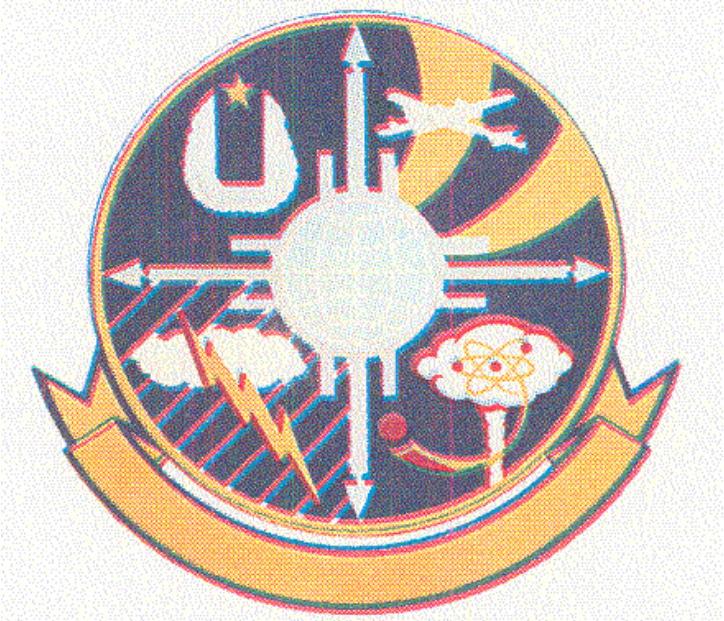
58 WEATHER RECONNAISSANCE SQUADRON



MISSION

LINEAGE
400 Fighter Squadron constituted, 26 May 1943
Activated, 1 Aug 1943
Redesignated 400 Fighter-Bomber Squadron, 5 Apr 1944
Redesignated 400 Fighter Squadron, 5 Jun 1944
Redesignated 58 Reconnaissance Squadron (Weather), 7 Jul 1945
Inactivated, 31 May 1946
Redesignated 58 Strategic Reconnaissance Squadron (Medium, Weather), 22 Jan 1951
Activated, 21 Feb 1951
Redesignated 58 Weather Reconnaissance Squadron, 15 Feb 1954
Inactivated, 8 Aug 1958
Activated, 15 Apr 1963
Organized, 8 Jun 1963
Inactivated 30 Jun 1974

STATIONS
Hamilton Field, CA, 1 Aug 1943
Oroville AAFld, CA, 2 Nov 1943
Hamilton Field, CA, 16 Mar 1944
DeRidder AAB, LA, 28 Mar 1944
Stuttgart AAFld, AR, 8 Feb 1945
Will Rogers Field, OK, 21 Jul 194.5

Rapid City AAFld, SD, 28 Jul 1945-31 May 1946
Eielson AFB, AK, 21 Feb 1951-8 Aug 1958
Kirtland AFB, NM, 8 Jun 1963

ASSIGNMENTS
369 Fighter Group, 1 Aug 1943
Third Air Force, 7 Jul 1945
III Reconnaissance Command, 21 Jul 1945
Fifteenth Air Force, 31 Mar-31 May 1946
2107 Air Weather Group, 21 Feb 1951
7 Weather Group, 20 Apr 1952
9 Weather Reconnaissance Group, 18 Apr-8 Aug 1958
9 Weather Reconnaissance Group, 15 Apr 1963
9 Weather Reconnaissance Wing, 8 Jul 1965

WEAPON SYSTEMS
P-39, 1943-1944
A-36, 1944
P-40, 1944-1945
B-25, 1945-1946
P-61, 1945-1946
WB-29, 1951-1956
WB-50, 1955-1958
TB-50A, 1956
WB-50D, 1956
WB-29A
WB-50D

COMMANDERS
Capt Robert C. Rogers, 5 Aug 1943
Capt William Paule, Mar 1944
Capt Everette Marcum, 19 Oct 1944
Maj Robert C. Fletcher, 16 Nov 1944
Maj Max R. Wiecks, 12 Feb 1945
Maj Joseph D. Hornsby, 11 Jul 1945
Capt Harold Olson, 18 Jul 1945
Maj Robert W. Vanderveld, 23 Jul 1945
Capt Ray J. Binder, 6 Sep 1945
Lt Col Joseph O. Fletcher, 21 Feb 1951
Maj Clarence N. Chamberlain, Jr., 22 Dec 1951
Lt Col Aubrey D. Taylor, 1 Feb 1952
Lt Col Fort W. Lipe, 5 Dec 1953
Lt Col Carl H. Morales, 6 Jul 1955
Lt Col John N. Highley, 26 Aug 1957

