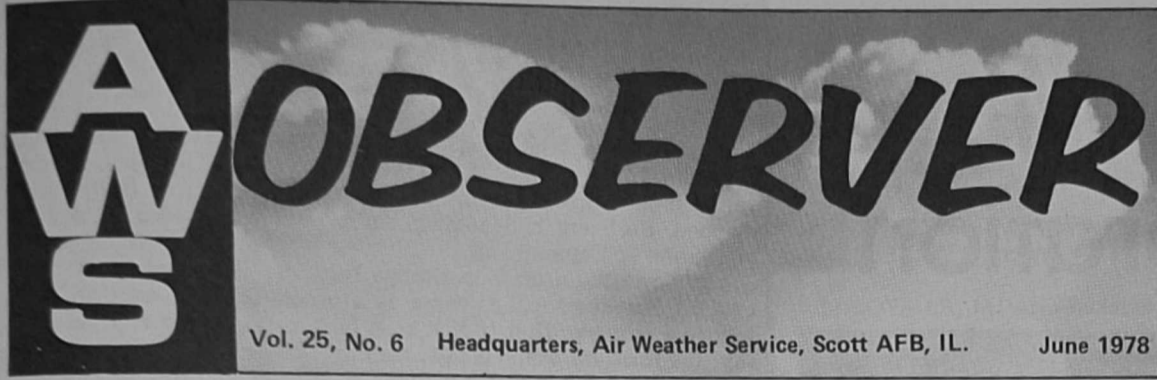


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General Rowe to retire; more colonels move



SCOTT AFB, IL—The Air Weather Service (AWS), on Sept. 1, will see its commander and vice commander positions filled by new people. Brig. Gen. Berry W. Rowe, the fifteenth AWS commander since the 1937 founding of the service's mission, will retire on that date and Col. Alfred C. Molla Jr., will succeed the 3rd Weather Wing (WW) commander, Col. Albert J. Kaehn, Jr., who will command AWS.

Colonel Kaehn will have as his vice commander Col. Salvatore R. LeMole, who was previously announced by the **OBSERVER** to become the 1WW commander. Col. Norman F. Rauscher will command the 1WW.

Other full colonel changes, as well as persons selected for promotion to that rank, are:

In July: Lt. Col. Richard A. Brown will move from the position of Det. 30, 2nd Weather Squadron (WS) commander, Vandenberg AFB, CA, to command the 31WS, Rhein-Main AB, Germany. He succeeds Col. Glen Rumley Jr., who earlier was announced to become the 3WW chief of operations.

In August, Col. Robert F. Woodnal, now 12WS commander, Peterson AFB, CO, will become the 3WW chief of aerospace sciences, Offutt AFB, NE. He is succeeded by Lt. Col. George R. Hammond, AWS' director of environmental sensors.

Also in August, Col. John W. Reames, chief of the 5WW's operations, Langley AFB, VA, will take command of the 5WS, Ft. McPherson, GA, succeeding Col. Boyce Smith. Moving to Langley AFB as the 5WW's chief of operations is Col. Robert E. Julian, now 30WS commander, Yongsan, Korea.

Earlier the **OBSERVER** announced that Col. Walter M. Dale would become the special assistant to the AWS deputy chief of staff (DCS) for operations and Col. Donald E. Hansen would become 3WW chief of aerospace sciences. Colonels Dale's and Hansen's assignments have been changed. Colonel Dale will become AWS director of requirements, succeeding Col. Donald E. Smith, who will command the 15WS, WPAFB, OH. Colonel Hansen will become the Air Force Global Weather Central's chief of special support, Offutt AFB, NE. Lt. Col. Glen A. Ryan, 5WW, will become AWS assistant DCS of Operations.

Col. Albert J. Kaehn Jr. to command Air Weather Service

Col. Albert J. Kaehn Jr., soon to command AWS, was born in Queens County, NY, Dec. 2, 1929, and began his military career 23 years later. Before entering service he attended the State University of New York—Albany, where he gained bachelor and master of arts degrees then entered service with a direct commission in the Air Force Reserve. His first meteorological studies were through the Air Force Institute of Technology at Pennsylvania State University.

Colonel Kaehn has served as a detachment forecaster, flown aerial weather reconnaissance, was an assistant professor of air science and commandant of cadets in the Air Force Reserve

Officer Training Corps program at New York University, served as a division chief and later as director at AWS Headquarters, and commanded a squadron and wing. Further, from 1972 until 1975, he served in the environmental sciences directorate of the Office of the Secretary of Defense.

Overseas areas in which he served include Korea, Europe and Thailand.

His decorations include the Legion of Merit, Bronze Star, Meritorious Service and Air Force Commendation Medals, among others.

He is married to the former Melina Kayaian. They have a son, Albert J. "AJ" III, and a daughter, Susan.



Col. Albert J. Kaehn Jr.

Seven get top stripe

SCOTT AFB, IL—Seven weathermen were recently chosen for promotion to the Air Force's highest enlisted grade.

To be promoted are SMSgt. Forrest E. Gray, 7th Weather Wing senior enlisted advisor, and SMSgt. John R. Zemba, AWS Headquarters, both here. Also, SMSgt. Alfred D. Willis, Det. 4, 5th Weather Squadron (WS) commander, Ft. Meade, MD; SMSgt. Roger E. Graffa, Det. 29, 25WS commander, Buckley ANGB, CO; SMSgt. Kenneth P. Hartless, Det. 13, 15WS chief forecaster, Robbins AFB, GA; SMSgt. Charles L. Miller Jr., 30WS chief observer, Yongsan, Korea; and SMSgt. Larry D. Scoggins, an instructor at the Senior NCO Academy.

Everything goes according to plan

AFGWC helps maintain U.S. awareness of weather

OFFUTT AFB, NE—For five hours, unknown to America's farming, construction, news, transportation and other industries (which look to weather information to determine the day's course), they were served by AWS' Air Force Global Weather Central (AFGWC).

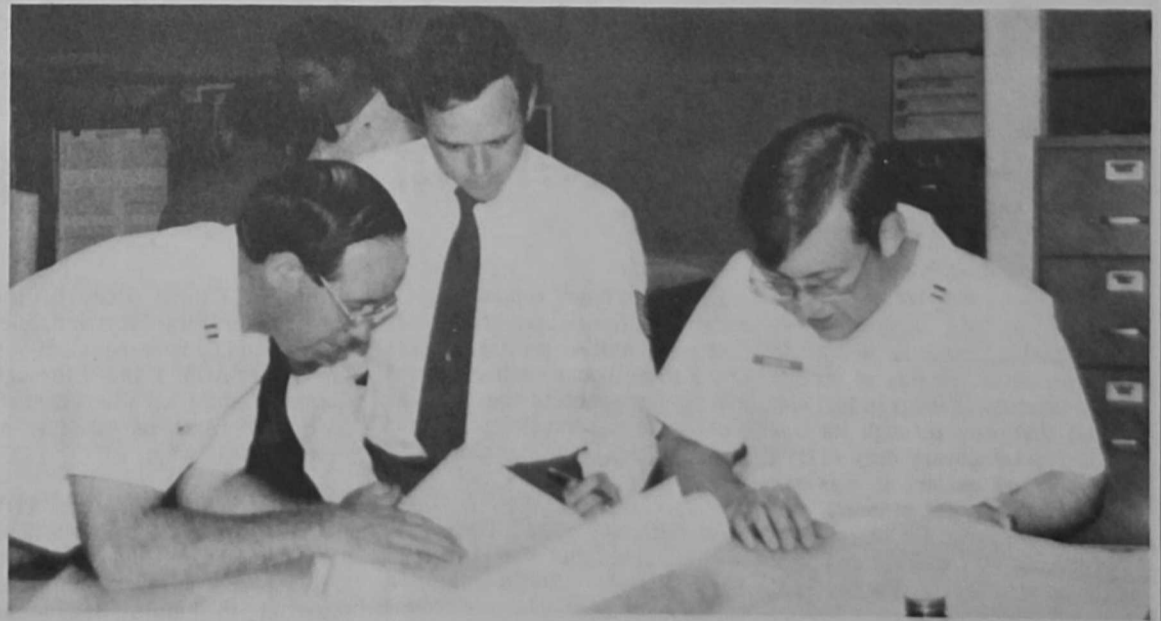
It happened when a massive disc failed in the National Meteorological Center's (NMC) Suitland, MD, communications system recently. The failure caused NMC to lose its capability to transmit centralized weather products. At the instant of the failure, people in most areas of the country were, in relation to the weather, right where they would have been a century before—looking up and hoping—until the NMC called for immediate help.

Through a backup plan devised in the early 1970s, the nation was spared a prolonged disruption of weather service. AFGWC, working with the U.S. Navy, saw to that, and did the job even better than planners had anticipated.

The Federal plan called for AFGWC, when notified, to back up NMC within four hours. At the end of that time, AFGWC was expected to provide its first "emergency product" to the nation. Instead, the huge meteorological organization was in full swing, providing weather information, in well under two hours.

According to Col. Alphonse Gargiulo, AFGWC commander, "The plan, once put into play, proved that military and civilian agencies can work smoothly and well together when the wellbeing of the nation is at stake."

Later, Colonel Gargiulo received a letter from Edward M. Carlstead, chief of the NMC's forecast division, which said, "While circumstances (only a partial test of the backup plan) did not permit us to run through a complete cycle, I'm sure the AFGWC support would have performed well during a prolonged outage as it did for the shorter outage."



THE RUSH IS ON for (left to right) Capt. Felix D. Quinn, MSgt. Duane E. Chilton and Capt. David C. Danielson, at Air Force Global Weather Central, Offutt AFB, NE. The huge organization had just been called on to support the National Meteorological

Center, which had a massive disc failure in its communications system. Without Global Weather Central's help, the nation would have been without centralized weather products. (U.S. Air Force photo)

☆ Command line ☆

AWS joins in MAC 30-year celebration

As you read this, the Military Airlift Command (MAC) celebrates its 30th anniversary. The Military Air Transport Service (MATS) came into being on June 1, 1948. It was formed by combining the United States Navy's Air Transport Service and the Air Force's Air Transport Command.

Air Weather Service (AWS) has been an integral part of the MAC team from the very beginning; from the "curb service" days of the Berlin Airlift to the 25-30,000-per-month computer flight plan service of Southeast Asia and the Israeli Airlift days. We are proud to have contributed to the tremendous progress of airlift through the years of MATS and MAC. Its growing pains have been paced by ours and those of the other MAC services, Aerospace Rescue and Recovery Service and the Aerospace Audiovisual Service; in all cases, the results were the growth of a tradition of excellence.

WE SERVED

Through the years that tradition of excellence was built by the hard work and self-sacrifice of the people who crewed aircraft and

performed the multitude of supporting functions so essential to mission success. As one of those supporting functions, we in the AWS contributed not only to the successful evolution of airlift, but to the broad spectrum of Air Force and Army forces that comprise major portions of our military strength. Our own ability to sustain that tradition of excellence washes many shores with impacts on numerous and diverse activities we support, much like the constant effect of wind and wave along the seashore.

YOUR WORK COUNTS

What each of you is doing, right this instant, most certainly won't change the shape of the world. But, minute by minute, hour by hour, and day by day, it adds up to a significant influence on the overall evolution of our military picture today. The impact of which I speak was much like that of the constant stream of C-54s arriving at Tempelhof Airport loaded with coal or flour. Individually, they didn't make or break the Berlin Airlift, but collectively, they were a significant part of the success of Operation Vittles, which sustained the people of Berlin.



Brig. Gen. Berry W. Rowe
AWS commander

BE PROUD

MAC's first big step on the road to its tradition of excellence was made 30 years ago, during the 15 months which began June 26, 1948—and AWSers were there! We have been there ever since.

So, when you see the "Air Force Now" and other media coverage scheduled to begin in June—be proud! for those who went before you had a hand in making it all possible. They started a tradition of excellence which is now yours to carry on.

Berlin tests people, aircraft — tenacity (1948-1949)

For two weeks the Russians had openly shown that they wanted all of Berlin. In the summer of 1948 they had closed major highways "for repair," then blockaded the rail lines, then the river traffic was stopped. Berliners had nothing but blue skies between them and starvation or Communism.

On June 26, aircraft in Europe began taking supplies into the city. At first the supplies came as a trickle to the more than two million Berliners. That trickle soon became a flowing river of the sky; the Russians would not get the city!

While the many different types of aircraft and their crews did their jobs, AWS was on the job too. Europe-based AWSers were too few, but the most gigantic airlift mission ever planned had to be supported—and supported it was.

In 1948-49, Air Force regulations said when flying ceilings were at 200 feet and visibility but three-quarters of a mile, airfields would be closed for flying.

Such normal rules were put aside when the Berlin Airlift began. Throughout the following months, weather ceilings frequently dropped to 200 feet and visibility, except at Berlin's Tempelhof Airport, sometimes fell below a half mile. Fog occasionally got so bad that even automobiles could not be driven.

