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This OBSERVER is dedicated to you

For 40 years the weather mission of the air arm of the military services has been done by the men of the air. Previously, the Army's Signal Corps had the job, but men with foresight realized the need for weather knowledge was even more critical to men in the air than those on the ground. The men with the foresight, the weather pioneers, fought—and won—the mission for the Air Force. This issue of the AWS OBSERVER is about those men. Further, it is about the leaders of the weather organizations through the years and the events which took place during their tenure as "chief," "commanding officer," or "commander," or any other title under which they served. Above all, this issue of the OBSERVER is about the men and women—the thousands upon thousands—who have served in weather units under all conditions from then until when you began to read these words. They, officer, airman, civilian employee, dependent, meteorologist, maintainer, administrator, stenographer, computer specialist, parajumper, pilot, made their own contribution toward bringing the weather mission and the Air Force's Air Weather Service to where it stands today.

AIR WEATHER SERVICE

OBSERVER

Vol. 24, No. 7 | Headquarters, Air Weather Service, Scott AFB, IL. | July 1977

The artist

Editor's note: The oil paintings used in this issue of the AWS OBSERVER (pages 3-11) and which now hang in the Headquarters, Air Weather Service, were created primarily by Tom O'Laughlin, a Scott AFB, IL, artist. All other artistic actions

All other artistic actions taken related to them were under his supervision. Mr. O'Laughlin has served at Scott AFB in its graphics section for nine years. He studies art at a local junior college, Washington University and a local school of art. He now teaches art during his off duty hours. His oils, some of which are as large as four feet by nine feet in size, are presently in various civic buildings throughout southern Illinois.

Four decades of weather service

Brig. Gen. Berry W. Rowe
Commander, Air Weather Service
David F. Barr
Editor

The Air Weather Service OBSERVER is an official Class IIC Air Force newspaper published monthly for personnel of the worldwide Air Weather Service of the Military Airlift Command and under the supervision of the Office of Information, Headquarters, Military Airlift Command, Scott AFB, IL, 62225. Opinions expressed herein do not necessarily represent those of the Air Force. Material which appears herein may be reprinted without permission, but credit to the Air Weather Service OBSERVER is requested. News, features, art or photographic material is solicited from readers, but publication depends on the judgement of the OBSERVER staff. No payment will be made for contributions. Paid advertising is not accepted. Editorial office phone numbers are: 618 256-5003/4615 or Autovon 638-5003/4615.

Founder reflects on the past

(Editor's note: On May 5, 1976, I asked several of the original members of the July 1, 1937, weather organization to write their account of that important day. Maj. Gen. H.H. Bassett (USAF Ret.) was gracious enough to respond, as were Col. A.F. Merewether (USAF Ret.), Maj. Gen. J.K. Lacey (USAF Ret.) and Maj. Gen. R.E. L. Eaton (USAF Ret.). I thank them and salute them—not just for their rank, but for the legacy they began then left to today's weather men and women.)

Editor, AWS Observer
Scott AFB, IL 62225

Dear Mr. Barr:

Your letter requesting my recollections about the establishment of the Air Weather Service in 1937 has made me realize that they are not as clear and detailed as I wish they were.

During the year which preceded that event, I had been the Base Weather Officer at Hamilton and most of my efforts were divided between struggling with the vagaries of the weather and with the furnishing - from the ground up and mostly by chiselling and begging - my version of a Base Weather Station.

I suppose I knew, in a general sort of way, that Pinkie Williams was trying to bring some sort of weather service into being; but my first definite, detailed information came some time during the winter of 1936-37 when I received instructions to fly to March, pick up Perry Wainer (who had attended CIT when I did in 1935-36), and then proceed to Langley for a meeting about the prospective organization.

My rank and influence were such that the only plane I could wangle for the trip was an O-? which was a gull-winged, open-cockpit job with a hand-operated landing gear system. And, when the time came to start the trip, there was some really cold weather in California.

I wore all of the winter flying clothing I could get on and still move; but, even so, when I reached March, I was so numb that it took me a half hour or so to pump the landing gear into the landing position - and I have never been so cold before or since.

Perry met me when I finally landed and, in light of my physical condition, he quickly decided there had to be a better way to fly. After some difficulty, he managed to get approval for us to use one of the newly arrived A-17's which had a heated, enclosed cockpit and all sorts of other new and wonderful things. And, after one of the fastest check-offs on record, we headed eastward before whoever had released the plane could change his mind.

The weather got even colder as we went eastward and I have always wondered whether, if it had not been for Perry's good judgement and influence in getting the A-17, I might have been frozen out of the Air Weather Service before I ever got into it.

It is also obvious why I remember the trip to the meeting much more clearly than I do the meeting itself.

I suppose most of it was devoted to explaining the new organization and who would occupy the key positions in it.

I came away from it with the impression that I would continue as the Base Weather Officer at Hamilton and would not be affected much, personally, when the new organization came into being; and this seemed to me a very satisfactory arrangement because, among other things, most of the family fortune had been invested in furnishings for a brand-new set of quarters.

I was surprised then when it turned out that I was to be the Regional Control Officer of the First Weather Region and would be obliged to move to March.

The Region was long on geography but short on stations and personnel. Initially, there were only four stations: two at major bases - March and Hamilton - and the other two at Moffett and Gray (originally a lighter-than-air station related to Ft. Lewis, Washington). Graduates from the CIT Class of 1937 - Sam Wiseman and Ted Bolen - were assigned to March and Hamilton respectively as Base Weather Officers and, a year later, another CIT graduate, Bill Stone, was assigned to Gray.

All of us who were in the Air Weather Service during its first few years had a great deal of latitude and opportunity to do whatever we thought should be done for there were very few helpful precedents, or rule- or guide-books.

We managed to do well enough so that the AWS survived those first few years and we like to think that we helped to develop the general operating patterns which - with a great deal of technical improvement - have kept the Air Weather Service in business for nearly forty years and, we hope, will do so for a great many more.

Sincerely,

H. H. Bassett
Maj. Gen. USAF (Ret)

Weather mission has stormy past

by
John Fuller
AWS historian

An examiner of the General Accounting Office, watchdog organization of governmental spending, asked recently, in effect, "What says the Air Weather Service (AWS) was ever legally authorized?"

