

## 46 WEATHER FLIGHT



### MISSION

They provide forecasts for five operational wings, two systems wings, and the Department of Defense Explosive Ordnance Disposal School. They also support the 20th Deep Space Surveillance Squadron, and numerous smaller agencies scattered across 724 square miles of land range and more than 100,000 square miles over the Gulf of Mexico. Eglin AFB falls under the Air Armament Center which is responsible for the planning, testing and evaluation of aerially delivered weapons. The 46 WS plays a critical role in this process. To that end, the 46 Operations Flight supports all the day-to-day flying and ground operations of the base including Duke Field.

In addition to supporting fighter aircraft and test and evaluation missions out of Eglin, the weather squadron is also responsible for the 919th Special Operations Wing which flies MC-130 Hercules out of Duke Field. The 919th SOW conducts a significant portion of their flying operations at night and at low altitudes. This poses a special challenge for the forecasters. The squadron provides observations for the airfield and serves as the northern “eyes forward” or the base.

The 46 WS also provides critical resource protection to the U.S. Navy-run DoD EOD School. Timely advance notification of hazardous conditions is especially critical when students are in the practical training portion of their course. The Weather Squadron, using its unique improved weather dissemination system, is able to provide virtually instantaneous notice to students working with live explosives when lightning threatens. Designers and evaluators of advanced systems from the Air Force Research Lab and Air Armament Center work very closely with the

squadron's staff meteorology flight to take advantage of the large flying ranges at Eglin AFB. This close coordination helps system designers identify potential weather impacts to new weapon systems early and offers customized weather information for the various test programs.

### **LINEAGE**

46 Weather Squadron Constituted, 24 Sep 1992  
Activated, 1 Oct 1992  
Redesignated 46 Weather Flight, 8 Sep 1993  
Redesignated 46 Weather Squadron, 1 May 1996  
Redesignated 46 Weather Flight, 1 Mar 2011

### **STATIONS**

Eglin AFB, FL, 1 Oct 1992

### **ASSIGNMENTS**

46 Test Wing, 1 Oct 1992  
46 Operations Group, 8 Sep 1993  
46 Operations Support Squadron, 1 Feb 1995  
46 Operations Group, 1 May 1996

### **COMMANDERS**

#### **HONORS**

##### **Service Streamers**

##### **Campaign Streamers**

##### **Armed Forces Expeditionary Streamers**

#### **Decorations**

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

[1 Oct 1992]-31 Dec 1992

1 Jan-31 Dec 1993

1 Jan-31 Dec 1994

1 Jan-31 Dec 1995

1 Jan-31 Dec 1997

1 Jan 1998-31 Dec 1999

1 Jan-31 Dec 2000

1 Jan-31 Dec 2001

[1 Jan] -31 Dec 2002

1 Jan-31 Dec 2003

1 Jan-31 Dec 2004

1 Jan-31 Dec 2005

1 Jan-31 Dec 2006

1 Jan-31 Dec 2008

## EMBLEM



46 Weather Squadron emblem On a disc Sable, an anemometer pallwise reversed Azure, charged on the uppermost cup with a hurricane symbol Gules, surmounted by a missile bendwise sinister Or, overall the head of an American bald eagle erased Proper, eyed of the third, grasping in its beak a lightning bolt bendwise Yellow, all within a narrow border Yellow. Attached below the disc, a Blue scroll edged with a narrow Yellow border and inscribed "46 WEATHER SQUADRON" in Yellow letters. **SIGNIFICANCE:** Blue and yellow are the Air Force colors. Blue alludes to the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence required of Air Force personnel. The eagle symbolizes bravery, alertness and protection. The lightning bolt represents the power of the Squadron's support of test and operational aircraft. The missile alludes to the operational weather support provided to armament testing. The anemometer, which measures wind speed, represents the unit's membership in Air Force Weather. The hurricane symbol is for the protection the Squadron provides to personnel and resources during hurricane season each year. 30 Oct 2001

## MOTTO

### OPERATIONS

"Mission Execution Forecasts and resource protection are also provided to the 6th Ranger Training Battalion and 96th Air Base Wing," said Capt. John Raczkowski, 46 WS Operations Flight commander. "Supporting all of these daily operations requires a high degree of fidelity in the MEFs." As an example, an F-16 Falcon flying a small diameter bomb test mission is interested in much more than simple instrument flight rules or visual flight rules criteria. Weapons being tested require optical and electronic monitoring as well as photographing and have to be conducted under specific weather conditions.

"This means the MEFs produced by the 46 WS must be on-target to ensure validity of the test," said Captain Raczkowski. "Missing a key parameter in an MEF can lead to mission failure or invalidate testing. Any mission failure or need to re-test delays cutting edge weapon systems

development for the warfighter.” The flying wings located at Eglin AFB use nearly all major aircraft types in the Air Force inventory. “This translates into a lot of effort by the weather squadron,” said Tech. Sgt. Ceaser Webb, 46 WS Operations Flight. “The squadron averages more than 400 MEFs every month.”

Located in the panhandle of Florida, the 46 Weather Squadron has tackled their share of severe weather. They facilitate inclement weather notifications and improve precision weather forecasting throughout the Eglin land range, which is approximately two-thirds the size of Rhode Island; they are divided into four main warning areas. “We work closely with the 28th Operational Weather Squadron to make sure our supported units are provided accurate and timely notice before any mission impacting severe weather happens,” said Capt. John Raczkowski, 46 WS, Operations Flight commander.

“Some of these units conduct specialized munitions testing and they can’t afford to be caught off guard when weather threatens. Maintaining a high degree of situational awareness is critical in protecting the 20,000 personnel here,” said Captain Raczkowski. The people and missions at Eglin AFB are also susceptible to tropical events generated in the Gulf of Mexico and the Atlantic. This has proved to be a major focal point for the squadron this past year, contending with Hurricanes Ivan, Dennis, and Katrina and to a lesser extent, Tropical Storms Arlene and Cindy. “Close coordination between the staff meteorologists, operations personnel, and squadron leadership focused all the available expertise into a single voice providing installation leadership with an accurate picture of the tropics and any potential threat,” said Captain Raczkowski.

Before Hurricane Ivan struck in September 2004, Eglin had never implemented an installation-wide mandatory evacuation. However, with Hurricanes Ivan and Dennis, the base executed two evacuations and secured all aircraft, test sites, personnel, and facilities for a major hurricane strike within a one-year period. The 46 WS isn’t just about weather forecasts and supporting new weapon testing or operations; it’s also about providing outreach to the community with resources and people. With the devastation of the last two tropical seasons on the Gulf Coast, members of the unit have provided much needed support.

They helped clear debris, worked with several agencies providing aid, and assistance and opened their homes to their Gulf Coast neighbors. Mr. Dave Cramblet, a civilian staff meteorologist with the 46 WS, organized a donation drive to collect food, money and clothing for evacuees and provided support services to local shelters. Sometimes, it’s about location, location, location; and the 46 Weather Squadron is in a very volatile location for tropical storms and cyclones generated in the Atlantic Basin and the Gulf of Mexico. 2005

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DEPARTMENT OF THE AIR FORCE ORGANIZATIONAL HISTORIES

Created: 25 Jan 2025

Updated:

Sources

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

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