During the round-the-clock operation, weather became the greatest threat to the men and planes carrying the life-giving materials to the huge city.

The airlifting crews demanded to know ceilings within 50 feet and visibility within a quarter of a mile—all at least three hours in advance.

Cargo for Berlin, which often was perishable, demanded that weather forecasts determine when certain products be flown in so it would not spoil before it could be moved.

The famed "curb service weather" offered by members of the 10th Weather Squadron at Tempelhof was reported in the Airlift's newspaper, "Task Force Times" of Oct. 19, 1948. The service was given to save precious time. As crews drank coffee and munched on doughnuts, watching their aircraft being offloaded, weathermen arrived to give weather briefings. Minutes later the same crew was back aboard their plane and on the way back to West Germany for more supplies—and the men of the 10th were pulling up to the next aircraft where the crew drank coffee and munched on doughnuts

Weather, the worst enemy of the Berlin Airlift, was overcome by the dedicated people of AWS. Since then, those people, and those who followed them, have dedicated their lives to being prepared for just such events as the Berlin Airlift.



CMSgt. Howard M. Bock
AWS senior enlisted advisor

Forecaster school is not easy. The permanent change of station (PCS) course was tough in 1951 and stayed that way through its last class. The temporary duty (TDY) course is no easier; it was not expected to be, yet students still arrive unprepared for it.

Of the six TDY classes on board at Chanute AFB (IL), the first will graduate about the time you read this. Indications are that TDY washback and elimination rates will be higher if we don't pay attention to preparation. All the causes for washbacks and failures are not traceable to students, yet the students suffer.

The eight-hour school day is rough. The first weeks are largely lectures, and homework takes about three hours each evening.

In many respects the first six weeks are the toughest. Students weak in concepts of atmospheric and cloud physics, horizontal motion and climatology have the most difficulty. Persons prepared in these areas and who have good study habits should make it through the first weeks—devoting fewer hours to night study; then graduate.

A key to preparing for the early portions of the course is self study, a strong forecaster apprentice program and a formal course in physics is recommended. Com-

pletion of Course 91603-1B, the Aerographer, First Class and Chief (AGM 1 and C) is essential. If you can't order AGM 1 and C through your base education office, contact AWS/DOT (Autovon 638-5651) or your overseas wing.

Math is not taught in the TDY course! Instructors will help with it, but they are super busy, so arrive prepared. Instructors say some of the math weaknesses found are in ratio and proportion, manipulation of negative numbers, fractions, decimals, percentages and basic linear equations. They also recommend use of calculators.

Quite a few of the first TDY

students said their forecaster apprentice programs left them unprepared. Instructors and students cited a need for more practice in analysis (surface and upper air, if possible), understanding of vertical distribution and stacking, and forecast preparation and briefing.

One of the traumatic parts of the course for some people is the "grill" session. In grill you brief and must defend your analysis, progs and forecasts. One of the best in-station preparations for the grill is the "Met-Con"—where the duty forecaster briefs and defends his forecast against the barbs of other forecasters.

People should complete courses and the forecaster apprentice program a few months before entering school. If this is done too far in advance, a review is recommended.

If you have a person not fully prepared, advise AWS/DOT at least 45 days before the class start date so a qualified replacement can be selected. This gives your person more time to prepare and could prevent a washout.

All of what I have said here comes not from me, but from you—the students—and the people who will teach you. Heed it and save yourself a lot of grief or embarrassment.

Enlisted line:

'The forecaster school is tough; demands prep-prep-preparation'

SSgt. Miles Muzio sounds off about Forecaster School

SSgt. Miles S. Muzio, a graduate of the Forecaster School's class 7603, is assigned to the Air Force Global Weather Central, Offutt AFB, NE. He, as were 14 other weather people, was asked to write to the OBSERVER and provide how he viewed the school and how he sees his future (better or worse) now that he has been there. No restrictions were put on the writers, whose letters are verbatim except where inserts were made for clarity's sake — Ed.

During the fall of 1975 and into March of the next year, I attended the USAF Weather Technician School at Chanute AFB, IL. My desire to go to forecaster school was based on my experience from traveling to many National Weather Service (NWS) stations across the country. At them I found not only a plurality of ex-Air Weather Service people, but that most had gone through Chanute

(AFB) previously and that NWS people looked very favorably on graduates of the Chanute (AFB) forecaster course. If nothing else, NWS realizes that quality and expertise flows from the Air Force's weather program, which is true.

Aside from colleges and universities, which concentrate on extensive training in physics and dynamics of weather over several years, it is my opinion that the Air Force school is the very finest of its kind anywhere. It concentrates on operational weather forecasting with a seasoning of physics, which is neither offensive nor too difficult.

The pace of studies (in the forecaster school) were such that I was not constantly burdened down with homework and left with no time to do anything else. The staff seemed competent, professional and, in most cases, very likable. I don't think there was too much

physics and math, even though I hear they've cut out some of it. I guess that in itself is an incentive for some observers to go.

As the weeks progressed while I was there, it became a rather interesting course and things started to mesh together. The bits and pieces of the first several weeks coagulated into an understanding of things that I had admired in others who know them.

The course set down a good strong foundation for further research and individual study in meteorology. Also, we had a sub course in speech and briefing which was very enjoyable.

Finally, after all this was done, we put it all to practice in weather station operations. Each team had a cubicle from which they analyzed the weather and came up with a prognosis. It was a simulation of reality, but it took on an authentic aura as the day unfolded. Everything from pilot briefings to

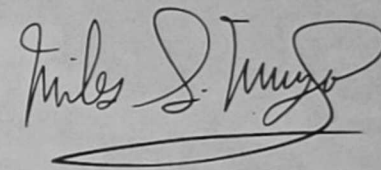
PMSV (pilot to metro service) to staff and mission briefings to met watch advisories and weather warnings. The program helps mold a person into an effective forecaster by providing some experience before leaving school.

No doubt, there are some (people) who will never go to the forecaster school for a variety of reasons. There is a certain percentage who will wash out of the school too. But I assume those people are not adapted to the abstracts of weather—its observing and forecasting—and probably never will be.

There is also a type of person who enjoys weather and working with it. I believe that any weather observer who doesn't take the opportunity to delve into this thing forfeits possibly one of the greatest chances to advance himself and attain to a higher level of job

satisfaction downstream, not to mention the post-Air Force career potential. The recent change to our specialty, forcing airmen to routinely go back to Chanute (AFB) is great, and is for their benefit. I can't say I regret anything I did.

Observers won't regret this step into the future. They shouldn't shy away from the best practical forecasting school in the world and, by all means, they shouldn't be afraid of it. It is a benefit of being in the Air Force.



Weather whys???

Q. I hear Chanute AFB (IL) is closing. When? What will happen to our weather schools?

A. Air Force's (AF) proposal, and it is only a proposal, to close Chanute AFB is part of a Defense Department plan to close or reduce operations at 85 continental U.S. (CONUS) locations. The plan could also impact AWS activities at Rickenbacker AFB, OH, and Kingsley Field, OR. The proposals should not be interpreted to mean that closure or reduction is imminent—or even assured. Such proposals are but the first step in a period of discussions, negotiations, actions and counteractions which may lead to further action. It is unlikely that a final decision on Chanute AFB could be made before 1979—economic impact studies take that long—or that closure could take place before 1981. Chanute AFB closure would probably mean weather training would move to Lowry AFB, CO; Keesler AFB, MS; or Sheppard or Lackland AFBs, TX. Even then, additional training facilities and dormitories would have to be built at the selected location.

Q. I don't feel AWS got a fair share of the chief (master sergeant) promotions last cycle. What's the story?

A. Based on the number of our eligibles, we got our fair share. The AF selection ratio was 17.9 per cent—five of 30 25190 eligibles (16.7 per cent) and one of seven 25291 eligibles (14.3 per cent) were selected. One additional 252, a Senior NCO Academy instructor,

was selected under his special duty assignment specialty code. AF promotes at or near the AF-wide ratio in each career field, but exceeds the ratio to insure at least one promotion in each specialty (AFSC). One AFSC received special consideration. If AF selected an additional chief in each of our AFSCs; i.e. six 251s, the ratio would have been 20 per cent and 29 per cent. Those are the facts—now, lets speculate. We could have received two more 251 promotions and one more 252 promotion. About nine E-8s who had their retirement papers in, but were otherwise eligible, did not take the AF Supervisory Exam—possibly not wanting to be tempted to stay on board. If they had but tested, we would have had three more chief selectees, possibly three who wished to stay on active duty.

Q. Less than one year back from overseas and I got an overseas freeze notice. I know it is an error, but it keeps me from applying for a MAC technical advisor position. What can I do?

A. Erroneous freeze notices are a recurring problem. In addition to causing anxiety, they keep people from applying for or volunteering for many things. This could result in people losing opportunities to get what they want. AF knows of the problem and has discontinued freeze notices until erroneous data bases are corrected and a new program developed. If you want to know where you stand on the freeze list or get a notice you feel is in-

correct don't just sit there. Contact CMSgt. Buddy L. Wilson or SSgt. Greg Smith at Palace Weather (Autovon: 487-5061). They will tell you your status and what action to take.

Q. What happened to the proposal for a station chief course?

A. It is a reality. The first class graduated at Chanute AFB, IL, last month. Although students recommended some changes in the course, they said the four-week course (content, instruction, interchange between students, etc.) is excellent. The second class started June 6 and, although no further firm class dates are set, four classes of 10 students each year are planned. People in or projected into station chief positions, who have not attended the old chief observer course, have first priority for future classes.

Q. The current observer Career Development Course (CDC) is obsolete. Why not waive the requirement to complete it until it is revised? When will we have a new CDC?

A. Although some portions of the CDC are outdated, it is inappropriate to waive its completion for upgrade training. The CDC is still usable for Skill Knowledge Test (SKT) preparation if the unit properly monitors the Weighted Airman Promotion System. Questions based on obsolete materials are deleted from the SKT. A revised 25150 CDC will be in the field by August.

Answers to questions on page 10

ANSWERS for "Word Power:" 1-a, 2-b, 3-a, 4-b, 5-a, 6-b, 7-a, 8-b, 9-c, 10-c, 11-b, 12-a, 13-b, 14-b, 15-a, 16-c.

ANSWERS for "Famous Aliases:" 1-e, 2-h, 3-a, 4-j, 5-g, 6-b, 7-i, 8-k, 9-c, 10-f, 11-1, 12-d.

ANSWERS for "King's English:" 1. Truck, 2. Gasoline, 3. Checkers, 4. Flashlight, 5. Baby carriage, 6. Apartment.

June happenings (a while back)

On the 23rd of this month, 20 years ago, Headquarters AWS officially moved to Scott AFB, IL.

Somewhat later, also in 1958, it was announced that among the 66 AWS first lieutenants selected for promotion to captain were:

Arthur Bidner, now 3rd Weather Wing (WW) commander.
Robert W. Fanning, now 7WW commander.
Salvatore R. Lemole, now AWS deputy chief of staff for operations.
Chester C. Lukas (iewicz), now 7WW vice commander.
Alfred C. Molla, Jr., now AWS vice commander.
Joseph D. Saccone, now 5WW commander.
Thomas A. Studer, now 1WW vice commander.

Around the same time, overseas assignments were announced for TSgt. (CMSgt.) Howard M. Bock, now at Scott AFB, IL, for RAF South Ruislip, UK; SSSgt. (SMSgt.) Frederic R. Roger, now at Offutt AFB, NE, for Ramstein AB, Germany; and SSgt. (SMSgt.) J. W. Gault, now at Rhein-Main AB, Germany, for Chateauroux AB, France.

Personnel shorts

Did you know that:

* Officer Training School slots for fiscal year 1979 will increase to 2,807—the most since 1973?

* AFR 90-1 provides for a minimum of three-bedroom quarters for E-7s, if available, with major air command approval?

* Failure to meet and/or maintain weight standards resulted in 739 Air Force enlisted people being discharged in fiscal year 1977?

* Dependents of sponsors serving unaccompanied short tours may stay in military family housing?

* Major U.S. air carriers extended military reservation rates through September 1979? The rates allow a 25 per cent discount to service members traveling on leave.

* Some people haven't yet found time to get a Community College of the Air Force evaluation even though weather technical training courses were approved for college credit five years ago?

* Retirees, their dependents and surviving spouses may call, toll free, to the Retiree Activities Branch, AF Military Personnel Center? From Texas you should dial 800-292-5222; from other continental U.S. locations dial 800-531-7502. If using an on base telephone, call Autovon 4P7-3517 or WATS line 512-652-3847.

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

Weather officer has 'many keys to the past'



THE KEY to enjoyment for Lt. Col. Peter A. Graubard, Det. 15, 31st Weather Squadron, RAF Mildenhall, UK,—is a new key. He collects them. With more than 200 keys in his collection, a trip is now planned to Italy, where the search for old keys

will go on for the devoted colonel. Why does he collect them? "Why do people collect anything? Keys are fascinating," he replied. (U. S. Air Force photo)

By
Sgt. Fred Ripley

RAF MILDENHALL, UK—Many people are intrigued by antiques for various reasons. In the case of Lt. Col. Peter A. Graubard, Det. 15, 31st Weather Squadron commander, here, the intrigue lies in collecting antique keys. "I consider it a challenge since it is such an unusual hobby," the colonel said.