He learned that during the War of 1812, just two years after the British burned Washington, D.C., Dr. James Tilton, the U.S. Army physician and surgeon general, began America's first weather observation network. He wanted to study the climate's influence on diseases so he had his hospital surgeons record the weather. By 1838 Army surgeons at 13 forts, mainly in the Midwest, still obeyed that order.

In 1849, 11 years later, the Smithsonian Institute set up an extensive meteorological system. It lasted until the Civil War.

America, suffering from that war, gave little emphasis to weather watching during the next seven years, then a series of tragedies forced the nation to pay more attention to it.

Between 1868 and 1869 storms raged over the Great Lakes and sank more than 1,100 vessels, taking more than 500 lives. From this Congress recognized that weather could be as devastating as war. The next year, in February 1870, Joint Congressional Resolution HR-143 was passed then signed by President U.S. Grant. It "authorized and required" the Secretary of War, through the U.S. Army Signal Service, to establish and maintain what was then, in effect, a national weather service.

From a later study, Congress decided the War Department was not where a weather service should be, and for six years, with various bills, tried to get it moved. The bills did not pass until the "Organic Act."

Under the Organic Act, which became law Oct. 1, 1890, the weather service moved from the Signal Corps to the Agriculture Department, where it remained for the next half century, made up of civilians.

Another move of the weather service, now known as the Weather Bureau, took place June 30, 1940. Under the "Reorganization Plan IV," it shifted from the Agriculture Department to the Commerce Department, its home to this day. Thirty years later it got the name National Weather Service.

Meanwhile, in the military services, the 1891 move of the weather function to the Agriculture Department did not eliminate the function from the Signal Corps—but almost. While the observing and forecasting function moved, the Signal Corps still provided ballistic data for artillery and small arms firing as well as the development of meteorological equipment. The almost nonexistent weather function remained this way 26 years.

In 1917 U.S. troops fought on foreign soil for the first time since the Spanish-American War. That year General John J. Pershing demanded weather service in France so a meteorological section was created as part of the Army Signal Corps' Science and Research Division. It was to provide the American Expeditionary Forces in Europe "all the meteorological support they need." Around 500 Army weathermen were quickly trained and 300 of them saw duty in Europe during World War I. In December 1917 Assistant Secretary of the Navy Franklin D. Roosevelt established a Naval Aerological Service as well.

When the war ended the Signal Corps kept a weather service, which was formalized Nov. 12, 1921 in Army Regulation 105.210.

By 1936 there were 35 Army weather stations in the United States and five overseas; most of which operated exclusively for the Air Corps.

As the importance of air power grew in the 1930s, many aircraft improvements took place. With them the need to advance weather service also grew.

A War Department letter of Jan. 28, 1937 transferred responsibility for weather service from the Signal Corps to the Air Corps. The date of that transfer was July 1, 1937—the date the mission of today's Air Weather Service began.

Twenty-two officers and some 280 enlisted men began the organization which was to become the Air Weather Service. They began the organization's growth toward where it is today—providing knowledge of the world's weather to soldiers as well as to airmen.

Weather entry, first President's last statement?

Most Americans know that one of America's earliest intentional weather encounters came when Benjamin Franklin attached a key to a kite string and attracted lightning.

What relatively few Americans know, however, is that in 1799 President George Washington's final act may have been to make a weather observation. On December 13th of that year he made an entry in a weather diary he had been keeping—the following day he died.

It is part of our American heritage.

At front and ahead of it

Weather job gets rougher after invasion

by
John Fuller
AWS Historian

In the June OBSERVER, the "Lesson from history" told of the critical role weather and weather forecasts (prepared with the help of Army Air Forces Weather Service weathermen) played in Operation Overlord, the June 6, 1944, Allied invasion of France. But weather support to the historic invasion did not stop with the D-Day forecast. Indeed, on June 6 another phase of weather support was begun by men of the 21st Weather Squadron (WS) on the beaches and behind enemy lines at Normandy.

The first weatherman to reach France was SSgt. Charles J. Staub, who parachuted into Normandy at 1 a.m., ahead of the full invasion, June 6, with the 101st Airborne Division. Following closely were Cpl. Warren F. Wolf and SSgt. Robert A. Dodson, who jumped with the 82nd Airborne Division behind the beaches.

Parachuting into separate areas, each man had a small radio, a psychrometer and weapons, but each fared poorly.

Germans attacked Sergeant Dodson's force and for 36 hours he was a rifleman. When the attack was repulsed, Sergeant Dodson took, then transmitted hourly weather observations. On June 21, when the front lines overtook him, Sergeant Dodson was sent to a hospital to have the knee treated he injured on landing 15 days before.

Sergeant Staub, who suffered multiple gunshot wounds, had become a casualty before his first observation. Corporal Wolf had disappeared and was declared missing in action.

While the three men preceeded the invasion, some 20 other 21WS weathermen, all assigned to air support parties, or ASPs, with the infantry, waded ashore with the first assault troops or landed behind the beaches in gliders.

Usually consisting of eight men, a half-track and a radio-equipped jeep, the ASPs guided close air support strikes. The assigned weathermen briefed incoming fighter pilots on target weather and transmitted surface observations hourly to ships off shore.

Late on June 6, Cpl. Eugene Levine, a 21WS observer assigned to an 82nd Airborne Division ASP, arrived in France in a glider towed by a C-47, which flew at 500 feet. Although the C-47 was hit by flack and crashed, Corporal Levine's glider was released and landed safely. Forced to spend most of the next day dodging Germans, it was June 8 before he could take and transmit hourly weather observations.

After D-Day, and after the ASPs, came entire 21WS detachments. Each unit was fully mobile and furnished 24-hour observing and forecasting support to designated ground or air units.

Detachment YF was to have hit Omaha Beach at 6 p.m., June 6, but as the landing craft neared its assigned landing area it came under intense artillery and small arms fire and could not land. The landing craft commander was ordered to remain off shore overnight.

The next morning, after two unsuccessful landing tries, the landing craft reached shore. As the loading ramp went down the truck ahead of the weather detachment's weather van received a direct hit from an artillery shell and blocked the exit. The weather van had to push it aside to disembark.

Once ashore, the weathermen found they were already at the front—German lines were 100 yards inland.

By July 1, when the assault phase of Operation Overlord officially ended, 14 complete 21WS mobile weather detachments were ashore and operating in the front lines. Aside from Corporal Wolfe, the squadron suffered no other casualties, however, by the end of the year two more 21WS enlisted men had died in combat, one from shrapnel and another was killed by a land mine.

