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2WW receives 4th AF Outstanding Unit Award

Gen. Thomas M. Ryan Jr., Commander in Chief Military Airlift Command, announced April 12 that 2nd Weather Wing has been selected to receive the Air Force Outstanding Unit Award for the period from July 1, 1982 to June 30, 1984. Second Weather Wing had previously been awarded the AFOUA for the periods of Jan. 1, 1968 to Dec. 31, 1969; June 1, 1972 to June 30, 1974; and July 1, 1975 to June 30, 1977.

"I congratulate all the men and women of these outstanding units and extend my appreciation for a job well done," said General Ryan. "Each unit can take great pride in the accomplishments which led to their selection." Second Weather Wing was one of 17 MAC units to receive the AFOUA for 1984.

The 2WW qualified for the award by sustained outstanding service to the United States European Command and its components. Those components include the air and ground commands of NATO: European elements of MAC and the Strategic Air Command; and European deployments of forces assigned to the Tactical Air Command and Readiness Command.

The more than 650 men and women of 2WW were located at 58 geographically separated units throughout Europe, giving total Air Force weather support for all U.S. air and ground combat forces within the USEUCOM theater. They repeatedly demonstrated the capability to effectively respond to demanding scenarios spanning a continuum from quick reaction contingency deployments to routine exercises under field conditions.

The ability of 2WW to effectively respond to demanding scenarios resulted in sustained emphasis on readiness and maximum participation in exercises.

Through a combination of U.S. unilateral, bilateral and NATO exercises, 2WW personnel deployed from north of the Arctic Circle to the far reaches of eastern Turkey. Second Weather Wing expended more than 11,000 mandays during the two-year period ending in June 1984.

Foreign sounding names like WINTEX, AUTUMN FORGE, CRISEX, REFORGER, AVALANCHE EXPRESS, ARID FARMER, and CENTRAL ENTERPRISE have become household words as 2WW personnel honed their wartime skills during rigorous field training and command post exercises designed to simulate a wartime environment.

Real-world contingencies frequently challenged wing personnel. In each case, 2WW responded professionally and provided outstanding support. During ARID



(Photo reprinted from the "Sentinel")
SSgt. Brik Blackford discusses radar observation with Sgt. Eric Diaz at Det. 8, 31WS, Zweibrucken AB, Germany. Detachment 8's FPS-77 became fully operational last summer.

FARMER, 2WW deployed personnel, with only two hours advance warning, to establish a weather support force of eight people. Operating under very austere conditions, they quickly set up and provided effective weather support to the deployed TAC, SAC and MAC forces.

Because of its strategic location, 2WW became the key interface in the

formidable task of getting tailored meteorological information and essential satellite imagery to forward deployed locations in several CENTCOM operations.

Maximum efforts such as the 8,000 sorties scheduled during the five-day CENTRAL ENTERPRISE 84 typify the intensity of the training efforts within the USEUCOM theater.

A powerful voice for AF people, AFA membership drive on now

by Gen. Thomas M. Ryan Jr.
Commander in Chief
Military Airlift Command

On April 22, the Air Force Association kicked off this year's annual membership drive. The AFA is an organization made up of over 220,000 officers, NCO's, Airmen and civilians dedicated to improving the quality of life for Air Force people and in promoting aerospace power. They speak with a powerful voice for the needs of the Air Force, both in Washington and throughout the country.

Some of the recent people-oriented issues the AFA has supported include: pay increases, enlistment bonuses, extension of the GI Bill and retention of the commissary system. Current initiatives include: dental care for dependents, improved survivors benefit plan, increased per

diem allowances and stronger congressional support for our armed forces.

Additionally, the AFA is our foremost advocate of strengthening our national defense resources. The cruise missile, B-1 bomber, MX missile and, most recently, President Reagan's Strategic Defense Initiative, are a few of the major weapon systems the AFA has supported. Within MAC, the AFA is advocating production of the C-17, expansion of our Civil Reserve Air Fleet and the enhancement of our aging command and control systems.

We are indebted to the AFA for its outstanding accomplishments. During the next few weeks, those of you who are not already members will have the opportunity to join this worthwhile association. By becoming a member, you will be assisting the AFA in its efforts to enhance America's aerospace defense.

Effective use of limited resources and sound application of meteorology to enhance weapons employment characterized the 2WW management style and its efforts toward increased readiness by the NATO alliance.

Second Weather Wing led the field in the practical application of weather support for electro-optical weapons systems and actively set the pace within Air Weather Service in this critical support area.

Always mindful of its prime mission as a military meteorological organization, 2WW vigorously pursued technical excellence. It established a European Theater Weather Orientation course, designed to orient new forecasters to the weather and meteorological products they would encounter during their tours in Europe.

Second Weather Wing initiatives were instrumental in the effective completion of important European force modernization efforts. Particularly significant were the efforts in support of the Ground Launched Cruise Missile and Pershing II deployments. Weather was a key factor in each Pershing II movement, and USAREUR credited 7th Weather Squadron support with being the key to the successful missile deployment.

Wing personnel also provided vital weather inputs to an Air Force Chief of Staff-directed program designed to train allied and national battle managers in how to fight a European war. The project, USAFE's Warrior Preparation Center, is a one-of-a-kind initiative using computer-assisted battle scenarios that required specially tailored weather inputs.

In the letter recommending 2WW for the fourth award of the AFOUA, Brig. Gen. George E. Chapman, said:

"The 2WW initiated actions to increase the combat effectiveness of U.S. military forces in Europe. Combat readiness was repeatedly demonstrated in a host of real-world contingencies and major U.S. and NATO exercises.

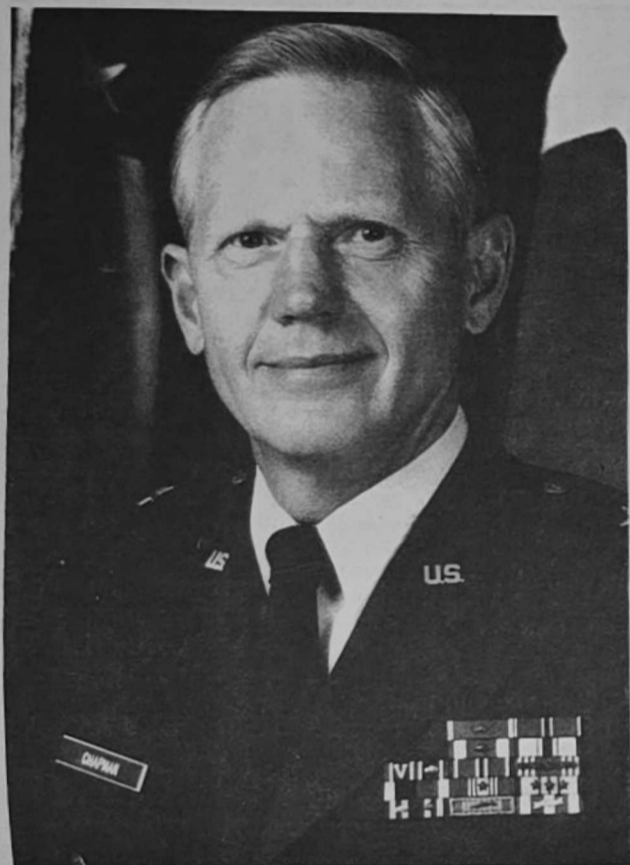
"A remarkable degree of success was consistently achieved on a wide front — a total team effort from the wing headquarters to the smallest operating location.

"The 2WW has proven by sustained superior performance in a demanding European environment that it is fully deserving of the Air Force Outstanding Unit Award."

All personnel assigned to 2WW and its subordinate units any time during the period of award are entitled to wear the AFOUA ribbon. For more information or to verify eligibility, contact your local CBPO.

Command Line

'An Idea Whose Time Has Come'



Brig. Gen. George E. Chapman
Commander

Back in 1943, Colonel Joe Duckworth, stationed at Bryan Field in Texas, heard that a hurricane was approaching the coast of Texas near Corpus Christi. He talked to his Navigator, Lieutenant Colonel Ralph O'Hare, and they decided to have a look at the eye of a hurricane — in an AT-6 aircraft!