Colonel Graubard's hobby has taken him through the United Kingdom and to eight European countries. In those travels he found and purchased around 200 keys in three years. For a dozen of his keys there are locks as well, all in working order.

"I became interested in keys prior to my assignment in England, but it wasn't until I got here that I realized there were so many old keys obtainable and still in use," he said.

"Keys can be traced back to the early Egyptians; the oldest ever found was 4,000 years old and made of wood. Of course, that sort of thing just isn't available in the new world. The age of a key is often indicated by its handle," he continued, "Keys with more precise craftsmanship, generally, are a product of the machine age."

Colonel Graubard finds most of his keys in such places as antique shops, flea markets and trade fairs. He added, "The most difficult keys to find are latch keys, commonly called latch lifters." He has one such key, which he found in Wales.

"Keys with monograms or family royal crests are considered by collectors to be quite desirable—as are larger keys. Mainly, however, I am interested in keys with unusual shapes or characteristics. Most keys are made of either iron or steel so keys made of brass are most sought after.

"Most larger keys were used for such things as cathedral doors, manor house gates and courtyards, and sometimes even a castle. Smaller ones are usually for cabinets and the like."

One unusual key in Colonel Graubard's collection was made by the Branch Company and dates back to the beginning of the 19th Century. He said it was considered "unpickable."

"The company even offered a 200 pound sterling reward (about \$5,000 at that time) to anyone who could pick it—an American did it in 1851," he said.

Pease unit supports two tests at same time

PEASE AFB, NH—Recently, Det. 6, 26th Weather Squadron had a close encounter and gained a new understanding of the "total force" concept when it supported simultaneous operational readiness inspections (ORIs). It happened when the 509th Bomb Wing and the New Hampshire Air National Guard (ANG) were exercised at the same time here. For the 509th it was a limited ORI, and according to the Strategic Air Command's (SAC) internal information NCO in charge, MSgt. Jimmie Attaway, it was SAC's first simultaneous joint ANG and active duty forces ORI.

During the first 50 hours of the inspection, the Pease AFB weather people distributed 150 flimsies (packets of weather data for operational aircrews) and presented 35 formal out-of-station briefings. Detachment people, at both ends of the airfield supported simultaneous battlestaff briefings, dispersal and generated force sortie briefings as aircraft and crews were brought up on alert.

Col. Albert J. Kaehn Jr., commander of Det. 6's parent 3rd Weather Wing, said, "Eating and sleeping are signs of weakness." According to Colonel Kaehn's words, Maj. John T. Madura, Capt. William A. Juhl, 1st Lt. Richard W. Cannata and TSgt. Gary L. Harris showed few signs of weakness throughout the exercise.

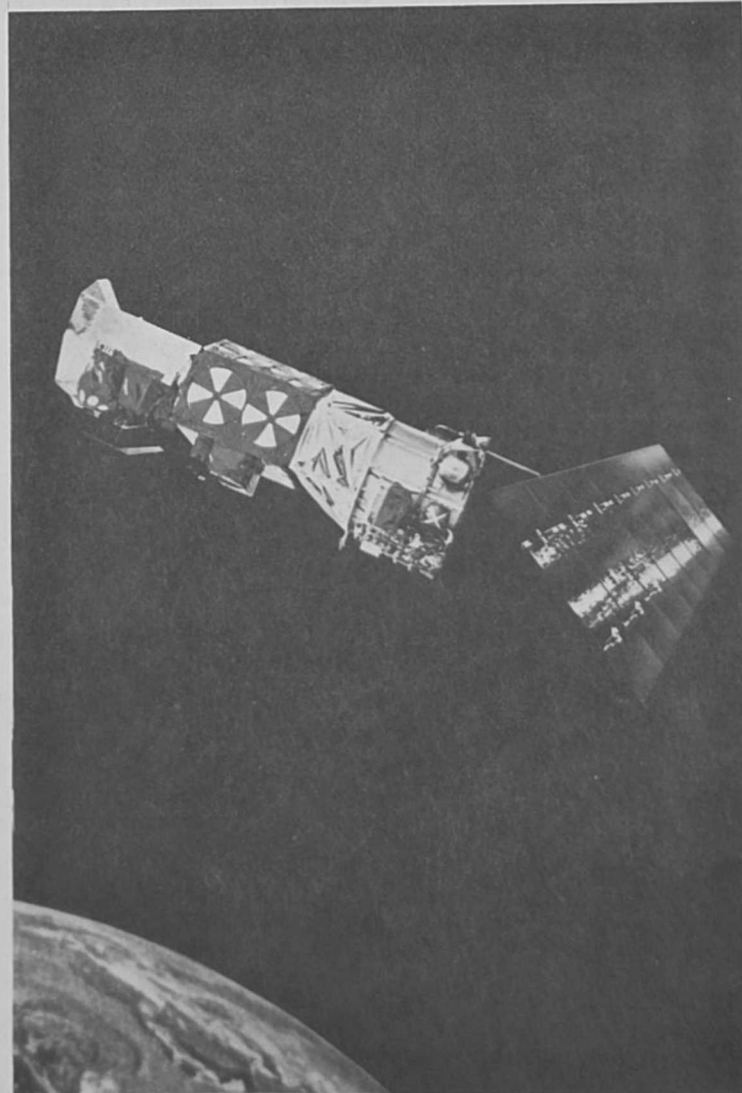
Administrator turns carpenter, gives working area facelift

AVIANO AB, ITALY—A weather administrator didn't like the looks of his work area (the unit orderly room) so he changed it. TSgt. John Cuomo, according to TSgt. Arnold T. Saunders, the unit information officer, "completely rehabilitated the place."

Sergeant Cuomo gathered materials, mainly at his own expense, then stripped old paint from

walls. He repainted the walls, paneling the lower half, touched up then rearranged office furniture and covered the walls with pictures which depict Italy's cultural scenes.

When asked why he did all of this, he said, "People working in a pleasant environment will naturally produce more."



THE DMSP SATELLITE, as it appears in outer space. This photograph was provided by the Space and Missile Systems Organization. (U.S. Air Force photo)

New DMSP satellite now orbits earth

LOS ANGELES, CA—The Air Force has launched another defense meteorological satellite. The launch was from Vandenberg AFB, CA, and the payload was a 1,131-pound satellite which was placed in a near-polar, sub-synchronous orbit 450 miles above the earth (photo at left).

Program officials at the Space and Missile Systems Organization (SAMSO), here, said the satellite joins two previously orbited spacecraft in providing high-priority weather forecast information to U.S. military commanders around the world.

The new satellite's sensors can detect and observe developing weather patterns and track existing weather systems over remote areas, including oceans.

After 30 days of tests, the satellite, which has visual and infrared capabilities, will orbit the earth every 101 minutes, scanning a 1,600-nautical mile area on each pass. It can photograph the entire earth in about 12 hours.

The satellite's weather imagery is transmitted in real time to ground and shipborne terminals around the world. The entire weather forecast is compiled at Air Force Global Weather Central, Offutt AFB, NE.

Rare twister touches down near McClellan

by
1st Lt. Michael D. Morton
Det. 8, 15WS

McCLELLAN AFB, CA—Severe weather here consists of a thunderstorm three or four times a year and infrequent 35-40 knot winds borne by winter fronts.

Tornadoes—never! Never, that is, until recently.

TSgt. Denny Gartner, the duty forecaster, and TSgt. Dick Pelmonter, a forecaster ap-

prentice, were told by the base operations and control tower that a funnel cloud was seen about 15 miles northwest of the base.

When Capt. Percy Edwards, Det. 8 commander, and 1st Lt. Michael D. Morton heard the news, they felt that the occurrence was possibly a "Virga," but not a tornado.

At the flight line, the men changed their minds. Undulating in the darkness, was a funnel. As they watched, the formation extended out of the approaching

cloud mass and seemed to touch down three miles of the base. It then lifted off the ground and dissipated.

An hour later, a radio newscast announced that the touchdown of the funnel had been costly for the small town of Rio Linda.

It had rampaged along a three-mile path through the town.

According to a local newspaper, the *Sacramento Bee*, the tornado was no more than 60 feet wide and "... tore through the Vineland

Elementary School just after the 260 pupils, alerted by their principal (David Vaca), dove under their desks for safety.

Tons of spiraling debris—boards, rocks, sheet metal, roofing and panes of glass—were driven through the walls and windows of some of the classrooms and into the seats where the children would have been sitting."

No students were hurt and tornadoes do happen here.



FLANKED by his commander and the national Air Force Association secretary, TSgt. Oscar K. Pierce, a member of Det. 6, 15th Weather Squadron, Hill AFB, UT, accepts a receipt for his \$200 which makes

him a lifetime member of the association. Sergeant Pierce said he figured that he saved money because rising costs over the years would actually take more than what he paid. (U.S. Air Force photo)

Takes hard route to forecaster slot

DOBBINS AFB, GA—Det. 31, 3rd Weather Squadron, here, has a weather forecaster who took a different route—MSgt. David F. Archer. Sergeant Archer is a forecaster who has never been to the Chanute AFB, IL, forecaster course.

When AWS reorganized the 253XO and 252X1 specialties into the new 251X0, Sergeant Archer knew he had to convert to progressively compete. With that in mind, he asked his detachment commander (Detco), Maj. Vince Grocki, about obtaining the required academic training from a civilian university through off-duty education. At the time, the sergeant had a bachelors degree in business management with a minor in meteorology. Forecaster School was a permanent change of station school and the method he proposed would save the Air Force the cost of moves to and from Chanute AFB.

Major Grocki like the sergeant's idea, so he documented the man's educational achievements. With guidance from CMSgt. Howard Bock, the AWS senior enlisted advisor, Major Grocki asked AWS for a program that would result in a waiver of existing requirements. AWS' directorate of training (AWS/DOT) helped by providing the required type and levels of courses in meteorology Sergeant Archer would need.

Immediate enrollment in Pennsylvania State University, in June 1976, was the next step.

Last March requirements were met and a classification board recommended conversion of his specialty from 25271 to 25170. Again, AWS/DOT concurred, as did the Air Force Military Personnel Center. On April 11, Sergeant Archer's new Detco, SMSgt. Arthur O. Johnson, certified him as a weather forecaster—an action which culminated a quest begun two years before.

Of Sergeant Archer's feat, Sergeant Johnson said, "Through off-duty education Dave Archer put forth more effort than most people are willing to do."

Detachment Five assists exercise 'Coronet Snipe'

KEESLER AFB, MS—Aircraft members of AWS' Det. 5, flying with the 53rd Weather Reconnaissance Squadron, returned home recently after a week of temporary duty to Europe. Their mission was to support operation Coronet Snipe, an overocean aircraft movement.

Primary and backup WC-130 Hercules aircraft went to McGuire AFB, NJ, for advance weather reconnaissance across the North Atlantic for 18 Air National Guard RF-4C fighter aircraft. The fighters were returning home from Norway. Det. 5 and the 53rd provided up-to-the-minute weather observations to them enroute.

With one aircraft on standby at McGuire AFB, the primary WC-130, with Capt. James S. Perkins as its aerial weather officer, and SrA Alan J. Kolata as its dropsonde system operator, left for England. The weather pair took observations every 20 minutes along the track the fighters would fly. Data on flight level clouds, wind and its speed, turbulence, etc. was collected. Minutes later the data was relayed through the Tactical Air Command Weather Support Unit, Langley AFB, VA, to Mather AFB, CA, and Rhein Main AB, Germany.

Using the weather data, mission planners were able to accurately set up rendezvous areas for KC-135 Stratotankers used to refuel the RF-4Cs. The data was also used to brief homeward-bound crews on the weather they would meet along their way.

Other weathermen on the mission were Capt. Peter V. Donaldson and SrA Michael Ouellette, both of Det. 5.

Flight crew members were Maj. David O. Caldwell; Capts. Reginald L. Jardon, David W. Waldron, William M. Sadler, William J. Thomas and Paul E. McVicker; 1st Lt. Gary A. Gruenert; MSgt Paul J. Nelson and SSgt. William Dunlap.



WORKING at his console is Capt. James S. Perkins, aerial reconnaissance weather officer, Det. 5, AWS, during operation Coronet Snipe, an overocean aircraft movement from Norway to the United States. The weather aircraft took readings each 20 minutes between McGuire AFB, NJ, and England so the Air National Guard pilots returning from Norway would know the weather all along their route home. (U. S. Air Force photo by TSgt. Walter Thompson)

AWS people get big slice of AECF pie

SCOTT AFB, IL—AWS, with but one per cent of the Air Force's enlisted members, had more than nine per cent of the people chosen to take part in the Airman Education And Commissioning Program this year.

