AIR WEATHER SERVICE

OBSERVER

1937 - A Quarter Century of Military Weather Service - 1962

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AWS - AMS Members Now Over a Thousand

More than 1,000 Air Weather Service people are now members of the American Meteorological society, the AMS council reports. This is nearly 14 percent of the society's membership.

Since the AWS commander began a campaign last year to increase AWS membership in the society, nearly 500 AWS people have applied for membership. Latest count by the society, on January 29, showed 1,012 active AWS members and applicants.

Although the Observer has no figures for AWS-AMS membership prior to the beginning of the membership campaign, the table to the right shows present (November 1961) percentages of eligible AWS forecasters who are AMS members, broken out by wings and groups.

Of the 460 AWS people who have applied for membership in the past year, all have been or will be accepted, except for 14 staff sergeants who lacked the mandatory two years of experience in meteorology. A change in AMS eligibility rules, however, now under discussion, may make them eligible sooner than under present rules.

Mere membership, General Peterson has pointed out, is not enough — the strength of a professional society comes from active participation by its members.

One such active AMS participant is TSgt Arthur A. Francis, Detachment 23, 4th Weather group, Kirtland AFB, N. M. He attended last month's AMS meeting in New York city at his own expense on permissive TDY orders.

Some members of AWS headquarters will be attending the forthcoming AMS meeting in Washington, D. C., in April. Since a military aircraft will likely take the party from Scott to Washington and back, seats may be available for other AWS attendees.

Those who would like to take advantage of this possibility, whether traveling on regular or permissive TDY or on leave, should contact Scientific Services in AWS headquarters for further information.

Memberships

	All	Offs	NCOs
AWS-wide	32%	40%	26%
AWS Hq & Clim Ctr	63	40	39
1st Wea wg	29	33	16
2d Wea wg	23	29	12
3d Wea wg	30	38	10
4th Wea wg	52	60	37
2d Wea Gp	29	36	14
4th Wea Gp	35	48	10
8th Wea Gp	23	33	10
9th Wea R Gp	31	31	—

(All figures are percentages)

FIRST CLOSED CIRCUIT TV weather facility in the Army was recently installed at Cairns Army Airfield, Ft. Rucker, Ala. Maj. Gen. Ernest F. Easterbrook (left) CG of the Army Aviation Center there, prepares to televise first broadcast over this system. Explaining its operation is Maj. William R. Kelsey, commander of Detachment 9, 16th Weather squadron. Detachment personnel operate this system located in their weather facility.

Merewether and Zimmerman Award Winners Announced

Two AWS officers and one civilian employee will receive the AWS Commanders "Merewether" and "Zimmerman" awards for 1961.

Jointly selected for the Merewether award were Lt. Col. Francis W. Murray and Capt. Hugh M. O'Neil, both of 3d Weather wing, Offutt AFB, Neb.

Zimmerman award winner was Milo J. Andre (GS-13), 1210th Weather squadron, USAF Climatic Center, Washington, D. C. **Andre is the first civilian to receive any of the six Commanders awards.**

Merewether Award

First award, named for Col. Arthur F. Merewether (Retired) who was chief of the Weather Section, Army Air Forces, from 1940 to 1942, is given a person (more than one in case of a joint contribution) who has made the most significant technical contribution to military meteorology during the year.

Lt. Col. Murray and Capt. O'Neil jointly developed a multi-level forecasting model of the atmosphere which now constitutes the basis for all operational mid and high-level prognostic weather information produced through use of automated techniques by the Global Weather Central.

Whereas forecasts for the higher constant-pressure levels had been prepared by applying a series of regression equations to the data at 500 millibar, this new model uses all available data at 500, 300, 200 and 100 mb to produce more accurate forecasts for these higher levels.

Following a comprehensive operational test period which showed that forecasts prepared by this model were significantly better than those resulting from regression techniques for periods of major synoptic development, the new model was adopted for twice-daily operational use by the Global Weather Central.

These officers solved a vital weather support problem and accomplished a major step toward full use of the tremendous po-

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Army Gains Weather TV At Cairns

Second Weather group, commanded by Col. Nicholas H. Chavasse, and the US Army recently shared a first when Ft. Rucker's commander, Maj. Gen. Ernest F. Easterbrook, made initial telecast on the first closed-circuit TV system installed at an Army airfield.

The general delivered an address of welcome and orientation over this system at Cairns Army airfield, Ft. Rucker, Alabama.

Primary function of the system is to provide weather information of any type for individual and group aviator briefings at the fort's major airfields and centralize weather facilities at the Army aviation center and school.

The system, operated by personnel of Detachment 9, 16th Weather squadron, was recently placed in general use.

At present, it consists of seven outlets at Cairns, nine at Hanchey Army airfield and five at Lowe Army airfield. Upon completion of Auxiliary field No. 3, five outlets will be installed there.

Transmission for the broadcast unit is accomplished over coaxial cable at Cairns and via microwave to the other sites equipped with outlets.

Weather Group Supports Joint Field Exercises

Second Weather group units recently furnished complete weather support to two joint Army-Air Force field training exercises.

First was Operation "Trail Break" held from Dec. 3 to 17 in the area of Camp Drum, N. Y.

Second was Exercise "Red Hills" conducted near Fort Campbell, Ky. for two weeks, beginning January 21.

These exercises provided joint operational training of 3d US Army and USAF units leading to development of joint operational tactics to insure that US Strike Command Army and AF units can deal with all contingencies.

Mission of the 2d Weather group, commanded by Col. Nicholas H. Chavasse, was:

Provide actual weather support utilizing a realistic concept of support compatible with the general situation and support to existing contingency plans.

Test concepts and procedures for providing weather support to joint Army-AF tactical operations.

Provide training to field personnel in basic support concepts and improve individual capabilities to perform contingency assignments.

Determine adequacy of tactical communications provided by the Army and the Air Force for use in transmission of weather data required to support the exercises.

Support for Operation "Trail Break" was based on a weather task force (WETAF) concept developed at Langley Field which provides for centralized control of

(Continued on page 3)

Army Commander Visits

Gen. Powell and Col. Brown.

GEN. HERBERT B. POWELL (left), CG, US Continental Army Command, visits the AF weather station at Cairns Army Airfield during his recent stay at the US Army Aviation Center, Ft. Rucker, Ala. Next to him, explaining the station's activities, is Lt. Col. Chandler R. Brown, staff weather officer.

Col. Templeton S. Walker, director of Air Operations at AWS headquarters, was placed on about six months temporary duty with Project Blue Straw Jan. 11. Lt. Col. Carl H. Morales has taken over the AWSAO director's position until Col. Walker's return.

BRIEFING ON WEATHER in the airborne drop area of Operation "Trail Break" is presented by Col. Nicholas H. Chavasse (center) 2d Weather wing commander, to Lt. Gen. Hamilton H. Howse, commanding general, XVII Airborne Corps, US Army, (left) and Maj. Gen. Theodore J. Conway, (right) commanding general, 82d Airborne Div., US Army.

AIR WEATHER SERVICE
OBSERVER

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US Air Force — Aerospace Power for Peace

ON THE ■ skew-T
AWS Global Report

From around the world and across the nation come more highlights of AWS personnel at work and at play.

Airmen First Class Joyce M. LaBove and Betty G. Bozarth of the 4th Weather wing Ent AFB, Colo., were recent distinguished graduates numbers 2 and 3 in their class at ADC's NCO prep school, also at Ent.

Grade averages were 94.78 and 94.72 respectively.

LaBove is a wing personnel specialist. She also received the Commandants award.

Joyce, who hails from Sabine Pass, Tex., came to the 4th from USAFE headquarters in September 1959. She served an enlistment in the Lady Marines prior to entering the AF.

Bozarth, a close runner-up, is a Detachment 1, 4th Weather wing, weather observer at NORAD combat operations center and hails from Miami, Fla.

Betty is leaving 4th Weather in February for Wiesbaden, Germany, where she will join her husband, SSgt Robert W. Bozarth, at USAFE.

Bozarth

LaBove

The 25th Weather squadron, Waco, Tex., climaxed 1961 with a party for 39 teenage boys of the Waco State Home. . . . . ..The party began with a film, the James Connally "Star of the East" program, followed by refreshments.

Each boy was given a gift purchased from unit funds to further the community relations program.

"It gets very hot in India," a club member said to another who was leaving for that country. "Aren't you afraid the climate might disagree with your wife?"

The man looked at him reproachfully, then said: "It wouldn't dare."

SSgt Daniel J. Minori recently became first re-enlistee at Middleton island AFS (SE of Anchorage in Gulf of Alaska) and second ever to re-enlist at any remote site in the 49th state.

He is NCOIC of Detachment 14, which was activated in 1955. It is one of 11 remote A C & W sites at which the 11th Weather squadron operates weather observing units.

Minori

Observations made at this island are transmitted by teletype to other weather stations in Alaska and to all other states for use by AF and Weather Bureau forecasters.

