

# AWS Scientist Elected To Presidency of AMS

Dr. Robert D. Fletcher, AWS director of scientific services, has been elected president of the American Meteorological Society for 1956 and 1957.

At a national meeting of AMS held last month at the Barbizon Plaza hotel in New York city, officers for the new period were



**NEW PRESIDENT** of the American Meteorological Society is Dr. Robert D. Fletcher of AWS.

Over 200 members attended the four-day meeting, where the Air Force, Navy and commercial companies arranged exhibits and displays.

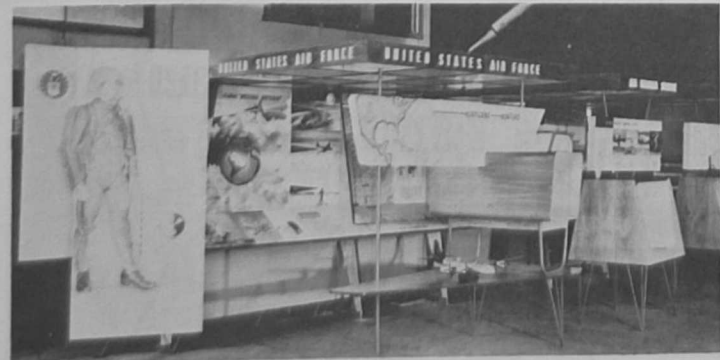
## Auto Injures AWS Worker

Joseph F. Snow, chief of the materiel control branch at AWS headquarters, was struck down and injured by an automobile while walking across a Washington, D. C., intersection early on the morning of January 31.

On his way to meet Walter H. Goldstein of AWS Materiel, with whom he rides to work, Mr. Snow was hit from behind by an automobile making a left turn. He suffered severe facial injuries and numerous bruises and abrasions.

Examined at two Washington hospitals in turn, Mr. Snow was returned to his home.

At last report, he was well enough recovered to return to work, but still undergoing treatment.



**SPECIAL EXHIBIT** portraying Air Weather Service activities was unveiled at the Pentagon building in Washington, D. C., recently. Various procedures in gathering, forecasting and disseminating weather information are depicted. Photographs, animations and mockups are used to present AWS to the public, as well as a continuous projector which projects a motion picture on the "Hurricane Hunters." The exhibit is scheduled for a nationwide tour of AFROTC units at US colleges and universities and will be the only exhibit shown at this month's Mayors Conference in Washington, D. C.

Dr. Fletcher is a member of the World Meteorological organization's Commission on Synoptic Meteorology and of the US National Committee's Technical Panel on Meteorology. In the latter committee, he will join with seven other US scientists in planning participation in the weather phase of the International Geophysical Year.

Before assuming his AWS directorship in 1952, Dr. Fletcher was a consultant in the Air Weather Service for two years. From 1940 to 1950 he was in charge of the hydrometeorological section of the US Weather Bureau.

During World War II he served on the Burroughs committee, studying radar wave propagation, and as technical consultant to the Air Force in the China-Burma-India theater.

The new society president was born in Mexico in 1912 and received his BS and MS degrees from the California Institute of Technology, and his doctorate from the Massachusetts Institute of Technology. His first job in weather was for American Airlines from 1935 to 1939, after which he did research and teaching for three years at MIT and UCLA.

Active in the American Meteorological Society for over ten years, Dr. Fletcher is the organization's representative to the National Research Council's Division of Earth Sciences.

AMS was founded in 1919 for the development and dissemination of knowledge of meteorology in all its phases and applications, and the advancement of its professional ideals. It serves as the vehicle through which the interests of the profession as a whole are organized and represented.

The Observer regretfully reports the deaths of the following Air Weather Service personnel:

A/2c Blair W. Boyd, 59th Weather Reconnaissance flight, on January 15, while on leave in LaSalle, Ill.

S/Sgt. Stewart H. Waddell jr., 53d Weather Reconnaissance squadron, on February 2, of injuries sustained in an automobile accident near Burtonwood, England.



Vol. 3, No. 2

Headquarters, Air Weather Service, Washington 25, D. C.

February 1956

## LC Bundgaard Named Winner Of Losey Award

Last month Lt. Col. Robert Bundgaard received the Robert Losey award from the Institute of Aeronautical Sciences.



The award was given for his conduct of the research project, Black Sheep, and is one of the nation's top aviation science honors. IAS has given the annual award since 1940 for "outstanding contributions to the science of meteorology as applied to aeronautics." Presentation was made at the society's annual honors night in New York city.

Project Black Sheep, as reported in the April 1955 Observer, was designed to test and select the best from among standard forecast methods for the support of high-altitude, long-range aircraft. The first technical report on the project was published last November.

Colonel Bundgaard, who has worked with Black Sheep since its inception in 1953, was a high school teacher in civilian life. He joined the Air Force in 1941 and was trained in meteorology during World War II.

Data for the study was made available through exhaustive analysis of weather observations made in flight by B-47 crews of Strategic Air Command, stationed at MacDill AFB, who cooperated in the study.

## Warrants To Be Promoted Soon

Promotions for warrant officers will be considered by a USAF headquarters board to convene late this month. Permanent promotions to grades W-4, W-3 and W-2 will be considered for both regular and reserve USAF warrant officers.

Regulars on duty as warrant officers and as commissioned officers will be considered, as well as reserve AF warrant officers serving as warrants who have AFRES and ANGUS appointments and ANGUS warrant officers not on active duty.

AF reserve warrants not on active duty will be considered by a Continental Air Command board in March or April.

Further information on eligibility criteria has been outlined in MATS letter MAPPR, dated January 18, 1956: "Permanent Promotion of Regular AF and Reserve AF Warrant Officers."

## Researchers To Study Hurricanes in 1956-7

This year the nation's weathermen are determined to take a good, long look at the tropical hurricanes which annually strike the US eastern seaboard. Air Weather Service and the US Weather Bureau will cooperate in an intensive campaign to wrest the secrets from these Caribbean killer storms.