Picked to attend, and the location of their present assignment, are SSgts. Daniel J. Brees (Ft. Bragg, NC), Edward H. Erwin (Offutt AFB, NE), John H. Jacobson (Kapaun Bks., Germany), and Edward J. Bilicki (Myrtle Beach AFB, SC).

Also Sgts. Michael Saunders and Arthur J. Donahue (Offutt AFB, NE), William J. Bowne (Griffiss AFB, NY), Michael A. Ducharme (Spangdahlem AB, Germany) and William J. Rose (Scott AFB, IL).

When he learned of the high percentage of selection from AWS, the command's senior enlisted advisor, CMSgt. Howard M. Bock, exclaimed, "Our super young people did it again!"

Tests weather units, military services

'Team Spirit' proves Allies ready in ROK

by

Capt. Paul Demmert

30WS Unit Information Officer
YONGSAN, KOREA—They came to train—train they did—and in an unprecedented manner.

The largest joint-combined field training exercise ever conducted in the Republic of Korea (ROK) ended after 11 days of intensive simulation of open warfare. Of the more than 107,000 U.S. and ROK military people who took part in Team Spirit '78, 11,000 were U.S. Air Force members.

All facets of airpower exercised equipment commanders, staffs, people, concepts and procedures. Additionally, combined and joint decision making was tested. A total of 6,866 sorties flew, with aircraft of the U.S. Air Force (USAF), U.S. Marine Corps (USMC) and ROK Air Force (ROKAF) in more than 15 models of combat aircraft, which ranged from F-111s and B-52s to O-2As and OV-10s.

The air effort was programmed in concert with ground activities and demonstrated the effectiveness of air-ground operations. Air superiority, interdiction and transport were also realistically used.

Weather support and services, conducted in a real-world scenario, were vital aspects and provided challenges in all conceivable

forms—from snow and gale force winds to stagnant haze and fog.

ALLIES

Weather support to Team Spirit was a combined ROK-U.S. effort. On the U.S. side, 1st Weather Wing used deployment and redeployment and coordinated efforts with continental U.S. (CONUS) weather wings.

Planning for employment was done by the 30th Weather Squadron (WS), in conjunction with ROKAF, U.S. Navy and USMC weather echelons.

The Air Force Global Weather Central (AFGWC), Offutt AFB, NE, provided vital inputs to all phases of planning and execution, activated special support cells and products, and exercised probability concepts for application against intensive mission tasking.

THE PLAYERS

As the exercise began, a weather support force (WSF), led by Col. Bob Julian, 30WS commander, was set up. It consisted of all AWS people assigned to U.S. bases in the ROK, augmentees from other Pacific weather units and CONUS-based forecasters and observers who augmented USAF units. Also, as part of a central production system (CPS), a tactical forecast unit (TFU) was activated at Osan



THE NERVE CENTER of Exercise Team Spirit '78 is this bunker complex, dubbed Tango C.P. (U.S. Air Force photo)

AB. The TFU provided mission control forecasts (MDFs) which were the basic exercise forecast product. They were coordinated with and used by all weather players, including other services and the ROKAF. Using the AFGWC-tailored products, which were theater coordinated, and the injection of real-time observations, provide effective to support combat-type operations.

AIR OPS

Air operations took many forms and aircraft operated from fixed, fully-equipped airdromes to limited airfields to emergency highway strips. Supporting weather people operated from permanent AWS facilities, ROKAF weather stations and even a highway runway location. Many of the AWS people lived in tent cities and ate in field messes.

AWS—ALL OVER

The WSF headquarters operated in the United Nations Command/U.S. Forces Korea/Eighth U.S. Army (EUSA) bunker known as Tango C.P. Along with WSF management and control, the Tango weather cell gave direct support to the combined battle staff 24 hours a day. The Tango cell was augmented around the clock by ROKAF forecasters who shared daily bilingual briefings to the commander in chief of the United Nations Command and other commanders.

Along with fixed facilities at Osan and Kunsan ABs, which received theater tactical air augmentation units, several ROKAF bases supported flying

units of the CONUS and western Pacific area.

Kimhae AB functioned as the buildup and tactical airlift hub. Capt. Chuck Fenly, TSgt. Bryon Worthen and SSgt. Tom Paul adapted to tent city living in rain, snow and high winds. They worked out of the ROKAF weather station an exercise airlift control element (ALCE). To keep the airlifters moving, they often gave clearance briefings in C-5 or C-130 cockpits while the engines ran.

At Sachon AB, 1st Lt. Bob Hughes and SSgt. James D. Lutes supported A-7s. They adjusted to working 24-hour days under very austere conditions to prove the CONUS augmentees could enter a new environment and provide top-notch support in a near combat situation while working with foreign allies.

At Kwangju AB, Capts. Dick Holden and "Ski" Culkowski found things less primitive. With a U.S. air base squadron there, things were more like home. They supported EB-57s and special C-130 missions.

At a ROK air base near Taegu, 1st Lt. Dick Reeve, SSgt. Dick Younger and SrA Gary Ferracane teamed with 30WS' Capts. Ron Wall and John Gray and SrA Mat Thomas to perform a dual function. They supported a wide variety of aircraft while remaining ready to become the alternate TFU.

Although operations were more hectic than normal, the three AWS detachments in Korea absorbed augmentation, deployed people and provided support almost 200

per cent the normal rate. Maj. Jack Carter's Det. 10, Kunsan AB, augmented 18th Tactical Fighter Wing (TFW) squadrons along with the 8TFW Wolf Pack.

At Osan AB, Lt. Col. Bob Thompson's people supported USAF, Korean and augmenting squadrons. Additionally, they provided support to the Korean Tactical Air Control System and kept a constant flow of defense meteorological satellite program imagery flowing to other weather units.

Det. 18, 30WS (Yongsan) and its operating locations supported EUSA field units. Lt. Col. Jim Degiovanni's people not only augmented the Tango weather cell and the 2nd Infantry Division, but expanded northern operating location operations to provide more observations from that data-sparse area.

OTHERS

Working in concert with the WSF were USMC weather teams at Yechon and Pohang ABs. At Pohang, a three-unit van complex supported Marine flying units, with weather information received through radio broadcasts. At Yechon, the Marine weathermen worked out of a ROKAF station in the same mode as at Kimhae and Sachon. The U.S. Seventh Fleet units were supported through on-board weather units and the Fleet Weather Center on Guam.

Koreans proved themselves talented and gracious hosts to AWS augmentees. Although without automation and high speed communications, they were dedicated to their—and our—profession.



CAPT. PAUL DEMMERT, left, and Republic of Korea Lt. Choi discuss the day's key events. They are deep within the Tango bunker. (U.S. Air Force photo)

Det. 10, 5th Weather Squadron

AWS detachment gives brigade an OWT

by
2nd Lt. John M. Brown
Det. 10, 5WS
Information Officer

FT. BENNING, GA—The second week of March started a new era for Det. 10, 5th Weather Squadron (WS), when the unit began its organic weather team (OWT) support to the 197th Infantry Brigade. It is the first known time a continental U.S. brigade-size Army field unit has received weather support from its own OWT.

TSgt. Paul D. Bradley, forecaster, and two observers, Sgt.

Michael A. Calvert and A1C Russ J. Turley took part in the week-long field exercise. The 197th's mission tasked the three-man crew to use 15 hours a day to provide a variety of weather services, such as hourly observations, six-, 12-, and 24-hour aviation forecasts and periodic briefings to key people.

The men worked while the 197th was in simulated combat defending a home base. Units in the exercise ranged from aviation and armor to medical services. Almost every conceivable application of weather support was made from the OWT's observations and

forecasts because instrument flight rules flying weather prevailed most of the time. Heavy rain, at times torrential, did occur on three exercise days, however.

Sergeant Bradley said, "Working with the Army in the field was a learning experience. Not only did the team learn what they do there, but how they do it. Now that I know, I feel a much more suitable forecast can be tailored for their operations. Each unit has individual weather constraints, but when you see how the brigade operates and know what their constraints are, you can do a better job. I am certain this field experience will open doors into other areas of Army weather

support which will help behind-the-counter forecasters to forecast for other units.

According to Airman Turley, "It's sometimes easy, while observing in the base weather station (BWS), to lose touch with the significance of things like specials due to sudden ceiling drops, visibility reductions or the beginning or ending of precipitation. It's just a reportable criteria there. But out in the field they are real as life. I can now better appreciate my career field and its importance to flying and field operations."

Throughout the exercise the team operated with minimum equipment and, to a great degree,

from cardboard boxes.

Maj. Terry R. Warner, Det. 10 commander and an original proponent of the OWT, said, "The team will soon receive the TMQ-22 Meteorological Measuring Set, the PMQ-4 Manual Meteorological Station, the MA-1 Field Forecaster set and a Fire Weather Kit. I think the equipment, added to that provided by the Army, will be sufficient to run a top-notch OWT."

2nd Lt. John M. Brown added, "We have a special opportunity here to get involved in rugged, challenging and demanding duties which takes a special combination of ability, dedication, physical agility and courage. We enjoy it and accept that challenge—proudly."



BRIEFINGS on weather conditions, even to Army training people using a tank as a desktop, cannot be overlooked when exercise outcome will determine the procedures for future operations. Such as the case for A1C Russ J. Turley, left, and TSgt. Paul D. Bradley, right, as they operated as part of Det. 10, 5th Weather Squadron's organic weather team in support of the 197th Infantry Brigade, Ft. Benning, GA. (U.S. Air Force photo by 2nd Lt. J.M. Brown)



IT IS NOT your normal "stroll through the woods" for A1C Russ Turley, left, and TSgt. Paul D. Bradley, right, as they function as members of an organic weather team in support of Ft. Benning, GA's 197th Infantry Brigade. Unlike surroundings of many AWS people, for people of Det. 10, 5th Weather Squadron, tanks and artillery on their way past are common sights. (U.S. Air Force photo by 2nd Lt. John M. Brown)

1st Weather squadron, 131st Weather Flight

Squadron, weather flight serve Brave Shield XVII

Two stories received by the AWS OBSERVER gave the view of Exercise Brave Shield XVII from both sides of the active duty-non-active-duty fence.

by
MSgt. R. Mautino
1st Weather Squadron
(WS) info officer

MACDILL AFB, FL—Brave Shield XVII, a U.S. Readiness Command (USREDCOM) exercise, took place in the southwestern U.S. from March 30 through April 23.

The medium-scale, joint readiness exercise involved some 23,000 active, Reserve and National Guard forces and was designated to train and evaluate selected units operating in a desert environment.

The E-3A (airborne warning and control system) was used extensively and tactical air forces were complemented by Strategic Air Command bombers.

Special E-3A support weather forecasts were prepared by the Air Force Global Weather Central along with tailored Brave Shield XVII products.

Ground forces included infantry, armor and mechanized units.

The mock war occurred when a mythical friendly country asked for military aid to reclaim territory seized by two unfriendly, neighboring countries during a border dispute.

AWS support consisted of 75 deployed and in-place weather people commanded by Col. John A. Samotis, 1WS commander.

The Joint Task Force-Seven, tactical forecast unit (TFU) was the central point of a weather "circle" around much of the western half of the U.S. people assigned to it.

People assigned to the TFU were Lt. Col. Richard I. Nummi, Maj. Charles E. Houghton (AFRes.),

Cpts. Frank J. Carvell and Robert B. Telfeyan, SMSgt. David R. Payne, MSgts. Richard L. Wolf and William J. Bourland, TSgt. James B. Sanders, SSgt. Carlos M. Renta, Sgts. Kevin P. Martin and Patrick J. Rugg, SrA Thomas E. Johnson, and A1C Robert E. Rudy and James M. Dinges.

Key weather people at other sites and bases were Maj. Robert K. Kooser, Francis O. Gantt, Wayne W. Kuppler, Don R. Vanleuven, Gerald W. Dockall, L.V. Fritze, Jack E. Poulson, Patrick Larkin, Robert W. Fisher and Lieutenant Commander R.D. Seyfarth.

Cpts. Denzil W. Miller, John T. Lauten, J.R.S. Compton, Kenneth Peterson and John F. Phillips. 1st Lts. William C. Tallman, Danny J. Smock, Richard Wohlman, Richard P. Reeve and Arthur L. Thomas. 2nd Lt. William J. Meyer; SMSgt. Roger E. Graffa; MSgts. C.R. Christenson and Lawrence Fletcher; TSgt. Richard A. Allen;

SSgt. Harold F. Lee; and Frank R. Jackson.

by

Maj. Charles E. Houghton III
131WF Information Officer

WESTFIELD, MA—Five members of the 131st Weather Flight (WF) (Massachusetts Air National Guard) recently returned from Operation Brave Shield XVII. They were the only Reserve Forces weathermen augmenting active duty weather people during the exercise.

It is the second consecutive year the 131st has taken part in a joint exercise; the last was at Ft. Bragg, NC, during Operation Solid Shield 77.

Between April 4-18, the guardsmen were at the heart of Brave Shield weather activities.