When they returned from their flight and debriefed the weather officer, Lt. William Burdick-Jones, he expressed disappointment at not having been along. It is reported that Duckworth took off again, this time with Burdick-Jones in the back seat, and penetrated the eye of the hurricane a second time. Many think this marked the beginning of the Aerial Reconnaissance Weather Officer (ARWO), that has proven of such great value to Air Weather Service in the last 40 years.

I think we are at the threshold of another pioneering step — weather observations from the Space Shuttle.

In February of 1985, the Commander in Chief, Military Airlift Command, General Thomas M. Ryan Jr., suggested in a letter to the Honorable James M. Beggs, Administrator, NASA, "...it is time to consider putting an Air Force meteorologist on board a shuttle flight by the end of 1986." We see it as an opportunity to test the feasibility of taking meaningful weather and space observations by a manned observer, comparing those observations with data derived from

meteorological satellites to determine their complementary value, assessing the potential of using a full-time weather forecaster aboard a future space station to support ground and space observations, conducting solar and space environmental studies, and testing new remote sensing instruments.

On March 27, I had the opportunity to represent General Ryan and brief Mr. Beggs and his staff on our proposal — support was received — and we are now on the road to having an Air Weather Service person on board a shuttle flight in 1986 or 1987 — perhaps both.

We will now continue our coordination with the Air Force Systems Command's Space Division, the Air Force Executive Manager for this program, as we refine our plans, zero in on our shuttle launch date, and begin screening our people to find the right candidate. We will give our people an opportunity to volunteer — and we will spell out the qualifications, but that point is still a few months off.

I look upon this opportunity as another exciting frontier for AWS — an idea whose time has come. The payoff to the DOD and the Nation, through improved understanding of our weather — in space and in our atmosphere — will rival and someday surpass the advances we made with the ARWO and the weather satellite observations.

Chief's Comments *Spring — A Winter's Dream*

The birds, the flowers, the blossoms on the trees, and the fresh air after the rain — yes, spring has arrived at last.

We can shed those overcoats, put on those spring clothes and be comfortable again. Sounds great!

But with spring comes outdoor activities and with outdoor activities come what — you're right — injuries.

We don't always keep ourselves in the best of shape during the winter. We add a pound or two here and there, our muscles get a little soft, and our stamina has decreased to 3 minutes of jogging.

This seems to cure itself when the thermometer first hits 70 degrees. Dressed in a new pair of "new running" shoes and a designer's running outfit, out the door we go to break a 4-minute mile.

After two minutes of jogging, we give up on breaking that 4-minute mile. We're just trying to get the energy to make it back home.

The next day we see the results — blisters on the toes (should have broken in those shoes) — shin splints (I never had those last year) — and the question, "why am I so sore?"

We always surmise that next year will be different. We will break in those new shoes, learn to walk before we run and increase our

endurance slowly.

What happens the next year? The same thing — we end up with blisters and sore muscles — sometimes it's broken bones.

We know what we should do, but every once in a while when we let our guard down, wham — it hits us.

Reminds me of the guy opening his garage door one morning. He unlocked the door and lifted the door upward, stronger and faster than normal. As the door went up, pressure was applied by a very large spring to keep it from going through the other side of the garage. The spring pressure pushed the door back down at almost the same speed as it went up. Only one minor detail — that guy was now standing beneath the door.

Results: Four stitches in the forehead and a permanent scar not to mention the painful embarrassment. I know, because that guy was me. Actually, I was lucky compared to the others who have done the same thing in the past. Some lost fingers, eyes and teeth.

Yes, spring is here and you have survived another winter. Some of you have weathered the MAC MEI, others have spent many days TDY on exercises or schools, and all of you have done an outstanding job.

Our manning has increased to the point



CMSgt. Charles T. Melson
Senior Enlisted Advisor

where summer leaves can be taken, allowing you to get that long awaited rest — that break away from the day-to-day work schedule. Don't ruin your vacation or cut your summer short by an injury. Remember to think SAFETY all the time — don't become a gotcha.

Brig. Gen. George E. Chapman
AWS Commander

TSgt. Michael T. Devine
Editor

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A lesson
from history

Capt. Randolph P. Williams, the 'Father' of AWS

by John Fuller

Capt. Randolph Piersol Williams is recognized as the father of AWS for his behind-the-scenes spadework in the mid-1930s to transfer the Army's Meteorological Service from the Signal Corps to the Air Corps.

Born in Baltimore, Md., Williams attended the U.S. Military Academy from July 1916 until November 1918 when he was commissioned as a second lieutenant. His was the second class to graduate from West Point in that last year of World War I.

After a succession of assignments with the engineers, Williams was transferred to the Air Corps Balloon and Airship School at Scott Field, Ill., in September 1925. Upon earning his wings, he soon became an instructor at the school. Because of his thinning, light-red hair, he was called "Pinkie" by his friends and associates.

With the emergence of the Bergen school of air mass analysis, it was a golden age for the science of meteorology. But the new theories were almost totally shunned by the orthodox within the Weather Bureau and the Signal Corps.

Thus, in 1926, the Signal Corps turned aside an overture by the navy's talented and perceptive Lt. Francis W. ("Reich") Reichelderfer that the Army join with the Navy to crank up a full-fledged university post-graduate program in meteorology. Fortunately, Reich was farsighted enough to push the teaching of air mass analysis at a university's post-graduate school. First at Harvard in 1927; and then, starting in September 1928, as a full-year's curriculum in meteorology at the Massachusetts Institute of Technology. Lead instructor was Reich's good friend, the energetic Carl Gustav Rossby, and Hurd H. Willett as an assistant.

It was not surprising, therefore, that it was an Air Corps, rather than a Signal Corps officer who because the first to complete post-graduate study in meteorology while serving in the Army. As a first lieutenant, Pinkie Williams enrolled as a student in aerology at the Navy's post-graduate school at the Naval Academy on July 9, 1928. With basic meteorology behind him, he began post-graduate work in meteorology at MIT in Sept. 1929 under Rossby. He was the star pupil in Rossby's second graduate school class that finished in 1930.

Following graduation from pilot training at Kelly Field in 1933, Williams' weather duties at Langley were fortuitously interrupted for nine months beginning in March 1935.

Typical of moribund promotions in the regular Army between the wars, Williams spent more than 14 years as a first lieutenant.

Designated as the alternate pilot, and meteorological officer for the mission, he marshaled the behind-the-scenes ground support for the record-setting stratospheric balloon flight from Rapid City, S.D. on Nov. 11, 1935.

Co-sponsored by the National Geographic Society and piloted by his good friend Capt. Orvil A. (Andy) Anderson, the world's largest balloon, "Explorer II" reached an altitude of 72,395 feet.

Anderson, Capt. Albert W. Stevens who was the co-pilot and commander of the flight, and Williams were the Air Corps officers in charge of the flight.

Surface and upper-air winds were critical. Cloudless skies and excellent visibility were required to facilitate Stevens' picture taking. He took the first pictures of the earth's curvature.

For the almost perfect weather required for the flight, Williams was in charge of a special eight-man weather station set up at the launch site. It was manned by Air Corps and Signal Corps weathermen and by Mr. V. E. Jakl of the Weather Bureau's Kansas City office. Jakl and Signal Corps Sgt. William F. Bernheisel, were the chief forecasters for the flight, expending countless



(Photo used with permission of the National Geographic Society)

Pictured with the "Explorer II" gondola at the launch site near Rapid City are, left to right, Capt. Orvil A. Anderson, Albert W. Stevens and Randolph P. Williams.

hours pouring over weather maps each month.

When "Explorer II" finally lifted off, after numerous postponements due to weather, Williams piloted one of the five chase planes used.

Not only did the work of Anderson, Stevens and Williams capture headlines around the world, but also the eye of the ranking airman, Brig. Gen. Oscar Westover, acting chief of the Air Corps. When Anderson and Stevens were called to the White House to be personally congratulated for their flight by President Franklin D. Roosevelt, Westover and the new Army chief of Staff, Gen. Malin Craig, accompanied them.

By then, a move Williams spearheaded had been afoot for a couple of years at Langley. That was to transfer weather from the Signal Corps to the Air Corps, or at least beef-up weather in the Air Corps. When the GHQ Air Force was formed (at Langley in March 1935), its weather officer was Williams. The inadequacy of the Signal Corps Meteorological Service convinced him that the Air Corps should operate its own.

