

7 SPACE WARNING SQUADRON



MISSION

The 7 Space Warning Squadron is primarily responsible for detecting sea-launched ballistic missiles fired from submarines in the Pacific Ocean. The squadron's mission of missile defense supports the Ground-Based Midcourse Defense element of the Ballistic Missile Defense System. This program's objective is the defense of the United States against a threat of a limited strategic ballistic missile attack. Within 60 seconds after detecting a launch, the crew on duty has to determine if the detection is valid, under investigation, or anomalous due to computer, mechanical or personnel error. After that, the crew determines the number of launched vehicles and provides impact predictions on North America. Once the information is determined, the unit passes updates to the appropriate authorities.

The squadron also helps track earth-orbiting satellites, and reports the information to the Joint Space Operations Center at Vandenberg AFB, Calif. This information is then combined with information from other sensors to form a satellite catalog. The Joint Space Operations Center uses the catalog to keep track of more than 16,000 objects in orbit. The catalog is also used to generate the United Nations Registry Report, so national and international agencies can make sure new satellites will safely launch and orbit.

The squadron's Pave PAWS (PAVE is a US Air Force program name, while PAWS stands for the Phased Array Warning System) radar uses nearly 3,600 small active antenna elements coordinated by two computers. One computer is on-line at all times, while the second automatically takes control if the first fails. The computers control the distribution of energy to the antennas to form precise patterns, allowing the radar to detect objects moving at a very high speed since no mechanical parts limit the radar sweep. The radar can change its point of

focus in milliseconds, while conventional radars may take up to a minute to mechanically swing from one area to another. The main building is shaped like a pyramid with a triangular base 105 feet on each side. The two radiating faces are tilted back 20 degrees. Pave PAWS radar beams reach outward for nearly 3,000 nautical miles in a 240-degree sweep. At its extreme range, it can detect an object the size of a small car. Smaller objects can be detected at closer range.

LINEAGE

7 Missile Warning Squadron constituted, 15 Mar 1979

Activated, 1 Jul 1979

Redesignated 7 Space Warning Squadron, 15 May 1992

Changed status from a unit of United States Air Force to a unit of United States Space Force, 21 Oct 2020.

STATIONS

Beale AFB, CA, 1 Jul 1979

ASSIGNMENTS

26 Air Division, 1 Jul 1979

Aerospace Defense Command, 1 Oct 1979

14 Air Division, 1 Dec 1979

1 Space Wing, 1 May 1983

21 Operations Group, 15 May 1992

Space Delta 4, 24 Jul 2020

COMMANDERS

LTC G. Russell Pulliam

LTC Keith A. Skinner

LTC M. Selva

HONORS

Service Streamers

Global War on Terrorism – Service (GWOT-S)

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

Air Force Outstanding Unit Awards

1 Jul 1979-30 Jun 1981

1 May 1983- 30 Apr 1984

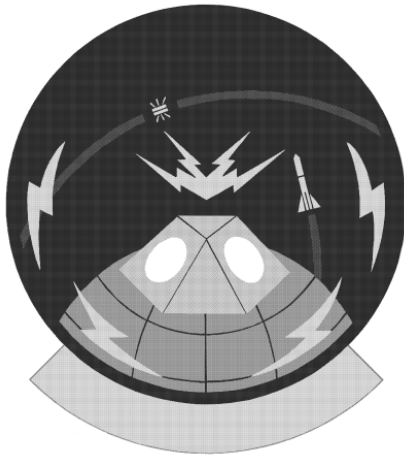
1 Sep 1989-31 Aug 1991

1 Oct 1992-30 Sep 1994

1 Oct 1995-30 Sep 1997

1 Oct 1997-30 Sep 1999
1 Jan-31 Dec 1998
1 Jan-31 Dec 1999
1 Jan 2000-31 Aug 2001
1 Oct 2005-30 Sep 2007
1 Oct 2009-30 Sep 2011
1 Oct 2011-30 Sep 2012
1 Oct 2012-30 Sep 2014

EMBLEM



7th Missile Warning Squadron emblem approved, 13 Aug 1981.



7th Space Warning Squadron emblem: Azure a demi globe issuant from sinister base Vert gridlined Sable below a pole star in chief Or and surmounted by an owl proper perched on a

lightning flash fesswise of the fourth; in dexter chief two flight symbols descending bendwise sinister Yellow each arcing a contrail bendwise to the globe Gules, all within a diminished bordure of the fourth. (Approved, 8 Jun 1995)

Space Force emblem approved, 23 Feb 2023

MOTTO

EYES TO THE WEST

OPERATIONS

In June of 1975, it was announced that Beale Air Force Base would be the site for a new missile warning squadron. A multi-million contract for the building, the support facilities, and the computer hardware was awarded to Raytheon Corporation. Construction began in the spring of 1977 and was completed six months ahead of schedule in November 1979.

The 7 Missile Warning Squadron was declared operational in August 1980. In addition to its missile warning mission, a new challenge presented itself in 1981 when the 7th Missile Warning Squadron was tasked to also collect data on the Space Shuttle and its deployed satellites.

July 1986 saw the arrival of the first Canadian Forces personnel. Canadians have filled three crew positions in the Missile Warning Operations Center since that time.

In 2007, 7 SWS completed the upgrade to Upgraded Early Warning Radar.





DEPARTMENT OF THE AIR FORCE UNIT HISTORIES

Created: 8 Dec 2010

Updated: 12 Jan 2024

Sources

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

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

Air Force News. Air Force Public Affairs Agency.