Forecasters Maj. Leander Page and Capt. John Matheson, along with observers SSgts. Henry Chase and Robert Schwaber, were deployed to Lake Mead Base, Nellis AFB, NV,

where the Air Force Forces (AFFOR) Headquarters was located. Major Page served as alternate staff weather officer to the AFFOR commander.

Maj. Charles Houghton, the 131st's chief forecaster, went to Fort Irwin, CA, to work at the Joint Task Force (JTF) Headquarters with the TFU. There, he served as an assistant staff weather officer providing two daily weather briefings to Lt. Gen. James Hughes, JTF commander, and his staff, while briefing the Joint Unconventional Warfare Task Force commander as well.

The TFU issued the current operational forecast for the entire ground and air maneuver every six hours and sent locally plotted and analyzed surface and upper air charts to subordinate weather forces. The TFU further issued point warnings for a dozen locations scattered through southern Nevada and California.

AWS salutes

To insure that the OBSERVER prints the most recent news possible, entries destined for the "AWS salutes . . ." column must arrive at MAC/OIIT, Scott, AFB, IL 62225 no later than 60 days following the event. Unit abbreviations used in the column are AWS—Air Weather Service; OL—operating location; WS—weather squadron; WW—weather wing; AFGWC—Air Force Global Weather Central; and ETAC—Environmental Technical Applications Center.

Medals

Meritorious Service Medal (oak leaf cluster OLC): SMSgt. Jon Roberts, 2WW, Kapaun AS, Germany. (Basic): Maj. Robert C. Crisler and SMSgt. John R. Zemba, AWS, Scott AFB, IL; MSgt. Clyde A. Cook, Det. 15, 15WS, WPAFB, OH; and MSgt. Robert F. Walker, Det. 12, 7WW, Richards-Gebaur AFB, MO.

Air Medal: SSgt. Vickiann Esposito, Det. 4, AWS, Andersen AFB, Guam.

Air Force Commendation Medal (OLC): TSgt. Phillip G. Lemon, 1 WW, Hickam AFB, HI; SSgt. Deryl E. Thomas, 2WW, Kapaun AS, Germany; MSgt. Donald A. Labonte, AWS; and MSgt. Nels R. Roseland, Det. 21, 2WW, Kapaun AS, Germany. (Basic): 1st Lt. Paul H. Harris and A1C Scott E. Markle, 2WW, Kapaun AS, Germany; MSgt. Barry E. Golembiewski, Det. 5, 7WS, Katterbach, Germany; MSgt. David L. Beets and SSgt. James A. Autry, Det. 3, 11WS, Shemya AFB, AK; Capt. Thomas H. Farr, Det. 36, 31WS, RAF Alconbury, UK; Sgt. David Hudson, Det. 5, AWS, Keesler AFB, MS; SrA John S. Kenny III, Det. 16, 25WS, Nellis AFB, NV; and SrA Frances C. Ungar, Det. 21, 9WS, Minot AFB, ND.

Air Force Outstanding Unit Award: Capt. James S. Perkins, Det. 5, AWS, Keesler AFB, MS.

Air Force Good Conduct Medal (five OLC): TSgt. Leonard C. Hume Jr., Det. 4, AWS, Andersen AFB, Guam; TSgt. John B. Gordon, Det. 15, 25WS, Luke AFB, AZ; and TSgt. Walter R. Livingston, Det. 25, 5WW, Howard AFB, CZ. (Four OLC): SSgt. Reinaldo Alers, Det. 25, 5WW, Howard AFB, CZ; and MSgt. Patrick G. Lee, Det. 36, 31WS, RAF Alconbury, UK. (OLC): SrA Peter M. Copeskey, Det. 25, 5WW, Howard AFB, CZ; and SSgt. Debra L. Whitacre, Det. 4, AWS, Andersen AFB, Guam. (Basic): Sgt. Randy H. Julien and SrA Allan R. MacDonald and Michael S. Rogers, Det. 20, 7WW, Little Rock AFB, AR; SrA Robert C. Cunningham, Det. 21, 9WS, Minot AFB, ND; SrA Michael J. McAllister and Bartlett C. Hagemeyer, Det. 4, AWS, Andersen AFB, Guam; Sgt. Robert D. LaFebre and SrA John S. Kenny III, Det. 15, 25WS, Nellis AFB, NV; SrA Brian R. Kerins, Det. 24, 26WS, K.I. Sawyer AFB, MI; Sgt. James S. VanHorn and SrA Mary J. Daigle, Marjorie I. Dickson and Thomas J. VanBuren, Det. 30, 2WS, Vandenberg AFB, CA; SrA Andrew A. Farley III, Det. 36, 31WS, RAF Alconbury, UK; SSgt. John R. Schneider, OL—C, 7WS, Bad Toelz, Germany; and TSgt. Robert W. Platt and SSgt. Kathy D. Endres, Det. 6, 7WS, Fulda, Germany.

Special honors

(Parentheses indicates unit providing the honor when other than the individual's organization.)

Airman of the Month: A1C Dana L. Eldredge, ETAC (Scott AFB, IL); SrA Donnie R. Galarowicz, Det. 16, 25WS (Nellis AFB, NV); SrA Michael R. Ouellette, for March, and SrA Alan J. Kolata, for April, Det. 5, AWS, Keesler AFB, MS.

Airman of the Quarter: A1C Wilson R. Dodge, AWS; A1C Jeffrey D. Nelson, De. 6, 15WS, Hill AFB, UT; A1C Scott T. Klaiber, Det. 2, 1WW, Andersen AFB, Guam; A1C Donald W. Britton, Det. 3, 12WS, Malmstrom AFB, MT; A1C Michael Hunnicutt, Det. 10, 2WS, Eglin AFB, FL; SrA Cleofas Zapata Jr., Det. 3, 11WS (Shemya AFB, AK); Sgt. William E. Rogers, Det. 30, 2WS, Vandenberg AFB, CA.

Editor of the Quarter: Sgt. John M. McKinney, Det. 40, 2WW, RAF Croughton, UK.

NCO of the Quarter: SSgt. Wayne Strang, Det. 6, 12WS, Peterson AFB, CO; SSgt. Bruce H. Brooks, Det. 2, 1WW, Andersen AFB, Guam; TSgt. Richard H. Prewitt, Det. 3, 12WS, Malmstrom AFB, MT; Sgt. Larry E. Haynes, Det. 5, AWS, Keesler AFB, MS; TSgt. Jose B. Carpenter, Det. 10, 2WS, Eglin AFB, FL; Sgt. Rodney G. Burggraff, Det. 30, 2WS, Vandenberg AFB, CA.

Senior NCO of the Quarter: MSgt. Joseph R. Carney, Det. 3, 7WS, Shemya AFB, AK (7WS).

Junior Officer of the Month: Capt. James G. Schofield, ETAC (Scott AFB, IL); and Capt. Kenneth A. Nash, Det. 2, 1WW, (Andersen AFB, Guam).

SSgt. Harold F. Lee, Det. 29, 25WS, Buckley ANGB, CO, was elected president of the local sports club.

Maj. John Orndorff, Det. 11, 2WS, Patrick AFB, FL, was thanked by the students and faculty of Eau Gallie High Schools for his address to them on weather as a career.

SSgt. Vickiann Esposito, Det. 4, AWS, Andersen AFB, Guam, received a pin for having logged 2,000 hours flight time in the WC-130 Hercules.

For the sixth time, Det. 1, 31WS, Bitburg AB, Germany, was recognized for outstanding support by the 36th Tactical Fighter Wing.

SrA John C. Schoedel and Sgt. Douglas M. Warabak, Det. 12, 5WS, Ft. Devens, MA, earned awards in a local photo contest. Airman Schoedel took a second, two thirds and an honorable mention. Sergeant Warabak received a third place and an honorable mention. Both men's photos will compete at Forces Command level.

SrA Eugene S. Roberts Jr., OL—C, 7WS, Bad Toelz, Germany, received a letter of appreciation for voluntarily instructing skiing for the 10th Special Forces Group (Airborne) Headquarters Company during its 1978 ski training.

Safety awards went to OL—B, AFGWC, Boulder, CO; Sgts. Stephen L. Murphy and Stephen B. Rademacher; and SrA Cleofas Zapata Jr., Det. 3, 11WS, Shemya AFB, AK; and 1st Lt. Arthur L. Thomas, Det. 16, 25WS, Nellis AFB, NV.

SMSgt. Juan M. Longoria, Det. 75, 3WS, Hurlburt Field, FL, received a pin on his initiation into the "Rat Pack," recently. It happened during the NCO Association's celebration of the USAF Senior NCO Academy (Gunter AFB, AL) fifth anniversary. The "Rat Pack" pin is given to members who make outstanding contributions to community service and membership recruiting.

Education

Capt. Wilbur G. Hugli, OL—C, 7WS, Bad Toelz, Germany, was awarded a masters degree in geography through the University of North Carolina—Charlotte.

SMSgt. Ronald F. Prezio, Det. 3, 7WS, Heidelberg, Germany, was awarded a master of science degree in business administration through Boston University.

1st Lt. Lloyd L. Anderson Jr., Det. 15, 24WS, Vance AFB, OK, was awarded a masters degree in guidance and counseling through Phillips University.

Having completed various service schools are: NCO Academy: SSgts. William E. Elliott, Susan J. Goodale and Louis B. Wooding; TSgts. Daryl H. Kilgore, Frederic W. Crocker, James E. Burlingham, Donald Hines, Richard P. Maszak and John J. Slaby; and MSgts. Daniel R. Murray and Kenneth A. Brown.

Squadron Officer School: 1st Lts. David S. Ladwig, Michael A. Kuchinos, Lloyd L. Anderson Jr., and Arthur L. Thomas.

Weather Specialist Course: Sgt. Jimmy L. Newsome; and Amn James J. Fuller and Debbie Penrod.

NCO Leadership School: SSgts. Michael F. O'Hearn, Terry M. Case, John R. Jacobs and Sherry A. Robinson; and Sgt. John F. Meyers III.

Staff Weather Officer Course: CMSgt. William E. Nelson and Capt. David G. Whitford.

Satellite Intercept Course: Capt. David G. Whitford. Air Command and Staff College: Capt. Jimmy D. Warren and Maj. George E. Wortham.

Phase I, NCO Training; SrA Norman F. Gotch, Susan M. Singler, Ronald C. Mueller, and Craig B. Bussard.

Phase II, NCO Training: Sgt. Lynda J. Tooley and SSgt. Fred Chapman.

Weather Technician Course: Sgt. Teddy E. Mullican. Navy Mathematics Course: Sgt. Donnie R. Galarowicz and SrA Jack Tones Jr.

Community College of the Air Force: SMSgt. Charles T. Nelson; MSgts. Lawrence H. Fletcher and Albert Chavez; TSgt. Dennis A. Pukall; and SSgt. Harold F. Lee.

Promotions

To lieutenant colonel: Michael T. Schwitters, Det. 3, 12WS, Malmstrom AFB, MT; and George P. P. Emodi, 3WW, Offutt AFB, NE.

To major: Kenneth L. Wantzloeben, 7WS, Heidelberg, Germany, and Charles R. Abernathy, Det. 3, 7WW, Charleston, AFB, SC.

To captain: Michael L. Jamilkowski, Det. 3, 11WS, Shemya AFB, AK.

To senior master sergeant: Thomas E. Lettenberger, Det. 30, 2WS, Vandenberg AFB, CA.

To master Sergeant: Philip D. Henderson, Det. 1, 7WS,

Feucht, Germany; Ronald Belaus, Det. 2, 7WW, Travis AFB, CA; John A. Tritz, Det. 75, 3WS, Hurlburt Field, FL; and David L. Beets, Det. 3, 11WS, Shemya AFB, AK.

To technical sergeant: Ricardo Rivera, Det. 10, 5WS, Ft. Benning, GA.

To staff sergeant: (Correction of April entry) Dan T. Weaver and Donna S. Kirckof, Det. 7, 15WS, Kelly AFB, TX; Robert J. Kier, Det. 75, 3WS, Hurlburt Field, FL; Steven R. Meyer, Det. 2, 7WW, Travis AFB, CA; Erich Horn and Richard K. George, Det. 7, 9WS, March AFB, CA; Dwight L. Love, Det. 5, 7WS, Katterbach, Germany; and Kerry A. Enebrad, Det. 15, 30WS, Osan AB, Korea.

To sergeant: Barbara Taylor, 7WS, Heidelberg, Germany; Marshall W. Baer and Larry E. Haynes, Det. 5, AWS, Keesler AFB, MS; Thomas C. Corbin, Det. 2, 5WS, Ft. Belvoir, VA; Lawrence C. Harper, Det. 3, 12WS, Malmstrom AFB, MT; Lauris S. Higgins, Det. 36, 31WS, RAF Alconbury, UK; Michael A. Calvert, Det. 10, 5WS, Ft. Benning, GA; Richard A. Goodman, Det. 21, 2WW, Kapaun AS, Germany; Bill Wigton, Det. 11, 7WW, McChord AFB, WA; Richard A. Cane, Det. 7, 15WS, Kelly AFB, TX; Timothy A. Kalb, Det. 11, 25WS, Cannon AFB, NM; Brian W. Tenny, Det. 3, 31WS, RAF Lakenheath, UK; Michael D. Gardner, Det. 12, 7WW, Richards-GeBaur AFB, MO; Richard P. Hofer, Det. 3, 11WS, Shemya AFB, AK; and Donnie R. Galarowicz, Det. 16, 25WS, Nellis AFB, NV.