In a number of studies prepared in 1935 and 1936, he outlined in detail, the shortcomings of weather support as it then existed. He made various proposals with the needs of the GHQ Air Force in mind. As Williams saw it, there were two principle weaknesses of the meteorological Service. One was a lack of people. The other was a complicated organizational structure that fostered divided jurisdiction in the exercise of which the Air Corps, the principal user of the weather service, had little voice.

Unless something was done about the weather service, Williams emphasized that the Air Corps and GHQ Air Force could not be considered ready for war.

Thus, between July 1935 and December 1936, a series of proposals and counter-proposals were staffed between the Signal Corps and the Air Corps. At one point, before being scuttled by the Bureau of the Budget, it was proposed that the Weather Bureau operate the fixed (permanent) weather stations at 28 Air Corps bases. At another point, a

memorandum Williams drafted on behalf of the Air Corps became the manifesto for the modern-day AWS in that much of it was a plan eventually embodied in the Army Air Corps Weather Service.

The memo resulted in a decision by Secretary of War, Harry E. Woodring, to transfer the Signal Corps Meteorological Service to the Air Corps.

A letter to that effect, which was AWS' birth certificate, was signed on January 28, 1937, ordering the transfer to become effective on July 1, 1937. On that date, the 1st, 2nd and 3rd Weather Squadrons were activated at March, Langley and Barksdale Fields respectively.

Before the transfer took effect, the hand of the ubiquitous Williams was at work selecting the leadership for the new AAC Weather Service. He wrote Oscar Westover's deputy, Brig. Gen. Henry H. (Hap) Arnold, asking to be temporarily detailed from GHQ Air Force to Bolling Field to organize the Air Corps' new Weather Section and then return to Langley.

Williams recommended to Arnold that the Weather Section be headed by a fellow West Pointer and pursuit pilot who was then finishing a masters in meteorology at Cal Tech, 1st Lt. Robert Moffat Losey. Williams curiously took pains to point out to Arnold that "it is understood that he (Losey) has a private income."

Westover got the orders cut, and Losey reported for duty on June 28, 1937. Two days later, he officially became Chief of the Weather Section in the Training and Operations Division at HQ AAC. Losey, who was 28 at the time, is recognized as the first commander of the modern Air Weather Service.

In the interim, Williams summoned the handful of base meteorological officers to Langley for briefings on the soon-to-be AAC Weather Service. He also wanted to observe and question those few he did not know for their potential as possible commanders for the three new weather squadrons.

For instance, the base meteorological officer at Hamilton Field, 1st Lt. Harold Huntly (Hunt) Bassett, was one he did not know. Bassett's harrowing trans-continental flight to attend the meeting was itself an adventure, including part of the trip in an open-cockpit aircraft with a hand-operated landing gear system.

No one was more surprised than Bassett when he was tapped to become the 1st Weather Squadron commander. 1st Lt. Julius K. Lacey was given the 2nd Weather Squadron. Third Weather Squadron went to Capt. Leon W. Johnson. Two of these men, Lacey and Bassett, were destined to become major generals and the latter to be the AWS commander.

Captain Johnson, Williams' choice to head the Weather Section should Lacey be turned down, went on to earn the Medal of Honor for the Ploesti raid of 1943. Lacey later became the only ex-weather officer, either Air Force or Army, to wear four stars.

Captain Williams, who enjoyed a very favorable image with the GHQ Air Force leadership, did not serve long with the AAC Weather Service he sired. In September 1938, as a major, he was transferred from Langley and served as an instructor at the famed Air Corps Tactical School at Maxwell Field for two years. The Maxwell school was where most of the important studies and statements of air doctrine originated in the 1930s.

Williams was promoted to colonel in February 1942 and became commander of the Ninth Air Force's 84th Fighter Wing in France in February 1944. Just two months later he was reassigned as chief of staff of the Ninth Air Force's XIX Tactical Air Command, now under the command of the man he replaced at the 84th, Maj. Gen. Otto P. Weyland.

Less than six months later, on Sept. 5, 1944, Col. Randolph P. Williams was killed in action while on a photo reconnaissance mission over France.

Weather System's goal:

Clear sailing for the Shuttle

by Michael Lafferty
Today Staff Writer

With Space Shuttle launches and landings expected to become almost biweekly events, NASA and the Air Force have embarked on a multimillion-dollar program to improve weather forecasting and to increase the chances of local Orbiter landings.

The two-year \$2.7 million Meteorological Systems Modernization Program will create "a unique forecasting facility that doesn't exist anywhere else in the world," said Ray Cerrato, chairman of the program for Kennedy Space Center.

Scheduled for completion in May 1986, officials hope the new equipment will better forecast rain, lightning, wind, visibility and other factors that, unless prepared for, can delay a launch, landing or preparation of a Shuttle.

Until now, weather forecasting has been fairly accurate, officials said, but as Shuttle activity increases, the chances of making a forecasting error also will increase unless the system is improved.

To reduce the chance of error, advanced computers have been installed at the Air Force's Cape Canaveral Forecast Facility and devices to measure short-range, local weather conditions have been installed throughout NASA and Air Force-owned land.

While the military has a stake in improving forecasts for its own launch operations, officials are especially concerned with accurately predicting weather conditions for Shuttle landings.

"The real drive behind this whole effort is the increased landing opportunity at Kennedy Space Center," said Lt. Col. John Erickson, Chief of Staff Meteorology Section at the Cape's Air Force station.

"We want to develop a state-of-the-art system."

Shuttle launches eventually could peak at 24 per year, Erickson said, and each landing in California or New Mexico instead of at the Kennedy Space Center, or KSC, means the Orbiter has to be loaded atop a 747 jet and flown to Florida — creating an expensive set of delays.

Some estimates have put the extra cost of landing out West at close to \$1 million per trip.

"We prefer to come back home," Cerrato said.

Local landings may happen more often if increasingly accurate predictions of weather conditions give ground controllers the confidence to manipulate KSC landings by either delaying the Shuttle's return or bringing it back early, Erickson said.

Some of the weather criteria mission controllers consider when making launch or landing decision include:

Cloud cover. A Shuttle generally won't be launched if certain cloud

formations likely to produce lightning or rain are within five miles of the pad, Erickson said.

"We border on (one of) the highest lightning areas in the U.S. and one of the highest in the world during summertime," Erickson said.

Lightning also poses a danger to people working on or near the pad prior to a launch, especially during fuel-loading operations.

Launching when rain clouds are nearby is dangerous because rain can collect on the Shuttle and freeze. The ice can then crack and break insulating tiles that provide protection from the heat of re-entry.

A launch or landing is not attempted if clouds cover more than half the sky and visibility is less than seven miles, Erickson said.

Wind. Erickson said Shuttles are not launched if winds are steady at more than 23 knots (26 mph) or if gusts are higher than 34 knots (39 mph).

Landing conditions aren't considered safe if the Shuttle is heading into a wind greater than 25 knots (29 mph) or if there is a crosswind greater than 10 knots (12 mph).

Temperature. Launches generally won't take place if it's hotter than 99 degrees or colder than 31 degrees, Erickson said. Freezing temperatures delayed the recent launch of Discovery.

The modernization program is designed to give forecasters and ground controllers a better idea of whether any of the above launch or landing weather criteria should cause a delay.

Throughout the cape area a network of 16 slender towers as tall as 500 feet will be joined by nine temporary towers up to 30 feet. The new towers will measure wind speed and direction, temperature and atmospheric pressure, Erickson said.

The additional data from those towers can be useful in determining the likelihood of thunderstorms.

A "meteorological sounding system" will replace an old system and will track and process data from weather balloons that are released at regular intervals several days before a launch.

An advanced lightning location and warning system will help pinpoint storms within 120 miles and give a better idea of the potential for cloud-to-ground lightning strikes.

In addition, a weather radar was installed that can detect rainfall within 1/100th of an inch, which is important to NASA because of rain's "erosive effect" on tiles.

New weather information is beamed every 30 minutes from a satellite.

Once all the information from measurement devices is gathered, it's entered into an advanced computer system recently installed at the cape weather facility.

The computer is designed to combine the information and give detailed pictures of local weather conditions.