Minori enlisted in the AF following graduation from high school at Altoona, Pa., completed weather observer training at Chanute AFB, Ill., then served in Greenland, Germany, and Duluth, Minn., before assignment to Alaska in July 1961.

Dr. Herbert Regula of the Deutsche Wetterdienst (German Weather Bureau) Station at Rhein/Main ,Germany, was guest speaker at a recent monthly meeting of the Rhein/Main-Wiesbaden branch of the American Meteorological Society.

Dr. Regula gave some interesting views on forecasting of fog in the Frankfurt area. Also, he presented results of his extensive research into the causes of radiation fog formation and timing of the initial occurrence of fog formation.

A3c Gerald D. Cox, weather observer for TUSLOG Detachment 2 at Incirlik AB, Turkey, was recently named airman of the month for that unit.

Cox entered the AF in February 1961 and was assigned to Incirlik after completion of weather observer technical training at Chanute AFB, Ill.

Prior to entering the AF, Cox was employed as a flight instructor at Michigan State university. He acquired his commercial and instructor license at Embry-Riddle aeronautical school in Miami, Fla., and has since logged 1100 hours in single engine aircraft.

Cox lists his home town as Ionia, Mich., where he graduated from Ionia high school.

Officer's Son Wins Contest

Joseph S. Lambie, 17-year-old son of Maj. Richard A. Lambie, AWS headquarters, Scott AFB, Ill., a senior at nearby Mascoutah high school, was first prize winner in the St. Clair county "Voice of Democracy" speech contest.

Sponsored nationally by the Veterans of Foreign Wars, locally by the Belleville, Ill., radio station WIBV, Joseph's speech on "What Freedom Means to Me"

Lambie

netted him a $50 bond and an appearance on WIBV.

His entry was taped and sent to Chicago for competition in the state-wide contest where he placed third. If declared winner, he would have received an all-expense-paid trip to Washington, D. C., and would have been entered in the national finals.

A2c Dale R. Smith, Detachment 7, 11th Weather squadron, Elmendorf AFB, Alaska, was selected Airman of the Month for December.

Smith

Smith, a Detachment 7 weather observer, hails from Easton, Pa.

Entering the AF in August 1959, he completed weather observer training in Feb. 1960.

Prior to assignment to Alaska, he was assigned to Detachment 22, 8th Weather group, Perrin ABF, Tex.

Commander's Editorial . . .
AWS in AMS

By Brig. Gen. N. L. Peterson

One year has elapsed since the initiation of an effort to increase Air Weather Service membership and participation in the American Meteorological Society. Elsewhere in this issue of the Observer are some facts and figures testifying to the unprecedented success of your efforts. At this time, I think it appropriate to restate and remind you of the primary objective of this effort: **To increase the stature of Air Weather Service within the military and scientific communities, both national and international.**

During the past year we have made a good start. Through our expanded membership and increased participation at both national and local AMS meetings, we have achieved recognition as an important force within the AMS. This gives us a greater voice in AMS policies and enables us to make more worth-while contributions to advancing the science and profession of meteorology.

It is still too early for our position within the military community to have been measurably affected by our program. However, the seeds have been sown by the increased opportunities for AMS-AWS members to speak and write about what we are doing. The publication of these and future articles and speeches will not go unnoticed by the military community. During the coming year, the cumulative effect of our increased activity should become highly significant.

We should now implement a permanent program to carry on this work:

1. Familiarization with the Society as it is described in the new pamphlet outlining its membership, purposes, activities and organization; study of Society programs, philosophies and policies as published in the Bulletin.
2. Increased participation in Society activities; oral presentations at local and national meetings; submission of papers for publication in the Journal of Atmospheric Science, Journal of Applied Meteorology, AMS Bulletin and Weatherwise.
3. Regular counselling of new officers and airmen eligible for membership. Periodic solicitation of other nonmembers. Invitation to attendance as guests at local AMS meetings.

In conclusion, I want to thank the many officers and airmen throughout the Air Weather Service who are responsible for our outstanding success in AMS participation during the past year. You have rendered a distinct service to your profession, your organization and your nation.

Wives Serve Monthly Coffee

"Hurricane Hunters" of the 53d Weather Reconnaisance squadron, Kindley AFB, Bermuda, may be the first to boast of social activities in connection with their work.

On the third Friday of each month, space is set aside in the WB-50D nosedock where officer and airmen wives prepare and serve a coffee social.

Refreshments in the form of cakes and cookies are prepared alternately by the wives and served with coffee provided by the base dining hall.

In December, the annual Christmas party is combined with the coffee social, incorporating treats for dependents and gifts for the children.

For the past two years this squadron has established an outstanding record. It received the 1960 Senter Award for excellence in weather reconnaissance and, as a member of the 9th, received the Air Force outstanding unit award in 1961.

FLOOD VICTIMS of Seville, Spain, received clothing collected from 2d Weather wing units throughout Europe after the city's worst flood of the century left 1,000 homeless and countless others without proper clothing. Maj. Charles W. Vail (left) commander of the nearby Moron AB, Spain, weather detachment, and base chaplain (Maj.) T. F. Higgins examine one of the shipments.

Japanese Guests

More than 150 people from the northern Japanese cities of Ishikawa-Furodona journeyed to Yokota AB early in December to be guests of the 56th Weather Reconnaissance squadron.

The visitors were from the area where a WB-50 aircraft crashed in 1960 taking the lives of all 11 crew members.

Out of this tragedy a lasting friendship was formed, resulting in visits by several citizen groups, plus official and unofficial exchange visits by Yokota people to the northern towns.

The latest visit stemmed from suggestions made by Col. Eric de-Jonkheere, 6102d ABW commander, and Lt. Col. Eugene D. Wallace, 56th Weather Reconnaissance squadron commander, when they presented Air Force Scrolls of Appreciation to the towns of crash assistance so generously offered by the townpeople.

Highlighting the visit was a tour by 80 women of seven officers homes for a first-hand view of how Americans live, something they had expressly asked to see.

AWS Lists Staff Changes

AWS staff changes since March 1961 are shown below. These photos may be pasted over outdated photos of personnel in those positions to bring your organizational chart up to date.

Next issue of the Observer will provide a page with photos of all wing, group and squadron commanders.

Lt. Col. Carl H. Morales
Acting Director, Air Operations

Lt. Col. Robert L. Houghten
Director, AWS Project Office

Lt. Col. Thomas C. McGuire
DCS/Comptroller

Capt. Carl E. Gunderson jr
Chief, Office of Safety

Commended

Capt. Julian M. Voss, Detachment 6, 28th Weather squadron, South Ruislip, England, was recently commended for his service as " . . . advisor, leader, counsellor and friend . . . " to the Boy Scouts of America.

The commendation, directed by Maj. Gen. John H. Ives, 3rd Air Force commander, cited Voss for three years of outstanding service to American youth in the United Kingdom.

100,000 RAPCON Completed in 1961

The adage — "Wonders never cease"—may be aptly applied to a 56th Weather Reconnaissance squadron's WB-50 crew who recently landed under emergency conditions at Yokota AB, Japan.

Awaiting them at the flight line was a committee from the 2127th Communications squadron who presented aircraft commander, Capt. Gerald L. Webb with a special plaque marking the 100,000th successful radar-approach-control (RAPCON) operation during 1961.

Other members of the surprised crew were: Capt. Don L. Carter, navigator; Capt. Jack Domedicis, flight examiner; Capt. Jack R. Bonham, navigator; 1st Lt. Hatfield C. Brubeck jr., first pilot; 1st Lt. Roger T. Winn, weather recorder; TSgt Joseph L. Korbel, flight engineer; TSgt Francis J. Hill, dropsonde operator; A1c Robert Hipwell and A2c John G. Brewer, radio operators.

McDaniel Attends Aerospace Course

Maj. Howard H. McDaniel, assistant chief of Programs and Long Range Plans, AWS headquarters, attended the Air University's pilot course of the "Aerospace Operations" course for a month, beginning Nov. 14.

Mission of this new officer course is to increase the student's knowledge in the field of astronautics and acquaint him with applications of ballistic and space systems.

Maj. McDaniel prepared a critique on the course's weather portion, while each of the other 29 officers attending also submitted a critique on the portion of the course taught which dealt with his specialty.

Later, representatives of the Warfare Systems school of the AU visited Air Force Communications Service headquarters at Scott AFB.

While there, they discussed course objectives, criteria for selection of students and information for course improvements with the major and with Mr. William A. Jenner, chief of the training division AWS Operations.

These representatives learned at the time of the Aerospace Research Pilot course taught at Edwards AFB, Calif., and of the AWS curriculum developed by 4th Weather wing for the course (see page 1, Dec. 1961 issue of the Observer). They planned to review that curriculum, adding salient portions to their course.

Offers Challenge

Lt. Col. Leon M. Grisham, director of operations, 2nd Weather group, Langley AFB, Va., issues a challenge to all AWS personnel to beat his pistol score for 1961.