To senior airman: Thomas C. Cunningham, Det. 8, 30WS, Kadana AB, Japan; Chester Richey, Det. 30, 2WS, Vandenberg AFB, CA; Frenda Blakney, OL—D, Det. 3, 12WS, Fargo, ND; Craig B. Bussard, Det. 30, 2WS, Vandenberg AFB, CA; Peter M. Copeskey, Det. 25, 5WW, Howard AFB, CZ; Ronald C. Mueller and Susan M. Singler, Det. 3, 7WS, Heidelberg, Germany; Joseph M. Thomas, Det. 10, 7WS, Kitzingen Germany; Nancy B. Cohen, TUSLOG Det. 2; Roy G. Zacharias Jr., Det. 2, 7WW, Travis AFB, CA; Terri A. Hutson, Ray C. Cull and Michell Manning, ETAC, Scott AFB, IL; and Michael J. McAllister, Bartlett C. Hagemeyer and Peter E. Keegan, Det. 4, AWS, Andersen AFB, Guam.

To airman first class: Shelley C. Haman, Det. 30, 2WS, Vandenberg AFB, CA; Dewey E. Harms and Debora M. Balzer, Det. 10, 2WS, Eglin AFB, FL; Alfred A. Wohlegemuth, Det. 21, 9WS, Minot AFB, ND; Donald D. Tompkins, Det. 3, 11WS, Shemya AFB, AK; Howard C. Eaton, Det. 12, 5WS, Ft. Devens, MA; and Larry R. Daugherty, Det. 21, 2WW, Kapaun, Germany.

To airman: Stephen W. St. John and Robert A. Molinia, Det. 30, 2WS, Vandenberg AFB, CA; Joshua L. Godsey, Det. 3, 12 WS, Malmstrom AFB, MT; and Thomas M. Simon, Det. 21, 9WS, Minot AFB, ND.

Civilian honors

Ernest P. Flippo, a technical advisor with Det. 20, 7WW, Little Rock AFB, AR, received an outstanding performance award.

Niles McGuire, 15-year-old son of Maj. and Mrs. Dan McGuire, Det. 10, 7WW, McGuire AFB, NJ, recently became a member of the National Honor Society (high school) by maintaining a grade average of 3.6 or higher.

Eleanor Potts, wife of SSgt. Dennis W. Potts, Det. 1, 7WW, Andrews AFB, MD, is her base's 1977 Family Service Volunteer of the Year.

Marriages

SrA Ronald C. Mueller, Det. 3, 7WS, Heidelberg, Germany, married Deborah Elledge, April 5, in Copenhagen, Denmark.

A1C Craig J. Hugger, Det. 4, AWS, Andersen AFB, Guam, married Janice Conti, March 11, in South Hadley, MA.

SSgt. Michael F. Howell, OL—A, 7WS, Frankfurt, Germany, married Ursula Michel, March 21.

SSgt. Kenneth E. Lucius, Det. 30, 2WS, Vandenberg AFB, CA, married A1C Sharon L. Fitz, of a Rhein Main AB, Germany, unit, April 7, in Kentucky.

Births

Capt. and Mrs. Robert C. Henry Jr., son, John Allen, Feb. 16. Father with Det. 16, 25WS, Nellis AFB, NV.

SrA and Mrs. Jimmie L. Harrington, daughter, Michelle Diane, Feb. 18. Father with OL—C, Det. 18, 30WS, Camp Casey, Korea.

Capt. and Mrs. Michael C. Patton, son, Donovan Edward, March 1. Father an aerial weather reconnaissance officer with Det. 4, AWS, Andersen AFB, Guam.

(Continued on next page)

'Market Garden,' subject of 'A Bridge Too Far'

A lesson from history

Big air operation fights enemy, weather

by
John Fuller
AWS historian

Operation Market Garden, the Allied airborne invasion of the Netherlands in September 1944, is the classic study of how weather and weather support effects airborne operations in war.

By September 1944, the American pursuit of the Germans across France had halted in the shadows of Germany's "west wall"—the Siegfried Line in the south and the Rhine River in the north. Allied intelligence experts believed the Germans were disorganized, demoralized and that a final all-out push would cause Germany's collapse. On Sept. 10, Gen. Dwight D. Eisenhower, who commanded all Allied ground operations on the continent, agreed to channel all available support to a bold plan by Field Marshal Sir Bernard L. Montgomery to turn the west wall's northern flank.

Marshal Montgomery's plan was to drop three airborne divisions behind German lines to clear a narrow 60-mile-long corridor from the Netherlands' southern border north to Arnhem, roughly paralleling Germany's border. The British Two Army would then rush over the airborne carpet and turn the northern flank at Arnhem for a direct thrust across the northern plains into Germany's heart. The plan, code named "Market Garden," depended on the capture of several bridges, primarily the northern-most span, the bridge across the Rhine River at Arnhem—characterized by author Cornelius Ryan in his best seller as "A Bridge Too Far."

Market Garden was the largest airborne operation of any war. The ambitious plan called for 35,000 troops and supporting equipment to be airlifted from England on three successive days. They came from the First Allied Airborne Army or FAAA (which included the American 82nd and 101st Airborne Divisions of the U.S. XVIII Corps), commanded by Lt. Gen. Lewis H. Brereton. More than 20,000 men, 500 vehicles, 330 artillery pieces and 590 tons of equipment were to be delivered the first day.

The movement used 24 American and British bases, involved some 4,700 Allied aircraft on D-Day (the greatest number ever used on a single airborne mission), including bombers to soften up German positions, fighters for escort and

flak suppression, 600 gliders and 2,000 troop-carrying planes—mainly C-47s. It took two hours and 15 minutes just to get the troop carriers off the ground that first day.

WEATHER CALLS SHOTS

As in many other operations, Market Garden's D-Day was determined by the weathermen. Weather support for the operation was a joint responsibility. The senior meteorological officer from the Royal Air Force (RAF) was Mr. L. Jacobs. From the U.S. Army Air Forces (AAF) was Lt. Col. Richard J. Kent, of Air Weather Service's 21st Weather Squadron (WS). Colonel Kent was also staff weather officer to the AAF IX Troop Carrier Command (TCC) which, together with the RAF's 38 and 46 Groups, were the FAAA components that provided the bulk of the needed airlift. Tactical units of the IX TCC were supported by detachments of the 21WS, which had about 1,100 people assigned.

Colonel Kent and Mr. Jacobs briefed the official forecasts to General Brereton and his staff. They were coordinated consensus forecasts, reached through six formal and many informal conferences daily between the FAAA meteorological (met) section and all of the major RAF and U.S. forecasting centers in England. Each day at 4:30 p.m., Colonel Kent and Mr. Jacobs released the official forecast for the next four days—forecasts prepared to a great degree with mairtyping (analogue) techniques pioneered in AWS by Lt. Col. Irving P. Krick, who was also stationed in England. Twenty-four hour weather outlooks for the next day's operations were issued 18 hours beforehand, and four hours later an official 24-hour operational forecast was made, amended each two hours as needed. The two reports were based primarily on observations taken by 21WS and 18WS units scattered throughout England and France, and weather reconnaissance (recce) data gathered by Allied aircraft three times daily. The recce data was timed to reach the FAAA met section eight, six and four hours before each day's operation.

Weather was critical to Market Garden, particularly the airborne assault phase. To keep control of gliders in tight formation called for good visibility and no turbulence. Clouds, dispersed formations and

turbulence could make the fragile gliders unmanageable and snap tow lines. Poor visibilities were the greatest hindrance to glider pilots—who airlifted one-third of the 35,000 airborne troops. Gliders could easily be released at 1,500 feet, but if clouds forced them lower, they were easy targets for anti-aircraft fire.

Low cloud ceilings and visibilities doubled the hazards for paratroopers, who didn't want to jump when surface winds were more than 20 miles per hour (mph).

Cloud cover, ceilings and visibilities were also critical to the aerial resupply, close air support and air interdiction necessary once paratroopers were on the ground.

During Market Garden, the minimum operational criteria established for glider operations were 1,500-foot cloud ceilings and one and one half mile visibilities; for paratroop operations it was 1,000-foot ceilings, one mile visibility and no more than 25 mph surface winds.

Weather in the North Sea area is notoriously changeable, even though at its best during summer and early autumn. Weathermen found that three-day periods of good weather occurred in-

frequently, so they looked for a static high pressure system over the battle area.

At 4:30 p.m., Saturday, Sept. 16, Colonel Kent and Mr. Jacobs briefed General Brereton that favorable weather would occur the next four days. A high pressure system would be over Belgium on Sunday and fair weather, with few clouds and gentle winds, would prevail until Wednesday. Fog was forecast to start on Monday, but only through early morning. At 7 p.m. General Brereton decided Market Garden's airborne carpet would be laid along the road to Arnhem the next day.

THE LAUNCH

At 8 a.m., Sunday, some two hours before Market Garden leaped off, the final operational forecast was issued and called for generally favorable weather. The weather was as forecast.

In immense triple columns, together at least 10 miles across and approximately 100 miles long, the vast air armada crossed the English Channel.

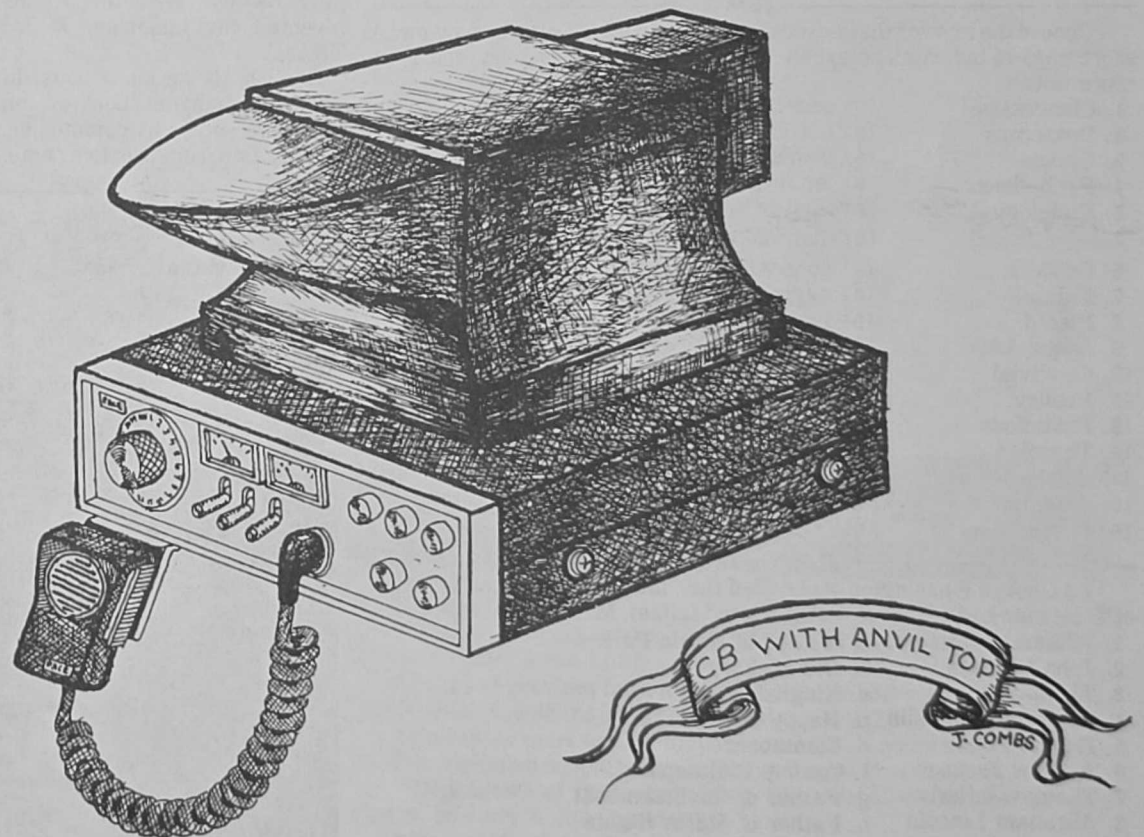
The airdrops were accurate and efficient; they caught the Germans by surprise; and most major first-day objectives were met, although

casualties were heavy and communications on the ground were disrupted.

One of those who jumped with the 101st into the Netherlands was the 21WS' Sgt. John F. Motylewski. He stayed with the division until it was relieved a few days later, sending back weather reports as fighting would permit.