One of the biggest benefits, officials said, is that the system will tie-in with NASA and Air Force facilities throughout the country.

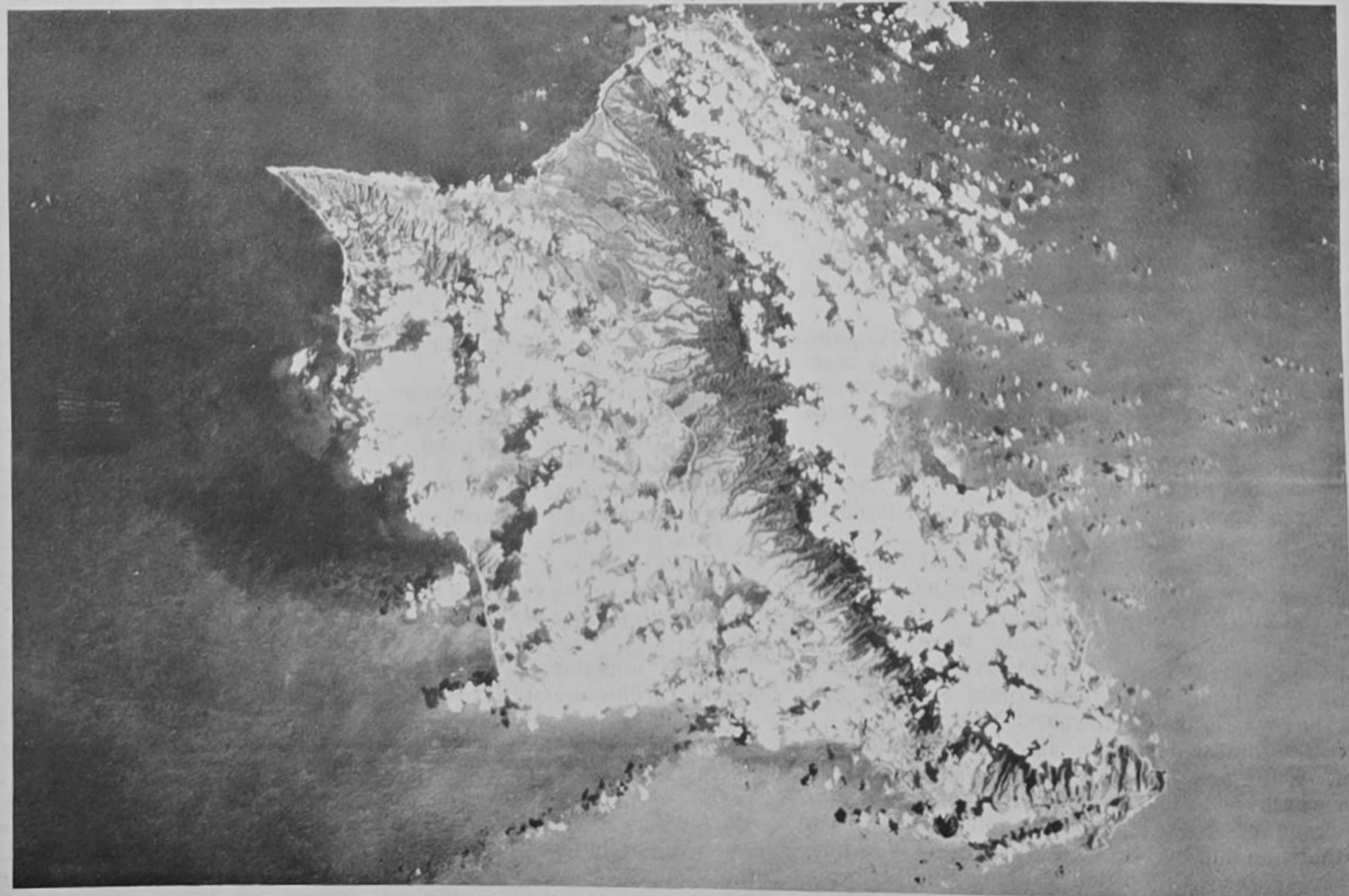


Capt. Bill Naus analyzes near real time GOES data.

Johnson Space Center controllers in Houston, who make landing decisions and assist in launch decision, will be able to see the same weather information used by forecasters here. Currently, weather reports generated here are described by voice to controllers in Houston, Cerrato said.

In addition to the modernization program, KSC officials also are considering the use of artificial intelligence — computers programmed with "expert knowledge" — to replace human forecasters in making weather predictions.

A prototype system may be developed later this year.



The island of Oahu, Hawaii. Significant features include orographic cloud formation over the island and cloud streets over the ocean, which indicate wind direction and wind shear around the island.

Looking at clouds from both sides

by Lt. Col. Edward M. Tomlinson
OL-F, HQ AWS, Los Angeles, Calif.

The maiden flight of the Space Shuttle Discovery carried an AWS sponsored experiment named CLOUDS. The experiment collected high resolution (30 meters) cloud photography using a 35mm camera with a 105mm F2.5 lens and high contrast black and white film.

The experiment was coordinated by OL-F, HQ AWS in conjunction with the Space Division Space Test Program. Maj. Jackie Kaneshiro, OL-A, Det. 50, 2nd WS, provided on-site support at the Johnson Space Center.

There were about 400 frames taken by NASA mission specialist Steve Hawley and virtually all were excellent.

The data will be used primarily by the Air Force Geophysics

Laboratory, but will be made available to NASA and the university research community for cloud studies. Primary uses for the data include cloud morphology, obliquity deweighting, cloud free line-of-sight and sky cover versus ground cover studies. Preliminary analysis of the data for obliquity deweighting evaluations indicate that the data is absolutely unique and excellent for this type of study.

Images over selected ground stations were collected at the nadir (vertical) look angle. Standard observations and limited all-sky photographs were taken at these ground sites. Additionally, series of images were taken of the same cloud fields from look angles ranging from the horizon to nadir. The imagery provides high contrast between the clouds, cloud shadows and backgrounds (primarily ocean).

CLOUDS was flown as part of a Quick Response Shuttle Payload effort arranged by the Space Test Program. This effort is designed to provide timely access to space for small DOD research and development experiments. CLOUDS was considered a secondary part of the shuttle payload.

The experiment will fly on several shuttle missions in 1985 with several additional flights planned for 1986. CLOUDS will expand to collecting data in two spectral bands in mid-1985. This enhancement will aid in the ability to distinguish cloud from background in automated, computer aided procedure.

The initial CLOUDS flight was an unqualified success thanks to the professional assistance of the NASA crew and the Space Test Program Office.

(Photo courtesy "Breuard Today.")



This photograph includes a line of towering cumulus, ocean cumulus, cirrus and a solar terminator.

terminator.

AWS Salutes

Medals

Meritorious Service Medal to:

Lt. Col. Richard J. Vogt (2 OLC), 20WS, Yokota AB, Japan; MSgt. William H. Miller (1 OLC), USAFETAC, Scott AFB, Ill.; MSgt. Gary E. Wicklund, Det. 5, 3WS, England AFB, La.; CMSgt. Charles Christopher, Det. 15, 30WS, Osan AB, Korea; Maj. Barry W. Halcrow, USAFETAC, Scott AFB, Ill.; TSgt. Robert A. VanVeghel, USAFETAC, Scott AFB, Ill.; Lt. Col. Joseph Wargo, HQ 7WW, Scott AFB, Ill.; CMSgt. Kenneth Hartless, HQ 7WW, Scott AFB, Ill.; MSgt. Danny Meade, Det. 4, 26WS, Loring AFB, Maine; MSgt. John A. Behnke, Det. 16, 25WS, Nellis AFB, Nev.; MSgt. Leonard L. Czepiel, AFGWC, Offutt AFB, Neb.