He qualified EXPERT with a score of 269 out of a possible 300 using a .38 caliber pistol.

SPECIAL PLAQUE, marking the 2127th Communications squadron's 100,000th successful radar approach control (RAPCON) operation during 1961, is presented to aircraft commander, Capt. Gerald L. Webb, 56th Weather Reconnaissance squadron, by the 2127th's Capt. Howard L. Saulque, at Yokota AB, Japan. Webb and his surprised WB-50 crew had just landed at Yokota under emergency conditions.

Lift off of Tiros 4 weather satellite took place shortly after 12 noon Zulu time February 8. It orbited successfully and pictures are now being received from it.

Twelve people man each of the two meteorological satellite readout stations—one at Point Mugu Naval Air Station, Calif., the other at Wallops Island, Va.

Of the 12 at each site, AWS has four on 90-day temporary duty while the other eight are US Weather Bureau and US Navy. They receive photos from the satellite as it passes overhead and make cloud analyses from them.

These photos are transmitted to the Meteorological Satellite Laboratory, Washington, D. C., for refinement and relay on national and international meteorological circuits.

Field Exercises . . .

(Continued from Page 1)

weather support under a single commander.

Lt. Col. Lewis Pitt, WETAF commander for that exercise, was supported by the Langley forecast center fulfilling its role as theater weather central, with a tactical weather support unit established at Camp Drum.

Following completion of Exercise "Red Hills," Brig. Gen. Hallett D. Edson, commander of the Army-AF joint task force, said:

"Extremely accurate forecasts and long-range outlooks have been invaluable in accomplishing the strike command mission."

Weather task force for this exercise was commanded by Maj. Lloyd T. Belanger.

Reservists Promoted

Following airmen, active participants in the AWS reserve program, were promoted Feb. 1, 1962. The promotions to Senior Master Sergeant were the first accomplished by AWS.

To Senior Master Sergeant

Richard P. Kolkka, Detachment 11, 12th Weather squadron, Stewart AFB, N. Y.; Russell W. Krausman, Det. 2, 1210 Weather squadron, Andrews AFB, Md. and Jack Stephens, Det. 20, 15th Weather squadron, Donaldson AFB, S. C.

To Master Sergerant

Ralph R. Hocker, Det. 9, 15th Weather squadron, Maxwell AFB, Ala.

To Staff Sergeant

Herman K. Clemens, AWS hq.; Benjamin H. McCurry jr., Det. 20, 15th Weather squadron, Donaldson AFB, S. C. and Daniel E. Neary, Det. 16, 9th Weather squadron, Biggs AFB, Tex.

To Airman First Class

Joseph A. Cronin, Det. 1, 33d Weather squadron, Duluth IAP, Minn.; Gerald T. Roberts, Det. 19, 9th Weather squadron, March AFB, Calif. and Calvin G. Townsend, Det. 6, 4th Weather squadron, Norton AFB, Calif.

433L Program Explained

(Editor's note: Last month's Observer provided an over-all view of the new high-speed weather-observing and forecasting systems being tested for Air Weather Service. Following is a more detailed explanation of equipment and systems used.)

Effective airspace utilization, coupled with the increasing speed and range of aerospace vehicles, has dramatically increased Air Force requirements for operationally significant weather information.

Time available for consideration of perishable weather information in command and control decisions has reached a point where systematic modernization of the USAF Air Weather Service is imperative.

Objectives of System 433L are to provide AWS with new, improved equipment and techniques for incorporation into the operating weather service, to enable AWS to meet ever-increasing weather support requirements of aerospace forces.

System 433L is an evolutionary plan of modernization with system improvements phased into operational use as they become available. This modernization must be accomplished without interruption or suspension of the operating weather services.

Primary Objectives

Primary system objectives include:

a. Increased speed and accuracy in the acquisition and dissemination of operationally signifcant weather conditions.

b. Efficient handling and processing of weather information through increasing use of weather computers.

c. Increased accuracy and util-

(Continued on page 4)

Awards . . .

(Continued from Page 1)

tential of the electronic computer for improvement of weather service.

Merewether Runners-Up

Runners-up for the Merewether award, according to their standings in the final computation, were:

Maj. Carl J. Weideranders, Detachment 3, 1st Weather wing, Hickam AFB, Hawaii, and Maj. Ralph R. Ruyle jr., Detachment 10, 4th Weather group, Eglin AFB, Fla.

Zimmerman Award

The Zimmerman award, named in honor of Brig. Gen. (then Col.) Don Z. Zimmerman, (Retired) Director of Weather, Army Air Forces 1942, is awarded the AWS individual who has demonstrated the best application of climatology during the year or has developed a device or technique which has proved of greatest value in furthering the AWS climatology program.

Milo J. Andre won international recognition for his study on the analysis and applications of winds related to the ballistics of rocketry and artillery to improve targeting accuracy.

His report went far beyond the solution of the immediate problem with construction of a mathematical model of the ballistic wind in which all possible meteorological types of errors and natural variations can be inserted and studied to determine their effects and how they may be controlled.

Andre's formulas were unanimously accepted by the Meteorological Data Sub-group of the NATO Board of Experts on Exterior Ballistics.

Zimmerman Runners-Up

Runners-up for the Zimmerman award, listed according to their standings in the final computation, were:

Capt. Albert B. Hollinden, 1st Weather wing, Fuchu AS, Japan; Maj. Robert W. Sanderson, 3d Weather wing, Offutt AFB, Neb.; Maj. Allen R. Davis, 8th Weather squadron, Westover AFB, Mass., and Maj. Thomas A. Prizio, 2d Weather group, Langley AFB, Va.

433L Program

(Continued from page 3)

ization of weather forecasts with major emphasis on the tailoring of forecasts to specific operational requirements.

d. Effective display of weather information to the Air Force users.

e. Processed weather information as a direct input to Command and Control systems.

Concept of 433L

Under the evolutionary concept of System 433L, the over-all system plan is best described as a "building block" concept with the individual components phased into operational use under an orderly time-phased plan.

This evolutionary modernization will take place within operating patterns of the existing weather service.

Airfield Weather

Accurate and timely observations of airfield weather conditions are a critical problem of the Air Force.

Within the past few years, progress has been made in this area through the introduction of equipment for sensing clouds and visibility at an airfield.

System 433L will provide equipment for semi-automation of the complete airfield observation (AN/FMQ-5) with provision for the storage, processing and transmission of observations both for on-base display and long-line transmission.

Operationally critical weather conditions will be fully automated. Basic weather sensing elements now installed at airfields will be utilized as inputs to the AN FMQ-5.

Tactical Observing

Tactical weather observing equipment presently used by AWS is of World War II vintage.

New tactical equipment is being developed to meet the weather requirements of emergency mission support, composite strike forces and Army tactical operations.

This equipment will be packaged for mobility and flexibility to meet varying requirements of tactical operations.

Radar Weather Detection

Radar has proven its operational value to the Air Force in the detection of hazardous weather conditions.

A new weather search radar (AN/FPS-77) has been developed which will provide detection of hazardous weather conditions within a range of 150 miles of the air base.

This set will incorporate a bright tube display for pilot briefing.

Cloud Measuring

In addition to the weather search radar, the system will also provide radar equipment for the measurement of the bases and tops of cloud layers above an airfield.

This equipment (AN/TPQ-11) operating at 0.86 cms will for the first time provide accurate measurements of cloud layers and will provide information for increasing the accuracy of local terminal forecasts.

Data Processing

Weather data processing is a large and complex problem, including the sorting and processing of vast amounts of weather data from many sources and communication circuits, analysis of this information and preparation of weather forecasts.

Increased automation is essential to meet the growing requirements of aerospace forces as well as the future needs of command and control systems.

Already, AWS has turned to automation through introduction of the 7090 computer at the Global Weather central, Offutt AFB.

Provides for Expansion

The detailed plan for data processing must provide for expansion from the current capability into a data processing capability to meet the Air Force operational requirements.

This plan must include the additional computer requirements for data processing, back-up plans for emergency operation, storage devices and other equipment required for a tie-in with communication circuits as well as command and control systems, and development of computer techniques for the analysis and forecasting of weather information.

Data Dissemination

The growing requirements for tailored weather information and increasing use of computers for forecasting will require overhaul and modernization of the present methods of data dissemination (teletype and facsimile).

Direct output from computer to communication circuits will be required.

Data links from weather processing centers to command and control systems appear essential.

The specific plan for dissemination of processed data is presently being developed in conjunction with the weather data processing plan.

Weather Display

Display of weather information to the user has been a perplexing problem in the past.

Under System 433L, equipment is being tested for automatic and up-to-date display of the airfield observation to all users in the airfield complex (control tower, radar approach control, Strategic Air Command alert room, etc.)

Equipments for display of weather information from alternate airfields, as well as for weather briefings, are being studied and final configuration has not been established.

Present 433L Status

L. G. Hanscom field and Westover AFB have been established as test locations for data acquisition and display equipment.

The test site at Hanscom field was placed in initial operation in June 1961 and at Westover in November 1961.