Front page news on 25th anniversary

Special Silver Anniversary Issue

AIR WEATHER SERVICE
OBSERVER

Vol. 9, No. 6 Headquarters, Air Weather Service, Scott AFB, Ill. July 1937/1962

Weather Officers Assigned

Following personnel assignments are planned for Air Corps meteorological officers and Signal Corps officers on detail with the Air Corps:

Capt. Randolph P. Williams, AC, to temporary duty in the Office of the Chief of the Air Corps, effective May 1.

Other assignments effective July 1, as follows:

Capt. Leon W. Johnson, AC, to remain at Barksdale Field, Louisiana, as Regional Meteorological Officer, 3d Meteorological Region; Commanding Officer, 3d Meteorological Squadron; and Meteorological Officer, 3d Wing, GHQ Air Force.

Lt. Don Z. Zimmerman, AC, to remain at Randolph Field, Texas, as Meteorological Officer and Instructor, Air Corps Primary Flying School.

Lt. Harold H. Bassett, AC, to remain at Hamilton Field, California, as Base Meteorological Officer.

Lt. Robert M. Losey, AC, from California Institute of Technology to Office of the Chief, Air Corps.

Lt. Floyd B. Wood, AC, from Massachusetts Institute of Technology to Bolling Field, D. C., as Base Meteorological Officer.

Lt. T. M. Bolen, AC, from California Institute of Technology to March Field, California, as Base Meteorological Officer.

Lt. Arthur F. Merewether, AC, to remain at Barksdale Field, Louisiana, as Base Meteorological Officer.

Lt. Anthony Q. Mustoe, AC, to remain at Selfridge Field, Michigan, as Base Meteorological Officer.

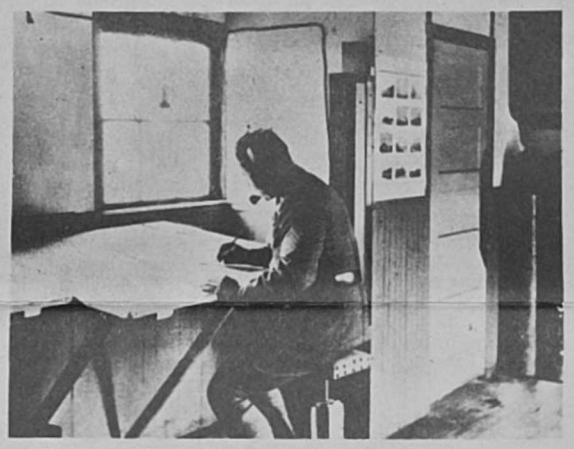
Lt. Julius K. Lacey, AC, to remain at Langley Field, Virginia, as Regional Control Officer, 2d Meteorological Region; Commanding Officer, 2d Meteorological Squadron; and Meteorological Officer, 2d Wing, GHQ Air Force.

Lt. Ernest Moore, AC, from Massachusetts Institute of Technology to Langley Field, Virginia, as Meteorological Officer, 2d Group, GHQ Air Force.

Lt. Milton W. Arnold, AC, from California Institute of Technology to Patterson Field, Ohio, as Depot Meteorological Officer.

Lt. Robert E. L. Eaton, AC, from Massachusetts Institute of Technology to Scott Field, Illinois, as Base Meteorological Officer.

Lt. Royden E. Beebe, Jr., AC,



TYPICAL STATION of today's Army Air Corps Weather Service provides direct telephonic communication (note headphones) with pilot-balloon release point.

ACWS Operating Weather Stations In ZI, Overseas

A total of 40 weather stations of various types—35 of them in the Zone of the Interior and 5 outside the continental limits of the United States—are presently in operation by the new AAC Weather Service.

Present stations and their locations, under the control of three ZI weather regions and a foreign weather region, are as follows:

First Weather Region

Base weather stations at Hamilton Field, California, and March Field, California.

Squadron weather stations at Fort Lewis, Washington, and Moffett Field, California.

Second Weather Region

Base weather stations at Bolling Field, Anacostia, D. C.; Langley Field, Hampton, Virginia; Mitchel Field, Long Island, New York; Patterson Field, Fairfield, Ohio; Scott Field, Belleville, Illinois; and Selfridge Field, Mount Clemens, Michigan.

Post weather stations at Middletown Air Depot, Pennsylvania; and Chanute Field, Rantoul, Illinois.

Squadron weather station at Pope Field, Aberdeen Proving Ground, Maryland.

Detachment weather stations at Lawson Field, Fort Benning, Georgia; Phillips Field, Aberdeen Proving Ground, Maryland; and Wright Field, Dayton, Ohio.

Airways observer station at Pittsburgh Airport, Pennsylvania.

Third Weather Region

Base weather stations at Barksdale Field, Shreveport, Louisiana; Kelly Field, San Antonio, Texas;

Weather Service Goes To Army Air Corps

Meteorological service for the Army, which has heretofore been the responsibility of the Signal Corps, was, on July 1, transferred to the using arms and services. These include the Air Corps, the Field Artillery, the Coast Artillery Corps, the Ordnance and the Chemical Warfare Service.

The Air Corps, which is by far the most interested user of meteorological data, plans to establish an Air Corps School of Meteorology for enlisted forecasters at Patterson Field, Fairfield, Ohio, at which two courses of instruction, each of five months' duration, will be conducted each year.

The number of students accepted for each course will not exceed 35. An enlisted complement not to exceed 10 men will be assigned as assistants at school headquarters.

Monmouth School Ends

In the establishing of this organization, the present School of Meteorology located at Fort Monmouth, New Jersey, under Signal Corps jurisdiction, will be discontinued in July. The school property and personnel will be transferred to Patterson Field, where it is expected classes will be started not later than September.

Since the Air Corps has become the prime user of the meteorological service, the transfer of this responsibility is a logical step. The development, procurement, storage and supply of meteorological equipment remains a function of the Signal Corps.

Model Stations Planned

In view of this transfer, it is desired to develop at Patterson and Wright Fields meteorological stations which will be models of modern operation. In line with these plans, the number of enlisted meteorologists assigned to Patterson Field will be increased from 10 to 15 and those at Wright Field from two to five.

Capt. Don McNeal, Signal Corps, at present in charge of the Meteorological School at Fort Monmouth, will assume like duties with the Patterson Field school.