Air Force Commendation Medal to:

TSgt. Rudolph Williams (3 OLC), 20WS, Yokota AB, Japan; MSgt. Kenneth R. Sifford (1 OLC), Det. 5, 11WS, Ft. Richardson, Alaska; Capt. Mark Storz, Det. 15, 30WS, Osan AB, Korea; TSgt. Lawrence Lebsack, Det. 15, 30WS, Osan AB, Korea; SSgt. Sergio A. Rubio, AFGWC, Offutt AFB, Neb.; SSgt. Christopher Boozed, Det. 6, 26WS, Pease AFB, N.H.; Sgt. Kevin Forster, Det. 6, 26WS, Pease AFB, N.H.; SrA. Brian Ramsey, Det. 25, 31WS, Rhein Main AB, Germany; MSgt. Wayne Hill, Det. 14, 31WS, Hahn AB, Germany; MSgt. Martin Lucas III, Det. 1, 3WS, Shaw AFB, S.C.; TSgt. Benedicto Villamin, Det. 11, 2WS, Patrick AFB, Fla.; Sgt. Timothy S. Early, Det. 1, 15WS, Andrews AFB, D.C.; SSgt. Camelito Maquindag, Det. 9, 31WS, Comiso, Italy; SSgt. Rick Suggs, Det. 9, 31WS, Comiso, Italy; TSgt. Jefferey D. Tripe, USAFETAC, Scott AFB, Ill.; SrA. Todd M. McNamara, Det. 29, 30WS, Camp Humphreys, Korea; SSgt. Paula J. Reeves, Det. 3, 15WS, Charleston AFB, S.C.; TSgt. Russell Brown, HQ 7WW, Scott AFB, Ill.; TSgt. Joseph A. Schreff Jr., OL-A, Det. 2, HQ AWS, Ft. Ritchie, Md.; SSgt. Robert A. Bruce, Det. 18, 25WS, Mt. Home AFB, Idaho; SSgt. Pat H. Johnson II, Det. 18, 25WS, Mt. Home AFB, Idaho.

Army Commendation Medal to:

SSgt. Jerry L. Sanders, Det. 2, 3WS, Seymour Johnson AFB, N.C.; TSgt. Dicky I. Imai, Det. 3, 9WS, Fairchild AFB, Wash.; Maj. Cory R. Chadwick, 7WS, Heidelberg, Germany; MSgt. John G. Penhallegon, 7WS, Heidelberg, Germany.

Air Force Achievement Medal to:

Sgt. Magda Wold (1 OLC), Det. 2, 11WS, Eielson AFB, Alaska; SSgt. Marty J. Kaczmarek (1 OLC), Det. 11, 2WS, Patrick AFB, Fla.; SrA. Mark Fisher (1 OLC), Det. 15, 25WS, Luke AFB, Ariz.; Lt. Jeffrey M. Wilhelm, Det. 6, 3WS, Homestead AFB, Fla.; 1st Lt. Kenneth Carey, Det. 15, 30WS, Osan AB, Korea; SSgt. Howard Eaton, Det. 15, 30WS, Osan AB, Korea; Sgt. Cathy Brun, Det. 15, 30WS, Osan AB, Korea; Capt. Dan Dumont, Det. 1, 2WS, Wright-Patterson AFB, Ohio; 2nd Lt. Jean M. Bross, Det. 17, 20WS, Yokota AB, Japan; A1C Curtis P. Cote, Det. 17, 20WS, Yokota AB, Japan; MSgt. Daniel J. Michalewicz, Det. 3, 9WS, Fairchild AFB, Wash.; Sgt. John A. Newby, Det. 3, 9WS, Fairchild AFB, Wash.; A1C Sven Nelamiskies, Det. 16, 31WS, Zaragoza AB, Spain; SSgt. Henry Bergfeld, Det. 20, 31WS, Sembach AB, Germany; 1st Lt. George F. Ritz, Det. 4, 11WS, Ft. Richardson, Alaska; SrA. Craig A. Downs, OL-D, 7WS, Pirmasens, Germany; A1C Pamela S. Clark, USAFETAC, Scott AFB, Ill.; Sgt. Richard W. Osteen, Det. 19, 30WS, Camp Humphreys, Korea; SrA. Olga T. Sulak, OL-A, Det. 2, HQ AWS, Ft. Ritchie, Md.; SSgt. Paul F. Schirle, Det. 2, 20WS, Andersen AFB, Guam; SSgt. Sharyl M. Shoemaker, Det. 16, 25WS, Nellis AFB, Nev.; TSgt. Mary J. L. Bertrand, AFGWC, Offutt AFB, Neb.; Sgt. Arlene Neely, AFGWC, Offutt AFB, Neb.

Army Achievement Medal to:

SSgt. Edgardo G. Lambino, Det. 5, 11WS, Ft. Wainwright, Alaska; SSgt. William M. Schmeiser, Det. 5, 11WS, Ft. Wainwright, Alaska; SSgt. Rickey J. Murphy, 7WS, Heidelberg, Germany.

Promotions

To Colonel:

Douglas A. Abbott, USAFETAC, Scott AFB, Ill.; Francis Guiberson, AFGWC, Offutt AFB, Neb.; John Bradham, AFGWC, Offutt AFB, Neb.

To Lieutenant Colonel:

Carl Curatola, AFGWC, Offutt AFB, Neb.

To Major:

Denzil W. Miller, Det. 1, 3WS, Shaw AFB, S.C.

To Captain:

Michael Michel-Howell, Det. 1, 15WS, Andrews AFB, Md.; Frank Sornatale, Det. 1, 15WS, Andrews AFB, Md.; James L. Reardon, 20WS, Yokota AB, Japan; Don Rhudy, Det. 15, 30WS, Osan AB, Korea.

To Senior Master Sergeant:

Norbert G. Eakle, Det. 23, 17WS, Kirtland AFB, N.M.

To Master Sergeant:

Penny M. Heinen (STEP), HQ 7WW, Scott AFB, Ill.; Franklin C. Mullins, Det. 10, 25WS, Bergstrom AFB, Texas.

To Technical Sergeant:

Maurice Richardson, Det. 11, 17WS, McChord AFB, Wash.; Barbara K. Adams, HQ 7WW, Scott AFB, Ill.; Steven A. Lord, Det. 8, 20WS, Kadena AB, Japan; Roger D. Ritchie, USAFETAC, Scott AFB, Ill.; Donald A. Jarvinen, Det. 4, 11WS, Ft. Richardson, Alaska; Alan M. Rogers, Det. 9, 3WS, Tyndall AFB, Fla.; Pamela Mangham, Det. 9, 3WS, Tyndall AFB, Fla.; Billy Dorsey, AFGWC, Offutt AFB, Neb.; Alan Robb, AFGWC, Offutt AFB, Neb.

To Staff Sergeant:

Robert V. Wright Jr., Det. 10, 25WS, Bergstrom AFB, Texas; Gordon K. Chapman, Det. 22, 24WS, Keesler AFB, Miss.; William G. Heberline, Det. 15, 15WS, Wright-Patterson AFB, Ohio; Carole A. Roche, Det. 1, 7WW, Keesler AFB, Miss.; Stanley D. Smiddy, Det. 15, 15WS, Wright-Patterson AFB, Ohio; Denise Deeter, AFGWC, Offutt AFB, Neb.; Bradlee W. Townsend, Det. 11, 2WS, Patrick AFB, Fla.; Timothy W. Brock, Det. 11, 2WS, Patrick AFB, Fla.

Appointed to Sergeant:

Alan R. Ward, Det. 4, 26WS, Loring AFB, Maine; Tony Palmieri, Det. 11, 31WS, Spangdahlem AB, Germany; Michael Dore, Det. 19, 31WS, Incirlik AB, Turkey; Chuck Elford, Det. 19, 31WS, Incirlik AB, Turkey; Pamela Jones-Stevenson, Det. 1, 11WS, Elmendorf AFB, Alaska; Christopher Popp, Det. 1, 11WS, Elmendorf AFB, Alaska; Richard A. Carpenter, OL-A, Det. 6, 2WW, Bad Toelz, Germany; John H. Parish, Det. 2, 11WS, Eielson AFB, Alaska; Bruce A. Zeimer, Det. 16, 9WS, Dyess AFB, Texas; Charles W. Outlaw, 20WS, Yokota AB, Japan.