During the 1956 and 1957 hurricane seasons, USAF aircraft specially fitted for their work will gather data from the big storms and USWB researchers will make daily analyses of the collected information.

Weather data collected by the AWS hurricane hunters will provide a basis for exhaustive studies of the severe tropical storms, leading to improved forecasting methods. Hurricanes will be observed from their very earliest stages, in the Atlantic and Caribbean breeding grounds, through their entire development.

Air Weather Service will provide three aircraft to be used exclusively on this project. Two specially fitted B-50 Superforts will make low and medium-level observations within the storms and a B-47 Stratojet will make high-altitude checks on the tropical cyclones.

### New Equipment Designed

New equipment specifically designed for this project will enable the aircraft to make much more detailed data-collection flights into the storms than have been possible in the past.

In each aircraft, automatic devices will record such facts as temperature, pressure, humidity, wind speed and direction. This data will be recorded automatically on punch cards.

## Officers Get Course Data

Last month AWS Personnel clarified some policies on the application of active-duty officers for basic meteorological training.

Currently there are two undergraduate basic programs for weather officers of one and two years' duration respectively. Assignment of applicants to one or the other of the courses is determined by USAFIT on the basis of previous background.

AWS personnel officials are seeking the cooperation of all AF weathermen in encouraging qualified officers to apply for this training. There are some conflicting listings of prerequisites in the USAF Training

On the completion of each flight, cards will go to tabulating machines for compilation and analysis. Researchers thus will have complete figures available on a day-by-day basis.

### Savings Expected

Weather officials point out the savings in human life and property that will result from more accurate forecasting of these seasonal marauders. They hope that this extensive hurricane study will bring improved techniques and new methods for the weatherman's use in predicting the course and violence of future tropical storms.

Experienced AWS flyers will guide the aircraft through the center of each storm, collecting necessary data for the research project. Hurricane reconnaissance has been a regular AWS job since May 1944, when flying weathermen chased 16 storms.

Since the inauguration of hurricane tracking, many millions of dollars and untold lives have been saved because of the advance information made available to forecasters by AWS reconnaissance flights. In the Pacific, the same detective job is done on the typhoon by other AWS crews and planes.

Last year the hurricane hunters of the Bermuda-based 59th Weather Reconnaissance flight added another milestone to their history with the first night penetration of a hurricane.

Capt. Francis E. Wilson earned the hazardous distinction of being the first man to fly his aircraft into the eye of a hurricane at night, when he and his crew paid a nocturnal visit to Hurricane Connie last August.

Prospectus and other training directives which Personnel has clarified in a recent letter to the field.

The letter, AWSPP-4, dated January 31, 1956: "Prerequisites for Basic Meteorological Training," should be used in answering queries from prospective weather officers.

AWS headquarters personnel workers stress the importance of all representatives of AWS being actively aware of the current need for weather officers, and encouraging interested persons to enter the field.

Complete information on actual application procedures for weather officer training is outlined in AFR 53-11.

AIR WEATHER SERVICE

## OBSERVER

The Air Weather Service Observer is published monthly on the first Thursday following the third of the month by and for the personnel of the world-wide Air Weather Service of the Military Air Transport Service under the supervision of the Office of Information Services, Headquarters, Air Weather Service, Washington, D. C. The Observer receives Armed Forces Press Service material. AFPS material which appears herein will not be reprinted without written permission from the Armed Forces Press Service, Room 1425, Flak Building, 250 West 57th Street, New York 19, N. Y. Other material not credited to AFPS may be reprinted without further clearance. News, feature, art and photographic material is solicited from readers, but publication must depend upon the judgment of the Observer staff. No payment of any kind will be made for contributions. The Observer accepts no paid advertising and is supported entirely without the use of funds appropriated by Congress. Opinions expressed herein do not necessarily represent those of the Air Force. Editorial offices for the Observer are located in Building T-1-30, Andrews Air Force Base, Washington 25, D. C. Telephone: REdwood 5-8900 (Code 185), extension 5228. Contributions and correspondence should be directed to the Editor, OBSERVER, Office of Information Services, Headquarters, Air Weather Service, United States Air Force, Washington 25, D. C. All contributions will be subject to editorial revision and unsolicited manuscripts can be neither acknowledged nor returned to the contributor.

BRIG. GEN. THOMAS S. MOORMAN, JR.  
Commander, Air Weather Service

MAJOR WILLIAM C. ANDERSON  
Chief, Information Services

JOHN D. RUGG  
Editor

S/SGT. ROBERT G. McCARTNEY S/SGT. WINSTON M. RISNER  
Assistant Editor Sports Editor

Masthead designed by Boykin A. Glover, MATS Hq.

## Job Opportunity

WANTED: Men and women for highly hazardous duties. On-job accident rate currently somewhat higher than US battle-death rate in World War II. Low pay, but good chance of advancement for those who survive. Some 43,000 accidents (100 of them fatal) occurred on the job **each day** last year, leaving many vacancies. Apply today.

Any personnel man who placed such an ad as this could hardly be surprised if applicants were few and far between.

How many of us would be foolish enough to accept a low-paying job so full of injury and death?

You have — if you drive a car, or ride in one.

When you get into an automobile, you take on a job that last year killed nearly five times as many people as died on the bloody battlefields of the Revolutionary war, the War of 1812, the Mexican and Spanish-American wars combined.

For every person who died on the nation's highways and byways last year, 40 more were injured. Hardly an occupation that promises steady, safe employment.

Going to be on the job today — and tomorrow? (JDR)



INTERNATIONAL COOPERATION in the study of meteorology is stressed at the 20th Weather squadron of the 1st Weather wing in their weather school for members of the new Japanese armed forces. Col. Robert S. Gunderson, 35th Fighter-Interceptor wing, here congratulates two honor students of the school, Capt. Akatsuka Tatsuo and S/Sgt. Sakamoto Kazurya.