Weather problems developed on D-Day plus one, Sept. 18. At 6 p.m. on D-Day, General Brereton decided to delay the second wave of drops by three hours. The forecast predicted that the morning fog over bases in England would not lift until around 11 a.m. Otherwise, the weather at all other points was suitable.

The weather began as forecast, as did the air assault missions. Some 1,600 troop carrier aircraft and 1,200 gliders carrying 7,500 men, arms and supplies made the trip. However, the weather delay put the allies behind schedule just as German resistance stiffened, particularly near Arnhem, where the bridge was intact. British airborne troops there had serious losses. Yet, success could come when a Polish paratroop brigade, some 1,500 strong, dropped near Arnhem the next morning.



AWS salutes (Continued from opposite page)

Capt. and Mrs. Danley W. Brown, son, Donald, March 20. Father commands Det. 4, AWS, Andersen AFB, Guam.
SrA Giovanni and A1C Melanie LeMaster, son, Giovanni Nathan, March 21. The new mother is an observer with Det. 11, 25WS, Cannon AFB, NM.
SrA Laurie Books and husband, son, Casey John, March 21. Mother an observer with Det. 3, 3WS, Myrtle

Beach AFB, SC. Father with a local base unit.

Sgt. and Mrs. Stephen L. McArthur, son, Mathew Louis, March 25. Father with Det. 20, 7WS, Little Rock AFB, AR.

Sgts. William and Jennifer Denny, son, Nicholas Edward, March 25. Parents with Det. 23, 7WW, Kirtland AFB, NM.

1st Lt. and Mrs. Brian A. Moore, son, Scott Alexander,

March 26. Father with ETAC.

SSgt. and Mrs. Richard K. Comfort, daughter, Katherine Jean, March 27. Father a forecaster with Det. 11, 9WS, Beale AFB, CA.

SrA and Mrs. Andrew D. Warren, daughter, Carrian Nicole, April 11. Father an observer with Det. 23, 3WS, Moody AFB, GA.



CAPT. ANN SMETHURST, former weather officer and recent pilot training graduate, discusses the weather with MSgt. Paul Crimmins, as he completes a DD form 175-1 at Williams AFB, AZ. Captain Smethurst is assigned to fly the EC-135 at Offutt AFB, NE. (U.S. Air Force Photo)

Maj. Gen. T.A. Aldrich

Former AWS commander retires

SCOTT AFB, IL—Maj. Gen. Thomas A. Aldrich, commander of AWS in 1973 and 1974, retired April 1. His last active duty assignment was as the Military Airlift Command's (MAC) 22nd Air Force commander.

During General Aldrich's tenure as AWS commander, several events of historical significance took place. The command gained its first woman weather reconnaissance crew member; Elmendorf AFB, AK, saw its liquid propane cold fog dissipation system become operational; Palace Weather began management of weather officer's personnel actions—which later expanded to include enlisted members as well; and a program

designed to qualify enlisted people as forecasters as well as observers was initiated.

Among his last honors as 22nd Air Force commander came on the eve of his final day of active duty. At a special ceremony at Travis AFB, CA, General Aldrich was inducted into the Order of the Sword, an honor given by enlisted members to highly respected military leaders, such as Gen. Robert E. Lee in the 1860's.

General Aldrich, 54, began his military career in 1942 as an enlisted man in the Army Air Forces. Two years later he was commissioned. Since then he became a pilot, served in many AWS positions, was a staff member at the Air War College and the Air

Command and Staff College; became the only known AWS man to simultaneously be a base commander (it happened while he served at Avalon Airfield, Victoria, Australia); and was twice a staff member of MAC. He commanded U. S. Forces, Azores, before taking command of AWS.

He twice earned the Legion of Merit and Meritorious Service Medals, plus several other foreign and U.S. decorations.

According to MAC officials, on his retirement from the Air Force, General Aldrich will assume the post of vice president and corporate representative of Anheuser-Busch Incorporated in the Western part of the U.S.

Test your knowledge of history, language

OBSERVER readers are among the world's experts in relation to meteorology. Here is a chance to test just how wide your general knowledge is as well—Editor.

IBM

Choose the answer that best defines each of the words given below. A score of 15-16 indicates an excellent vocabulary, 12-14 is good, and 10 or more is fair:

- | | |
|-----------------|--|
| 1. Clandestine | (a) secret (b) portentous (c) insane |
| 2. Dexterous | (a) matching (b) skillful (c) capable |
| 3. Gauche | (a) awkward (b) innocent (c) modern |
| 4. Pachyderm | (a) embryo (b) elephant (c) suitcase |
| 5. Philology | (a) study of linguistics (b) study of bones (c) study of ideas |
| 6. Condone | (a) condemn (b) forgive (c) slander |
| 7. Militant | (a) aggressive (b) academic (c) lazy |
| 8. Placid | (a) braided (b) calm (c) flexible |
| 9. Loquacious | (a) gracious (b) courageous (c) talkative |
| 10. Convivial | (a) alive (b) talented (c) friendly |
| 11. Penury | (a) altruism (b) poverty (c) wealth |
| 12. Fastidious | (a) fussy (b) quick (c) tiresome |
| 13. Thespian | (a) alien (b) actor (c) bacteria |
| 14. Repose | (a) melancholy (b) ease (c) anger |
| 15. Retention | (a) remembrance (b) reselling (c) detaining |
| 16. Malediction | (a) oratory (b) hymn (c) curse |

Famous Aliases

As George Washington was called the "father of our country," each of these men had a famous "other name" (alias). Match them.

- | | |
|------------------------|----------------------------|
| 1. William Bryan | a. Wizard of Menlo Park |
| 2. John Calhoun | b. Old Hickory |
| 3. Thomas Edison | c. Kingfish |
| 4. Benjamin Franklin | d. Happy Warrior |
| 5. Robert Fulton | e. Commoner |
| 6. Andrew Jackson | f. Cowboy Philosopher |
| 7. Thomas Jefferson | g. Father of the Steamboat |
| 8. Abraham Lincoln | h. Father of States Rights |
| 9. Huey Long | i. Sage of Monticello |
| 10. Will Rogers | j. Poor Richard |
| 11. Theodore Roosevelt | k. Rail Splitter |
| 12. Alfred Smith | l. Rough Rider |

King's English

Great Britain and the U.S. speak the same language, but with different accents—and sometimes with different meanings or words for the same items. Give the American words for these words used in England. 1. Lorry 2. Petrol 3. Draughts 4. Torch 5. Pram 6. Flat (Taken from the American Forces Press Service) **Answers on Page Three.**

Names add to language

Spoken English, as American's know it, often seems to be a race between speakers and listeners—to see if our words can outrace the understanding of the receivers.

An old joke tells of an Englishman arguing with an American. The Englishman insisted the conveyance they watched was a "tram." The American, in turn, insisted it was a "trolley." Finally, the American flatly stated, "Look. We Americans invented it. It is a trolley." The Englishman, looking down his nose, responded, "That may be—but WE, the English, invented the language. It is a TRAM."

English, as we know it, is fluid and ever changing. Look at some words we accept as commonplace which came from people's names.

Lynch law—Justice of the Peace

Charles Lynch

Ohm—Georg Ohm

Ampere—Andre Ampere

Watt—James Watt

Pasteurization—Microbiologist

Louis Pasteur

Diesel—Automotive inventor

Rudolf Diesel

Raglan sleeve—Crimean War

leader Lord Raglan

Windsor knot—The Duke of

Windsor

Sandwich—The Earl of Sandwich

Celsius—Swedish astronomer

Anders Celsius

Fahrenheit—German physicist

Gabriel Fahrenheit

And the list goes on. (Rewritten

by David F. Barr from information

provided by the American Forces

Press Service)



STORMY, the unofficial mascot of Det. 15, 25WS, Luke AFB, AZ, had triplets. The friendly feline now makes her home in the office of Lt. Col. David A. Bush, Det. 15 commander. Stormy's kittens names: "Tornado," "Typhoon" and "Hurricane." What else? (U.S. Air Force photo)



'TEAMWORK, at home and away' is the apparent way of doing things for 1st Lts. Larry and Joanne Moore, Det. 2, 7th Weather Wing, Travis AFB, CA. The husband and wife team briefs a Strategic Air Command crew. At Travis AFB, the 307th Air

Refueling Group allows Det. 2 members to accompany the tanker crews to see for themselves the effects of weather on air-to-air refueling operations. (U.S. Air Force photo)

Observation

Consumer brochure available

PUEBLO, CO—A brochure titled "Federal Consumer Services," is available to all AWS members free of charge. The publication lists toll-free numbers for government offices which can provide services to the public. The brochure may be obtained by writing: Consumers' Information Center, Pueblo, CO 81009.

'To smoke, or not to smoke — —that is the directive'

WASHDC (AFNS)—Weather people who do not smoke can breathe a (clean) sigh of relief in conference rooms, classrooms, elevators, auditoriums and in ground shuttle vehicles—while heavy smokers delay their habit until they are elsewhere. This comes from regulation (AFR 30-27) distributed the end of April.

The regulation established smoking policies for work, eating and medical facilities as well.

AF gives senior EM hopefuls new materials, testing period

RANDOLPH AFB, TX (AFNS)—Weather people testing for promotion to senior and chief master sergeant, as will the rest of the Air Force members desiring that grade, this year will have new study references and a new testing period for the USAF Supervisory Examination.

Persons who received Extension Course Institute Course 008 last year can use the same material for this year's test. However, persons who received the course through voluntary enrollment should obtain two supplementary volumes.

Starting this year, the examination will be administered only in September for use in the fiscal year 80S-8/9 promotion cycle. The testing period lasts only one month.

Direct questions to local personnel officials.

Civilian ideas save \$319 million

WASHDC (AFNS)—Federal employees' cost-saving ideas and other actions produced measurable benefits of \$319 million during fiscal year 1977. The Air Force was the top agency performer for the year, with \$65.8 million in benefits from employee suggestions.

The U.S. Civil Service Commission released these and other statistics recently showing 56,000 employee suggestions were implemented within federal organizations. More than 150,000 employees received honorary or cash awards.

RP-based units' tours lengthen

RANDOLPH AFB, TX (AFNS)—Members of Det. 5, 1st Weather Wing assigned to Clark AB, RP, after Nov. 30, will serve longer tours than the people presently there. Accompanied tours there will be 36 months instead of the 24 months of the past. All other tour lengths will increase from 15 to 18 months. Volunteers already selected for the assignment may request a release if the increased tour length would create a hardship, officials said. Volunteers not yet selected may change their assignment preference statements. Tour lengths at other Philippine locations, except Camp John Hay, which has the same tour increases as Clark AB, remain unchanged from the past.

MAC gains new top inspector

SCOTT AFB, IL (MNS)—Military Airlift Command personnel officials recently announced that the command has a new inspector general as of June 1. He is Brig. Gen. Don W. Bennett. General Bennett succeeds Col. William J. Mall Jr., who now commands the 436th Military Airlift Wing at Dover AFB, DE. He succeeds Brig. Gen. Click D. Smith Jr., who now commands the 435th Tactical Airlift Wing, Rhein Main AB, Germany.

Airman cites 'some facts' on bike safety

BY
SrA Michael A. Brand
Det. 17, 30WS

YOKOTA AB, JAPAN—In Japan the price of gasoline and oil is high. For this reason, many people use motorcycles or motorscooters—sometimes they call them "bikes" or "cycles" or "machines."

Let's look at some facts about motorcycling.

First, look at your bike. Each type of cycle has a specific mission. Why buy a big road bike for a road bash in the dirt?

Try to match the size of the bike to the rider. What would happen if your bike was too big when you had to support its weight by putting both feet on the ground?

What should you wear when riding a cycle?

Protective, reflective clothing can be a biker's best friend. Because replacement parts are hard to come by, riders should protect the body areas they are fond of—and that is everything.

Air Force law (and agreement with Japanese law here), says you will wear a helmet both on and off base when riding a cycle. Buy the best helmet you can afford—and consider the price of the head it will protect when making your decision. After all, it doesn't make sense to spend a small fortune on a good bike and then buy the cheapest helmet you can find. For my money, get a full face helmet which protects the chin and nose as well as the rest of the head.

Gloves, long trousers, a long-sleeve shirt with a jacket and good boots should be as much a part of cycle riding as the handlebars and tires. Even the best of riders may have to "lay it down" or "walk off the back" to avoid an accident, so be dressed for that occasion too.

Be completely familiar with your machine and the laws governing its operation.

Finally, but far from being the least important, consider the factor of your job—weather.

Basically, motorcycles and scooters are fair weather machines. For this reason, the ideal time to ride them is on clear, dry days when the roads are the same.

If rain comes, remember that the first few minutes are the worst, for several reasons. When the rain starts you have a tendency to hurry—to get out of it. The bad part is you tend to hurry right when loose dirt and oil has not yet washed off the road, which is particularly slick. Brakes become sensitive to the moisture and, since each wheel is separately controlled, stay off the front brakes on a wet road. They could lock and throw you. Instead, use your gears to downshift (slowly and smoothly).

Above all, THINK!