To Senior Airman:

Mark A. Sword (BTZ), Det. 20, 24WS, Laughlin AFB, Texas; Theresa Ciatola (BTZ), Det. 1, 31WSX, Bitburg AB, Germany; Irene Terrazas (BTZ), Det. 6, 3WS, Homestead AFB, Fla.; Suzette C. Adams, Det. 10, 25WS, Bergstrom AFB, Texas; Dave Minor, Det. 4, 26WS, Loring AFB, Maine; Karl S. Poff, Det. 2, 20WS, Andersen AFB, Guam; Lee E. Nations, 31WS/DA, Sembach AB, Germany; Molly A. Kreuzer, Det. 11, 1WW, Hickam AFB, Hawaii; Craig A. Downs, OL-D, 7WS, Pirmasens, Germany; David M. Deffely, Det. 4, 11WS, Ft. Richardson, Alaska; Ramalingam Rajaram, OL-I, 11WS, King Salmon Airport, Alaska; Glenn P. Zilkenat, Det. 2, 31WS, Ramstein AB, Germany; John A. Scalzott, Det. 23, 3WS, Moody AFB, Ga.; Jeffery Ohlman, OL-A, Det. 7, 7WS, Hohenfels, Germany; Peter C. Harper, OL-A, Det. 8, 26WS, Ft. Drum, N.Y.

To Airman First Class:

Andrew C. Henderson, Det. 14, 25WS, Holloman AFB, N.M.; Michael D. Weitzel, Det. 14, 25WS, Holloman AFB, N.M.; Mark T. Rinkus, Det. 23, 17WS, Kirtland AFB, N.M.; George T. Sammet, Det. 8, 20WS, Kadena AB, Japan; Neal F. Gottsacker, USAFETAC, Scott AFB, Ill.; James Murray, AFGWC, Offutt AFB, Neb.

To Airman:

Kyle J. Teeselink, Det. 13, 25WS, Davis-Monthan AFB, Ariz.; Stephen E. Sines, Det. 1, 11WS, Elmendorf AFB, Alaska; Gary C. Benton, Det. 11, 2WS, Patrick AFB, Fla.; George R. Comesanas, Det. 5, 3WS, England AFB, La.; Gail A. Roney, Det. 23, 3WS, Moody AFB, Ga.; Lorelei A. Duncan, Det. 6, 26WS, Pease AFB, N.H.; James E. Kerzwick, Det. 6, 26WS, Pease AFB, N.H.; Joseph T. Larocco, Det. 8, 26WS, Griffiss AFB, N.Y.

Unit Honors

MAC's Outstanding Senior Enlisted Administrator - Base Administration:

MSgt. Cullie Powell, 4WW, Peterson AFB, Colo.

Education

Squadron Officer's School:

1st Lt. Paul Lapointe, HQ AWS/CCE, Scott AFB, Ill.; 1st Lt. Thomas E. Coe, 7WS, Heidelberg, Germany; Capt. Dan Dumont, Det. 1, 2WS, Wright-Patterson AFB, Ohio; Capt. Cecilia A. Askue, Det. 2, 2WS, Hanscom AFB, Mass.

Senior NCO Academy:

SMSgt. Charles Newman, Det. 29, 17WS, Buckley AFB, Colo.; MSgt. Norbert G. Eakle, Det. 23, 17WS, Kirtland AFB, N.M.

NCO Academy Graduates:

TSgt. Randall W. Mayoi (Dist. Grad.), Det. 21, 9WS, Minot AFB, N.D.; TSgt. Terry W. Langey (Dist. Grad.), Det. 19, 30WS, Kadena AB, Japan; MSgt. Royce L. Hildebrand (Speech Award), Det. 5, 3WS, England AFB, La.; TSgt. Gregory A. Ramsay, Det. 2, 17WS, Travis AFB, Calif.; TSgt. Donald E. Ward, Det. 19, 15WS, Lajes Field, the Azores; TSgt. George G. Gombarcik, Det. 3, 9WS, Fairchild AFB, Wash.; TSgt. William R. Rhodes, Det. 5, 4WW, Palehua, Hawaii; TSgt. Philip S. Peteroski, AFGWC/WFPC, Offutt AFB, Neb.; TSgt. Robert F. Brooks, Det. 75, 7WW, Hurlburt Field, Fla.; TSgt. David L. Wyman, Det. 18, 25WS, Mt. Home AFB, Idaho.

NCO Leadership School Graduates:

SSgt. Paul A. Strickler (Commandant's Award), AFGWC, Offutt AFB, Neb.; SSgt. Mark P. Dasher (Dist. Grad.), Det. 23, 3WS, Moody AFB, Ga.; SSgt. Bruce A. Estabrook, Det. 15, 25WS, Luke AFB, Ariz.; SSgt. Rober E. S. Hinkson, Det. 10, 15WS, McGuire AFB, N.J.; Sgt. Stanley G. Murray, Det. 9, 7WW, Scott AFB, Ill.; Sgt. Gilbert A. Avila, HQ AWS/SYJ, Scott AFB, Ill.; SSgt. Richard Kalber, Det. 6, 4WW, Peterson AFB, Colo.; SSgt. Sheila A. Shaw, HQ 4WW, Peterson AFB, Colo.; SSgt. Tracy J. Boudreau, Det. 22, 24WS, Keesler AFB, Miss.; SSgt. Jerry Coward, Det. 22, 24WS, Keesler AFB, Miss.; SSgt. Emmett E. Barnes, Det. 22, 24WS, Keesler AFB, Miss.; SSgt. Jim Lynch, Det. 1, 11WS, Elmendorf AFB, Alaska; SSgt. Rita M. Anderson, AFGWC, Offutt AFB, Neb.

NCO Preparatory Course Graduates:

A1C David E. Wheeler (Levitow Award), 7WS, Heidelberg, Germany; SrA. Marilyn L. Lyes (Prof. Image Award), Det. 75, 7WW, Hurlburt Field, Fla.; SrA. Karl S. Poff, Det. 2, 20WS, Andersen AFB, Guam; SrA. Garth L. Getgen, Det. 1, 15WS, Andrews AFB, Md.; SrA. Harry W. Gerhardt, Det. 3, 3WS, Myrtle Beach AFB, S.C.; A1C Andrea Ringsrud, Det. 20, 31WS, Sembach AB, Germany; A1C Phil Watts, Det. 16, 31WS, Zaragoza AB, Spain; SrA. Vicky L. Donell, Det. 7, 31WS, Aviano AB, Italy; SrA. Martin R. Thompson, Det. 11, 1WW, Hickam AFB, Hawaii; A1C Terry L. Listenbee, USAFETAC, Scott AFB, Ill.; A1C Kevin K. Hatcher, Det. 1, 11WS, Elmendorf AFB, Alaska; SrA. Timothy Walters, AFGWC, Offutt AFB, Neb.; SrA. Barbara S. Van Meter, AFGWC, Offutt AFB, Neb.

Station Chief School:

MSgt. Duane Miller, Det. 8, 26WS, Griffiss AFB, N.Y.; SMSgt. Charlie A. Crisp, MSgt. Randy L. Peterson, MSgt. Michael A. Jimenez and MSgt. Erik Johnson, AFGWC, Offutt AFB, Neb.

Weather Technical Course:

SSgt. Berkley D. Bossard, Det. 20, 17WS, Little Rock AFB, Ark.; SSgt. Katherine A. Zupan, Det. 9, 7WW, Scott AFB, Ill.; A1C Robert G. Hauser, Det. 15, 15WS, Wright-Patterson AFB, Ohio.

Severe Weather Metsat Course:

SSgt. Cheyrl A. Cochrane, 9WS, March AFB, Calif.

Radar School:

SSgt. Richard L. Ellison, Det. 18, 25WS, Mt. Home AFB, Idaho; TSgt. Thomas Townsend, Det. 8, 26WS, Griffiss AFB, N.Y.

Solar Observing Optical Network Course:

TSgt. John E. George, Det. 5, 4WW, Palehua, Hawaii.

Observer Tech School:

AMN John B. Fry, Det. 20, 24WS, Laughlin AFB, Texas; AMN Gail Roney, Det. 23, 3WS, Moody AFB, Ga.

Jump School:

A1C Mark A. Sword, Det. 20, 24WS, Laughlin AFB, Texas.

AWS Salutes

Arctic Survival School:

A1C Robert J. Florian and A1C Kenneth P. Alarie, Det. 2, 11WS, Eielson AFB, Alaska; SSgt. David D. Cramblet, SSgt. Terry Stamey, SrA. David M. Deffely and A1C James J. Lavin, Det. 4, 11WS, Ft. Richardson, Alaska.