## ON THE ● skew-T AWS Global Report

At Scott AFB, Ill., M/Sgt. and Mrs. Michael F. Scasny won first place in the base Christmas decoration contest. They and their children spent several hours assembling their prize-winning display of Santa, reindeer and sleigh.

Capt. James R. Evans of Det 6, 7th Wea gp, and five airmen represent USAF at the Army's Fort Greely, Alaska. Evans is president of the Ft. Greely Rifle and Pistol club and has been a member of the post rifle and pistol team for the past two years. He claims to be the only AF weatherman on an Army rifle and pistol team.

Around the globe, at Christmas, AWS personnel exhibited the true spirit of Christmas by helping the less fortunate. Many units gave parties and gifts to orphanages, underprivileged children and needy families.

At March AFB, Calif., the base chapel Christmas program was directed by A/2c James M. Marshall. A/2c Arthur B. Jones played a leading role in the production.

The 58th WRS led the way to a new high in reenlistments at Eielson AFB, Alaska. During the last half of 1955, 25 airmen in the 58th reenlisted. They topped the base in the July to January period.

At Burtonwood, England, the 53d WRS made its second annual drop of letters to Santa in December. Letters from all over England and parts of Germany were delivered to Santa on the Falcon Alfa track. A reporter from the Manchester, England, Evening News went along on the flight.

Morale of airmen assigned to Det 5, 3d Wea sq, at Clovis AFB, N. Mex., was improved when they moved into new barracks. The new barracks have three-man rooms with connecting bath between each two rooms.

At Kadena AB, Okinawa, the Tokeshi elementary school and the Okinawan PTA presented a plaque showing their appreciation to the 15th Wea sq for the desks the squadron gave the school.

(Continued on page 5)

## Airman Asks To Love, Live Off the Base

Perplexed personnel people at Bitburg, Germany, are probing a pressing personal proposition.

A formal request for permission to "love" off base was received last month at 2d Weather wing headquarters there.

The unique request, first of its kind to reach the AWS unit, originated at the weather wing's flight section at Rhein-Main Air Base. A careful survey of appropriate directives failed to reveal an explanation.

Hurriedly, the personnel section prepared an endorsement to higher headquarters, requesting clarification of the issue. It was never sent.

A/3c William Beauchese, an aircraft mechanic, called from Rhein-Main to ask what action had been taken on his request to "live" off base with his newly arrived wife.

The "lovely" error was later traced to a rather "lively" clerk-typist.

## It Ain't Easy

by Andy

### I Took My Wife to Paris

Ah, gay Paree! As the man said, "I don't wanna be a millionaire, I just want to live like one." And, brother, Paris is the place to do it. You don't really have to be a millionaire to stay there any length of time . . . as a matter of fact we ran into several people who were having a grand time and I know they were down to their last oil well.

However, these cases are in the minority. Paris is expensive, but what a wonderful way to wind up in the Old Folks' Home!

Although I had to submit to a psychoanalysis by an Air Force head-shrinker when they learned that I intended to take my wife to Paris, they finally approved my leave orders, and off we went to the world's gayest and most expensive city.

We ogled, gaped and stared at all the Parisian landmarks and drank in the ambrosia that is Paris, just like the rest of the 2,000,000-odd American tourists who infiltrate the French capital this time of year. In fact, it took me two hours to find someone who could speak French so I could say "Cherchez la femme" and wink knowingly. (I don't recommend this maneuver. I was followed by a gendarme for two days afterward.)

We saw the Arc de Triomphe, Sacre Coeur, ate mussels in the Montmartre, bought some fleas in the Flea Market, visited the Bastille, got some pictures of people taking pictures of the Eiffel Tower (tried to get pictures of the Eiffel Tower but the tourists were too thick) and had dinner at Monseigneurs with a violinist at each elbow. Of course we visited the Louvre, seat of European culture (we were trying to find Place Pigalle and took the wrong subway) and all in all had a wonderfully expensive time.

Next time you go, be sure to visit the Grand Guignol, a terrific little French theater which would fit nicely, including the orchestra's cello player, into an anaemic closet. This theater, which specializes in horror, is so tiny that it doesn't have a bad seat in it (we had seats in the balcony and the tuba player kept blowing the foam off my beer) and the audience emerges bloodstained and exhausted.

The day we were there, the Grand Guignol was offering a rather tame little opus in which a blind maniac goes berserk and carves up his cellmate with a screwdriver to the accompaniment of much thrashing, screaming and spraying of the first row with the reddest blood you ever saw. A wonderful place to take your First Sergeant.

Although I wanted to spend my time in Paris at the Louvre sopping up culture, the Missus dragged me to the Folies Bergere and the Bal Tabarin, and I had to sit there and watch gorgeous women running around without any clothes on when I could have been at the Louvre looking at the world's greatest art collection.

Which bring us to the moral of this offering . . . don't ever take your wife to Paris. It's just too darned hard to get to see the Mona Lisa.



"Hey, Frank, I thought we were gonna shoot some pool!"

The **OBSERVER**  
Spotlights



**Detachment 4**  
**3d Weather Squadron**



DETACHMENT COMMANDER Maj. Carr L. Miller stands beside the welcoming sign which outlines the mission of Shaw AFB, S. C., the tactical reconnaissance wing base supported by Major Miller's AWS weather detachment.

*Intelligence information is the very basis of planning every military action.*

*Theater air reconnaissance forces are responsible, to an unprecedented degree, for the ability of the theater forces to master the enemy. They will be the major source of active military intelligence information after hostilities have begun.*

So is the USAF air doctrine stated in "Theater Air Reconnaissance Operations," USAF Manual 1-11.

The intelligence "eyes" of the Tactical Air Command are the eight tactical reconnaissance squadrons of the 363d Tactical Reconnaissance wing at Shaw Air Force Base, S. C.