Capt. Benjamin Stern, Signal Corps, who recently received orders transferring him to Maxwell Field, Alabama, will be replaced by an Air Corps officer, who will be in charge of meteorological activities at the two fields (Patterson and Wright Fields, Ohio).

Various assignments will bring the additional enlisted men to be enrolled at the two fields to a total of approximately 55.

Classes in Present Building

Classes will be conducted in rooms and laboratories on the ground floor of the present headquarters building at Patterson Field. For the present, no additional buildings for schools or barracks are contemplated.

The Field Artillery will organize meteorological units at the following posts: Fort Hoyle, Maryland; Fort Sam Houston, Texas; Fort Lewis, Washington; Fort Sill, Oklahoma; Fort Sheridan, Illinois; Schofield Barracks, Hawaii; Fort Riley, Kansas; and Fort Bragg, North Carolina. These units will furnish necessary meteorological data to Field Artillery organizations located within their service areas.

The Coast Artillery will continue to operate meteorological units at each Coast Artillery har-

Organizer

FATHER of modern Air Corps weather service is Capt. Randolph P. Williams. Captain Williams' work in the office of the Air Corps chief led to formation of the new AAC Weather Service.

FY38 Weather Costs Estimated

The new AAC Weather Service estimates that $73,600 will be required to operate the service for Fiscal Year 1938, not to include pay of military personnel. Costs are expected to be as follows:

For 40,000 pilot balloons at 17 cents each—$6,800.

For 320,000 cubic feet of hydrogen at 2 cents per cubic foot —$6,400;

For various items of equipment, mostly standard meteorological instruments—$30,000;

For various items of supplies, blank maps, etc.—$6,000;

For repairs to equipment, instruments, etc.—$6,000;

For salary of four civilian assistants—$8,000;

For pay of 10 civilians to make weather observations at isolated points, at $540 each—$5,400; and

For miscellaneous services and materials—$5,000.

This total of $73,600 estimated for FY38 costs of operating the weather service exceeds by $52,600 the $21,000 alloted by the Signal Corps for FY37 meteorological services.

An addition $10,000 is estimated to be necessary for added telephone and telegraph service over that used last year. This does not include additional funds needed for teletype service.

1962: Kennedy Congratulates AWS on Silver Anniversary

President Kennedy

From the White House

From President John F. Kennedy for Brig. Gen. Norman L. Peterson: Please accept my heartiest congratulations on the occasion of the twenty-fifth anniversary of the United States Air Force Air Weather Service.

The dedication and competence of the United States Air Force Air Weather Service personnel made possible the outstanding performance of this unit over the years.

John F. Kennedy
President of the United States

Capt. (Col.) Randolph P. 'Pinky' Williams

(Founder)

In 1937 I was a first lieutenant as base weather officer at Langley Field, VA. Capt. R.P. Williams and I had been working for a year on the terms for a take-over of the Army Meteorological Service from the Signal Corps; determining the command structure of our service when it became a fact; establishing the geographical boundries of each Weather Region; deciding who would be assigned where; writing regulations for the new service; determining the various sizes of weather stations; and preparing tables of organization and equipment for each size weather station and for each Regional Headquarters.

We fought long and hard to obtain responsibility for procurement and supply of our equipment but the Army General Staff decided against us in favor of the Signal Corps retaining that authority. In those days of peace and a small size Army, a mission of that kind meant a few more officers and men. It was many years later that the Air Force got the authority for procuring and servicing its own equipment.

The Signal Corps had never done any forecasting of weather and had only a few meteorological observer stations to keep climatological records. Hence we, the Army Air Corps, had been doing our own forecasting for a year in an organized way and for some time longer for special needs and for special occasions such as lighter-than-air flights and balloon ascents.

It was a great day for Major Williams and myself when we finally got the meteorological service responsibility from the Signal Corps. Major Williams (Pinky) was the primer mover in getting this done and I was his assistant for writing and planning. He was also stationed at Langley Field but spent most of his time in Washington the last few months before the shift from the Signal Corps became a fact.

Neither of us wanted to go to Washington to head up the service so we selected Bob Losey for that job while Pinky became G(eneral) H(ead) Q (uarters) Air Force Weather Officer and I became the commander of the 2nd Weather Region, with headquarters at Langley Field, VA.

Before the advent of our organization, pilots flew without the benefit and aid of forecasts and even weather reports. For years I had flown X-country (cross country) into fronts, storms, fog and what have you, just as we all did, and got away with it. Some did not, of course. But almost overnight, after we went into business, the weather office became the focus of all pilots before taking off on a flight. And they liked and depended on the information they got. It was some time, however, before a flight required an initialed weather clearance. You could fly without the benefit of weather information if you so chose.

No one has ever given Maj. R.P. Williams the credit due him for prying the meterological service loose from the Signal Corps. It was his dream and he was the prime mover. He was a regular bulldog in his tenacity to get hold of the kind of service that the Air Corps had to have. I have no doubt that World War II would have caught us without a weather service had it not been for Major Williams. I take credit only as his one and only helper. But I was there and saw it all and helped it all happen. With Pinky long since gone, I am the only one alive who knows the full story.

Sincerly,

J K Lacey
Maj Gen USAF, Ret.

1st Lt. (Capt.) Robert M. Losey

(1937 - 1940)

* First chief of the Weather Section, Hq. Army Air Corps. He reported directly to the commanding general, Army Air Corps.

* Commanded 40 weather stations, of which five were in Hawaii, Panama and the Philippines.

* On Sept. 1, 1937, the enlisted forecaster school, Ft. Monmouth, NJ, disbanded and was reestablished at Patterson Field, OH. In 1939 the observer school (seven enlisted men) began at Scott AFB, IL.

* Captain Losey, while watching a Nazi air attack on Dombas, Norway, in 1940, was struck by shrapnel and became the first officer killed in World War II in the service of the United States.