Both locations will be used for complete testing of equipment, including user evaluation tests. The status of the individual equipments are as follows:

a. **Semi-Automatic Weather Station AN/FMQ-5.** Service test models were delivered to Westover AFB and Hanscom field in October 1961 and are currently under test.

b. **Tactical Observing Equipment.** Test models of certain tactical observing equipments are presently under procurement to replace less flexible equipments.

433L SPO personnel are presently working with AWS in developing a concept for operational employment of tactical equipment.

c. **Radar Detection Equipment.** Both the weather search radar AN/FPS-77 and the cloud detection radar AN/TPQ-11 have been under extensive tests at Hanscom field and specifications are being completed for operational procurement.

d. **Weather Display Equipment.** Equipment utilizing closed-circuit television for around-the-base display of airfield observations has been installed at Westover and is under test.

A major objective of the test will be to establish user acceptability of the display concept.

This test program will be expanded into display of additional weather information upon completion of the first phase.

Weather Data Problems

During the past year, considerable effort has been expended on problems of weather data processing.

These efforts include:

Studies on the detailed operational weather requirements with emphasis on command and control system requirements.

Information storage problems of weather computers.

Executive control routines for weather data processing.

Computer programs for weather analysis and forecasting.

At present a detailed plan for the data processing subsystem is being prepared.

Parallel to completion of this plan, the major effort in developing computer programs for weather analysis and forecasting is continuing on schedule and will be incorporated into the over-all plan.

In addition, system personnel are working directly with AWS to provide immediate improvements to the operational capability of the weather computer at Offutt AFB. These efforts include:

Storage Equipment

Specifications have been completed for information storage equipment for the IBM 7090 installed at the Offutt weather central.

This equipment will provide a connection between the multiple teletype circuits and the 7090 and will eliminate the slower manual methods presently in use.

The information storage units will also provide editing and sorting of data to increase programming efficiency of the 7090.

Weather Maps

Design has been completed for equipment which will transmit a weather map directly from the 7090 into facsimile circuits.

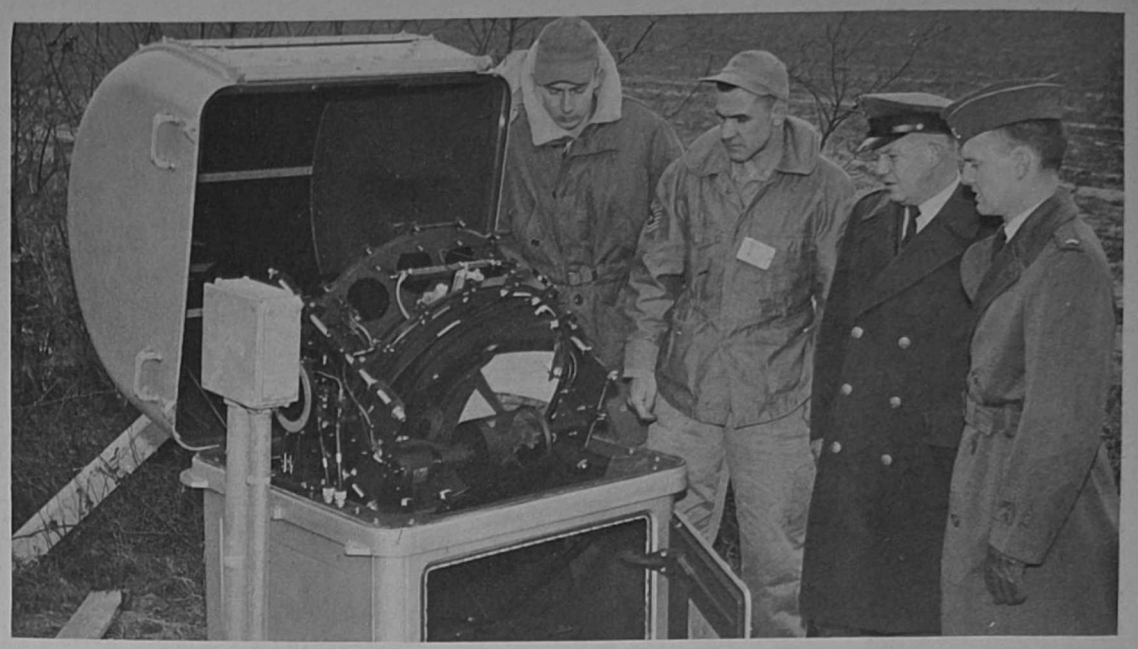
This equipment will not only accelerate the transmission for computer-processed weather maps to the users but will also greatly improve the quality of the maps.

Interim Programs

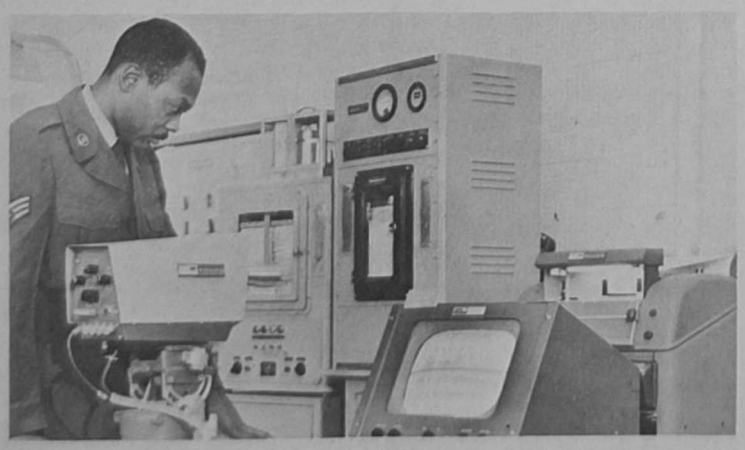
Under the system schedule, it is essential that all computer programs for analysis and forecasting be fully tested and evaluated prior to delivery to the operational agency.

At the same time, AWS has an urgent requirement for increasing the operational capability of the 7090 presently in use.

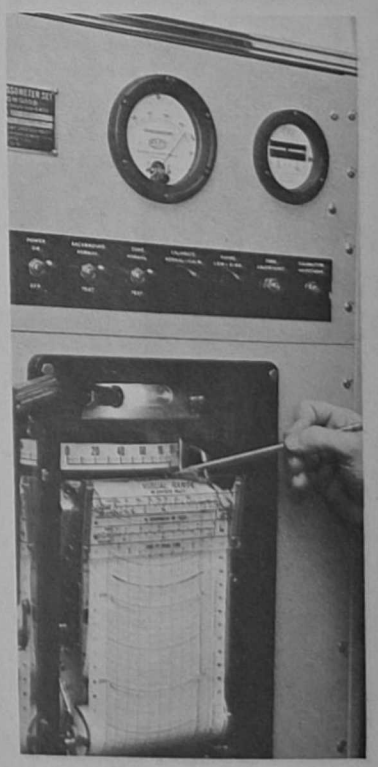
To accomplish both objectives, the system contractor is providing interim programs and technical assistance to the weather central at Offutt in addition to his primary responsibility under the system plan.



ROTATING BEAM CEILOMETER projector (GMQ-13) is one of the many pieces of 433L equipment now operating at Suffolk County AFB, N. Y. Observing this cloud-height measuring equipment are, from left: A2c Joseph J. Mattfeld, weather equipment repairman; TSgt John H. Winkowski, weather equipment technician; Maj. Harold M. Hansen, chief forecaster, and Lt. James R. Stear, forecaster, Detachment 9, 12th Weather squadron there.



CLOSED-CIRCUIT TV for distributing and displaying forecasts and electronically measured weather messages to aerospace commanders and controllers is under test at Westover AFB, Mass. TV monitors installed at key points around base are linked to this installation, checked by A1c Frederick G. Scott of Detachment 10, 8th Weather squadron there.



TRANSMISSOMETER indicator recorder GMQ-10 is another piece of the 433L equipment. Hand belongs to A2c Joseph R. Lambert, observer at Detachment 9, 12th Weather squadron, Suffolk County AFB, N. Y., where this equipment is in operation.

Retirees

Following AWS personnel were scheduled for retirement on dates indicated. All have served on active duty for 20 or more years. List is alphabetical by month and date.

December 31, 1961

SSgt Frank H. Tilcock, Det. 7, 9th Weather squadron, March AFB, Calif. (permanent grade maj.) Former officer pilot and weather officer.

SSgt to Maj. Tilcock

January 31, 1962

Capt. Ernest P. Carriere, 3d Weather wg, Offutt AFB, Neb. (permanent grade maj.)

TSgt Roy O. Beck, Det. 8, 9th Weather Recon group, McClellan AFB, Calif.

TSgt Gerald C. Ellis, Det. 1, 29th Weather squadron, Richards-Gebaur AFB, Mo.

SMSgt Clinton M. Hamilton, Det. 4, 25th Weather squadron, Seymour Johnson AFB, N. C.