Provision of effective weather support to this vital Air Force unit is the mission of the officers and airmen of Detachment 4, 3d Weather squadron. Their commander, Maj. Carr L. Miller of Rockwell, N. C., also serves as staff weather officer to the TAC wing's commander.

The 363d Wing provides every type of aerial reconnaissance: weather, electronic, day and night photo, as well as accurate visual reconnaissance. Its job is to see—and the 363d does it well.

Most modern aircraft are in use there—the RF-84F Thunderflash, the RB-57 Night Intruder, the WB-26 Invader (now being replaced by the weather T-33) and the RB-26 and EB-26 Invader (soon to be replaced by modern jets like the RB-66).

Transition to a near-jet Air Force in the past few years has brought to the art of forecasting for reconnaissance operations the same problems faced in jet-type operations throughout the Armed Forces.

Runway temperatures have become critical at Shaw AFB, particularly during the hot, muggy Southeast summers. Cloud coverage and height are exceedingly critical to the photo reconnaissance activities carried out by the photo squadrons which Detachment 3-4 supports.



CALLING CONDITIONS at selected points throughout the Southeast, A/1c Jack W. Mosely of Columbia, S. C., briefs the men at the aircraft control center on current weather.

Maximum allowable cloud coverage for most photo missions is 2/10 coverage below flight level. More than 4/10 coverage creates an almost insurmountable problem.

During night photo operations, more than 1/10 coverage turns the magnesium flares into "sunspots," when their light is reflected from low-lying clouds.

In wartime, photo reconnaissance is of great importance to an area commander in planning future operations. Poor or unreliable weather forecasts have no place there.

Most jets operate at altitudes where contrails are common.

Most reconnaissance jets are simply flying camera platforms—fast, but usually unarmed. Betrayal of their positions by contrail formation sharply reduces their chances of returning with vital information.

Forecasting contrail heights—and, consequently, the altitude at which jets can probably run their mission—thus becomes another problem for the Detachment 3-4 forecaster.

Another capability of 363d Wing units is inflight refueling, adding long legs to the far-ranging reconnaissance squadrons. Faraway targets have become routine.



TEMPERATURE of the runway is particularly important to jet pilots figuring takeoff roll. Variations in air density with changing air temperature have a considerable effect on the length of runway they must use. A/1c Frederick M. Wollard of Florence, S. C., here takes the current reading at Shaw AFB.

Detachment 3-4 forecasters are briefed on the mission and the critical weather aspects of the inflight refueling operation, as well as on the operational characteristics of aircraft participating in the mission. Based upon this knowledge, the forecaster provides accurate weather service, precisely tailored to the type of mission.

All detachment forecasters hear a lecture on capabilities and limitations inherent in the mission and on the weather support necessary to carry it out. Lecture material is good, solid fact, for it is delivered by a qualified jet aircraft commander from one of the "rece" squadrons.

Forecaster seminars are conducted twice each month, where the latest weather forecasting procedures and problems are thoroughly discussed.

Weather observers, under the supervision of the detachment's chief observer, A/1c Raymond Kenny of Baltimore, Md., hold similar meetings to determine what they can do to provide faster, more accurate weather observations to aircraft operating at Shaw.

Latest modern weather equipment is slated for installation at Shaw. A remote site is planned close to the touchdown area, to

permit further aid to the TAC pilot in safely completing his reconnaissance mission.

Detachment 3-4 also supports the 507th Tactical Control group, the outfit which provides radar surveillance and operational control for aircraft on tactical missions over the southeastern United States.

The 507th's aircraft control center is furnished area weather information. A detachment forecaster is always available to give forecasts and current weather information for aircraft controlled by the 507th Group.

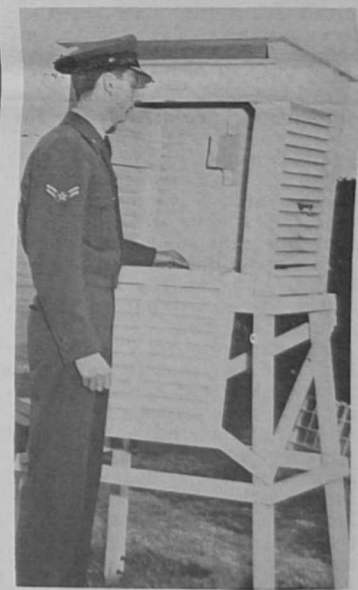
While support of the 363d Tactical Reconnaissance wing is the main mission of Shaw weathermen, hardly secondary is support given to such base organizations as the 4502d Support squadron and others.

Detachment 3-4 is also capable of setting up operations in the field or at remote bases and of furnishing weather information to diversified activities of the 363d Wing.

The Jet Age has brought increased meaning to the AWS motto, "Choose the Weather for Action," in relation to USAF reconnaissance operations. This is one great challenge of the modern military era.

At Shaw Air Force Base in South Carolina, the men of Detachment 4, 3d Weather squadron, 2d Weather group, are meeting that challenge in support of the 363d Tactical Reconnaissance wing of the USAF Tactical Air Command.

They intend to continue to meet it.



HOURLY LOCAL observation is taken by A/2c Frederick G. Ackerson, observer shift chief from Nyack, N. Y.



SPECIAL FORECAST and briefing by 1st Lt. Everett H. Whitley of Kenly, N. C., forecaster, for a recon mission points out cloud-cover conditions to Capt. Richard Wilson of the 41st Tactical Reconnaissance squadron at Shaw.

## New Radar Set Due for WB-50s Will Check the Winds and Navigate

An entirely new system for measuring wind direction and velocity will be used on the WB-50s which are now replacing the WB-29 throughout AWS.

AWS officials call the new system the greatest single advance to date in weather reconnaissance.

Aircraft to be used in the hurricane research project to begin this year will also be equipped with the new system.