1st Lt. (Col.) Arthur F. Mereweather

(1940 - 1942)

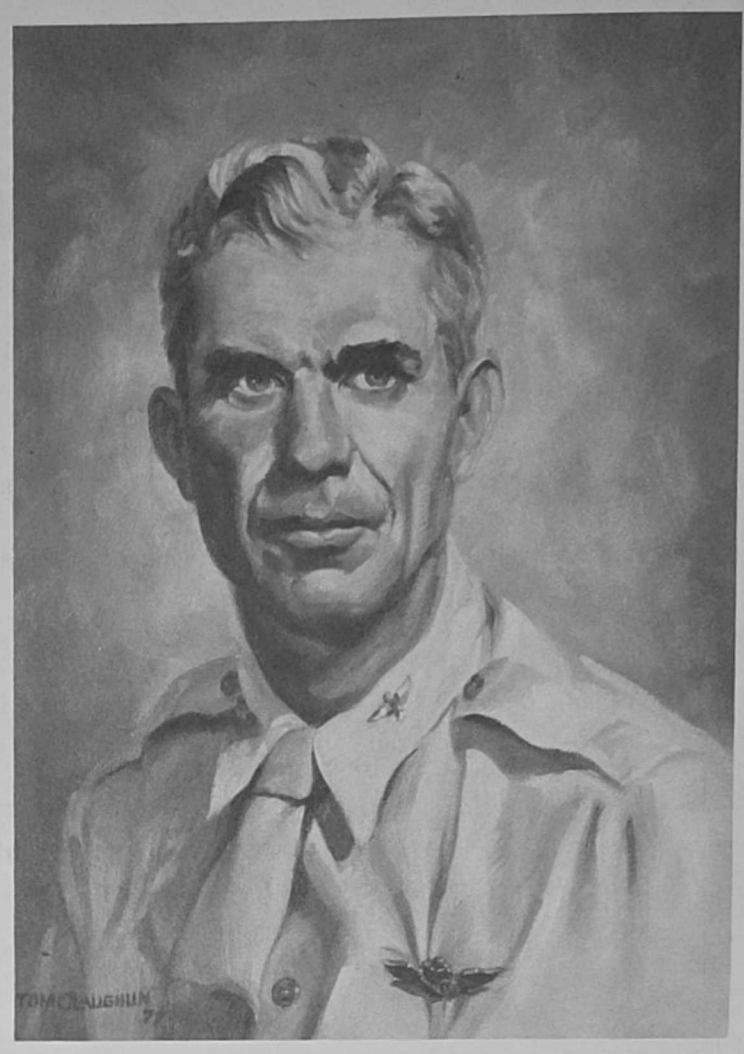
* Air Corps Weather School established at Chanute Field, IL, on April 11, 1940, and first meteorological cadet (three month course) began at Massachusetts Institute of Technology, June, 1940. Expansion of the class to other universities eventually produced 5,000 weather officers.

* On Oct. 20, 1941, the first official Army Air Corps try at a long-range (30-day) forecast and verification was made.

* On Dec. 7, 1941, five weathermen were killed at Pearl Harbor and Hickam Field, HI.

* Between Jan. 7 - May 5, 1942, approximately 16 weathermen were killed or captured at Bataan and on Corregidor, RP.

Maj. (Brig. Gen.) D. Z. Zimmerman (1942)



* Army Regulation 95-150 officially designated the "Army Air Forces Weather Service (AAFWS)" on July 24, 1942. The AARWS had technical control of all weather units. The Signal Corps, however, kept research and development, procurement, issue, installation and major maintenance of weather and communications equipment as well as supplies.

* Aug. 21, 1942, the first weather reconnaissance squadron was activated at Patterson Field, OH. By 1943 it was equipped with B-25s, had moved, and flew North Atlantic Ocean ferry routes.

* The first radiosondes were installed at AAFWS units. (Major Zimmerman was succeeded by Lt. Col. William O. Senter. See opposite page.)

Col. (Lt. Gen.) Donald N. Yates (1945 - 1950)

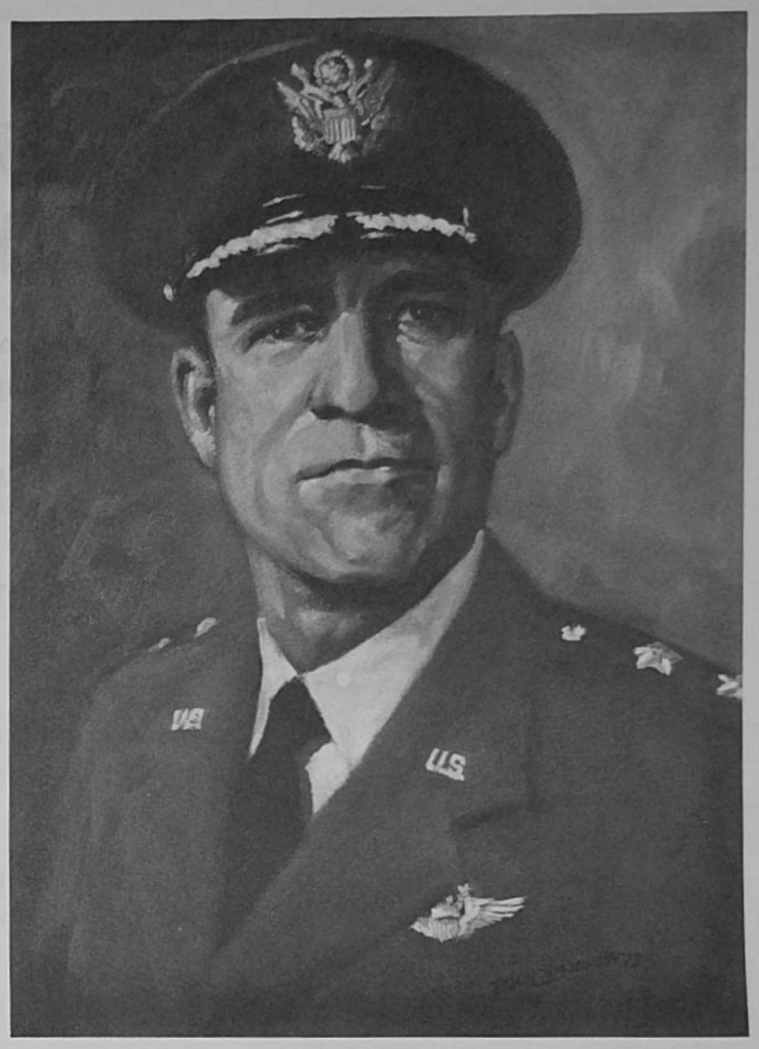
* 1945 On Aug. 6, using a forecast prepared by the Guam Weather Central, the Army Air Force dropped an Atomic Bomb on Hiroshima, Japan; World War II ended two months later. Records indicate that 61 weathermen were killed in action during WWII. Weather units earned 10 campaign streamers, 20 service streamers, and nine other awards and decorations.