Capt. Robert S. Hammer, Det. 33, 8th Weather group, Kindley AFB, Bermuda, (permanent grade maj.).

Capt. Marshall G. Hatch, Det. 2, 8th Weather squadron, Homestead AFB, Fla. (permanent grade maj.).

MSgt Keith D. Kelley, Det. 8, 32d Weather squadron, Gunter AFB, Ala.

Capt. Frank L. Sewall, Det. 14, 16th Weather squadron, Ft. Hood, Tex., (permanent grade maj.).

Toastmasters Club

Toastmasters Club of the 12th Weather squadron, Hancock field, N. Y., recently gained official recognition as Club No. 3370 when a charter was presented to Maj. Garland H. Spicer jr. by Raymond G. Castle, governor of Toastmasters International district 34.

TWO COMING—TWO GOING is Detachment 11th's schedule in supporting the AF Missile Test Center and the Atlantic Missile Range. From left: Maj. Hal Montague, TSgt Bill Pittman, Maj. Jim Dunn and Capt. Bill Martin.

Ex-Weather Chief Cited

Col. Arthur F. Merewether, (Retired) Chief of the Weather Section, Army Air Forces from 1940 to 1942, and present Superintendent of Meteorology, American Airlines, was recently honored with the Robert M. Losey Award for outstanding contributions to the science of meteorology as applied to aeronautics.

The award was presented by the Institute of Aerospace Sciences (IAS) at its 30th annual Honors Night dinner held in the Hotel Astor, New York City.

The Losey award was established by IAS in 1940 to commemorate the memory of Capt. Robert M. Losey (deceased), former Chief, Army Weather Service from 1937 to 1940, and the first American officer to die in World War II.

IAS bestowed the Losey award upon Merewether in recognition of his singularly important work in establishing aviation weather services to advance air safety.

During the years preceding World War II Merewether, as head of the meteorological service of the Army Air Forces, was instrumental in developing a training program which led to creation of the Air Weather Service.

A leader in meteorology, Col. Merewether was born in East Providence, Rhode Island, and earned his MS degree in chemistry at MIT in 1925, returning to MIT in 1933 to resume his studies, this time in meteorology.

In 1935, he entered the Army Air Corps as a weather officer and from then to 1942, was Chief of the Army's Weather Service.

For the following four years, Col. Merewether served as regional control officer of the Eighth Weather region in the North Atlantic.

During this period he discovered a meteoric crater and lake in Labrador, which was subsequently named for him.

His wartime contributions won for him the Legion of Merit and the rank of Honorary Commander, Order of the British Empire.

Upon retirement from the Air Force in 1946, he became Superintendent of Meteorology for American Airlines.

CERTIFICATES OF APPRECIATION for 10 years of continuous service are presented to Mrs. Tomiko Yoshizuka (left) and Mrs. Shizuko Andoh (right) by Col. William S. Barney, commander of the 1st Weather Wing, Fuchu AS, Japan. Mrs. Yoshizuka supervises a team, processes all Chinese data and during her years there has processed 3,500,000 cards which would stand 2000 feet high if stacked. Mrs. Andoh, another team supervisor, has trained six new instructors during the past two years and has processed more than 10 tons of cards during her period of employment.

Births

WATSON, TSgt and Mrs. Joseph A., a son, Michael David, born Sept. 19 at Ft. Campbell, Ky. Father assigned to Det. 1, 16th Weather squadron, Ft. Campbell, Ky.

HARDIN, A2c and Mrs. Clyde W., a daughter, Sherry Lynn, born Jan. 7 at Selma, Ala. Father assigned to Det. 4, 15th Weather squadron, Craig AFB, Ala.

NOWELL, A1c and Mrs. Celolan R., a son, Michael Alan, born Jan. 10 at Ft. Monroe US Army hospital, Va. Father assigned to 16th Weather squadron, Ft. Monroe, Va.

CRUMLEY, SSgt and Mrs. Larry D., a daughter, Gloria Denise, born Jan. 15 at USAF hospital, Scott AFB, Ill. Father assigned to AWS Hq., Scott AFB, Ill.

REED, TSgt and Mrs. Thomas F., a daughter, Robin Elizabeth, born Jan. 15 at Ft. Campbell, Ky. Father assigned to Det. 1, 16th Weather squadron, Ft. Campbell, Ky.

MEEHAN, SSgt and Mrs. Sidney, a daughter, Diane Elizabeth, born Jan. 18 at Patrick AFB, Fla. Father assigned to Det. 11, 4th Weather group, Patrick AFB, Fla.

HAGAN, A1c and Mrs. Robert L., a daughter, Kelly Jean, born Jan. 20 at USAF hospital, Andrews AFB, Md. Father assigned to 1210th Weather squadron, Washington, D. C.

HARRIS, A2c and Mrs. William R., a son, William Christopher, born Jan. 28 at USAF hospital, Scott AFB, Ill. Father assigned to AWS Hq., Scott AFB, Ill.

CLIFFORD 1st Lt. and Mrs. Donald F., a daughter, Kathleen Marie, born Jan. 31 at Selma, Ala. Father assigned to Det. 5, 15th Weather squadron, Craig AFB, Ala.

11th Wea. Claims 'Gone Mostest' Title

"Goingest non-mobile weather detachment" is the title claimed by Lt. Col. P. E. Romo for his unit, Detachment 11, 4th Weather group, Patrick AFB, Fla.

Records for 1961 reveal that Patrick's forecasters (officers and airmen) were TDY from the home station for 561 man-days. They believe this to be an AWS record.

Supports Missile Range

The largest number of "gone" days (251) were expended in meeting support requirements of the AF Missile Test Center (AFMTC) and the Atlantic Missile Range (AMR).

Since September 1961, an assistant staff meteorologist has accompanied each Task Force dispatched by the 6560th Operations group (Range Support) to the distant and exotic locations of Ascension, Mauritius island, and South Africa. The cities of Durban, Johannesburg, Capetown, and Pretoria are becoming well known to detachment members.

Hail and Farewell

These TDY trips normally cover from 21 to 45 days and are so spaced that the two forecasters returning with a Task Force shake hands with the two departing forecasters.

An additional 102 days were spent in attending conferences and seminars covering such subjects and projects as meteorological rockets, diffusion studies, hurricane forecasting, IRIG and TIROS.

Of the remaining 208 days, 97 were used for advanced meteorological schooling of two enlisted forecasters and, finally, two overworked forecasters were involuntarily forced to spend 111 days in the Walter Reed and Lackland hospitals.

"Furtherest Gone"

Perhaps, in addition to being Air Weather Service's "gone mostest" detachment, the unit should be labeled the "furtherest gone" since the distance from Mauritius island to Los Angeles, the two extremes to which these forecasters have traveled, is about 12,800 statute miles, or roughly halfway around the globe.

The above statistics are over and above the "lost" man-days normal to a weather detachment, such as proficiency and mission flights of rated personnel, leaves, and short-term sickness. Consequently, to the few lucky (?) forecasters left at home fall the two major roles of providing normal base support and of supporting AMR users for range tests.

Busy People

Since Patrick is the support base for Cape Canaveral launch area, and since the missile launch schedule has been steadily intensifying, these left-at-home forecasters have managed to keep busy days, nights, and weekends.

The unit is now considering a claim as the "busiest" AWS detachment, in addition to their other claims.

Ten Officers Gain Awards

Ten AWS supply officers were recently selected as outstanding supply officers of the year by the office of the Chief of Staff, Washington, D.C.

Purpose of this special designation is to identify and recognize officers who have demonstrated outstanding proficiency in supply duties.

The critical importance of such duties to the combat readiness and economical operation of the Air Force makes it mandatory that the best qualified officers be appropriately recognized and clearly identified.

Those receiving the award were L.t Col. Wayne C. Bogard, 3rd Weather wing, Offutt AFB, Neb.; Maj. Chester M. Dellinger jr., AWS hq., Scott AFB, Ill. (now assigned to AF hq., Iceland); Maj. Felix A. Rogers, 2nd Weather wing, Lindsey ASN, Germany; Maj. Howard F. Richards, 2d Weather wing, Lindsey ASN, Germany; Maj. Clarence C. Stidston, AWS hq., Scott AFB, Ill.; Capt. Eugene L. Hochstedler, 9th Weather Recon. group, McClellan AFB, Calif.; Capt. Stanley J. Hajkowski, 56th Weather Recon squadron, Yokota AB, Japan; Capt. Salvatore J. Leombruno jr., 9th Weather Recon group, Kindley AFB, Bermuda; 1st Lt. Paul T. Norwood, 6th Weather squadron, Tinker AFB, Okla., and 1st Lt. William C. Payne jr., 16th Weather squadron, Langley AFB, Va.

Four of the officers Bogard, Rogers, Hajkowski and Payne received similar awards during previous cycles.