An electronic device, the AN/APN-82 Doppler Radar set, continuously computes winds at flight level while the aircraft is in the air. By comparing information from the radar unit with other data available in the plane, the navigator knows the latitude and longitude of the aircraft at all times.

Prior to this, the navigator spent several minutes in computation of the plane's position, using a complicated system. With the APN-82, a glance at an instrument dial gives the aircraft's true position.

A computer can be designed to give almost any type of navigational data desired when used with the doppler radar unit. In the WB-50 the navigator gets ground speed, drift angle, true position, wind velocity and direction from the APN-82.

## Rawin Record Claimed By Johnston Island

Report of a new type of rawinsonde record has been received from the 57th Weather Reconnaissance Squadron's Detachment 1 on Johnston Island. A/1c Samuel Clark III lays claim to the greatest number of consecutive successful runs for one individual. His score, 1,119 errorless runs.

The score was run up between August and November of last year. His long run of impeccable observations was ended not by an error but through his rotation. Airman Clark returned to the States without having an unsuccessful run.

Reports from the 57th indicate their opinion that it's a pretty sharp outfit that can nail a record like that, especially considering that their mission is aerial weather reconnaissance. Perhaps they'll be hearing from some of the ground units, challenging this record for consecutive successful observations for an individual.

Instruments yielding wind velocity and direction are also located in the weather observer's position.

In the past, during flights over remote regions of the world's oceans and arctic wastelands, accurate drift readings were unobtainable and weather reconnaissance wind data was

### Radar Range

From 1950 through 1955, electronic maintenance personnel at the 56th WRS in Japan steadily increased the range of the APQ-13 radar from an initial 86 miles to 120 miles at the end of last year. Further airborne radar advances are outlined in the accompanying story on the new APN-82.

a poor estimate of actual wind speed and direction.

With the new radar, the accuracy of wind measurements from reconnaissance aircraft can be relied upon, no matter where or in what kind of weather the aircraft may be flying.



FINAL PAPERS for new citizen A/3c Guillermo M. Jimenez, seated, are admired by his buddies at 2d Weather wing headquarters in Germany. Airman Jimenez was born in Leon, Mexico, but calls Harlingen, Tex., home. Standing, left to right, are T/Sgt. Maynard Giguere, S/Sgt. Benny Feller and A/3c Bobby Clark.

## 58th WRS Claims Dropsonde High

Last November the Observer reported a high dropsonde record set by the 56th Weather Reconnaissance Squadron in Japan. This month the 58th WRS in Alaska takes up the challenge

and cites the following comparative scores.

Number of successful completions for a six-month period:  
56th—929 completions in 953 drops or 97.5% success.  
58th—1,520 completions in 1,539 drops or 98.8%.

Number of consecutive drops without a miss:  
56th—172 (July 1955, one month only).  
58th—728 (September 9 through December 1, 1955, three months).

Number of consecutive successes by one man:  
56th—76 (A/1c Gary W. Weideman and Don R. Hall).  
58th—272 (A/c Ronald R. Ragland).

The 58th's dropsonde section feels that their record in these three areas definitely takes the cake. They invite all comers to take up their challenge, originally offered by the 56th and now the prerogative of the 58th.

In addition, the 58th also boasts five dropsonde operators with more than 100 consecutive drops. They are T/Sgt. Ercell R. Iverson, S/Sgt. Gerald F.



AIRMAN OF YEAR S/Sgt. Eston G. Pennington of Detachment 3, 28th Weather Squadron, is congratulated by his squadron commander, Lt. Col. Guy N. Goswich, on Pennington's selection as the outstanding airman in the 28th Squadron for the year of 1955. He was cited for outstanding supervision of the detachment's observing section. Plaque shown is for his award as outstanding airman from July through September 1955.

## Flood-Menaced Reno Aided

A flood hit Reno, Nev., on December 22, 1955, and personnel of Detachment 25, 24th

weather squadron, promptly responded to the emergency.

On the morning of December 22, Maj. John F. Wall, the detachment commander, checked with the US Weather Bureau station in Reno. He was told that a flood was highly probable.

Major Wall alerted the commander of Stead AFB, Nev., and definite plans were made at an emergency staff meeting for helping the Reno area. Major Wall was appointed liaison officer between Stead AFB and the city officials of Reno.

A state of emergency was declared and the governor of Nevada called out the National Guard to help in controlling the flood and flooded areas. More than 1,000 airmen from Stead AFB, working in shifts, filled and placed sandbags along the threatened areas.

Major Wall took charge of the Stead AFB command post during the flood and remained on duty until the river subsided. The US Weather Bureau station was flooded, and the base weather station at Stead AFB took over its duties for the Reno area.



BEING CONGRATULATED by his commander is S/Sgt. James J. Kane, 2d Weather group. Col. George E. Rath presented the Commendation ribbon to Sergeant Kane for outstanding performance of his duties while assigned to the 7th Weather group in Alaska. As commander of a weather-observing field team for the paratroop Exercise Snowbird, Kane was instrumental in formulating an Arctic weather observation manual for use by airmen inexperienced in Arctic weather problems.

## AWS Forecaster Scholar Gets Third Degree

Last month CWO Orien Benton of Detachment 13, 16th Weather Squadron, at Edward Gary AFB in Texas received his third college degree at Southwest Texas state teachers college in San Marcos, Texas.

Mr. Benton, Gary's chief forecaster, received a master's degree in counseling and guidance.

An unquestioned expert in weather analysis and interpretation, Mr. Benton has studied in his spare time to qualify himself in the unalied field of vocational guidance. During this latest course of study he was not able to take advantage of all the provisions of Operation Bootstrap.

"Bootstrap" allows personnel to be sent TDY to a school to complete the final semester of a degree. This provision does not include advanced degrees in a different field than a man's military career.

Mr. Benton, as a weatherman, had to do all his studying toward the guidance degree on his own time. "Bootstrap" did help out with the tuition payments.

