WEATHER BUREAU TOPICS

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REPORT ON WB IN PHILIPPINES

REESTABLISHMENT of the Philippine Weather Bureau as an adequate and efficient public service agency is more than 90 percent complete, according to the Preliminary Final Report of the U. S. Weather Bureau Mission in the Philippines. It is expected that the program of assistance, authorized by the Philippine Rehabilitation Act of 1946, will be completed and all facilities operated by Philippine Weather Bureau personnel by April 1, 1950.

The Report, prepared under the direction of Harold R. McBirney, Chief of Mission, is to be distributed to U. S. Weather Bureau section centers and larger stations. This limited distribution is made necessary because of the small number of copies available.

The Philippine Weather Bureau, which began in 1865 as a private observatory at a Jesuit school in Manila, was badly disorganized by World War II. In July 1946 the Philippine Government took action to reestablish it as a civil function of the government under the Department of Commerce and Agriculture. Under the Rehabilitation Act, the U. S. Weather Bureau sent out an initial staff in January 1947 to begin the work of aiding the Philippine Government reestablish its weather service. Foster V. Jones became the first Chief of Mission.

None of the existing weather reporting stations had been inspected following the war, but by May 1947 a program was under way to make surveys of all existing stations and to locate additional sites. At most of the stations the instruments were a conglomeration of prewar equipment, Japanese equivalents, and U. S. Army surplus. Exposures of the instruments differed from those before the war since many observers had been forced to flee their homes and had reestablished, in the most convenient locations, the instruments they were able to retain. In most cases no adequate description of the exposure existed.

Many of the initial surveys had an aura of exploration, especially those to isolated areas from which weather reports were needed to complete a synoptic network. Inspectors traveled by air, train, truck, ship, barge, banca, donkey, and on foot to reach localities which before their visits were little more than names on a map. Food in the field was always a problem. "C-rations" accompanied many of the first surveys, and canned goods were very popular until the Americans decided it was simpler to eat the native food provided in the provinces.

While only about 2 percent of the total working time was lost as the result of sickness, there were five cases of jaundice, several of amoebic dysentery, and many minor illnesses. Four members of the USWB Mission (Foster V. Jones, O. K. Anderson, C. L. Nelson and C. L. Heffington) were returned to the United

Legaspi Weather Station at the foot of Mt. Mayon in southern Luzon; typical prefabricated station buildings.

States for reasons of health.

The U. S. Weather Bureau, under the Rehabilitation Act, was authorized to train in the United States not to exceed 50 Philippine employees the first year and not to exceed 25 each succeeding year until July 1, 1950. Several groups of these "pensionados," selected by competitive examination, received university training in theoretical meteorology, and were later oriented in U. S. Weather Bureau operations. Other groups, Philippine Weather Bureau employees only, were given orientation and practical training in USWB stations to familiarize them with modern application of meteorology and climatology to problems of agriculture, aviation, and industry. Many other PWB employees gained practical training and experience by accompanying members of the USWB Mission on field trips, establishing weather stations in the synoptic network and making climatological installations.

At the beginning of the Rehabilitation Program, USWB Mission employees took an active part in program responsibilities of the weather service, but as the pensionados returned from the United States, and Philippine employees gained experience, the program was progressively assumed by Philippine Weather Bureau personnel. At the present time, USWB Mission personnel serve only in advisory capacity.

The synoptic network in the Islands now consists of 46 reporting stations. Eleven of these are pibal and three are radiosonde stations. One of the major problems in the establishment of the upper-air observation network, the procurement and steady supply of hydrogen, is still not completely solved. In most cases, office quarters could not be provided locally, so

pre-fabricated buildings designed for weather station use were purchased and erected on suitable sites throughout the islands. Reinforced concrete buildings were constructed for two stations in the typhoon belt north of Luzon.

At the forecasting center in Manila USWB meteorologists did most of the forecasting work until Filipino pensionados began returning from United States universities. The Filipinos then took on progressively more of the duties until full responsibility for operation of the forecasting center was turned over to the Philippine Weather Bureau on April 1, 1949. Two USWB meteorologists have continued at the center as advisors.

Forecasting service to the public now consists of two forecasts daily for the entire Archipelago. A storm warning and advisory service provides advance notice of typhoons through visual signals, printed bulletins, radio broadcasts, and the press. Aviation forecasts are issued three times daily and transmitted to the various airports via CAA communication facilities. Marine forecasting is expected to be inaugurated soon.

A Philippine National Meteorological Broadcast is expected to be established before April 1. This will provide basic channels over which broadcasts of meteorological information can be exchanged with other meteorological services of the Far East, for ocean shipping, and the general public of the Philippines.

REED CHAIRMANSHIP OF COUNCIL LAUDED

WHEN T. R. Reed stepped down in November from his post as Chairman of the Atlanta Intra-Departmental Field Council of the Department of Commerce, his fellow members applauded his year of successful service with the following resolution:

Mr. Thomas R. Reed, Regional Director of the U. S. Weather Bureau, has completed a successful term of office as Chairman of the Intra-Departmental Field Council.

As an expression of the appreciation felt by our members for his fine performance in this office the following resolution was passed at our last meeting.

