# **1 AVIATION STANDARDS FLIGHT**



### MISSION

The 1 Aviation Standards Flight working in tandem with the Federal Aviation Administration, performs flight inspections of navigational-aid radar and instrument procedures at military and civilian installations in the United States and overseas. The flight augments the Air Force Flight Standards Agency Detachment 1, the on-site active duty unit. The 1st Aviation Standards Flight consists of approximately 25 people and is attached to the 507 ARW for administrative support. They fly and help maintain the FAA's Bombardier Challenger 601.

#### LINEAGE

1 Aviation Standards Flight constituted, 2 Apr 1998 Activated in the Reserve, 1 Jun 1999

## **STATIONS**

Mike Monrony Aeronautical Center, Oklahoma City, OK

**ASSIGNMENTS** 507 Operations Group

## WEAPON SYSTEMS

British Aerospace BAE 125/800 Hawker Bombardier Challenger 601

## COMMANDERS

Lt Col Randall Peterson, 1998 Maj Robert F. Loher, Mar 2010

## HONORS

#### **Service Streamers**

#### **Campaign Streamers**

## **Armed Forces Expeditionary Streamers**

#### Decorations

Air Force Outstanding Unit Award (1 Jun)-31 Jul 1998

#### EMBLEM



On a disc Azure, issuing from base an aviation ground station Argent, its base checky of the last and Gules, itself issuing a single ray palewise throughout Gray surmounted by the nose of a stylized aircraft fesswise in sinister White above two lightning bolts bendwise sinister in fess Or, and in dexter chief a polestar of the last; all within a diminished bordure of the like. Attached above the disc a Blue scroll edged with a narrow Yellow border and inscribed "1st AVIATION STANDARDS FLIGHT". in Yellow letters. Attached below the disc, a Blue scroll edged with a narrow Yellow border and inscribed "COMBAT FLIGHT CHECK" in Yellow letters. **SIGNIFICANCE:** Ultramarine blue and Air Force 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 polestar, a perfect celestial constant, rests against a field of blue, representing the heavens. The aircraft issuing lightning bolts, symbolizes the airborne platform and electronic emissions used to check alignment and safety of ground stations. The beam, emitted from the ground station denotes the sterling signal that unit members strive to achieve. (Approved, 3 Feb 1999)

## ΜΟΤΤΟ

**Combat Flight Check** 

## **OPERATIONS**

The 1st Aviation Standards Flight converted from the BAE Hawker to the Challenger because

according to Lt. Col. Randall W. Peterson, 1st Aviation Standards Flight Commander, the Challenger is a larger airframe than the previously flown Hawker and brings greater mission capabilities to the 1st Aviation Standards Flight. Because the Challenger has a larger cabin interior, another advantage will be the ability to install electronic counter measures systems in the aircraft during warzone sorties. "The Hawker simply had no available space left inside for any type of defensive electronic equipment," Peterson said. "When we flew missions in Iraq and other hostile locations with the Hawker, we did not have much protection from enemy fire. With the Challenger we will have combat countermeasure capabilities.

The 1st Aviation Standards Flight has not been able to operate in the SWA AOR for the past 18 months due to the Hawker not having this defensive capability. Now, with the new defensive system in the Challenger, we will be able to return to SWA to support the war effort." The Challenger 601-3R being flown by the 1st Aviation Standards Flight features GE CF34-3 A engines that can operate at higher temperatures, and Collins Proline 4 avionics. The initial flight for this aircraft occurred on 28 September 1986. A total of 59 were built into 1996. The Challenger has a fuel tank in its extended tail and a typical crew size of 3. In addition to being 13 years newer than the Hawker, Colonel Peterson said the Challenger enjoys better range, better comfort and better logistical support around the world.

Spending 18 days in a frozen tundra where subzero temperatures are common may not strike most as an ideal vacation, but for Master Sgts. Lori Pink and Kirk Babcock from the 1st Aviation Standardization Flight, it proved to be a lifetime opportunity. These Air Force reservists from the 507th Air Refueling Wing traveled to Antarctica to conduct airfield inspections. Each year 11 people from the FAA travel to Antarctica to inspect the four airfields located there (including the one at the pole), making sure they are safe for use by C-130s, C-17s and helicopters ferrying supplies and thousands of scientists with the National Science Foundation. The reservists traveled as part of this year's effort. Getting there was the first hurdle the reservists faced.

Sergeant Pink said she departed Oklahoma City on Oct. 11. After arriving at Christchurch, New Zealand, the team is issued survival gear. After a brief delay, the team arrived on the continent Oct. 16. They spent 7.5 hours packed with cargo on the flight to McMurdo. McMurdo Station is Antarctica's largest community. It is built on the bare volcanic rock of Hut Point Peninsula on Ross Island, the farthest south solid ground that is accessible by ship. Established in 1956, it has grown from an outpost of a few buildings to a complex logistics staging facility of more than 100 structures including a harbor, an outlying airport (Williams Field) with landing strips on sea ice and shelf ice, and a helicopter pad.

The station accommodates 1200 people in summer and 200 in winter. The station covers nearly 1.5 sq. mi. between Hut Point and Observation Hill. There are above-ground water, sewer, telephone, and power lines linking buildings. "Kirk and I were both on the ice," Sergeant Pink said. "The starkness was beautiful. I was able to experience 24-hours of sunlight and see the bluest ice I've ever seen. I was amazed at how dry it was there." One of the airfields, appropriately called Ice Runway, is built on sea ice about 7 feet thick, said Sergeant Babcock. Babcock is an Air Force reservist as well as an FAA employee who usually works in the Battle Creek, Mich., flight inspection field office as a mission specialist. But for the last six years he has temporarily relocated to McMurdo Air Station for duty in Antarctica.