* 1946 The "Air Weather Service (AWS)" got its name on March 13, and was assigned to the Air Transport Command, which became today's Military Airlift Command. In September the first AN/GMQ-2 fixed-beam ceilometer was installed at Langley Field, VA; the next year UHF pilot-to-forecaster service was set up.

* In 1948 the first tornado forecast was issued at Tinker, AFB, OK, and in 1949 Global Weather Central (GWC) was organized at Offutt AFB, NE, to support SAC.

* 1950 The Korean War began on June 25 and within 48 hours a weather detachment was in Taegu, Korea. On July 29th, Lt. Col. J.O. Fletcher discovered the Arctic Ocean ice island which would bear his name.

Lt. Col. (Lt. Gen.) William O. Senter
(1943 - 1945) (1950 - 1954)



* April 13, 1943, is the date officially recognized by the Air Force as the founding date of today's Air Weather Service. July 1, 1937, AWS' traditional founding date, is (according to the USAF Historical Research Division, Maxwell AFB, AL) the anniversary date of AWS' mission.

* 1944 By mid year the AAFWS numbered 19,000 people, its highest population. On Sept. 5, Col. Randolph "Pinky" Williams was killed in action over France.

* 1952 General Senter became the first major general to command AWS. In May, AWS reorganized from geographic to a functional support posture.

* 1953 The Korean War armistice was signed July 27. Six AWS men were killed in the war. AWS units earned 18 campaign streamers, three Korean Presidential Unit Citations, two Air Force Outstanding Unit Awards, and four service streamers.

Brig. Gen. (Lt. Gen.) Thomas S. Moorman Jr.
(1954 - 1958)

* 1954 The first radar specifically designed for meteorological use (the AN/CPSO9) was installed at Maxwell AFB, AL, June 20. Two months later, at Suitland, MD, the Joint Numerical Weather Prediction, which was headed by Air Weather Service's Dr. George P. Cressman, was activated. Project 433L, a weather observing and forecasting system was launched in August. On Aug. 26, at Andrews AFB, MD, the first AN/GMQ-10 transmissometer became operational. At Eielson AFB, AK, the first AN/GMO -11 surface wind set was installed in October.

* 1955 In January the Ground Observer Corps, which had been formed in 1950 as an air defense warning system, began 24-hour a day severe weather watch for AWS. The observations continued until the January 1959 disbandment of the Ground Observer Corps.

* 1957 The Suitland, MD, USAF Weather Central closed and its functions and resources were absorbed by or combined with Global Weather Central, Offutt AFB, NE.

Maj. Gen. Harold H. Bassett (1943) (1958 - 1959)

(General Bassett, as a lieutenant colonel, had commanded Air Weather Service for the months prior to the official establishment of the organization which became today's AWS.)

* Short-range forecast verification program (24, 36, 48 hours) inaugurated by the Army Air Force Weather Service.

* The U.S. Air Force Strategic Facsimile Network was established on Feb. 15, 1959. It connected Global Weather Central, Offutt AFB, NE, with five other U.S. weather centers.

* On Dec. 14, 1959, the Military Air Transport Service directed the AWS to set up an operational numerical (computer) flight plan system—AWS had previously tested such a system.

* On July 8, 1959, the first two weather squadrons (the 7th at Heidelberg, Germany, and the 16th at Ft. Monroe, VA, were activated for the exclusive support of the U.S. Army.

Col. (Brig. Gen.) N. L. Peterson (1958) (1959 - 1963)

(Maj. Gen. Harold H. Bassett (above) assumed Air Weather Service command from Colonel Peterson in 1958 and then returned the command to him (now Brigadier General Peterson) in 1959)

* 1958 On June 23, AWS moved to Scott AFB, IL. Air Force, on Oct. 22, made AWS responsible to provide weather support to the U.S. Army and to provide, install and maintain weather equipment at Army installations. Army was tasked to provide communications to support weather needs.

* 1960 AWS' first AN/TMQ - 11 temperature-humidity sets were installed. TIROS-I, the world's first weather satellite, was launched April 1.

* 1961 On Nov. 1, AWS' Kansas City Centralized Forecast Facility issued the world's first official clear air turbulence forecast. AWS sent the first 23 weather men to Vietnam between Dec. 27-29. On Aug. 28 the first Continental U.S. Meteorological Teletype (COMET) System was implemented. In October AWS issued its first solar forecast.

Brig. Gen. Roy W. Nelson Jr.

(1963 - 1965)

* 1963 The Joint Chiefs of Staff agreed to develop weather support concepts for the Worldwide Military Command and Control System (WWMCCS) on April 2. On Aug. 20 the 3rd Weather Wing, Offutt AFB, NE, received the first operationally ready automatic picture transmission (APT) weather satellite readout.

* 1964 Washington, DC's Climatic Center was redesignated as the Environmental Technical Applications Center on Dec. 15.

* 1965 On July 1, the Automated Weather Network (AWN) opened to link Fuchu AS, Japan; RAF High Wycombe, UK; and Global Weather Central with Tinker AFB, OK, switch. On Sept. 10, the first Defense Meteorological Satellite Program satellite was launched.

Col. (Maj. Gen.) Russell K. Pierce Jr.

(1965 - 1970)

* In 1965, AWS' mission gained weather modification and, on Mar. 31, 1966, the command concluded its first operational test of cold fog dissipation using dry ice with tethered balloons. The test results were considered inconclusive.

* 1966 AWS' Southeast Asia organizations grew from a squadron to a group with three squadrons on July 8. On Oct. 7, Air Force approved establishment of the Air Force Global Weather Central and installation of advanced computers there.

* 1968 March 4, during a mortar attack on Ban Me Thout, SSgts. James C. Swann and Edward W. Milan became AWS' first Vietnam War casualties. Carswell AFB, TX, became the hub of the AWS weather network when the Automated Digital Weather Switch or ADWS became operational.

Brig. Gen. William H. Best Jr.
(1970 - 1973)

* 1970 Responsibility for the Military Airlift Command computer flight plan function shifted from Suitland, MD, to the Air Force Global Weather Central on Aug. 1. On Nov. 3, the automatic response to query or ARQ System became operational at Carswell AFB, TX's automated digital weather switch.

* 1971 On Nov. 1, AWS launched a Centralized Terminal Forecast Program. The program led to issuing terminal forecasts for all U.S. units from the Air Force Global Weather Central.