Mr. Benton, who also holds bachelor's degrees in physics and mathematics from Southwest Missouri state teachers college, started on his counseling studies in the spring of 1953. He pursued his objective through evening and weekend classes, maintaining an "A" average throughout the course of his studies.

With 16 years service to his credit, Mr. Benton plans to retire in another four years and work in the field of industrial vocational guidance. A native of Glencoe, Ark., he lives with his wife, Geraldine, and their four children at 447 Burleson street in San Marcos.

Ridley, S/Sgt. Glen S. Wood, A/1c Richard H. Ericson and Airman Ragland.

Superior performance by all members of the dropsonde section is a direct reflection of the high morale found throughout the 58th, reports Lt. Col. Carl H. Morales, squadron commander.



TOP ENGINE TIME so far reported was racked up by this engine of a WB-29 of the 57th WRS in Hawaii—809 hours and 20 minutes. Maintenance crew (kneeling, left to right) are A/3c R. M. Giraldo, A/2c J. T. Klemmer, J. C. Ray and F. B. Fanning, A/1c D. G. Brandt and A/2c M. J. Guigno jr. Standing in front of propeller blade are (l. to r.) Capt. W. R. Sheppard jr., 57th aircraft maintenance officer, and S/Sgt. Jack E. McQueen, crew chief. Other standees (l. to r.) are the crew: Maj. W. N. Hess, aircraft commander; Maj. B. M. Scott, pilot; CWO H. E. Winch, weather observer; Capt. J. E. Gilmore, ACM pilot; Capt. H. E. Scarborough, navigator; Maj. F. G. Himes, navigator; M/Sgt. T. Gaudiello, flight engineer; S/Sgt. M. W. Bichko, dropsonde operator; A/3c M. R. Bryson, radio operator; S/Sgt. S. David, radio operator; and T/Sgt. V. E. Pennington, crew engineer.

Dry Bones in the Pacific

# Ancestors Approve High-Flying Balloons

An Observer Feature

By Maj. Robert E. Fuerst  
15th Weather Squadron

On December 16, 1955, in a small, isolated building on Okinawa's Kadena Air Base, a record was broken. Weathermen of Detachment 4 of the 1st Weather wing's 15th Weather squadron sent a meteorological balloon to the tremendous height of more than 25 miles above the earth's surface.

This is the story behind that achievement.

"There's only one thing we can do," said Lt. Col. James W. Walker, commander of the weather detachment at Kadena AB on Okinawa. Walker took another look at the airmen of his upper-air unit, hobbling about on crutches and limping with canes, and announced, "We'll have to move the tombs!"

The men gave a weak cheer — during routine operations, they had been plagued by difficulties and injuries because of the tombs. A pair of turtle-shaped tombs sprawled on the hillside right at the site of their equipment and, as they released the balloon-lobbed weather instruments, they kept stumbling and tripping over the steep front wall of the tombs.

It was like running with a kite string in your hands, running forward but looking backward at the kite, and then suddenly

plunging off a ten-foot embankment onto a jumbled pile of rocks and coral.

Okinawans are very serious about their dead ancestors and so the tomb owners were approached with extreme tact. They were given new tombs, built at a spot of their choice. After scraping the bones of their forefathers (a "must" in Okinawan households), they solemnly carried the bones to the new tombs, despite a cold falling drizzle. As the urns of bones were sealed in the tombs, the rain and drizzle stopped.

"It is a good sign," said Koko Moko, leader of the Okinawans. "Our ancestors are pleased, for the heavens have stopped their crying." Koko Moko turned and pointed to the site of the upper-air section and declared, "I therefore make this prophecy.

"Because of the harmonious way this matter was handled, success will crown the efforts of the weathermen. And when the ancestors are ready, they will help these men to establish a new record."

At these words, A/1c Donald A. Bray looked at A/3c Jackie E. Stephens, and the two men made a silent pact. They would, they resolved, be the ones who broke the record.

Bray dug into the history of ancestor worship and learned all he could about bones. He learned what bones were good bones and what bones were bad bones.

He watched bones being scraped, and he watched bones being carved into objects of decoration. When he went to bed at night, he wasn't just tired—he was bone-tired.

Meanwhile, Stephens explored the chemical side of the matter. His idea was that the hot-water bath, used to preheat the balloons that carry weather equipment high into the atmosphere, could be treated chemically to make it more effective.

Stephens talked to Ryukyuan druggists and tried powdered rhinoceros horn, crushed leg bone of tiger and even shark bone. And eventually he found what he was seeking.

During the experiments, ordinary toy balloons were soaked in one kind of bath after another, and then were blown up by Airman Bray to test their elasticity. With the final formula, balloons could be blown to double the size of a basketball without breaking.

What are the ingredients of this particular formula? Stephens refused to reveal the secret, but he did volunteer the information that ground salamander bones and crushed dragonfly wings form integral parts.

With the mastery of the formula, both men felt that they were ready to tackle the record. All they needed now were favorable conditions. And one day the signs were right.

"Listen," said Bray, as the two men rose one morning, "I hear rattling bones."

It was the day after payday, and the bones had rattled all night—were still going strong. But it was a favorable sign to the two weathermen.

At breakfast came the second. Bray grimaced as he chomped hard on the sausage. He reached into his mouth and removed a small object. "Look," he said to Stephens, "bone chips in the sausage. Another good sign."

And finally, on the way to work, Stephens grabbed Bray's



AFTER A RECORD sounding of more than 25 miles, A/3c Jackie E. Stephens of Bellefontaine, Ohio, and A/1c Donald A. Bray of Minneapolis, Minn., take a well-deserved break.

arm and pointed. The two men stopped and stared. Ahead of them a black dog was walking under a ladder—a black dog with a white bone in its mouth.

"This is the day," said Bray.