This year, Babcock led the ATO flight inspection team of 11. Ice Runway doesn't last the whole

summer, Babcock said. By the end of the season it melts back into a shipping lane. The other airfields - Pegasus and Williams - are rebuilt on ice over land each year by the Department of Defense for the NSF. The ice — carrying navaids and control towers - moves about 30 feet during the season, said Mike Ryder, an aviation systems inspection pilot, who has done tours in Antarctica and now serves as team liaison. That's not a safety problem because the facilities and runways (about 10,000 feet long and 220 feet wide) keep their relative positions, he said. Once mere, the team splits into two crews to take maximum advantage of 24 hours of sunlight.

The flight inspectors check the airfields similar to the way they check U.S. Air Force bases around the world, Babcock said. ATO pilots, mission specialists and avionics technicians pack a specially prepared "ice box" into a military plane and fly different approaches. The 12-by-12-foot box is loaded with avionics used to adjust radar, precision approach landings, reporting points and to ultimately certify the airfield. The box is shipped by boat a month before the crews get there. The crews also use helicopters to inspect Global Positioning System procedures. With the airfields so close to the South Pole, normal compass and longitude references aren't effective, so navigation is done using a grid pattern. "I was there for logistics and administrative support," Sergeant Pink said. "Some of my duties were to take care of paperwork between the National Science Foundation (NSF), the United States Antarctic Program (USAP), and the FAA; coordinate Information Technology needs for the team; work with McMurdo Fixed-Wing scheduler with daily aircrew manifests and takeoff times; work the flight schedule in the FAA's Flight Operations Management System; and prepare a daily summary of mission accomplishments and flight inspection status," she said.

Babcock said he enjoyed spending time with the scientists during his stay. "The ozone layer, greenhouse gases, most of the research is done down here," he said by phone during his tour. "Every night after dinner a different scientist will speak about their project. You can ask questions right to the people doing the research. These are the people that write the books." Both reservists agree that the continent's extreme temperatures can be a problem for ATO personnel. At the pole the temperature regularly drops to 50 degrees below zero. "I have a new respect for early explorers who survived under the harsh conditions with so little food and appropriate shelter and clothing. 2008

After starting conversion to the Challenger 601 aircraft a little over one year before, crews from the 1st Aviation Standards Flight returned to supporting OPERATION Iraqi Freedom and OPERATION Enduring Freedom for the first time in over two years. The 1st ASF works in tandem with the Federal Aviation Administration (FAA), performing flight inspections of navigational-aid radar and instrument procedures at military and civilian installations in the United States and overseas.

The flight operates from the Will Rogers International World Airport, Oklahoma City, and augments the Air Force Flight Standards Agency Detachment 1, the on-site active-duty unit. "The Hawker aircraft we were flying were pulled from the desert mission when the Challenger aircraft were fitted with defensive systems to mitigate the MANPAD threat," said 1st ASF commander Lt. Col. Randall Peterson. Man-portable air-defense systems (MANPADS) are shoulder-launched surface-to-air missiles (SAMs). They typically use infra-red guidance and are a threat to low-flying aircraft. "Due to the small amount of aircraft available for training, we delayed the conversion until we had the assets available to get the crews trained," the colonel said.

The deployment was originally scheduled as a six-week mission with crews swapping out every two weeks. The first month was the Reserves' responsibility. "We completed inspections on over 80 facilities plus all the associated instrument procedures. We also brought 15 of those facilities up to

the same standards they would need to meet in the U.S.," the colonel said. "This is an ongoing priority as we work on nation building and the prospect of transferring responsibility for these facilities to the host nations," Colonel Peterson added. "I am very proud of my crews since we finished 99 percent of all the work allowing the third crew to only spend one day in OIF AOR and be redirected to priority work in the Pacific region." In all, the 1st ASF crews flew over 140 hours in 27 days on the single aircraft.

Each of the 2 reserve crews were supplemented with a crew member from their active duty sister unit to provide experience and replace a sick Airman. "This worked well since we hadn't been in the theater for some time nor had operated out of the bases used on this trip," Peterson said. Colonel Peterson said his Flight learned many lessons while deployed and added that they "look forward to returning to the deployment cycle we followed in years past." 2009

Air Force Reserve Command has realigned three units within its numbered air forces, according to a release. The 932nd Airlift Wing at Scott AFB, Ill., was reassigned from 4th Air Force to 22nd AF. The 1st Aviation Standards Flight in Oklahoma City, Okla., was reassigned from the 507th Air Refueling Wing under the 4th AF to the 413th Flight Test Group, which is part of 22nd Air Force. Both those reassignments became effective Dec. 10. Additionally, the 13th Reconnaissance Squadron at Beale AFB, Calif., will be reassigned from the 940th Operations Group in 4th AF to the 726th Operations Group under 10th Air Force in February. The realignments, which are based on mission areas, are organizational and do not affect the basing of the units, according to officials.2015

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Sources Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, Alabama. The Institute of Heraldry. U.S. Army. Fort Belvoir, Virginia. Air Force News. Air Force Public Affairs Agency.