Belgians Train At Wiesbaden

Three members of the Belgian Air Force meteorological service in Brussels completed training at the 2d Weather Equipment maintenance shop at Wiesbaden AB, Germany, and returned to Brussels Feb. 4.

The airmen, one officer and two NCOs, learned repair procedures on USAF weather equipment slated for the Belgian AF.

First Lt. Wilfried Lemaire, group spokesman, said that he and SSgts Louis Borms and Henri Marey have been in the weather field since 1953, at which time the BAF launched an intensified weather program.

They learned to maintain equipment used in measuring wind velocity, height of clouds, temperature and visibility.

TSgt Wilburn Rice of the maintenance shop was their instructor.

Lemaire and Marey have attended USAF weather technical schools in the US.

Both took courses at Fort Sill, Okla., and Lemaire also attended classes in the Upper Air Forecasting school at Chanute AFB, Ill.

16th Weather Squadron

by Lt. William C. Payne jr., Information Officer

This is the 25th anniversary year since establishment of AWS as part of the Army Air Corps. Therefore, this issue of the AWS Observer extends recognition to one of its newest units, the 16th Weather squadron, whose mission is to provide weather support to the United States Continental Army Command (USCONARC).

History of AWS support to the Army dates back to the formation of AWS as a separate technical service in 1948 and the subsequent establishment, by Joint Regulation AR 115-10/AFR 105-3, of AWS responsibility for this support.

From 1948 to mid-1959, weather support to the Army was an additional mission of AWS units located in the geographical area best situated to render the required weather service.

Through this period, however, increasing recognition was given to the effects of weather on Army operations.

As a result, increased requirements for direct weather support were expressed by USCONARC.

Thus it was that, in consonance with the policy of functional alignment of AWS units with the command supported, the 16th Weather squadron was activated in July 1959.

Size Tripled

In the three years since its activation, the squadron has tripled in size. With over 300 men at 25 installations today, the end of the squadron's expansion is not yet in sight.

An appreciation of the scope and functions of USCONARC is necessary in order to better understand the weather support mission of the 16th Weather squadron.

USCONARC is roughly equivalent to a major air command. It falls next in the command line below the Department of the Army.

Size and Mission

USCONARC in turn commands six numbered Army areas and the Military District of Washington.

Personnel-wise, it includes approximately 400,000 military and civilian personnel located at nearly 100 posts, camps and stations throughout the country.

Under the command of Gen. Herbert B. Powell, USCONARC presently performs a five-fold mission;

Mission Given

(1) Ground defense of the continental United States.

(2) Development of combat equipment, tactics and techniques.

(3) Training of United States based Army forces.

(4) Development and control of the two million man Army Reserve force.

(5) Planning, directing and controlling logistic activities of the active and reserve Army.

With the proposed reorganization of the Army, it is likely that the combat developments functions will come under the purview of a command of their own, while many training functions formerly conducted by the various Army technical services will become a responsibility of USCONARC.

Dual Mission

The mission of the 16th squadron has a dual aspect.

There are, on one hand, the functions involved in garrison support such as routine forecasting and observing to support operations from fixed facilities.

On the other hand, there are the functions involved in supporting tactical Army operations in the field.

These latter functions have gained in importance because of the increased emphasis placed upon readiness of Army forces under operational control of US Strike Command.

Two Functions

The 16th Weather squadron is co-located at Fort Monroe, Virginia, with Headquarters USCONARC. Commander of the 16th Weather squadron is Lt. Col. Lewis L. Howes, who also serves as staff weather officer to USCONARC and heads the Army designated staff weather section.

Accordingly, squadron headquarters functions in the dual capacity of a special staff section within Hq. USCONARC and also to command and administer assigned weather detachments.

SWO's Assigned

At each of the six numbered Army headquarters, a staff weather officer is assigned to provide advice and assistance in weather matters.

These men are primarily coordinators. Their job is to insure that the headquarters is aware of both the capabilities and the limitations of weather service.

Squadron Locations

Units of the 16th Weather squadron are stationed in all six numbered Army areas of the US Continental Army Command:

Area 1: Ft. Devens, Mass; Ft. Monmouth, N. J.; Governor's Island and Camp Drum, N. Y.

Area 2: Ft. Meade, Md.; Fts. Knox and Campbell, Ky.; Fts. Belvoir, Eustis and Monroe, Va.

Area 3: Ft. Bragg, N. C.; Ft. Rucker, Ala.; Fts. McPherson & Benning, Ga.

Area 4: Ft. Sill, Okla.; Ft. Polk, La.; Fts. Sam Houston and Hood, Texas.

Area 5: Chicago, Ill.; Ft. Leonard Wood, Mo.; Fts. Leavenworth and Riley, Kansas.

Area 6: Ft. Lewis, Wn.; Dugway Proving Ground, Utah; Ft. Huachuca, Ariz.; Presidio of San Francisco and Ft. Ord, Calif.

Support Varied

At the heart of the Army weather support mission, the 16th Weather squadron maintains 17 ground weather detachments and two operating locations to service major Army installations.

The nature and scope of required weather support is determined by the nature of the operations conducted.

For instance, paradrop operations at Fort Bragg and Fort Campbell are especially sensitive to wind conditions below 1500 feet.

Wind conditions below 15 feet are important at Dugway Proving Grounds where CBR tests are conducted.

At Fort Knox and Fort Hood, where armor training is conducted, precipitation and its effects on trafficability is an important consideration.

This, then, is the 16th Weather Squadron and its exciting mission of weather support to the United States Continental Army Command—a living proof that, as the Air Force turns its eyes more and more to space, there is an amazing and challenging job for Air Weather Service both on the ground and in the immediate atmosphere above where, after all, the weather is.

WEATHER SUPPORT by 16th Weather squadron units is required for the three items of US Army equipment shown above. Trafficability must be provided armored units, such as the tanks maneuvering during operations at Fort Knox, Kentucky. Instrumented helicopters, such as this H-37 delivering the 105-mm howitzer, are entering the Army aircraft inventory in ever-increasing numbers. The 16th will provide weather service from take-off to landing. At left, a "TORRO" rocket zooms skyward to help locate tornado-producing squall lines and improve severe weather warning procedures. This joint DOD-USWB project is supported by Detachment 11, 16th Weather squadron, Ft. Sill, Okla. (US Army Photos)

HEADQUARTERS MEMBERS of the 16th Weather Squadron are shown above. Kneeling, from left: Pvt. Joe H. Harton (Army Clerk), A1c Celolan R. Nowell, TSgt James D. Whitaker, MSgt Arnold M. Schroeder, CMSgt Eugene A. Zimmerman, TSgt Jerry K. Cunningham, SSgt Roy L. Taylor and SSgt Emory L. Sutphin. Standing, from left: CWO (W-4) Max L. Crowder, 1st Lt. William C. Payne, Maj. Nathaniel F. Young, Lt. Col. Thomas W. Lane, Lt. Col. Lewis L. Howes, Maj. Louie G. Stein, Capt. Darrell T. Holland and Miss Ruth E. Barker.

Reichelderfer Praises Unit

The 53d Weather Reconnaissance squadron at Kindley AFB, Bermuda, has received a letter of appreciation from F. W. Reichelderfer, chief of the US Weather Bureau, Washington, D. C., lauding them for fine work and cooperation during the 1961 hurricane season.

The letter read in part: "This is to express the appreciation of the weather bureau for the fine work and cooperation of the officers and men of Detachment 7, 9th Weather Reconaissance group, in the operation of the data recording pods during the 1961 hurricane season."

"This is the first year in which the pods have been maintained by Detachment 7. Useful data were recorded on five flights into hurricanes during the season.

"The fact that more data were collected by these pods for research purposes this year may be partly due to increased opportunity for using the recorders.

"Much of the credit goes to the efficient work of the maintenance and operating crews, and to CWO Fred W. Carter and Col. Arnold E. Zimmerman for their excellent support of this program."

Brig. Gen. Norman L. Peterson, commander of Air Weather Service, added his appreciation and congratulations for "a job well done."

The OBSERVER

Spotlights

Detachment 5 29th Weather Squadron

Neither the extremes of a North Dakota blizzard with its shrieking, knifing, whipping wind and subzero temperatures, nor the all-pervading blast of a hot summer prairie dust storm, has failed to challenge the enthusiasm and teamwork of the forecasters and observers of Detachment 5, 29th Weather squadron, at Minot AFB.

Detachment 5 has placed consistently among top ranking weather stations in recent inspections.

This unit was selected as the most outstanding detachment in 4th Weather wing during 1960, and nominated in 1961 for the Williams Award, based on an enviable forecasting record which permitted close to 100 consecutive U-2 flights.

Unique Methods

Esprit de corps is not the only reason or ingredient for this success. From date of the squadron's activation, October 8, 1959, under Maj. Reuben R. Belongia, emphasis has been focused on the development of personnel potential and diversified training.

Neither modern equipment nor advanced instrumentation can be fully effective unless the human factor operates equally as smooth.