At the rawinsonde section, Stephens got out his huge hypodermic and squirted the secret formula into the balloon bath. Bray blew one lungful of his breath into the large balloon and then filled it with hydrogen.

The men fastened the weather equipment to the balloon, checked their radios to be sure they would be able to record the transmitted temperatures, pressures, humidities and winds on this hoped-to-be record sounding of the upper air.

The balloon rose. Bray and Stephens worked quietly at first, but as the balloon passed 100,000 feet they began to get fidgety. As the balloon reached 125,000 feet, perspiration began to roll down their cheekbones and their hands grew clammy.

The balloon kept rising. They were nearing the end of their calibration sheet, drawing closer, closer to the end; and then they were off the paper.

It was like the speedometer of a car that goes up to 100—they had reached 100 and were still going, but knew not where. The men continued tracking the balloon until it finally burst, high in the heavens.

The usable height of the balloon run was the highest possible limit—136,388 feet.

For a moment the men leaned back and were silent. They had done it, broken all records at Kadena Air Base and perhaps in the Far East.

And then both men straightened in their chairs and listened. A strange tapping was audible, a resonant tapping, apparently coming from the covered tombs—as if two bones had been left in their former resting place and were striking against one another.

"It's in Morse code," said Bray.

The men strained to hear the sound and Stephens began to copy. "Congratulations," said the tapping bones. "The departed ancestors of the island commend you for a job well done."

Is it fact—or fiction?



FORMULA "X" is injected into the balloon bath by Airman Stephens.



TESTING TENSILE STRENGTH of toy balloons, Airman Bray prepares for a try at a record run.

## OBSERVER SUBSCRIPTION BLANK

Inclosed please find the amount of \$\_\_\_\_\_ to cover the cost of \_\_\_\_\_ one-year subscription(s) to the **Observer** at the rate of one dollar a year. I understand that my **Observer(s)** will be mailed to me personally at the address given below:

NAME:

MAILING ADDRESS:

## Skew-T

(Continued from page 2)

Many ZI weather units participated in briefing airmen on the weather before leaving for the holiday season. These briefings were part of an AF-wide program to reduce traffic accidents.

The Severe Weather Warning Center of the 6th Wea gp completed its move to Kansas City, Mo., on January 20.

At Harmon AFB, Newfoundland, Airman of the Month for December was A/2c William G. Bates. Bates is a shift chief in the observer section of Det 5, 5th Wea gp.

## USAF Tops All in Gallup Poll

Most US adults believe that the Air Force will be the most important service in winning any future war, reports a recent Gallup poll.

In a recent study made for the Defense department by Public Opinion Surveys of Princeton, N. J., under the guidance of Dr. George Gallup, 56% of those asked called the Air Force "the most important service."

Twenty-seven percent felt that all services would be equally important in another war,

while 8% picked Army, 3% Marine corps and 2% Navy as most important. The remaining 4% had no opinion.

The same study among young American men, aged 16 to 20, showed that 57% of them believe the Air Force will be most important in winning another war.

Comments made about USAF included "It is fast, can strike anywhere," "Next war will be an air war" and "It is the most powerful service and most disastrous because it can do more damage."



COMMENDATION RIBBON winner S/Sgt. Walter P. Mardyla of Detachment 11, 4th Weather group, at Patrick AFB, Fla., is congratulated by Col. Harry W. Generous, Patrick commander. Detco Maj. Robert F. Durbin (left) holds his citation, while Capt. Daniel E. McPherson jr., assistant detco, looks on.

## Old Sergeant Takes Oath as New Warrant

Another name was added to the list of regular warrants in the Air Weather Service when M/Sgt. Frank D. McClarty was sworn in as a warrant officer by Col. Virgil E. Sandifer, commander of the 5th Weather group.

Mr. McClarty is assigned as a forecaster with the Pepperrell Forecast center in Newfoundland. He completed the warrant officer test in April 1955.

Veteran of 12 years of service, he saw duty with the coast artillery in New Guinea and Luzon during World War II. Mr. McClarty was discharged in 1946 as a first sergeant, re-enlisted in 1947 and continued initially in the administrative field.



Entering the weather field through on-the-job training, Mr. McClarty went on to complete forecaster school and climatological school, phase II. Hailing from Miami, Fla., he is the father of five children. His eldest son plans to enter the service soon.

## 56th Pilot High Man

Setting a record in the 56th Weather Reconnaissance Squadron while flying the Buzzard Delta weather recon track on New Year's eve was Capt. Howard L. Rust of Grove City, Pa.

That mission was Captain Rust's 200th fixed-track weather flight since his assignment to the Yokota, Japan-based 56th WRS in May 1952.

This is an unequalled record in the six-year history of the 56th, according to information received.

The 200 fixed-track weather recon missions do not include the veteran flyer's numerous typhoon recon missions in the Pacific.

Captain Rust had 1,169 flying hours to his credit when he arrived at the 56th and has racked up 2,905 hours to bring his total to 4,074 hours flying time at the end of 1955.

Flying 3,519 hours in B-29 aircraft, he is one of the most experienced aircraft commanders in the squadron.



RECORDS CHECKING award for the 2d Weather squadron is presented to S/Sgt. John R. Leathers of Detachment 21, Ft. Campbell, Ky., by the 2d Squadron commander, Capt. Leon B. Parker. A/2c William F. Duggleby (in background) received the Outstanding Observer award from his commander during the captain's recent visit to the detachment.

Pibal in the Corner Pocket

By Mack Risner

SPORTING A RECORD of ten wins and one loss, with its eye on the league crown at Elmendorf AFB, Alaska, is the 7th Wea gp basketball team. They have scored an average of 52 points a game while holding their opponents to 39. Joseph McElroy is the team's leading scorer and, in a recent game with the M & S gp at Elmendorf, he hit the nets for 23 points. He has an average of 13 points a game.