* 1973 On March 3, the last AWS unit in South Vietnam (Detachment 1, 10th Weather Squadron, Tan Son Nhut AB) was inactivated.

Brig. Gen. (Maj. Gen.) T. A. Aldrich
(1973 - 1974)

* 1973 In December, Sgt. Vicki Ann Esposito, a dropsonde operator, became the first female weather reconnaissance crewmember in Air Weather Service History. In October, at Elmendorf AFB, AK, a liquid propane cold fog dissipation system became operational. On Dec. 1, Palace Weather, a concept for management of weather officer personnel actions from Randolph AFB, TX, came into being. Three years later Palace Weather included enlisted weather people as well.

* 1974 Air Weather Service launched a program to qualify enlisted people as observers and forecasters by the 1980s.

Col. (Maj. Gen.) John W. Collens (1974 - 1975)

* In line with extensive Air Force-wide drawdowns of personnel, which began years earlier and continued year-be-year, Air Weather Service's aerial photomapping mission was withdrawn on Jan. 1, 1975.

* On July 1, the first of five planned AN/FMQ-7 solar optical telescopes became operational. It is located at Palehua, HI.

* On Sept. 1, 1975, operation of the aircraft used by weathermen for reconnaissance and residual aerial sampling shifted to the Aerospace Rescue and Recovery Service.

* In the fall of 1975 MSgt. (SMSgt. select) Forrest E. Gray became AWS' first official enlisted detachment commander. He took command of the detachment which serves Ft. Leonard Wood, MO.

Col. (Brig. Gen.) Berry W. Rowe (1975 - Present)

* Deactivation of Detachment 30, 1st Weather Wing, U-Tapao RTNAS, Thailand, June 7, 1976, allowed AWS withdrawal from involvement in Southeast Asia. During the 13 years the U.S. was in combat there, four AWS men were killed in action. Its units earned seven Presidential Unit Citations, eight Republic of Vietnam Gallantry Crosses with Palms, 50 campaign streamers, 16 Air Force Outstanding Unit Awards (AFOUA) and 10 AFOUAs with "V" devices.

* USAFETAC relocated to Scott AFB, IL, Aug. 30, 1976.

* On July 1, 1976, the Continental U.S. Meteorological Data System became operational.

* On Sept. 1, 1976, Air Force Global Weather Central began issuing Mission Success Indicators for aerial refueling operations.

* On Mar. 1, 1977, CWO Billy G. Hance's retirement completed AWS' part in the USAF's Warrant Officer Program.

* In September 1976 a new generation of Defense Meteorological satellites, the Block 5D, was introduced (launched). Ten months later, in June 1977, a second 5D was launched. The 5D provides improved meteorological support.

Editor's note: I extend a special thanks to the three men, all original members of the weather function established on July 1, 1937, for having sent their memories of the times for us to share with them. The events which today cause us to marvel were, to them, routine. The people who, in varying degrees, have many of us in awe, to them were friends. They set the pace and laid the foundation of what Air Weather Service is today—a pace which grows faster and a foundation which grows more solid. . . . .DFB.

SAVE

HEADQUARTERS
8th WEATHER SQUADRON
GREMIER FIELD + MANCHESTER, N. H.

File No.

Dear Mr. Barr:

Reference is made to your letter of May 5, 1976 regarding memories of the time when the Air Weather Service was organized, July 1, 1937.

I sent you a preliminary reply saying that at that time I was in the throes of preparing to be married six days later, on my birthday, July 7, 1937, and didn't remember too much about the birth of the AWS.

However, I have been doing a little reminiscing about those times, and am sending along the following information for what it is worth.

To begin with, one has to put things in proper perspective in order to appreciate the way it was on that historic date 40 years ago. Aviation, as compared to the 1970s was in its infancy, even though airplanes were used as far back as WWI. Civilian air service in the early '30 was mainly air mail. Passenger service was limited and erratic, and weather and mechanical delays made flying more an adventure than a smooth operation . . . so much so that the Allegheny Mountains were referred to as the "Aviator's Graveyard." Military aviation . . . that is, the Army Air Corps, a part of the Army . . . was divided into Pursuit, Attack, Bombardment and Observation units. Missions were limited in scope, and anything beyond three miles at sea was Navy turf.

Prior to July 1, 1937, the weather service was assigned to the Signal Corps, and consisted of not more than four or five enlisted men at a few stations, who made occasional surface observations and radioed the reports to a few other stations. There were only three or four Signal Corps weather officers, and no weather forecasts. If you were on a cross-country flight, which was seldom, you flew with little or no knowledge of what the weather was ahead. If the clouds and the ground met before you reached your destination, you had two choices: pick out a suitable open space and land to wait until the weather cleared, or do a one eighty and return from whence you came.

"Cold fronts" and "warm fronts" were practically unknown, and no wind, temperature, icing condition or other data were available in or above the clouds. It was a cardinal principle in flying never to let yourself get caught above the clouds. There were practically no aids to navigation . . . airborne or on the ground. Crane and Ocker, old Air Corps pilots, had published a little booklet on "Blind Flying," based on the "ball and turn indicator," but very few pilots know how to "Fly Blind." In fact, our navigation course at Langley Field in 1934, made up of supposedly experienced Army pilots, was suspended in order to teach us how to "Fly Blind." No one in our class knew how.

This was a most fortunate development for me, because shortly after completing the course I was sent to MIT to take the course in meteorology and fly the weather ship every other morning at 6 a.m. before classes. This, of course, involved a lot of "blind flying." At that time, MIT was the only organization doing this type of upper air research in the United States. The Weather Bureau established several APOB stations the following year. Incidentally, because the term "blind flying" had an unsavory connotation, it was later changed to "instrument flying."

In the early 1930s, as the Army got more planes and pilots, there followed an alarming increase in aircraft accidents. Investigations of these accidents revealed a basic lack of weather information, trained weather personnel to provide it, and pilots trained to fly in bad weather. At this time, the early 1930s, MIT was organizing meteorological courses in Professor Hunsaker's Aeronautical Engineering Department. Professor Rossby had been brought in to head this division, having recently completed the establishment of a "Model Airway" in California between San Francisco and Los Angeles. MIT was doing upper air research with its airplane piloted by Professor Dan Sayre, of the MIT Aeronautical Department, and Hank Harris (Harris Hill for gliding events in Elmira, NY, is named for him) of the Massachusetts National Guard, stationed at East Boston Airport.