Lt Col Harvey P. Hall, Jan 1958
Lt Col Robert Moeller, 8 Jun 1963
Col Donald Wolfe, Jul 1966
Lt Col Douglas Campbell, 11 Sep 1970
Lt Col Jack Reedy, Jul 1971
Col Click Smith, 30 Jul 1971
Col Thomas Strohl, 18 Sep 1973

HONORS
Service Streamers
American Theater

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations
Air Force Outstanding Unit Award
1 Jul 1967-30 Jun 1968
1 Jan-31 Dec 1971

EMBLEM
400 Fighter Squadron (SE) emblem: (Approved, 12 Jan 1944)

58 Strategic Reconnaissance Squadron (Medium) Weather. On a disc bordered red, in the upper part a representation of the aurora borealis, yellow and blue, thereover a stylized aircraft gray, flying to-ward the right [dexter] side of the disc, a horizontal line below center thereover in the foreground a polar bear standing on an arctic pack, all white, lined black, over water in base blue. The polar bear, symbol of endurance, strength and accomplishment symbolizes the significant historical accomplishment of the unit in the North Pole Ptarmigan flight. The aurora borealis symbolizes the unit's mission and accomplishment in exploring areas of the heretofore unknown

places of the earth. The aircraft represents successfully accomplishing the air mission of the organization over the North Pole and over other frozen areas. (Approved, 18 Jan 1952)

58 Weather Reconnaissance Squadron emblem: Against the background of blue depicting the sky, the primary theater of Air Force operations, the Zia symbol refers to the four points of the compass and with the globe in its center represents the unit's worldwide capabilities. The wings conjoined allude to the squadron's World War II training mission and the star commemorates their service in the American Theater. The aircraft flying over the aurora borealis symbolizes the unit's accomplishment in exploring unknown areas and their historical achievement in the North Pole "Ptarmigan" flight. The rain, cloud, and lightning bolt refer to the unit's quick reaction and response in all-weather reconnaissance. The nuclear cloud with atomic nucleus and its escaping particles of gases represents the squadron's primary mission of air testing "hot" sampling after nuclear explosions and providing the invaluable data required. The emblem bears the Air Force colors of golden yellow and ultramarine blue and the national colors of red, white, and blue to indicate the patriotism of the personnel and identify the squadron as a member of the U.S. Air Force. (Approved, 26 July 1965)

MOTTO

OPERATIONS

Air defense and replacement training until Mar 1944, and afterward replacement training plus air support for army maneuvers until Jul 1945

February 21, 1951 – The 58th Reconnaissance, Medium, Weather, replaced the 375th Reconnaissance Squadron. The 58 WRS earned the nickname the “Pole Vaulters” due to their frequent trips over the North Pole. The unit primarily flew WB-29 aircraft and later transitioned to WB-50 aircraft shortly before it inactivated in 1958.

September 25, 1953 – A 58th Weather Reconnaissance Squadron WB-29 , *45-21872* crashed shortly after takeoff approximately two miles north of the base. Captain Charles F. Baker, a weather observer aboard the aircraft was the only fatality. On August 30, 1954, the Secretary of the Air Force, Harold E. Talbott, presided over the grand opening and dedication ceremony of the Baker Field House in honor of Capt Baker.

November 24, 1953 – More than six years of polar exploring had taken place when the 58th Weather Reconnaissance Squadron flew its 1,000th flight along the ptarmigan route. Commanded by Lt Col Aubrey D. Taylor it was one of six weather recon squadrons in the Air Force Weather Service. The red-tailed WB-29 flying weather laboratory filled the void caused by a lack of information from uninhabited regions in the arctic. In addition, the 58 WRS navigators aided other organizations performing supply missions in the arctic. They had made low level para-drops to the small groups of Air Force pioneers stationed at ice island T-3. The discovery and exploration of ice islands can be attributed to the combined effects of 58 WRS personnel and aircraft. The Air Force first began probing weather in Alaska in 1946. On March 1947, the first Ptarmigan flight was flown to the North Pole. The establishment of weather observer stations on

T-3, a few miles from the pole, resulted in a shorter flight path. In 1952-53, the path was shortened, so that it only reached to 84 degrees N latitude, approximately 400 miles short of the pole, before returning. Over 16,000 polar flying hours had been amassed by 58 WRS's WB-29s which covered a distance equivalent to 143 times around the world. Included on this particular flight was Brig Gen Thomas S. Moorman Jr, Deputy Commander of the Air Weather Service. Taking part in the preflight was Lt Gen Joseph Atkinson, CINCPAL, Col James A. Ronin, Base Commander; Col Richard Gill, Commander of the 7th Wing, and Lt Col Aubrey Taylor, 58 WRS Commander. General Nathan F. Twining, Chief of Staff USAF passed along the following remarks: "I sincerely regret that a previous commitment will prevent me from being with you for the 1000th Ptarmigan flight on November 24. Heartiest congrats and best wishes to the 58 WRS and to all of you whose planning and hard work has made this outstanding recon possible."