Master's Degree to:

Capt. Donna M. Wojtak, HQ 3WS, Shaw AFB, S.C. in Human Resources Management from Golden Gate University.

Associate Degree to:

SSgt. Russell H. Tomlinson, Det. 19, 30WS, Camp Humphreys, Korea, in Applied Science; TSgt. Joyce A. Canter, USAFETAC, Scott AFB, Ill., in Applied Science (CCAF); TSgt. Robert D. Ritchie, USAFETAC, Scott AFB, Ill., in Applied Science (CCAF); SSgt. Gary Hodges, Det. 23, 3WS, Moody AFB, Ga., in Meteorology; SSgt. David D. Cramblet, Det. 4, 11WS, Ft. Richardson, Alaska, in Weather Technology (CCAF); SMSgt. Richard H. Prewitt, Det. 1, 11WS, Elmendorf AFB, Alaska, in Applied Science (CCAF).

MAC's Outstanding Enlisted Administrator - Staff Support:

SSgt. Mary V. Kaiszewski, 31WS, Sembach AB, Germany.

MAC's Outstanding Civilian Administrator - Staff Support:

Jan C. McDaniel, Det. 9, 24WS, Maxwell AFB, Ala.

NCO of the Year for:

1WW — TSgt. Terry W. Langley, Det. 19, 30WS, Camp Humphreys, Korea; 31WS — TSgt. Ronald C. Mueller, Det. 11, Spangdahlem AB, Germany.

Airman of the Year for:

26WS — A1C Lynda C. Lambert (now at) Det. 10, 30WS, Kunsan, Korea.

Instructor of the Year (Chanute):

TSgt. Glenn Van Knowe, 3350th Tech. Tng. Group, Chanute AFB, Ill.

Civilian of the Year for:

9WS — Bill E. Nelson, Det. 1, Offutt AFB, Neb.

Enlisted Administrator of the Year for:

MAC and AWS — SSgt. Mary V. Kaliszewski, 31WS/DA, Sembach AB, Germany.

OJT Manager of the Year for:

Wright-Patterson AFB — SSgt. David A. Hendricke, Det. 15, 15WS.

Safety Officer of the Year for:

9WS — 2nd Lt. Laura J. Griest, Det. 17, Ellsworth AFB, S.D.

Safety Squadron of the Quarter for:

Grand Forks AFB, S.D. — Det. 15, 9WS (for Oct.-Dec. 84).

Junior Officer of the Quarter for:

30WS — 2nd Lt. Randy J. Pearson, 30WS, Yongsan, Korea; USAFETAC — 1st Lt. Keith H. North, Scott AFB, Ill.

Senior NCO of the Quarter for:

4WW — MSgt. Donald G. Marrington, Det. 7, Athens, Greece; 30WS — CMSgt. Charles T. Christopher, Det. 15, Osan AB, Korea.

NCO of the Quarter for:

2WW — SSgt. Brenda Frazier, Det. 14, 31WS, Hahn AB, Germany; 3WW — SSgt. Rick A. Suggs, Det. 1, 9WS, Offutt AFB, Neb.; 4WW — SSgt. Richard J. Kalber, Det. 6, 4WW, Peterson AFB, Colo.; 25WS — SSgt. Steven P. Dickey, Det. 13, Davis-Monthan AFB, Ariz.; 30WS — SSgt. Dale A. Llewellyn, Det. 18, Yongsan, Korea; USAFETAC — SSgt. Kathleen K. Shelton, Scott AFB, Ill.

Airman of the Quarter for:

Elmendorf AFB — SrA. Austin L. Conaty, Det. 4, 11WS, Ft. Richardson, Alaska; 4WW — AMN Francine T. McDonald, Det. 4, 4WW, Holloman AFB, N.M.; 5WW — A1C Martin Nugent, 5WW/WSU, Langley AFB, Va.; 3WS — A1C Brian Leib, Det. 32, MacDill AFB, Fla.; 5WS — A1C David W. Law, Det. 6, Ft. Lewis, Wash.; 9WS — A1C Jodi S. Hudson, Det. 16, Dyess AFB, Texas; 30WS — SrA. Scott A. Weber, Det. 15, Osan AB, Korea; 31WS — SrA. Tony Palmieri, Det. 11, Spangdahlem AB, Germany; USAFETAC — A1C Leon E. Knowles, Scott AFB, Ill.

Sustained Superior Service Award to:

Mrs. Betty Tully, Det. 2, 4WW, Sagamore, Hill, Mass.

Sustained Superior Performance Award to:

Elizabeth Mefford, USAFETAC, Scott AFB, Ill.

Quality Step Increase to:

Kathryn E. Marshall, USAFETAC, Scott AFB, Ill.

Heir Force

Christina Nicole to Capt. and Mrs. Kenneth F. Smith, OL-C, 31WS, Hellenikon AB, Greece; Justin Irwin to SSgt. Morris N. and Debbie Friedman, USAFETAC, Scott AFB, Ill.; Megan to A1C Robert and Charlotte Easley, Det. 8, 26WS, Griffiss AFB, N.Y.; Paul Andrew to SSgt. and Mrs. Robert J. Heise, Det. 2, 3WS, Seymour Johnson AFB, S.C.; Brittany Candace to AMN and Mrs. Joshua Dickson, Det. 5, 3WS, England AFB, La.; Kenneth Patrick to Capt. Dean C. and Lynda Register, USAFETAC, Scott AFB, Ill.; Christopher to Mr. and Mrs. Joel Reel, Det. 4, 26WS, Loring AFB, Maine; Candice to A1C and Mrs. Eric Apple, Det. 19, 31WS, Incirlik, Turkey; John Theodore to A1C John Theodore and Teresa Dressler, Det. 11, 1WW, Hickam AFB, Hawaii; Maggie Nicole, to SrA. Richard W. and Annette Nieman, Det. 8, 20WS, Kadena AB, Japan; Jody Michael to SSgt. Debora L. and Mike Howey, Det. 1, 5WS, Ft. Campbell, Ky.

Re-enlistments

SSgt. Bob Davidson, Det. 1, 3WS, Shaw AFB, S.C.; SSgt. Robert Trapp, Det. 7, 3WS, Langley AFB, Va.; Sgt. Michael A. Archuletta, Det. 29, 17WS, Buckley ANGB, Colo.; SSgt. Toni D. Humphrey, Det. 5, 15WS, Dover AFB, Del.; SSgt. Richard W. Korich, Det. 10, 25WS, Bergstrom AFB, Texas; SSgt. James A. Randolph Jr., Det. 14, 25WS, Holloman AFB, N.M.; SSgt. Kenneth D. DeOliviera, Det. 15, 25WS, Luke AFB, Ariz.; SSgt. Rodney S. Rabenneck, Det. 16, 25WS, Nellis AFB, Nev.; SSgt. Jerry M. Bess, Det. 1, 3WS, Shaw AFB, S.C.; TSgt. George K. Strunk, Det. 2, 3WS, Seymour Johnson AFB, S.C.; SSgt. Lyle P. Leatherman, Det. 8, 20WS, Kadena AB, Japan.

Scientific Contributions

"An Observational Assessment of the Southwest Monsoon East of East Asia," by Maj. Charles P. Guard, Det. 5, 20WS, Clark AB, the Philippines. Presented to the International Conference on Applied Meteorology and Climatology, Manila, Philippines, March 18-22, 1985.

"Determination and Mitigation of Environmental Limitation on Air Force Systems," by Lt. Col. Ted S. Cress and Maj. Jeffrey S. Schleher, AWS/DN, Scott AFB, Ill. Presented to the Department of Defense Conference on Effects of the Environment on Systems Performance, Ft. Belvoir, Va., April 11 and 12, 1985.

"Characteristics through the Melting Layer of Stratiform Clouds," by Donald Stewart, John Marwitz, Capt. John C. Pace, and Richard Carborne, published in the Journal of Atmospheric Science, Nov. 15, 1984.

In Memory

KELLY AFB, Texas — SMSgt. George A. Horseman (Ret.), died March 23 at the Brooke Army Medical Center after a short illness. For the past seven years, he has been a civilian forecaster at the Kelly base weather station.