Professor Hunsaker, having noted the rise in Army aircraft accidents, went to General Westover, then Chief of the Air Corps, with a proposal . . . free tuition in the met. course for one or two Army pilots, in return for an Army airplane, including gas, maintenance, etc . . . to be flown by these pilots to make daily airplane weather observations (APOBs), up to altitudes of 20,000 to 21,000 feet.

I was selected to take the course and fly the plane, beginning Feb. 4, 1934. Harris continued to fly the plane on alternate days but he did not take the met. course. Bob Losey and Perry Wainer were sent about the same time to take the met. course at California Institute of Technology, but they did not have to fly any APOBs. Incidentally, MIT and CIT were the only places where met. courses were given at that time. The only other Air Corps officers who had ever taken met. courses were Pinky Williams, a lighter-than-air type, who finished the course at MIT in 1930, and Lt. Curcio, who was killed soon thereafter in an aircraft accident on the West Coast (due to weather). Pinky Williams was the true father of the Air Corps Weather Service, and established the first real Air Corps weather station at Langley Field around the mid-1930s.

An interesting insight into the condition of the Air Corps at this time (early 1934) was the decision by President Roosevelt to cancel the air mail contracts held by the commercial airlines, on charges of collusion, and turn the job over to the Army Air Corps. The Air Corps started flying the mail about Feb. 19, 1934, and immediately ran into trouble . . . and tragedy. The winter was severe, and record low temperatures established then still stand. As an example: At Blue Hill, Mass., near Boston, minus 19 degrees in December, 1933, and minus 21 degrees in February, 1934, were recorded.

By the end of March, twelve pilots had been killed in crashes due to a combination of bad weather, little or no blind flying training, and poor navigation aids. Screaming headlines carried the news to every corner of the nation.

I had started flying the weather ship at Boston in an F1-A on Feb. 4, 1934. This was a high wing monoplane built for photographic work. I wore a face mask with two tubes, one attached to a pot of liquid oxygen lying on the cabin floor behind me, through which I breathed the pure, cold, boiling, vaporized oxygen. Through the other tube I exhaled, and by the time the flight was over there was an icicle hanging down from this tube, reaching into my lap, formed by the frozen moisture in my breath. There was no cabin heat.

The F1-A plane had no directional gyro or artificial horizon when I started these flights. Blind flying, and there was plenty of it on these weather flights, was by turn and bank indicator only. So, after several scary flights, I wrote the chief's office and requested installation of better equipment. The work was approved for installation at Middletown Air Depot, PA, and when I flew the airplane in there, I was amazed to find the field full of airplanes.

On questioning Lt. Ross as to what was going on, he told me that the planes were in for installation of directional gyros, horizons, radios, etc . . . in order to fly the mail. But, to meet orders and deadlines, this equipment was being installed in the most out of the way locations in the cockpit, and was going to be very difficult to use when needed. I questioned Ross about this, and he said, "We got our orders to get the equipment in and get the planes out, regardless." So it was little wonder that tragedies occurred in those cold winter days of early 1934. I did not get my weather ship back for flights at MIT until late in March. This was low priority stuff. So this was the general situation in the old Army Air Corps, as I remember things on July 1, 1937, that forced the development of an adequate weather service, better equipped airplanes, more sophisticated navigation aids and sound pilot training in instrument flying.

Well, after completing the courses in June, 1935, I was sent to Barksdale Field, and Bob Losey to March Field. We set about building a weather station and forecasting service, recruiting local Air Corps enlisted men and giving them on-the-job training. Ernie Fawbush, later famous for the Fawbush-Miller procedures for severe weather forecasting, was one of our star recruits at Barksdale. Weather courses for enlisted men at Chanute Field had not yet been established. Don McNeal was to head this department, first at Patterson, then later at Chanute.

In those early days, building the service was a very slow process. There was no table of organization for a weather station, though Pinky Williams was working on this at Langley Field, trying to organize a model station. Consequently there were few, if any, promotions, so why stay in weather if you wanted to get ahead? Actually, promotions in the whole Air Corps were very slow, due to the "hump" from WWI . . . the large numbers of personnel from WWI still in the service, with vacancies seldom opening up for promotion. After all, the only general in the Air Corps was the Chief of the Air Corps—and he was a brigadier.

At Barksdale I was still a first lieutenant running the weather station in early 1936. The base C.O. (Colonel Goolrick) took pity on me, gave me additional duties as an armaments officer, for which there was a captain vacancy, and sent in the promotion recommendation to Washington for approval. The reply came back with the nasty comment that the Air Corps was not spending money and time to train badly needed weather officers, only to have some dumb C.O. in the field try to turn them into armaments officers. Needless to say, my promotion was disapproved.

In June 1936, seven more trained weather officers joined the service: Bob Beebe, Tony Mustoe and Torgils Grimkels Wold from MIT, and Hunt Bassett, Don Zimmerman and Leon Johnson from CIT, making a total of ten Air Corps weather officers. They were stationed at seven Air Corps fields, all in the United States, and in the chief's office. There were no weather officers at the three foreign duty stations—Hawaii, Panama and the Philippines. In June, 1937, six more Air Corps officers graduated from the met. courses, three from MIT and three from CIT.

Thus, on July 1, 1937, when the weather service was born, there were only sixteen Air Corps weather officers, all rated airplane pilots, except Pinky Williams, who was a balloon pilot. They were joined by six Signal Corps weather officers as of that date. Also, of course, there was a cadre of excellent enlisted men, some transferred from the Signal Corps, others recruited from within the Air Corps and given on-the-job training. Only the best of the Air Corps men were selected for this duty.

So the Army Air Corps Weather Service started out on July 1, 1937, as a small group of highly motivated people. We all knew each other and our morale was high, for we each had an important and interesting job to do.

Furthermore, I had been assigned to Germany in the summer of 1934 to visit Germany's upper air APOB stations, including Wasserkuppe, where Hitler had begun the training of the cadre of the German Luftwaffe. And in 1936 Torg Wold and I were in Germany on leave, after touring much of Europe by auto. It was evident to us then that Germany was preparing for war. So our mission in building a military weather service was not only an interesting challenge, but a deadly serious one. So that's the way it was when the Air Weather Service was born on July 1, 1937.

Yours sincerely,

Arthur F. Merewether

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