Close behind McElroy in the scoring department is Dewayne Hoffman with an 11-point-per-game average. Harold D. Cooper, team coach and one of the leading players, has a 10-point average. The team plans to travel to Eilson and Ladd AFB's to play weather teams in answer to recent challenges.

Rounding out the squad are William Arrick, Harl R. Roster, Robert Thompson, Carl Snyder, Dan Casey, Jackson Rush and George Boring.

TWO 56TH WRS MEN at Yokota AB, Japan, were on the base pistol team in the recent FEAF meet. William J. Martin (right) was captain of the Yokota team. The other 56th pistol team on Yokota's team was William W. West. Martin, a former Los Angeles policeman, also fired in the 1954 world-wide USAF pistol meet at Travis AFB, Calif.



AT HICKAM AFB, Hawaii, the program of free golf lessons by the 57th WRS is steadily increasing the number of divot diggers on the Pearl of the Pacific. The program was started in October and has stirred up an active interest in the game.

HOLDING DOWN second place in the Fort Holabird, Md., basketball league are the "Fighters" of the 4th Wea gp. The coach and players are going all-out to move up to first place. Team spirit is excellent, according to the latest word from them.

IN A TIE for second place in the base intramural basketball league at Randolph AFB, Tex., is the 24th Wea sq team. Basketeers of the 24th have won six while losing only two. A win would put them in a tie for the league lead.

### WEATHERMEN ACTIVE ATHLETES ON OKINAWA

One of the first signs of spring at Kadena AB, Okinawa, is the appearance of the 15th Wea sq softball team on the diamond. The 15th is a fierce competitor in all base athletics, from skin-diving to basketball.

Spring means a warming of the waters around the island and skin-diving fans like Robert Fuerst dig out their swim fins and goggles. They head for the beaches and take to the briny deep to explore the sea life of off-shore reefs.

Tennis and golf fall in the year-round sports category but reach their peak activity in the summer. Fred Hickernell hits the tennis court early, trying to reach the top form he displayed last year when he led a team of four to Japan for the FEAF tennis tourney.

Ernest Harris represented Kadena in the FEAF track meet, and was selected for the team that represented FEAF in the world-wide USAF meet. Last year, Harris broke his own Okinawa record in the 400-meter distance, shaving a full second off his old time of 51 seconds.

For the keglers, the 15th supports a bowling team. They also have a volleyball team. These teams have racked up some enviable records.

The less-active athletes of the 15th can usually be found driving a smashing serve or making a terrific recovery around the ping pong table. Competition is lively in the table tennis tourney the 15th periodically conducts.

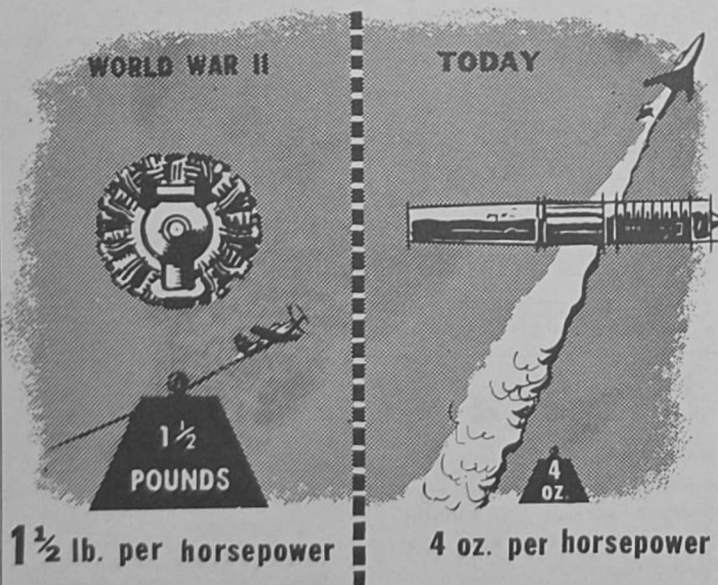
Sportswise, the 15th has a team or competitors in most all athletic activities on Okinawa.

A STORY-BOOK FINISH iced the game for the AWS hq basketball team as they topped their latest foe by one point. With a minute and 20 seconds left in the game, the AWS team was trailing by 36 to 35. "Hot Rod" Hovious stole the ball and went all the way for a lay-up, putting AWS in the lead 37-36.

The opposing team worked the ball down court and swished the nets for two points to regain the lead. Time was running out when Dennis Reiter, one of the AWS team mainstays, sunk one from 25 feet out. Time ran out as the other team was putting the ball into play, AWS winning by the slim margin of 39 to 38.

Pibal in the Corner Pocket needs more sports stories from all the AWS units, so send the happenings of your unit's sports activities, and pictures too, and we'll use as many as we can.

## RESEARCH AND DEVELOPMENT PAYS OFF



The best aircraft engines of World War II produced 3,000 horsepower—1 horsepower per pound-and-a-half of engine weight. In the decade since, advanced research, engineering and manufacturing know-how of the U. S. aircraft engine industry has developed engines with thrust outputs ranging up to 25,000 equivalent horsepower—1 horsepower for each four ounces of engine weight.

## Conversion Score

Latest countdown on the WB-50 conversion program in AWS reconnaissance units finds that over half the units have received delivery of at least their first new aircraft and the rest will have their initial new plane sometime this month.

The 59th Weather Reconnaissance flight and the 55th, 56th and 57th Weather Reconnaissance squadrons already have one or more WB-50s and the 53rd, 54th and the 58th are getting their first this month.



HIGH MAN at McGhee-Tyson airport in Knoxville, Tenn., recently was A/1c Thomas W. Keeney, Detachment 24 of the 12th Weather squadron. Keeney was chosen base Airman of the Month after being nominated by his detachment for four months in a row.

### SEND THE OBSERVER HOME

Fold and Fasten

PLACE  
STAMP  
HERE

From \_\_\_\_\_

TO \_\_\_\_\_