Hence it is no mystery why one hears and reads the keynote alliterative words emphasized at the three working locations of the detachment: communication, control, capability, completeness, composition, celerity, co-operation, coordination, career and condition.

Continuous Training

Under the direction of CWO Robert S. Anglin, detachment training officer, this policy has been developed into a well-rounded, continuous training program for forecasters and observers.

Initially, the mision, functions, and structure of the detachment are fully explained to each new forecaster or observer.

To egender proper attitude and understanding, each man's role in successful accomplishment of the detachment's mission and current programs is discussed with him.

Specialized Functions

Under its present commander, Lt. Col. Milton Plattner, the detachment's mission is primarily to provide weather service to the Minot air defense sector (MIADS), and secondarily to Air Defense Command (ADC) organizations—32d Fighter wing, 5th Fighter Interceptor squadron; Strategic Air Command (SAC) units—4136th Strategic wing, 906th Air Refueling squadron, 525th Bomb squadron; a MATS helicopter unit, Detachment 20; the Site Activation Task Force (SATAF) unit for the "Minuteman" missile complex; the Army engineers, contractors, and transient aircraft.

WOS Building

To give optimum weather support to this large package, the detachment operates a representative observation site (WOSB) on the runway, the base weather station proper, and an air defense SAGE weather station.

The WOSB, the first representative weather observation building in the 29th Air Division area, was completed and became operational at Minot in December 1960.

RepOb Equipment

Equipment installed in the RepOb includes the AN/GMQ-10 transmissometer, AN/GMQ-13 rotating beam ceilometer, wind measuring set, AN/TMQ-11 temperature-dew point measuring instrument, M-L3 barograph and mercurial barometer.

Also, ANPDR-27C radio activity counter, together with readouts for all these facilities as well as automatic send-receive teletype for on-base dissemination and transmission over Division tactical weather circut (DTWC).

Heavy Workload

The base weather station, under its chief forecaster and OIC, Capt. Arthur C. Smith jr., is kept increasingly busy with the workload posed by expanded SAC operations, missions, aircraft clearances and general growth of the base.

SAC flight and alert requires careful weather preparation in the form of numerous "flimsies." Capt. Smith also functions as SAC wing staff weather officer, conducting briefings and coordinating all SAC routine and special weather support.

Base weather is also responsible for issuance of local advisories, severe weather warnings and 3-hour air defense trend forecasts.

SAGE Weather Station

The SAGE sector weather station, under its OIC, Capt. Gerald M. Breen, serves the nerve center of MIADS activities in the direction center, located on base.

Lt. Col. Plattner, staff weather officer for MIADS and Capt. Breen, together with Lt. Philip W. West as alternate, act as members of the sector's battle staff.

They keep the commander, director of operations, fighter officer, senior director and other key personnel continually advised of weather conditions which may affect sector operations.

FORECASTS ARE COORDINATED on chart and slide for SAGE direction center special command and crew weather briefings by SAGE forecasters, MSgt Carroll E. Davis and 1st Lt. Philip W. West.

PILOT - TO - FORECASTER FACILITY is used by Capt. Arthur C. Smith, jr., OIC base weather station, to brief an airborne crew on latest Minot AFB weather and to receive pilot report.

Primary Mission

Primary mission of the SAGE weather station is terminal, area and flight met watches conducted for airborne sector-controlled aircraft, recovery bases and possibly emergency alternate recovery bases under both normal and expanded modes of sector operation, including "live" exercises and simulated practice missions.

Sector area forecasts and severe weather warning services are also provided for long-range radar sites at scattered locations in North Dakota, South Dakota, Montana and Wyoming, as well as several others under sector expansion.

Duty forecasters also provide specialized briefings for SAGE crews as well as flight and terminal recovery advisories.

Quality Control Emphasized

Specialized forms and methods have been devised for constant internal quality control, product (observation and forecasts) improvement, and development of routine habits of speed and accuracy.

An important example is the hourly met watch form using ADC ceiling and visibility criteria and color codes, completed by forecasters at both stations each hour for selected groups of key stations.

Check lists for shift duties, briefing and forecast content, and technical effectiveness programs are employed to advantage.

These procedures not only keep the forecasters and observers "on top of the weather" at all times, but also painlessly motivate a smoothly functioning organization.

No guesswork is tolerated; standard operating procedures are clearly written, annotated to directives, and spell out working details.

Seminars Held

Monthly forecaster and observer seminars keep personnel informed and refreshed on meteorological subjects, develop self-expression and clear communication, and elicit suggestions or ideas.

Everyone is given an opportunity to participate as mandatory and specialized subjects are assigned the seminar leader for research.

These meetings also become channels for the solution of problems and the mutual support between working locations of the detachment.

Timeliness and accuracy in the handling of weather observations are qualities constantly being instilled among observers at all three locations.

Coordination Stressed

Among all the forecasters, coordination and mutual support are incessantly stressed, particularly with regard to forecasts, analyses, severe weather warnings, and advisories.

With its unique function of over-all monitoring, the SAGE sector weather station (through its necessarily frequent sectional and "acetate" analyses, advises forecasters at both Minot and Glasgow AB's.

The latter base serves another ADC-MIADS unit, the 13th Fighter Interceptor squadron.

Management

An up-to-date reading file is maintained for the forecasters and observers on SAGE and SAC operations; aircraft characteristics for such aircraft as F-101, F-106, KC-135, and B-52; current events and intelligence topics.

Management methods are keyed to the policies and directives of the organizations served and also base requirements. Full attendance for detachment personnel at all base training films and lectures is mandatory.

Special control systems have been developed by the detachment administrative specialist, SSgt Donald T. Simmons, who was nominated in May 1961 as outstanding airman of the 29th Weather squadron for the AFA convention.

Planning With Weather

Weather is one of the many factors that must be considered in staff planning and operations. Serving the particular requirements of air defense, specialized analyses of the effects of weather elements upon defense problems in this sector are in progress.

Under the direction of Capt. Breen, sector weather station forecasters are also engaged in a continuous project of local objective forecast studies and investigations for forecast improvement.

Difficulties encountered and pilot studies are periodically discussed at joint meetings attended by the forecasters of both stations.

Recreation and Athletics

That other "C" in the training program at Minot AFB weather stations—condition—is not neglected. Records are maintained of required physical activity for all personnel.

Observers and forecasters participate in a wide range of sports.

North Dakota and the friendly Province of Saskatchewan, Canada, comprising the northern portion of MIADS, offer sportsmen members of Detachment 5 sufficient opportunity to exercise their skills with rod and gun.

The fishing season is open the year round.

North Dakota is also noted for its fine pheasant and waterfowl hunting. Deer hunting is excellent, and quite a few of the detachment's personnel obtained their quota this season.

COMMAND POST WEATHER briefing is given by Capt. Gerald M. Breen, OIC, SAGE Weather Station, from the meteorological officer's position of the Minot Air Defense Sector battle staff, using the electronic gun to indicate specific features on the large screen projection of the weather map.

Weather Grads

Ten NCO's of the Air Weather Service were recently graduated from class 48 of the Modern Weather Techniques course at Chanute AFB, Ill.

Honor graduate was TSgt Lawrence E. Hearn, Detachment 9, 16th Weather squadron, Fort Rucker, Ala., who distinguished himself by compiling the highest basic grade yet recorded on the current final diagnostic examination.

His grade was 30 points above class average and 15 points above the next highest grade. MSgt Paul R. Reasin, Altus AFB, Okla., was class leader.

Detachment Supports Man-in-Space Shots

(Photos by A2c Harry F. Holloway)

Sending an American into space is an exciting and interesting event to everyone in this country. But it's especially important to the men of Detachment 11, 4th Weather group, at Patrick AFB, Fla.

On each of their space shots, Detachment 11 goes into high gear to provide current and forecast weather for the range safety officers, and at such times the entire unit is busy on the problem.

Focus of all the effort is at the weather console in Central Control, at Cape Canaveral, 15 miles north of Patrick.

This position is usually manned by the staff meteorologist, Lt. Col. P. E. Romo, and the detachment operations officer, Maj. Hal R. Montague.

With the help of a third forecaster, this group briefs control personnel, visiting dignitaries and representatives of the manufacturers whose components are part of the launch vehicle.

To support these forecasters, Detachment 11 arranges for an airborne observer to patrol the local area aboard a B-57 or T-33.

He is in direct radio contact with the weather console and the aircraft is at his disposal for investigation of critical weather areas.

This observer's information is an invaluable source of data for the short-period forecasts immediately preceding the launch.

CMSgt Lester Robinson, the detachment's senior NCO, is at the console of the CPS-9 at Patrick AFB, starting at T-3 hours.

His observations are relayed to the weather console via hot line.

To insure continuous operation of this equipment, MSgt James Collins, NCOIC maintenance and supply, stands by for emergency repairs in case of any malfunction.

In addition to all the special measures noted above, duty forecasters and observers at the base weather station prepare special charts and graphs as a monitor of the synoptic situation in the local area. These data are sent to the Cape via a private inter-fax.

