



Mr. Al Moyers
Air Force Weather Historian

Mr. Jerry White
Deputy Air Force Weather Historian

Inside this issue

20 OWS Heritage	2
Aldrich Recalls	3
New Reading	3
Looking Back	4
Space Weather	4

Origins of the First Air Force Weather Recon Unit

It is not clear when the first dedicated weather reconnaissance flight was made, but reconnaissance in all its forms was the *raison d'être* of the Army's air service. By the 1920s, Air Corps pilots were regularly collecting weather data.



An Army Air Corps pilot and Army Signal Corps forecaster confer beside a DH-4 at Scott Field, Illinois, following an early-morning weather reconnaissance flight, 1927.

Air Corps pilots continued to conduct weather reconnaissance flights in addition to their other flying duties throughout the 1930s, supporting both Air Corps missions and US Weather Bureau work.

With the onset of World War II, Air Corps leaders apparently recognized the value of dedicated weather reconnaissance. In November 1941, Brig Gen, later Gen, Muir S. Fairchild, then Assistant Chief of the Air Corps, recommended the organizing of weather reconnaissance units. However, the bombing of

Pearl Harbor on December 7, 1941, and the US's subsequent entry into World War II seemingly delayed any further action on the establishment of weather reconnaissance units for nearly eight months.

The North Atlantic aircraft ferry route to Europe presented unique weather challenges to aircrews. The Air Staff recognized that reliable, consistent weather data was needed to ensure that the maximum numbers of aircraft and crews made the journey safely.



Emblem of the Army Air Forces Weather Reconnaissance Squadron (Test) Number One

On May 6, 1942, Col, later Lt Gen, Howard A. Craig, then the Air Staff's Assistant Chief of Staff for Plans, drafted a memorandum titled "Creation of a Test Weather Reconnaissance Squadron." The colonel's proposal was approved and on August 21, 1942, the Army Air Forces

activated the Army Air Forces Weather Reconnaissance Squadron (Test) Number One at Patterson Field, Ohio.



Officers of the Army Air Forces Weather Reconnaissance Squadron (Test) Number One with one of their B-25s at Truax Field, Wisconsin, June 1943.

The Air Staff programmed the unit to be equipped with B-24s, but the demand for these bombers necessitated a change. Planners identified the B-25 for the squadron and in June 1943, following training at Truax Field, Wisconsin, the squadron was sent to Presque Isle Field, Maine, where it joined the 8th Weather Region.

The Army Air Forces first weather reconnaissance squadron began flying operational missions on August 9, 1943. By the end of October they had accumulated more than 900 flying hours in 300 missions. ☆



Capt Robert A. Woodman at the Kimpo Army Air Base, Korea, weather station explains surface charts to the chief of the Central Korean Weather Service, 1946.



The current 20 OWS emblem was approved on June 9, 1982.



An unidentified airman inspects the ceilometer installed at Yokota Air Base, Japan, 1948.



Lt Col Oliver K. Jones, Commander, 20th Weather Squadron, briefs Maj Gen Earle E. Partridge, Commander, Fifth Air Force, 1950.

The 20 OWS has a Long Heritage in the Far East

The 20th Weather Squadron activated at Cairo, Egypt, on April 15, 1943, and was assigned to the Ninth Air Force, but was soon thereafter disbanded on October 31, 1943.

The Army Air Forces again activated the 20th on December 6, 1944, on Biak Island in what was then known as the Netherlands East Indies, today's Indonesia. The 20th absorbed the resources and mission of the 5231st Weather Squadron (Provisional). The 20th was assigned to the Far East Air Forces Weather Group (Provisional) at that time.

In May 1945 the squadron moved its headquarters by from Biak Island to Fort McKinley near Manila, Philippines. By the close of July 1945, the squadron had grown to more than 700 men and the headquarters was overseeing the work of 34 weather stations, many of which were in isolated locations.

The Army Air Forces Weather Service assumed control of all weather organizations on July 1, 1945, and organized the 20th under the 1st Weather Group on September 20, 1945. Due to congested quarters at Fort McKinley, the 20th's headquarters moved again in August 1945 to nearby Nichols Field.