The members of the Intra-Departmental Field Council, upon expiration of Mr. Thomas R. Reed's term of office as Chairman, desire to express their sincere appreciation for the very effective and efficient manner in which he has conducted the affairs of this organization during the past year.

WEATHERMEN WRITE HYDROLOGY TEXT

APPLIED HYDROLOGY, a comprehensive text on modern hydrologic methods, was released by McGraw-Hill Book Company in October. The authors are Ray K. Linsley, Max A. Kohler and J. L. H. Paulhus, all of the C&HS Division. The book discusses the fundamental background of present-day hydrology and decribes in detail the techniques in use in the various fields of applied hydrology.

SEOUL PERSONNEL CHOSEN

THE American staff for the new Main Meteorological Office at Seoul, Korea, have now been selected and are at work on their new jobs. Between August and December 1949 an acting OIC, Hilman J. Lund from the Philippine Rehabilitation Program at Manila, supervised the work of the station. Now Paul H. Swope, former FAWS forecaster at WBAS La Guardia Field, has been placed in charge. His first assistant will be William S. Weyant, former observer-briefer at WBAS Chicago. Other personnel of the MMO will be entirely Korean nationals.

Mr. Swope has been with the Weather Bureau since 1946. A graduate of Carthage College, Carthage, Ill., he served as a weather officer in the Air Force in England for 13 months during the war, and upon discharge he joined the Bureau as a forecaster at Keflavik. In 1947 he returned to this country and was assigned to the International Aviation Forecast Unit at La Guardia Field.

Mr. Weyant was an airway observer at Bear Mountain, N. Y., in 1941 and 1942, but resigned to enlist in the Army. During the war he was a forecaster with the Air Force at Presque Isle, Me., and at Meeks Field (Keflavik) and Reykjavik Airdrome, Iceland. After the war he completed his B. A. degree at New York State College for Teachers at Albany, and returned to the Bureau as a meteorological aid at WBAS Boston. In September 1947, when Mr. Swope returned to the United States from Iceland, Mr. Weyant was transferred to the position thus vacated at Keflavik. Mr. Weyant returned from Keflavik in December 1948 and since January 1949 has been an observer-briefer at WBAS Chicago.

At the Seoul MMO forecasting and briefing services are maintained for American and international flag carriers operating from there. A 24-hour observational program will be carried on, but this work will be done by Korean nationals trained by and under the supervision of the Americans. An important part of Mr. Swope's job is that of maintaining liaison with the Korean government on meteorological matters.

METEOROLOGIST IN MANAGEMENT PROGRAM

JAMES F. APPLEBY, meteorologist in the C&HS Division, has been selected by the Civil Service Commission for participation in its First Junior Management Intern Program. This program, which began January 3, is similar to the more familiar Administrative Intern Programs except that it is limited to employees in the GS-5 to GS-7 grades and geared to that level. The Administrative Intern Programs, the 10th of which is now being completed, draw their participants from grades GS-8 to GS-11. Mr. Appleby has been relieved of his regular duties with the Bureau until May 31 when the Management Intern Program ends.

PERSONAL CONTACTS IN PUBLIC RELATIONS

IN A recent TOPICS article (November 1949) we discussed the desirability of prompt investigation of criticisms of the Weather Bureau to bring out the basis for each criticism and arrive at corrective action where possible. Personal investigation of complaints not only helps to unearth the facts quickly, but often makes it possible to straighten out misunderstandings.

Many such misunderstandings may be cleared up simply by talking over the problem with the critic. A newspaper in Santa Fe, N. Mex., recently published an editorial complaining about the lack of observational data in the city and the discrepancies in precipitation data published in the paper. L. A. Warren, OIC at WBO Albuquerque, discovered in conversation with the managing editor that the paper was publishing data from the CAA station at the airport, which was seldom representative of downtown Santa Fe. The editor was unaware that the Bureau maintains a climatological station less than half a mile from the downtown area. The local climatological observer was prepared to furnish the observations each day, so arrangements were made for the paper to call him for the information.

During the discussion it was brought out that some Santa Fe residents apparently retained ill feeling toward the Bureau since the first order station was closed there in 1941. Mr. Warren agreed to make arrangements for having a local forecast prepared at Albuquerque and transmitted to Santa Fe by Associated Press teletype. At the conclusion of the interview the editor expressed pleasure at the arrangements made and said he believed the publication of local forecasts and accurate city data would change the local feeling toward the Bureau.

A complaint that pilots sometimes find difficulty in obtaining flight information which the Bureau has available was voiced in the widely-discussed article by Wolfgang Langewiesche in April AIR FACTS, "The Pilot and the Weather Bureau." Pilots attribute much of this to varying degrees of apathy exhibited by some Bureau personnel. They cite offices here and there where they say the attitude of Weather Bureau personnel is such that they have felt it futile to try to obtain adequate service.

An example of this has been brought to our attention. A pilot in flight to a small off-airways airport radioed to a field he had just passed, requesting information on the weather en route and at his destination. He was informed by the CAA communicator that the Weather Bureau said it had "no current report or forecast" for the destination, and that the only information available was the current weather at a point 40 miles from the destination. On his return flight the pilot again called the same station for information on another off-airways airport. This time the only assistance offered was the terminal forecast for a city 125 miles from the

desired locality.