From within



THE HANDIWORK of a weather wife now decorates the entrance to the U.S. Air Force, Europe, Weather Support Unit (WSU), Ramstein AB, Germany. It is a crewelwork (worsted yarn embroidery) of the black, white, yellow and blue emblem of the 2nd Weather Wing, as created by Pamela McSpadden, right, wife of TSgt. Fred McSpadden of the unit. Accepting the work is Lt. Col. Terrell McCorry, WSU chief. (U.S. Air Force photo)

UK edit section is no more

RAF UPPER HEYFORD, UK—The weather edit section of Det. 40, 2nd Weather Wing, here, is no more. It was replaced by four keyboard visual display terminals or KVDTs.

Guam unit hosts open house

by 1st Lt. Carol A. Sherer
Det. 4, AWS, Unit Information Officer

ANDERSEN AFB, GUAM—Not every Air Force unit can meet its customers, but that is just what members of AWS' Det. 4 did recently.

The Joint Typhoon Warning Center (JTWC) held an open house for the weather families of Det. 4 and the unit which flies them, the 54th Weather Reconnaissance Squadron.

The Center, located on Nimitz Hill, is a joint military and civilian operation which monitors the weather and issues advisories or warnings of tropical cyclones. The Center is the main customer for the information gathered by the crews of the WC-130 Hercules aircraft during storm missions.

Lt. Col. Kevin Lavin, the JTWC director, explained how weather aircraft gather data today then compared it with a system used years before. Further, he demonstrated, using photographs, how satellites assist in weather monitoring and what weather people do with the pictures produced using the satellites.



HIS ARTISTIC interpretation of the new instrument flight rule (IFR) enroute supplement highlights "how to spot low-level wind shear" for TSgt. Glenn W. Steward, Det. 18, 26th Weather Squadron, Rickenbacker AFB, OH. The illustration is at the end of the base weather station's briefing desk. Sergeant Steward, the artist, is also an observer. (U.S. Air Force photo)

Sports

Running weather man nips at Olympic runner's heels

MCCHORD AFB, WA—Grover Prowell, a forecaster with Det. 11, 7th Weather Wing, here, sets the pace for his unit, at least the pace at running.

He began running competitively in high school and kept it up in college (San Jose State, CA).

His most recent victory came during an allcomers three-mile event at Bellevue Commercial College, WA. Oddly, he didn't win but came in second—to Olympic distance runner Jerry Lindgren of Spokane. Second to an Olympic runner, according to SSgt. Richard M. Johnson, unit information officer, is a victory, of sorts.

Men bowl to AFAFC win

WURTSMITH AFB, MI—When the Weather Wizards, a bowling team made up of Det. 28, 26th Weather Squadron people, took on another base team—for money—the Air Force Assistance Fund came out the winner.

Each member of the two teams, according to pre-established rules, put five cents for each frame. To make sure the Assistance Fund made a real profit, each time a bowler doubled or converted a split, each of the person's teammates had to put in an extra nickel.

At game's end, the Fund had picked up \$15 and the Weather Wizards bowled "its best." Charlie "CB" Brenneke had high game with 206 and Dennis "Hazy" Salisbury pulled down high series with a 567.

Other members of the weather team were Joe "Rainshower" Wargo, Paul "Bowling Snow" Murphy, Earl "Thunderstorm" Wilsing and Joe "Foggy" Rebilas.

Pair jogs to President's award

PIRMASENS, GERMANY—One hundred and twenty five miles of jogging by Ken Beeman and Charles W. Duncan, Operating Location (OL) D, 7th Weather Squadron, here, qualified them for the Presidential Sports Award.

Beeman said this year he hopes to have all OL-D people involved in the Army's "Run-for-your-life" program. The weather unit provides support for the U.S. Army's 59th Ordnance Brigade here.

Kirby takes Beale Golf Tourney

BEALE AFB, CA—Paul D. Kirby Jr., Det. 11, 9th Weather Squadron, here, won the Beale AFB Open Golf Tournament recently. His win came with two rounds of 78 for a total of 156. Kirby is an observer in the organization.

Bystedt helps bowl to second

FT. DEVENS, MA—Dale M. Bystedt, station chief with Det. 12, 5th Weather Squadron, was a member of the runner-up team in the U.S. Army's Forces Command, Eastern Region Bowling Championship Tournament recently. His team had a pin total of 5,064, which left it trailing a Panama Canal Zone team's 5,532 points.

Scott golfers have meet

SCOTT AFB, IL—Weather duffers and golfers met here to take part in a recent golf roundup. Participants were from Scott AFB's various weather units.

Winners of the events were, (low net scores) Ray R. Achin, Bill Haugen, Jim Overall, Walt Dale and Helen Severit. For coming closest to the pin, honors went to Bob Martin on the front nine and Art Kyle on the back nine. Longest drives were made by Martin on the front nine and Kyle on the back nine. The longest drives were made by Frank Guiberson on the front nine and Chuck Viola on the back nine.

Joe Silva had the fewest putts and Charley Schutte the most putts. The lowest scorer was Kyle and the highest were Mary Jane Holtgrave and Cas Kacala.

The highest score on any hole was achieved by Avon Bradshaw

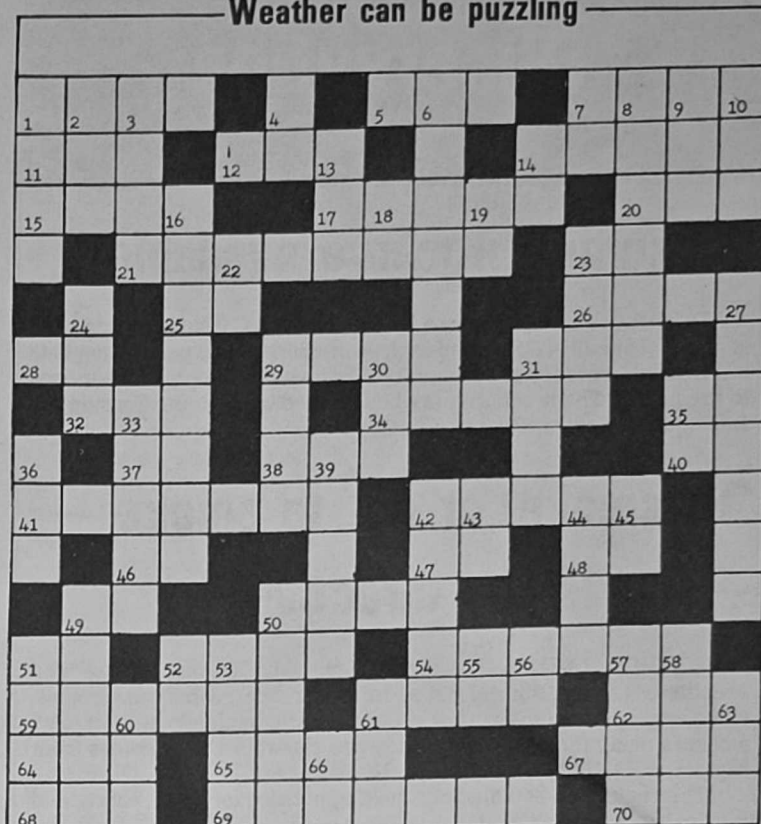
ACROSS

1. Good local forecasts require analysis on this scale.
5. Tidal movement.
7. Poems to be sung.
11. Communication system.
12. Source of the FOUS 60-76 trajectory bulletins.
14. Air mass boundary.
15. A source of atmospheric pollution.
17. Hard rain drops.
20. The new NCO forecaster's course is now a _____.
21. Violent snow carrying whirlwinds in Antarctica.
23. Near.
25. "Report card" (acron.).
26. Too much.
28. Headquarters office symbol for Safety.
29. Type of icing.
31. Viscosity measure.
32. Defunct defense system.
34. Phonetic letter.
35. Union Pacific (abbr.).
37. Home of the Rams (abbr.).
38. Solid water.
40. To be minimized in briefings.
41. Joins equal values.
42. Warmed up.
46. Third guy on the totem pole (abbr.).
47. Behold!
48. The guy who constructed this puzzle.
49. Absolute top (abbr.).
50. FPS—77 phenomenon.
51. A place to measure altitude from (abbr.).
52. A frequently used bulletin.
54. Luxury type of pool.
59. Frequently ARQed info (until recently).
61. A source of condensation nuclei.
62. Coronets were made for them.
64. Where "90-day wonders" come from (abbr.).
65. Equatorial migrator (abbr.).
67. Imaginary Pacific line.
68. Home of the World's best forecasters—according to some (abbr.).
69. Tidal wave.
70. Polar area.

DOWN

1. Occupies space and has weight (on earth).
2. SAC's mission.

Weather can be puzzling



3. Found north of 540 line.
4. Restriction to visibility (abbr.).
6. Shore and sea air movement.
7. Operationally ready (abbr.).
8. Tobacco residue.
9. The last word.
10. Home for pigs.
13. Term for measuring altitude (abbr.).
14. Unit of measure (abbr.).
16. Caused by hot air (pl.).
18. Stability index appearing on NWS FAX charts.
19. Earth satellite (abbr.).
22. Type of meteorological satellite viewing (abbr.).
23. Gel
24. Source of moisture.
27. Pacific cyclone.
29. Liquid meteors.
30. One of the Three Stooges.
31. It takes wind to fill one.
33. Often appears along the Pacific coast.
35. A type of weather report (abbr.).
36. A type of scattering.
39. Characteristic of thunderstorms.
42. The first, precedes beta.
43. Satellite name—ES.
44. Same as 53 down.
45. Office symbol for weather offices.
49. Devices for tracking weather events.
50. You are not a forecaster if you don't have these occasionally.
51. Solid Meteors.
52. Musical note
53. Be careful about doing this when analyzing a weather map.
55. Type of train (abbr.).
56. By
57. Climatology unit at Scott AFB, IL.
58. What AFGWC gets much of.
60. TN State University (abbr.).
61. Call sign for Santa Cruz, CA.
63. Bombardiers look for a small one.
66. Clouds with vertical development (abbr.).

Puzzle answers

- | | | | | | | | | | | |
|----------|-------------|-------------|-----------|----------|-------------|-----------|----------|------------|------------|--------------|
| 51. Snow | 52. Fa | 53. Omit | 55. EI | 56. At | 57. ETAC | 58. Data | 60. TSU | 61. SZN | 63. CEP | 66. CU |
| 70. Cap | 79. Tsunami | 68. WSM | 67. Date | 65. ITCZ | 64. OTS | 62. TAC | 61. Salt | 59. NOTAMS | 54. Heated | 52. FOUS |
| 38. Ice | 40. Ah | 41. Isoline | 42. Aglow | 47. Lo | 48. Me | 49. PK | 50. Blip | 51. SL | 37. LA | 23. At |
| 25. ER | 26. Gilt | 28. SE | 29. Rime | 31. SAE | 32. ABM | 34. Oscar | 35. UP | 37. LA | 30. Moe | 16. Thermals |
| 18. LI | 19. ES | 22. IR | 23. Agar | 24. Sea | 27. Typhoon | 29. Rain | 30. Moe | 31. Sail | 49. Plots | 13. MSL |
| 35. US | 36. Mie | 39. Cells | 42. Alpha | 43. GO | 44. Omit | 45. WE | 46. WE | 49. Plots | 50. Busts | 10. Sky |
| 18. LI | 19. ES | 22. IR | 23. Agar | 24. Sea | 27. Typhoon | 29. Rain | 30. Moe | 31. Sail | 50. Busts | 9. End |
| 35. US | 36. Mie | 39. Cells | 42. Alpha | 43. GO | 44. Omit | 45. WE | 46. WE | 49. Plots | 50. Busts | 8. Dottle |
| 18. LI | 19. ES | 22. IR | 23. Agar | 24. Sea | 27. Typhoon | 29. Rain | 30. Moe | 31. Sail | 50. Busts | 7. OR |
| 35. US | 36. Mie | 39. Cells | 42. Alpha | 43. GO | 44. Omit | 45. WE | 46. WE | 49. Plots | 50. Busts | 6. Breezes |
| 18. LI | 19. ES | 22. IR | 23. Agar | 24. Sea | 27. Typhoon | 29. Rain | 30. Moe | 31. Sail | 50. Busts | 4. GF |
| 35. US | 36. Mie | 39. Cells | 42. Alpha | 43. GO | 44. Omit | 45. WE | 46. WE | 49. Plots | 50. Busts | 3. Snow |
| 18. LI | 19. ES | 22. IR | 23. Agar | 24. Sea | 27. Typhoon | 29. Rain | 30. Moe | 31. Sail | 50. Busts | 2. EWO |
| 35. US | 36. Mie | 39. Cells | 42. Alpha | 43. GO | 44. Omit | 45. WE | 46. WE | 49. Plots | 50. Busts | 1. Mass |
| 18. LI | 19. ES | 22. IR | 23. Agar | 24. Sea | 27. Typhoon | 29. Rain | 30. Moe | 31. Sail | 50. Busts | 14. Ft |

NMOD

ACROSS