

## 12 SPACE WARNING SQUADRON



### MISSION

#### LINEAGE

12 Missile Warning Squadron constituted and activated, 1 Nov 1966

Organized, 1 Jan 1967

Redesignated 12 Missile Warning Group, 31 Mar 1977

Redesignated 12 Missile Warning Squadron, 15 Jun 1983

Redesignated 12 Missile Warning Group, 1 Oct 1989

Redesignated 12 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

Thule AB (later, Pituffik SB), Greenland, 1 Jan 1967

#### ASSIGNMENTS

Air Defense Command, 1 Nov 1966

71 Missile Warning Wing, 1 Jan 1967

Fourteenth Aerospace Force, 30 Apr 1971

21 Air Division, 1 Oct 1976

Aerospace Defense Command, 1 Oct 1979

40 Air Division, 1 Dec 1979

1 Space Wing, 1 May 1983  
21 Operations Group, 15 May 1992  
Space Delta 4, 24 Jul 2020-

## **COMMANDERS**

Lt Col Scott D. Peel  
Lt Col James M. Forand  
Lt Col Timothy J. Lincoln  
Col R. Haeckel  
Col W. Rohlman, Jul 1995

## **HONORS**

### **Service Streamers**

Global War on Terrorism – Service (GWOT-S)

### **Campaign Streamers**

### **Armed Forces Expeditionary Streamers**

### **Decorations**

#### **Air Force Outstanding Unit Awards**

1 Jun 1968-31 May 1970  
1 Jul 1971- 30 Jun 1972  
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**



Azure, a demi globe issuant from base Celeste gridlined of the first enfiling an orbit ring to dexter palewise charged at its apex with a pole star Or and supporting an arctic fox sejant Argent in sinister a flight symbol ascending bendwise of the like; all within a diminished bordure Yellow. (Approved, 8 Jun 1995; replaced emblems approved, 21 Jun 1990 and 6 Sep 1967)



Air Force emblem approved on 6 Aug 2004.

#### **MOTTO**

TOP OF THE WORLD

#### **OPERATIONS**

The mission of the 12th Space Warning Squadron is to provide critical, real-time missile warning and space surveillance by operating the AN/FPS-120 solid state, phased-array radar which continuously provides warning of sea-launched and intercontinental ballistic missile attacks against North America; and detecting, tracking, and identifying earth orbiting objects in support of United States Strategic Command's space control mission.

The squadron is also responsible for tracking earth-orbiting satellites as part of the Air Force Space Command space surveillance network. After collecting positional data on satellites, the squadron reports this information to the Space Control Center, Cheyenne Mountain AFS.

Information from the 12th SWS is combined with information from other sensors to maintain the satellite catalog that contains orbital parameters on every man-made object in space. The catalog is used by the Space Control Center to monitor more than 8,500 objects currently on orbit. The catalog is also used to generate the United Nations Registry Report, so national and international agencies can ensure safety of flight for all earth-orbiting objects.

The AN/FPS-120 solid state, phased-array radar represents a significant improvement over the old mechanical "radar fence" that was previously used. The radar can detect objects as far out as 2,800 nautical miles and can look over a 240-degree sweep. It can detect, at an extreme range, objects the size of a small automobile. It can detect smaller objects at closer ranges. A set of computers are used to control the radar and process the data it receives. In addition, vital communications are maintained through a number of systems. The antenna does not move. The radar beam is electronically steered to a programmed location. This process, accomplished in milliseconds, increases capabilities and decreases response time. Each radar face provides 120 degrees azimuth coverage, for a total of 240 degrees coverage. The antenna is inclined +20 degrees for scan coverage of +3.5 to +85 degrees elevation. Each array face contains 3,589 antenna elements; 2,560 are active and 1,029 are inactive.

Because of its location in the arctic, the base is completely self-sufficient, with its own electric and steam plants, and water filtration and pumping system. There are two large petroleum tank farms, capable of holding large fuel reserves that allow the base to operate without resupply for an extended period. The unit maintains 65 miles of roads, which connects it to several locations necessary to support the mission.

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DEPARTMENT OF THE AIR FORCE UNIT HISTORIES

Created: 8 Dec 2010

Updated: 6 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.