiberglass where it joins the metal space frame. The new 89 man barracks is completed.
- 21 Jan 66 New FPS-24 rotary coupler installed during schedule depot level maintenance.
- 28 Jan 66 Many tears noted in FPS-24 radome panels. ESSCO has repaired most.
- 4 Mar 66 Meeting on-site concerning the condition of the FPS-24 radome and the Kroll Crane used for its maintenance. All spare FPS-24 radome panels to be stored at the Sacramento Air Logistics Center (SM-ALC) except for 15 that are to remain on-site for emergencies.
- 1 Apr 66 ADC Reorganization. 689th Radar Squadron becomes part of 25th Air Division at McCord AFB, WA. Radar and radio communications switch from Adair AFS (formerly HQs Portland Air Defense Sector) to McCord AFB.
- 7 Apr 66 Radar evaluation of the FPS-24 complete.
- 9 Apr 66 Manual telephone system replaced by a dial system.
- 3 May 66 FPS-24 down for antenna bearing failure after 9,918 operating hours. Bearing replaced by the end of May 66.
- 21 May 66 Over 300 people visit the site for Armed Forces Day. Four ship F-106 fly-by and Squadron Drill Team were real crowd pleasers.

8 Jun 66 ESSCO completes installation of a pressurization system for the FPS-24 radome. This pressurization system forced turbine fluid from the antenna bearing into the antenna turret.

17 Sep 66 NCO Dining In. BG John A Rouse (25 Air Division Cmdr) was guest speaker.

30 Sep 66 ESSCO completes on-site storage boxes for all spare FPS-24 radome panels.

4 Oct 66 ADC presents high value tube award for the FPS-24 power triode.

23 Nov 66 FPS-90 height finder IRAN completed (24 Oct to 23 Nov).

22 Dec 66 FPS-26 Depot Level Maintenance completed.

7 Mar 67 Completed ADC directed sealing of the FPS-24 antenna turret so that the radome can be pressurized without turbine fluid spray from the antenna bearing.

31 Mar 67 Some FPS-24 radome panels have more tears. Cracks noted in castings of base ring radome panels.

8 May 67 FPS-26 inspected by AVCO for modification into the FSS-7 SLBM detector.

9 Jun 67 FPS-26 transferred to AVCO for modification into the FSS-7.

30 Aug 67 Commander, LTC Raymond L. Warren

30 Sep 67 Stopped painting the FPS-24 rigid radome as part of scheduled DLM because of blistered paint on radome panels. FPS-90 and FSS-7 inflatable radomes are painted.

31 Dec 67 DLM of the FPS-24 rigid radome completed.

24 Feb 68 High winds from 18 to 24 Feb result in destruction of the third and final FPS-24 rigid radome. FPS-24 antenna is also damaged.

10 May 68 USAF and ADC decide to replace FPS-24 with the FPS-27 (from Miles City).

30 Jun 68 Over 175 tons of FPS-24 equipment removed from the site. OA-99 Plan Position Indicator (PPI) scopes replaced by OA-175 scopes.

15 Apr 69 US Navy EC-121 shot down by North Korea over the Sea of Japan.

30 Sep 69 FPS-27 installation completed. This includes modifications to the former FPS-24 building, and a new FPS-27 rigid radome,

24 Mar 70 Commander, Major Luther Westerfield.

31 Mar 70 GPA-98 electronic warfare training equipment operational. FSS-7 testing underway.

30 Sep 70 FSS-7 SLBM detector operational.

GAP-FILLER OPERATIONAL NOTES

MT. HEBO AFS (689TH RADAR SQUADRON)

1 Jan 60 TO 30 Jun 65

Jul 56 – The 689th AC&WS moved to its permanent site (M-100) at Mount Hebo AFS, OR. The move concluded Air Defense Command radar operations at Portland International Airport.

On 16 Oct 1956, the 689th ACWS personnel officially activated Mount Hebo AFS.

On 15 Jul 1960 the 689th was integrated in the SAGE system

OREGON Mt. Hebo

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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.

Unit yearbook. *25 Air Division (Defense). 1953-1954*

Unit yearbook. *25 NORAD Region. 1963.*