Horseman, better known as "Mr. Kelly Weather" to many of the customers of Det. 7, 17WS, retired from active duty in 1976. He had been an observer and forecaster in AWS for 26 years. His total federal service career spanned 35 years. All but two of them were with AWS.

His military decorations include the Bronze Star, the Joint Service Commendation Medal and the Air Force Commendation Medal. He is survived by his wife, Virginia, son Michael and daughters Bonita and Eva.

It's now or never for 250,000

It's now or never.

That's the caveat Air Force officials are issuing to about 250,000 eligible Air Force members who have failed to enroll in the Veterans' Education Assistance Program or VEAP. The enrollment deadline is June 30, 1985; but 90 percent of all eligibles have not yet enrolled.

The June 30 deadline (actually June 28 since it's the last workday in June) was set last year when Congress made sweeping changes to education benefits. The VEAP cutoff applies to all active duty members who entered the military after Jan. 1, 1977, and have not enrolled. Those who entered the service before 1977 or entering after June 30 are not affected since they have different benefits.

Eligibles who canceled an earlier enrollment will be allowed to re-enroll after the deadline.

VEAP members receive \$2 for every \$1 invested up to \$8,100. To be fully enrolled, a minimum investment of \$25 is required, said officials.

Payments can be made by allotment or lump sum, said George Karasik, of the Air Force Education Services Branch in the Pentagon.

"If you sign up now and want out later, you'll get your money back," he said. "If you are considering continuing education once you return to civilian life, you better take a serious look at this or kiss post-service education benefits goodbye. VEAP may not be the most generous program ever offered, but it is a lot better than nothing."

New education program takes effect July 1, 1985

Those entering active duty on or after July 1, 1985 will be offered new education benefits.

The program offers a basic benefit of \$300 a month for 36 months for a total of \$10,800, with an additional \$400 possible each month for those serving in selected shortage skills, said Defense officials.

Service members are automatically enrolled unless they elect not to participate when they enter the military. Participating service members will have a \$100 nonrefundable pay deduction for their first 12 months of service.

Members must agree to serve three years to be eligible for the \$300 a month, 36-month basic plan, or serve two years on active duty and four years in the Reserves. Those opting for a two-year obligation can get \$250 a month for 36 months.

Reserve members with a six-year obligation after June 30, 1985, can get up to \$140 a month for 36 months for a total benefit of \$5,040. Reservists with a bachelor's degree are ineligible.

Reservists are eligible for the benefits as soon as they complete initial active duty training and 180 days service in the Selected Reserves. DOD policy states that Selected Reserve members now participating in the educational assistance program shall continue in that program.

Vietnam-era GI Bill participants whose benefits end Dec. 31, 1989, can serve three years beyond July 1, 1985, and qualify for the new basic \$10,800 benefit plus half their Vietnam-era stipend.

To qualify for the new benefit program, service members must have a high school diploma or equivalent. The current Veteran's Education Assistance Program ends June 30, 1985.



Joining Brig. Gen. George E. Chapman in cutting the ribbon on AWAPS were, left to right, Col. David L. Donley, AFGWC Commander, Mr. Peter Janke, the Director of Aerospace Region for Sperry Corporation, and Mr. Bruce Kasson.

Ribbon cut on 'Supercomputer,'

AWAPS operational at AFGWC

by 2nd Lt. Michael L. McKito
AFGWC/PA

The Advanced Weather Analysis and Prediction System, or AWAPS, became operational at AFGWC on March 25.

"This particular step forward is certainly as significant as the step we (AWS) took in 1954 (with the development of Global Weather Central)," said guest of honor Brig. Gen. George E. Chapman, AWS Commander.

Sperry Corporation was the prime contractor for AWAPS, which includes two Sperry 1100/70 series computers to "front-end" the CRAY X-MP "supercomputer," which is the mainstay of AWAPS.

"This is the first operational system that Cray Research has in the weather business in the United States," said Mr. Bruce Kasson, Vice President of Government Marketing for Cray. The only other "supercomputer" used for operational weather forecasting is owned by a consortium of European nations and is located in Reading, England.

The X-MP is one of the fastest general-purpose computers commercially available today. It is 50 times faster than the fastest computer currently in operation at AFGWC. It will give AFGWC the capability to employ more sophisticated, high resolution weather analysis and prediction models.

Girls like hockey, too!

by 2nd Lt. Robert C. Allen, Jr.
USAFETAC/PA

The game of hockey is normally thought of as a rough and tumble sport dominated by men and boys. But seven-year-old Angela Travers has changed this way of thinking for the Granite City Illinois Hockey Association.

For the last two years she has played with the Granite City Steelers on the team for 6-8 year olds, known as the Mites. This year Angie was the only girl, not only on the Mites, but in the entire Association.

Angie is the daughter of MSgt. Charles L. Travers of the USAF Environmental Technical Applications Center and, according to her dad, "she's one heckava player."

Angie plays left wing and just finished her second season with some very impressive statistics. She had five goals and 15 assists for this year's 18-game season, making her

the third-leading scorer on her team. She also scored one "hat trick," or three goals in one game.

There are some inconveniences due to being the only girl on the team. For example, dressing facilities usually aren't adequate because there is only one locker room. She hasn't let the inconveniences affect her competitive spirit.

As far as being a minority of one, Angie doesn't understand why more girls don't come out and play. Last year there was one other girl who played with the Association. Her coach is glad to have a player of her quality on his team and is not concerned about the unusual circumstances. The Mites' record this year was 13 wins, three losses, and two ties, and Angie played a big part in that success.

Angie's plans for the future are to play for a few more years and then become a referee for amateur hockey games.

From father to son-in-law

Graduation is always a special time. A time to reflect on the fun, the friends and the hard work. It's also a time to peer into the future with hope.

But, graduation from parachute school is special. It's one of those moments that prove you've overcome one of life's greatest obstacles — fear.

Through personal, intense motivation, you propelled yourself out of the "safe" environment of the aircraft and survived. The pain, anguish, trauma and fear took second place to sheer will power, and sometimes, a size 12 boot in the rear.

On March 22, SSgt. Mike Nicolls of Det. 3, 5WS, Ft. Bragg, N.C., had even more to be proud of. His extra pride came in having his father-in-law, SFC Charles W. Neal (USA Retired), pass along the original silver parachutist wings he earned more than 30 years earlier.

Sergeant Neal earned his wings as a private first class in the fall of 1952 on the same drop zone. He was also one of the original 300 members of the 10th Special Forces Group that deployed to Bad Toelz, Germany in 1953. Bad Toelz is currently the



SFC Charles W. Neal (USA Retired) pins his silver wings onto his son-in-law SSgt. Mike Nicholls.

Headquarters for Special Forces Europe.

Sergeant Neal's silver wings have traveled many long roads. And though he is now retired, his wings are still carrying on the airborne tradition of pride in the past, faith in the future.

Belt buckles available from 30WS

A new series of AWS belt buckles have been struck and are available to all AWS personnel. Designed by 30WS, these "western styled" AWS belt buckles are 2 5/8 x 3 5/8 inches and pressed out of a 5/32-inch solid brass plate. They are designed to be worn with a 1 3/4-inch belt.

Cost of the buckles is \$6.50 each. For an extra 50 cents each, they can be engraved. Profits from belt buckle sales are used to support local Korean orphanages.

To order one or more belt buckles,



send a money order to: 30th WS, APO SF 96301-0420.

Space 'A' travel abuse

A recent investigation at one of the Military Airlift Command's ports disclosed leave reporting discrepancies involving about one-fourth of some 2,010 space available travelers.

"Such wide-spread abuse has adverse implications for the entire command," said Maj. Gen. Jack W. Sheppard, MAC Chief of Staff in a recent letter on Leave/Space Available travel abuse.

Air Force Form 988, Leave Request/Authorization, advises members that leave is normally effective on the date included on the leave request as the "effective date."

Leave may begin three days before

or three days after the effective date, if unforeseen circumstances arise and with the concurrence of the leave approving authority. This "window" does not apply if space available transportation is used. Members must be on leave when they sign up and remain on leave through departure.

"Observance of these simple rules is the responsibility of each member and supervisor/leave approval official," said General Sheppard. He continued, "When a member signs up for space available travel, he (or she) is expected to have already commenced on approved period of leave."

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