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WWII Weathermen Made a Most Important Forecast

The success of Operation OVERLORD, the Allied invasion of Europe, changed the course of World War II. The success (or failure) of the execution was predicated on a weather forecast—a most important forecast.

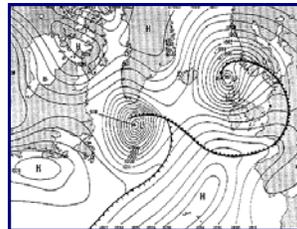
The operation was a complex interaction of air, land, and naval forces that required a precise set of parameters to foster success, including clear skies, full moon, and low tide. After taking command of Allied forces, GEN Dwight D. Eisenhower directed a climatological study to determine the best timing for the invasion. He selected Monday, June 5, 1944, to be D-Day.



General Eisenhower reads the invasion force.

At the Sunday morning staff meeting, the Chief Meteorologist to the Supreme Allied Commander, Royal Air Force Group Captain James M. Stagg, briefed the general and his staff that the weather for June

5th would not be conducive to execute Operation OVERLORD. Eisenhower postponed the invasion for 24 hours.



Observed weather, June 5, 1944.

When dawn broke on Monday morning, the forecast was confirmed as rain and gale force winds pounded the beaches of Normandy.

The decision to postpone had been difficult given that there was a real possibility that the Germans might detect the armada poised for the invasion. Although aware of the meteorological potential for attack in early June, the German beach defenses were informed that the poor weather would sustain itself for several days and its leadership withdrew to Berlin.

The forecasts briefed to Eisenhower were derived with great difficulty. They were an amalgam forged from three forecasting cells—the Army Air Forces central at

Widewing, the British Meteorological Office at Dunstable, and the British Admiralty weather office at Portsmouth. The three forecasting teams were often diametrically and bitterly opposed. Stagg and his deputy, AAF Col Donald N. Yates, had to orchestrate the forecast compromise that they presented to Eisenhower.

At the Monday evening staff meeting, after much debate among the three forecasting cells and having seemingly been heavily influenced by the AAF weather team, Stagg told Eisenhower that Tuesday morning would provide a window of opportunity in which to launch the invasion. Eisenhower ordered D-Day execution for Tuesday, June 6, 1944.



American soldiers wade ashore at Normandy.

D-Day weather was marginal, but provided the opportunity that would not have come again for months. ☞

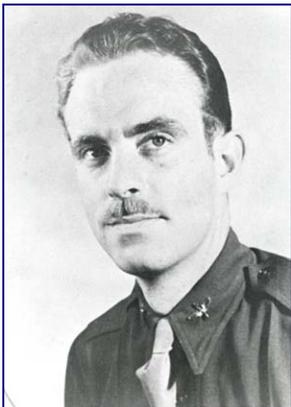
The 17th OWS's Lineage is One of Many Changes



A Red Cross worker gives chewing gum to New Caledonian dancers after they entertain U.S. troops, 1944. (Red Cross photo)



The current 17OWS emblem was approved on June 9, 1982.



1Lt William H. Jones-Burdick was the first weather officer to fly into the "eye" of a hurricane.



The 17th Operational Weather Squadron was activated as the 17th Weather Squadron on September 18, 1942, at McClellan Field, California.

The squadron shortly thereafter relocated to Auckland, New Zealand, where it was assigned to U.S. Army Forces in the South Pacific Area. In January 1943 the 17th relocated to Noumea, New Caledonia. It was reassigned to Thirteenth Air Force on July 1, 1943, but returned to the control

of U.S. Army Forces in the South Pacific Area on December 20, 1943.

The squadron was assigned to Army Air Forces, Pacific Ocean Area on August 1, 1944, but re-assigned to the 1st Provisional Weather Group on September 4. In November 1944, the 17th moved to Hickam Field, Hawai'i, where it was disbanded on February 10, 1945.

The 17th was again activated on January 15, 1970, at Travis Air Force

Base, California, as part of the 7th Weather Wing. It was inactivated on June 30, 1972. The squadron was activated once again on April 1, 1980, at Travis. It was inactivated on September 30, 1991, as part of the divestiture of Air Weather Service.

The 17th was redesignated the 17th Operational Weather Squadron on October 12, 2000, and activated on October 27, 2000, at Hickam, where it was assigned to the 502d Air Operations Group. ✪

The First Weather Officer to Fly into a Hurricane

There have been countless aviators that have subjected their piloting skill and the frailties of their aircraft to the torments of a hurricane. Although some claimed to have flown into a hurricane (without corroboration) prior to 1943, no one seemingly flew into the "eye" and reported the event with authority.

On July 27, 1943, Col Joseph P. Duckworth, commanding officer of the Army Air Force's Instructors' School for instrument pilot training at Bryan Army Airfield, Texas, purposefully (if not necessarily with proper clearance) flew one of the school's AT-6 *Texans* into the "eye" of a hurricane centered near Galveston.

According to the account published in the 1956 book *Hurricane Hunters*, by noted meteorologist I. R. Tannehill, Duckworth, after hearing earlier that day that a hurricane was near Galveston, thought it would be "fun" to test his piloting skill against the storm. He asked the school's only navigator, 2Lt (Lt Col retired) Ralph M. O'Hair, to accompany him on the first recorded flight into a hurricane's "eye."

Upon the pair's return to Bryan, 1Lt (Lt Col retired) William H. Jones-Burdick, the school's lone pilot-weather officer asked to accompany Duckworth into the hurricane. Duckworth agreed and made his second flight into the hurricane's "eye"

that day with Jones-Burdick as his expert observer.

Duckworth issued a short report of his flights in mid-August 1943. "On the whole," he wrote, "neither flight through the hurricane was as uncomfortable as a good, rough thunderstorm." He continued, "The best description of the hurricane was offered by the weather officer, who stated that it was no worse than an unstable warm front."