June 1, 1955 – The 58th Weather Reconnaissance Squadron completed its 1,500th Ptarmigan flight. The WB-29s began flying this track for gathering weather data above the Arctic Circle in March 1947.

The "Ptarmigam" and the "Loon Echo" were designed to intercept air masses that departed the Soviet Union and were most likely to contain the particulate evidence of Russian tests. North Pole (the Ptannigan Track) or between Alaska and Japan (the Loon Tracks) to monitor Soviet nuclear weapons testing. This aircraft carried four atmospheric sampling devices including an E-l sampling scoop on the upper aft fuselage, two F-50 sampling pods on the wing pylons, and a single 1-2 collector used for near-real time notification that the aircraft had flown through an area of atomic debris. The F-50 pods were modified 700-gallon B-50 external drop tanks which retained about two-thirds of their fuel capacity, but were seldom if ever used to carry AVGAS. It was very important to the 58th that these missions be complete. Extra aircraft were readied each day, and additional "alert" crews stood by in case a mission turned back early. The harsh arctic conditions, personnel turnover, and other factors made the 100% completion goal a real challenge. On occasion, the 58th was tasked with additional missions. Often these were the result of a previous "hot" collection, or possibly looking for an air mass that had been found by a sister unit in Japan or on Guam.

April 25, 1956 – The 58th Weather Reconnaissance Squadron began transitioning from WB-29 to WB-50 aircraft.

November 7, 1956 – The 58th Weather Reconnaissance Squadron flew the first Loon Charlie weather mission from Eielson AFB to Yokota AB, Japan. The flight covered 3,200 nautical miles and lasted 17.5 hours. It was piloted by Lt Col Carl H. Morales, commanding officer of the squadron. A second flight was flown on November 21, 1956.

Besides the well-publicized mission of gathering critical meteorological data in areas without land based stations, the weather reconnaissance units had another very important national mission. They carried special filters that could collect concentrated particulate debris from the air. These filters, located in boxes protruding from the upper fuselage of WB-29 and WB-50, were changed

at regular intervals and analyzed after each flight. The boxes were known to the crews as the "Bugcatcher". The goal of this effort was to detect radioactive debris from Soviet nuclear tests.

On 30 August 1956, the 58th was tasked to fly a third operational sortie on the 31st. This mission, designated a "Loon Special", would take off about 2:00 A.M. local time and head south over Anchorage before going out into the Gulf of Alaska. The mission would then fly west to parallel to the Aleutian Islands. They would return at a second altitude along the same track. As originally drawn up, the track would take almost 15 hours to complete. Coordinating with the mission customer, the 58th operations planners managed to shorten the track to a planned 12 hour mission.

The 58th WRS was working with a minimum number of crews in August 1956. Many people had left the squadron during the summer rotation period and the newcomers required training in the WB-50. After looking over the schedule, the squadron operations folks decided to use a crew that had previously been identified to back up the regular missions on the 31st. This crew consisted of:

Capt Leonard N. Chapman, Jr., Aircraft Commander
Maj Dale Richardson, Co-Pilot
Capt Everett E. Dyson, Navigator
2Lt William W. Faustlin, Navigator
1Lt William J. Wolters, Jr., Weather Observer
MSgt Fred T. Gregg, Jr., Flight Engineer
TSgt Richard K. Brown, Auxiliary Crew Member
SSgt Ronald R. Ragland, Dropsonde Operator
A2C Melvin O. Lindsey, Radio Operator
A2C Elijah Spencer, Radio Operator
A3C Douglas W. Maxon, Crew Chief

The 58th routinely carried two navigators and two radio operators on all of their missions. The demands of arctic navigation and communication demanded the additional help.

TSgt Brown was listed on the crew orders as an Auxiliary Crew Member. He was a Special Equipment Operator (SEO), belonging to a unit known as Team 202, which was part of the 1009th Special Weapons Squadron. An SEO did not go on all 58th missions, but were often along on the special taskings to help identify if the actual debris cloud was found. In 1959 the 1009th SWS administratively morphed into the Air Force Technical Applications Center, or AFTAC. A generation of air sampling crews simply knew AFTAC as "the customer".