While headquartered in the Philippines, the 20th lost two men to combat action.

Following the capitulation of Japan, the 20th began its long association with Japan. The squadron moved its headquarters to Tokyo on November 2, 1945, and accompanied Headquarters, Fifth Air Force to Nagoya on May 22, 1946.

War demobilization caused the 20th to lose personnel rapidly. To accomplish its growing mission, the 20th hired local nationals, employed non-weather officers to oversee some weather stations, and began on-the-job schools to cross-train enlisted men into weather career fields.

By late-1946, the 20th was operating weather stations in Japan, China, and Korea. The 20th relinquished control of the China stations in 1947 and the last Korean station was closed in 1949. The squadron came under the leadership of the 2143d Air Weather Wing in 1949.

Within three days of North Korean troops crossing into South Korea in June 1950, a detachment of the 20th Weather Squadron was airlifted to Taegu, Korea. The leadership of the 20th Weather Squadron was soon burdened by the growth of detachments both in

Korea and Japan to support the war effort. By early November 1950, the 20th was overseeing 27 detachments, eight of which were in Korea, where, on average, one of these detachments relocated every five days. The Air Force activated the 30th Weather Squadron to oversee Korean operations, but the 20th remained deeply involved in the war effort.

The 20th was assigned to the newly activated 1st Weather Wing in 1954. The squadron was inactivated on February 18, 1957, but emerged anew at Fuchu Air Station, Japan, on June 8, 1964, where it remained until 1974 when it relocated to Yokota Air Base. Again, it was inactivated in 1976 as part of an Air Weather Service reorganization only to return at Yokota on January 1, 1985.

As part of the divestiture of Air Weather Service, the 20th was assigned to Pacific Air Forces in 1991. It relocated to Hickam Air Force Base, Hawai'i, on April 1, 1992, and was inactivated on June 1. With the reengineering of Air Force Weather the 20th was redesignated an Operational Weather Squadron on July 13, 2000, and activated on October 1. It was assigned to Fifth Air Force and stationed again at Yokota Air Base, Japan. ☆

General Aldrich Recalls his Career in AF Weather

Maj Gen Thomas A. Aldrich was Commander, Air Weather Service, 1973-1974. During World War II, he graduated from the meteorology course at the University of Chicago under the leadership of Dr. Horace Byers and Dr. Carl-Gustav Rossby. "With that kind of guidance, you had excellent training," the general recently recalled.

General Aldrich is a native of San Angelo, Texas, and nearby Goodfellow Air Force Base was his first assignment in 1944. He completed pilot training in 1950.

In the early 1960s, General Aldrich organized

and commanded the 57th Weather Reconnaissance Squadron in Australia. He later commanded the 9th Weather Reconnaissance Wing before being named Air Weather Service vice commander in 1970. The general concluded his career as Commander, Twenty-Second Air Force.

The Air Force Weather History Office conducted an interview with General Aldrich in November 2002. Here is an excerpt from that interview:

MR. MOYERS: *What were the typical duties of the [Goodfellow] base weather officer in 1944?*

MAJ GEN ALDRICH: *That was a pilot training base,*

and our main job was to provide the weather forecast for the day for the students who were in training. [I]n those days we also forecasted for the city newspaper. We put a daily forecast in the newspaper. One morning in the spring I was on the night shift. It was an obvious day where I would have forecast fog. I was raised in this town and I didn't remember more than five or six days of fog in my whole life, so I didn't put that fog forecast in there. Lo and behold, that morning it was a foggy day in west Texas.

The complete interview is available on request. ☆



Maj Gen Thomas Aldrich



Then-Lt Col Aldrich greets WB-57 pilots upon their arrival in Australia, 1962.

Another Book to Add to your Professional Reading

The Air Force Weather History Office recommends *Weathering the Storm: Sverre Petterssen, the D-Day Forecast, and the Rise of Modern Meteorology* by Sverre Petterssen and edited by James Rodger Fleming.

Dr. Sverre Petterssen was born in Norway in 1898 and studied meteorology with the famed Bergen School. He became an international leader in weather analysis and forecasting. His textbook was required reading for many years in university meteorology courses.