This pioneering effort is an important legacy of Air Force Weather and one of the heroic narratives that comprise the Centennial of Flight. ✪

General Bassett Recalls His Service with AFW

Under the tutelage of Dr. Irving P. Krick and Dr. Sverre Petterssen, Lt Harold H. Bassett completed the course in meteorology at the California Institute of Technology in June 1936. He became Regional Control Officer and squadron commander of the 1st Meteorological Region (western United States) with the formation of the Air Corps Weather Service on 1 July 1937.

Following completion of Naval War College, Colonel Bassett was assigned as the Director of Weather in November 1942. He remained at the post until January 1945

when he went to Europe as the Director of Weather for U.S. Strategic Air Forces.

Following assignments in intelligence, command of U.S. Air Force Security Service, and a tour as deputy commander of the U.S. Taiwan Defense Force, General Bassett returned to command Air Weather Service in 1958-1959.

Mr. Moyers conducted an oral history interview with General Bassett in June 2002. Here is an excerpt from that interview:

MR. MOYERS: *Did you have weather officers at your [first] flying assignments?*

MAJ GEN BASSETT:

There were no weather officers at any of my first flying assignments (during flying training and in Hawai'i) and little need for, or use of, weather information because almost all of the flying was local in nature—if the weather was good we flew and if it wasn't we didn't. However, while I was at Randolph and I began to be involved with unexpected weather I recognized the need for better weather information and better use of what was available.

The complete interview is available from the AFW History Office. *CS*



Maj Gen H. H. Bassett



Then-Col H. H. Bassett (front row left) at an AAF weather leadership meeting, circa 1945.

Two AF/HO Books to Add to your Weather Library

The Air Force Weather History Office recommends two recent publications in the "USAF in the Persian Gulf War" series produced by the Air Force History and Museums Program, *Lucrative Targets: The U.S. Air Force in the Kuwaiti Theater of Operations* by Perry D. Jamieson, and *On Target: Organizing and Executing the Strategic Air Campaign Against Iraq* by Richard G. Davis.

In their detailed analysis of the air campaigns over Kuwait and Iraq, the authors, both Air Force historians, explain how the unexpected poor weather

impacted the air and ground campaigns during Operation DESERT STORM.

Jamieson writes that while Coalition leaders overcame a number of obstacles in the persecution of the war in the Kuwait Theater of Operations, they could "do little about. . .the weather."

Davis makes a more sweeping argument about aerial warfare when he states, "Throughout air power history weather has prevented or spoiled more combat missions than any other single factor."

The authors base their accounts upon official

DoD documentation, including that produced by Air Weather Service following the first Gulf War.

DoD personnel may order publications produced by the Air Force History and Museums Program free of charge. Others may purchase these publications from the Government Printing Office. These books are also available at most base libraries. Ordering information and the complete text of these books is available to download at <http://www.airforcehistory.hq.af.mil/publications>. *CS*



The U.S. Army approved a distinctive insignia with motto Coelum Ad Proelium Elige, "Choose the Weather for Battle," for wear by members of the Army Air Forces weather service on September 8, 1942.

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In the next issue

*200WS Lineage;
Origins of Wx Recon;
and more.*

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

Looking Back at Air Force Weather

July 8, 1966, Air Weather Service expanded its presence in Southeast Asia from a squadron to a group and three squadrons.

July 16, 1947, Joint Weather Bureau-Air Force-Navy (WBAN) Analysis Center began operations in Washington, D.C.

July 27, 1982, Air Weather Service non-commissioned officers presented Brig Gen Albert J. Kaehn, Jr., AWS commander 1978–1982, the Military Airlift Command "Order of the Sword," AWS's first induction.

August 9, 1985, Air Force Global Weather Central's Satellite Data Handling System (SDHS) achieved Initial Operating Capability (IOC).

August 15, 1977, Air Weather Service's last AN/APQ-11 weather radar was declared out of commission and subsequently removed from the inventory.

August 26, 1954, Air Weather Service installed the first AN/GMQ-11 surface wind set.

September 1, 1975, Air Weather Service transferred the weather reconnaissance and residual aerial sampling missions and resources to Air Rescue and Recovery Service.

September 15, 1963, Air Weather Service transferred responsibility for terminal forecasting from the Kansas City Centralized Forecast Facility back to the respective detachments.

September 10, 1965, Air Force launched the first Defense Meteorological Satellite Program (DMSP) satellite.



AWS began installation of the AN/GMQ-1, Wind Measuring Set in 1954.



AWS transferred its fleet of WC-130s to the ARRS in 1975.

"Weather and communications men usually work together as a team."

Gen H. H. Arnold
Commander, AAF
"Second Annual Report"

Establishment of the WBAN Analysis Center

After World War II, the American weather services struggled to maintain pace with the continuing growth of data from the global weather networks that were constructed during the war. During its August 1946 meeting, the Subcommittee on Aviation Meteorology of the Air Coordinating Committee formed an ad hoc group to study the formation of a joint analysis center.

Members of the subcommittee believed

that a joint analysis effort would decrease duplication, increase communications efficiency, and provide better standardization of analysis, thereby increasing forecast accuracy at all levels.

The joint study group submitted their recommendations for the operation of a joint analysis center in the spring of 1947. The Subcommittee on Aviation Meteorology accepted the group's concept of

operations and the WBAN (U.S. Weather Bureau-Air Force-Navy) Analysis Center began operation on July 16, 1947, in the Weather Bureau Building in Washington, D.C. The WBAN remained there until 1954 when it, the Air Force Weather Central, and Navy Fleet Weather Central moved to Suitland, Maryland, to form the National Weather Analysis Center. ☞