The "Golden Heart" took off as scheduled shortly after 2:00 A.M. All proceeded normally for about an hour. Regular radio calls indicated no trouble. A radar station in Anchorage saw the aircraft until about 3:08 A.M. when it suddenly disappeared. Shortly after this, Air Traffic Control attempted to contact the aircraft with no success. The Alaskan Air Rescue Center was notified

and a search was begun at daylight. Shortly before 9:00 A.M., the crash site was located on a group of small islands in the Susitna River, very near where it had disappeared from radar.

Subsequent investigation showed that the "Golden Heart" had crashed nose first, in a near vertical attitude. Most of the plane was destroyed by the crash and subsequent fire. All that remained intact was a section of the aft fuselage and tail that broke off on impact. Despite a full investigation, no cause for this crash was ever determined. It took several days to locate and identify remains of all 11 of the crewmembers. Initially, two crewmembers were listed as missing. This only added to the grief felt by their families and the whole squadron.

Because the accident happened overseas (remember Alaska wasn't even a state yet) the families were quickly processed to return to the Zone of the Interior, as the lower 48 states were known. Three of the families elected to have their loved ones interred at Arlington National Cemetery, and their flag-draped coffins arrived together by train weeks later.

To illustrate the tight operational constraints that the 58th was experiencing during the conversion from the WB-29 to the WB-50, Air Weather Service immediately dispatched an additional aircraft and two crews to augment the squadron after the loss of 49-315. One crew came from the 55th WRS at McClellan AFB, CA, and the second from the 57th WRS at Hickam AFB, HI.

The families of the crew have always wondered what happened to their loved ones. They knew that the mission was more than just "routine weather reconnaissance." Doug Wolters recalls that his Grandfather was concerned by a comment made to him by Lt Col Morales. Colonel Morales, the 58th WRS Commander, said, in effect, that he wished he could tell them what the crew was really doing. This probably referred to the atmospheric sampling aspects of the flight and the tremendous benefit gained from the resulting intelligence. The real effect of comments like this was to help create an air of suspicion and more questions.

1958 Changes Organizationally, the AWS experienced a reduction in the number of reconnaissance squadrons during the last half of 1958. Air Force manpower reductions had resulted in a special USAF “Manpower Reduction Working Group” which had decided that the AWS should lose two of its reconnaissance squadrons. The AWS drafted a proposal which conformed to the spirit, if not the letter, of the working group’s recommendation, calling for the inactivation of the 57th and 58th Squadrons with transfer of most of their personnel and aircraft to the 55th WRS.

The last 58th WRS mission was flown on 30 June 1958. In May and June 1958 the aircraft, crews and most of the maintenance and administrative personnel were transferred to McChord AFB, Washington, forming Detachment 3, 55th WRS, effective 1 July 1958. Many of the 58th’s maintenance personnel and some administrative personnel were transferred from Eielson AFB to Ladd AFB, Alaska, to form Detachment 1, 55th WRS, also effective 1 July 1958. Actual inactivation of the 58th WRS was effected on 8 August 1958.

The 58th Weather Reconnaissance Squadron at Kirtland AFB, Albuquerque, New Mexico, situated near the Los Alamos Scientific Laboratory (LASL), one of the AEC laboratories they serviced, was the main user of these aircraft for the 10 years they were active. They received their first on 17 June 1964. These RB-57Fs, later redesignated WB-57Fs, served in many parts of the world including: Germany, Japan, Australia, Spain, Argentina, Johnston Atoll, Panama and Alaska, naming only the major overseas locations. During periods of known or suspected atmospheric testing of nuclear devices anywhere throughout the world, the WB-57Fs were on hand for nuclear debris sample collecting in the upper atmosphere. These samples when analyzed have provided valuable diagnostic data from foreign and U.S. nuclear detonations. The scientific direction for these aircraft was provided primarily by Dr. Paul Guthals of LASL. Guthals managed the scientific supervision of the 58th WRS sampling activities both on the ground and, with others, as an airborne Scientific Mission Director

Unlike the early 'Ds' with normal corrosion problems, stress corrosion cracks began appearing on the wing spars and ribs of the 'F' after a few short years of service. Some of these aircraft were sent to GD/FW and Hayes Birmingham for repairs. The basic problem was the 7,000 series aluminum alloy used in the wing structure developed stress cracks through time alone. The repairs changed wing spars and ribs to 3,000 series aluminum. Due to the excessive cost to repair all the aircraft, coupled with programmatic changes, nine of the unmodified fleet were placed in storage at Davis-Monthan in the spring of 1972. For the rest of the fleet, the end of their flying days was near. The 58th WRS, being the last in the Air Force using the WB-57F was deactivated by 1 July 1974 after placing their Canberras into inviolate storage with the others at Davis-Monthan.

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