Although the AWS people at Detachment 11 are not considered true "Missileers," the entire detachment feels that their contribution to America's space effort is important.

Besides providing support for pioneering flights into space, (Tiros, Ranger, Mercury, Echo, etc.) Detachment 11 is looking forward to the acceleration of this effort as the Atlantic Missile Range begins launches of Nova, Apollo, and other, more-sophisticated systems.

This unit anticipates the time when their job will be at the forefront of AWS support to all US space agencies.

And Now it's Termites!

Termites have recently joined the insects, birds and animals that seem determined to interrupt the use of Air Weather Service equipment.

Not long ago, Maj. Ivan R. Frey, maintenance engineering chief at AWS headquarters, received a piece of rotating beam ceilometer underground cable from Detachment 10 of the 26th Weather squadron at Columbus AFB, Miss.

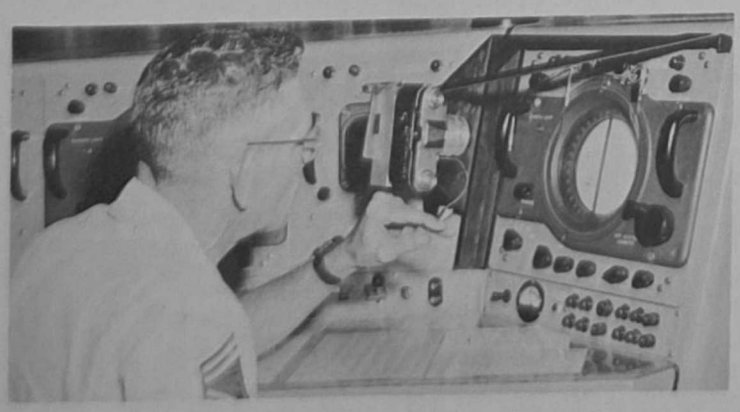
The rubberized cable was dotted with small holes. These holes were made by a species of termite, according to identification provided by the chief entomologist at Gunter AFB's School of Aerospace Medicine.

Birds like to build nests in the transmissometer detector and snakes like the warmth of ceilometer heaters, but termites are something new for the cables.

Maj. Frey pointed out that in different parts of the country, there has been no trouble with the cable from termites. For some unknown reason, the Columbus AFB species of termite which bored into this cable apparently liked it.

He added that cables must be selected with respect to insects, birds and animals in the area, since varieties of species will attack one kind of a cable in one part of the country but will leave it alone in another.

About the only cable that can be universally used, he concluded, is a lead-lined steel cable. But it is too expensive. Therefore, special cables are used only when required.



CPS-9 WEATHER RADAR at base weather station operates continuously before a space shot. Here, CMSgt Lester R. Robinson, senior observer, manning the console, gathers and relays weather data to launching sites at Cape Canaveral.

AIRBORNE WEATHERMAN, Maj. James M. Dunn, a forecaster with Detachment 11, boards a B-57 "Canberra" to provide additional weather support on a "Mercury" test.

87 Senior NCOs Get Grade Hike

Effective March 1, 87 AWS airmen don new supergrade stripes. Heading the units is 2d Weather wing, with six upped to CMSgt and 13 to SMgt.

Chief Master Sergeant

Hq. AWS: Larry S. Holland, Milton L. Haberman, Stanley R. Quick, Thomas A. Filler and Peter L. Kobilsek.

1st Weather wing: Earl W. Fisher.

2d Weather wing: Donald T. Brissett, William C. Burdick, Richard E. Guerin, Clyde L. Hopkins, Robert F. McNamee and Charles D. Cronen sr.

3d Weather wing: William D. Allred, Ray J. Parker and Thomas L. Pugh.

4th Weather wing: Stanley F. Spanbauer and Gale E. Walton.

2d Weather group: John W. Galt.

4th Weather group: William E. Anderson, Carl K. Clay and Neal H. Trent jr.

8th Weather group: Orus W. Byrd and Hiram E. Penland jr.

9th Weather Recon group: Eugene W. Martini, Robert M. Talbot, Leo C. Copeland and George L. Nehus.

Senior Master Sergeant

Hq. AWS: Owen Thomas and Harold S. Shambaugh.

1st Weather wing: Vernon J. Freeman, Thomas A. Rule, James E. Ryals and Robert J. McMillan.

2d Weather wing: Edward T. Howard, John H. Bump, Cornelius A. Rigney, Roy J. Schebel, Yearl Barlow, Robert E. Clark, William D. Connelly, Edwin V. Fusco, Donald R. Hall, Robert N. Hall, William N. Hickman, Stanley W. Marczewski and Ervin L. Tuttle.

3d Weather wing: William G. Smiley, Eugene P. Biggins, Darold D. Christiansen, Robert E. Davis, Jesse D. Hickson jr., Rupert C. Jones, George F. McKissick, Charles W. Newhouse, Edgar T. Robson, Donald N. Seay, and Earl A. Woods jr.

4th Weather wing: Raymond E. Dionne, Robert D. Buck, James W. Lusk, Emidie J. Mazzella, Richard F. Patton, Francis E. Politte and Clair B. Snyder.

2d Weather group: Edward F. Nemetz, Nicholas Dubiago, Edgar D. Revis, Raymond H. Schulte and Arthur E. Stockel.

4th Weather group: Donald M. Garnett, Frank J. Brzeczek, and Arthur St. Pierre.

8th Weather group: Lewis B. Atkins, Chester J. Gueths and Leonard M. Dalton.

9th Weather Recon group: Jonas M. Wilson jr., Henry C. Devasher, Robert L. Walker, Charles T. Law, Peter P. Cardaro, Norvil A. Loesch, William J. Prince, Sylvio S. Santaloci, John P. Priestle and William D. Tiller.

56th Weather Recon squadron: James M. Ayers and William T. Jenkins.

Two Compete In Matches

Two AWS men are expected to compete in the 4th Annual Inter-Service pistol championship matches to be conducted by the Air Force April 1 through 6 at Lackland AFB, Texas.

MSgt James J. Kelley, Detachment 50, 1210th Weather squadron, Asheville, N. C., formerly of 1365th Photo squadron, APCS, Orlando AFB, Fla., will be a team member.

Reed

MSgt Charles E. Reed, Detachment 1, 8th Weather group, Scott AFB, Ill., has been selected as an alternate. Reed was recently presented a certificate of excellence in competition for the MATS Command pistol matches held at Scott in May 1961.

Primary team members will train and fire .22 Cal. center fire and .45 Cal. weapons. They will assemble at Scott not later than March 26 for a week of intensive training before going to Lackland.

Many Troubles—Landed Safe

Both engines on the left side of the WB-50 were out; the left brake drum was frozen, a tire on the left was blown, the aircraft carried 5000 gallons of gasoline, there were gusty cross winds and the runway sloped downhill for its first 8000 feet.

Yet Capt. Jack DeMedicis, aircraft commander, and his crew brought the weather airplane to a safe landing at Yokota AB, Japan, following a reconnaissance flight into Typhoon Dot which churned the Pacific last November.

Touchdown came within the first 1500 feet of the 11,000 foot runway. The left outboard tire immediately blew out. The brake had frozen eight hours earlier when the crew had left Japan.

DeMedicis decided not to use the brakes. Yet an unsymmetrical reverse, using two engines on one side, is extremely difficult in the B-50 aircraft.

However, since they were still rolling too fast at 3000 feet, the number three engine was reversed. So great was his skill that there was no swerve. The 60-ton aircraft came to a halt in plenty of time.

Other members of the 56th Weather Reconnaissance squadron crew were 1st Lt. Hatfield C. Brubeck jr., co-pilot; Capts. Norman L. Farmer and Marvin C. Whitefield, navigators; Capt. Clarence M. Duff, air reconnaissance weather officer.

TSgt Jimmie L. Kuzuoka and SSgt Danny L. Norman, flight engineers; SSgt Val H. Mihelcic and A2c Clyde G. Gaffney, radio operators, and A2c Larry J. Schihl, droponde operator.

Weather Techniques Graduates

MODERN WEATHER TECHNIQUES course graduates, with their instructors, are (l. to r. front row: Capt. Donald B. Miller, instructor; SSgt Parker N. Hill, Adair AFB, Ore.; TSgt James T. McManus, March AFB, Calif.; TSgt Frank A. Sienko, Westover AFB, Mass.; MSgt Paul R. Reasin, Altus AFB, Okla.; Capt. Barry E. Harris, course supervisor. Back row (l. to r.): SSgt Ralph O. Ealy, England AFB, Fla.; TSgt John R. Hort, Mather AFB, Calif.; Capt. William M. Dabrock, instructor; TSgt Kevin P. Maguire, Hurlburt AFB, Fla.; Howard F. Crombie, instructor; TSgts Richard E. Mote, Amarillo AFB, Tex.; Lawrence F. Hearn, Fort Rucker, Ala. and Anthony J. Berutti, Patrick AFB, Fla.