During World War II, he

served as a weather forecaster for bombing raids, special operations, and was influential in the formulation of the Operation OVERLORD D-Day forecast. After World War II, Petterssen served, among many varied assignments, as scientific director for the Air Weather Service, head of the Norwegian Forecasting Service, and chair of the department of meteorology at the University of Chicago.

Meteorology benefited greatly from Petterssen's work. Meteorologists (and those associated with weather service) can

continue to benefit from reading Petterssen's candid and often pithy writing of his life's work.

Sverre Petterssen completed his memoirs in 1974. His recollections were first published in Norwegian shortly before his death. The American Meteorological Society published this volume, the first in English, in 2001.

Dr. James Fleming is a professor at Colby College in Maine. He is one of the leading historians of meteorology and the author of several works on meteorology. ☆



Dr. Sverre Petterssen, 1947.

Air Force Weather History Office

HQ AFWA/HO
106 Peacekeeper Drive, Suite 2N3
Offutt AFB NE
68113-4039

PHONE:
402 232-8682/8683

DSN:
272-8682/8683

FAX:
402 232-8684

E-MAIL:
HO@afwa.af.mil



In the next issue

*AWS Army Support;
25 OWS Heritage;
Col Golding Interview;
and more.*

"Provide the historical perspective for Air Force Weather to know its past, understand its present, and anticipate its future."

Looking Back at Air Force Weather

October 1, 1969, The Automated Digital Weather Switch dedicated at Carswell Air Force Base, Texas.

October 26, 1952, All crewmembers of a WB-29 were killed when their craft crashed attempting to make a low-level penetration of Typhoon Wilma, near Leyte Island.

November 1, 1961, Air Weather Service's Centralized Forecast Facility issued the first official clear air turbulence forecast.

November 20, 1968, Air Weather Service unveiled its plan for the Space Environmental Support System.

November 21, 1942, The Army Air Forces Weather Training Center was opened at Grand Rapids Michigan, to train meteorological cadets and enlisted forecasters.

December 1, 1948, Headquarters, Air Weather Service relocated to Andrews Air Force Base, Maryland.

December 11, 1957, The USAF Weather Central at Suitland, Maryland, was inactivated and its resources combined with the [Global] Weather Central at Offutt Air Force Base, Nebraska.

December 27-29, 1961, The initial cadre of Air Weather Service personnel deployed to the Republic of Vietnam.



AWS received its first B-29s in 1946.



AWS headquarters was co-located with HQ MATS at Andrews AFB in 1948.

Setting the Record Straight

To set the record straight, the "Looking Back" section of the last Air Force Weather Historian newsletter contained two mistakes. Air Weather Service's last AN/TPQ-11 weather radar, not AN/APQ-11 as reported, was removed from the inventory in 1977. Also, the wind measuring set illustration should have read that it was the AN/GMQ-11 vice AN/GMQ-1. ☆

"From World War II, every side under air attack has learned to exploit weather and cloud cover quickly."

Anthony H. Cordesman

Air Force's Space Weather Rooted in the 1960s

The roots of Air Force Weather's space weather program were planted well before Air Weather Service unveiled its Space Environmental Support System architecture in 1968.

Air Weather Service organized a solar prediction project in August 1961 under the leadership of Lt Col Roger Olson in the headquarters Directorate of Scientific Services at Scott Air Force Base, Illinois. Air Weather Service had

received no requests for solar forecasting, but planners expected such in the near future as interest in space weather phenomena increased with orbiting satellites and manned space flight.

In 1962 there was no operationally oriented agency providing solar forecasting. In June 1962, the Air Force Scientific Advisory Board's Geophysics Panel reported that solar phenomena presented a danger to "life in space"

and forecasts of solar activities were needed on a routine basis. Later, North American Air Defense Command expressed a requirement for 24-hour forecasts of auroral activity by January 1963 and for seven-day solar flare forecasts by November 1963.

Within two years, Air Weather Service had organized a Solar Forecast Center and inaugurated the Solar Observing and Forecasting Network. ☆