This purely negative reaction to such requests leaves the pilot feeling "utterly helpless." As the flier in the above instance expressed it, "If the Weather Bureau can't give him information, to whom does he go?" Seldom is it true that a Weather Bureau employee with a desire to be helpful cannot give some assistance. There are area forecasts from which some guidance can be offered in most instances. In the above case the pilot might have been given at least the general conditions over the area, with some indication of whether they seemed to be improving or deteriorating. A totally negative statement that "no information or forecast is available" doesn't make friends for the Weather Bureau.

Personal follow-up paid off last spring in the case of a nationally known radio personality who had voiced criticism of the Bureau at a meeting of the American Meteorological Society. W. A. Bertrand, assistant regional director of Region 1, called upon this critic, carrying a message that the Chief of Bureau was concerned over the criticism and desired to learn as much as possible about the basis for it so that corrective action might be taken in our service. The commentator was pleased to discuss the matter and asked numerous questions about the weather service. At the end of the interview, Mr. Bertrand reported, he appeared as enthusiastic about the Bureau as he had been critical before. The interview closed with cordiality on both sides.

Good relations with the public in the final analysis depend on the quality of service rendered, which in turn is judged as much by the manner and method of imparting information, as upon the informational content itself. We cannot emphasize the point too strongly that good public relations are essentially good personal relations. Courtesy and tact, a desire to be helpful, and a perceptive attitude towards the problems of those who call on us for information are the foundations of good public service and good public relations. Whenever an OIC and his staff exhibit these attitudes there is seldom criticism of the Weather Bureau.

CHANGES MADE IN PACIFIC STATIONS

PACIFIC Ocean station OBOE, lat. 40°N, long. 142°W, became operative December 19. At the same time, Pacific station ABLE was renamed PETER and its location changed from lat. 49°N, long. 148°W to 50°N, 145°W; station FOX was also renamed NAN, but its location will remain 30°N, 140°W. All the above ocean stations are operated jointly by the Coast Guard and the Weather Bureau. The scheduled observation program consists of eight surface and radar weather observations, four rawins and two raobs daily.

ALERT OIC SAVES LIVES IN MINNESOTA

PROMPT and decisive emergency action by OIC Richard T. Fox of WBO International Falls, Minn., is credited with saving many lives during the severe storm which struck that area October 10.

Two hours before the storm hit the area beavers had toppled several trees onto the telephone lines connecting International Falls with Minneapolis and Chicago, cutting off telephone and teletype communication with those cities. When the teletype failed at 9:55 a.m. the 0630C map had been prepared, but the State forecast for Minnesota was not scheduled until 10. The map looked ominous, however, so Mr. Fox,a GS-7 meteorological aid, on his own initiative issued a provisional warning at 10:20 a.m.

A severe storm, accompanied by winds of strong gale force, is moving north toward International Falls. Extreme caution is advised by all who might be planning to go on the lake today. This is a provisional warning of severe winds to be followed by further advices during the day.

The duck hunting season was at its peak in northern Minnesota and many parties were planning to go out on nearby Rainy Lake. At least 15 of these parties are known to have changed their minds because of the warning.

When the storm struck International Falls furiously about noon, power and telephone service were immediately disrupted. The wind was estimated at 55-65 m.p.h., with heavy rain. Extensive property damage was caused by the storm, but thanks to the timely provisional warning no lives were lost during its height. About 7 p.m. two men were drowned when high waves swamped their boat on the Rat Root River 9 miles southeast of International Falls, but the local sheriff and other local officials expressed the opinion that this tragedy would not have occurred if the men had exercised normal caution.

Mr. Fox has been officially commended by the Chief of Bureau "for an action which was in the best traditions of our service."

BELKNAP NEW OIC AT KEFLAVIK

NOW in charge of the Weather Bureau Office at Keflavik, Iceland, is Raymond L. Belknap, former analyst in the International Aviation Forecast Unit at La Guardia Field, N. Y., He succeeds John S. Remick, who is returning to the United States.

Mr. Belknap has been at La Guardia Field since 1941. He entered the Bureau in 1939 as a junior observer at Norfolk, Va., transferred to WBAS Rochester in December and then to La Guardia in May 1941. Before joining the Bureau he had been in educational work. From 1935 to 1939 he held various positions in this field, as educational advisor in Virginia Civilian Conservation Corps camps, teacher in the high schools of Virginia and North

Carolina, and principal of the elementary and high schools at Lovingston, Va. He is a graduate of Upper Iowa University at Fayette, Iowa, and has done advanced work at Duke University and the University of Virginia.

Keflavik is a key station in the trans-Atlantic route to Europe, and is devoted almost exclusively to serving aviation interests. Some 15 American and foreign airlines use the Keflavik Airport, traffic varying from 200 to 400 planes a month. Local forecasts and climatological data are also furnished the airport construction company and the U. S. Army Corps of Engineers. No public service is provided except to airport personnel, numbering approximately 600.

"PRESSURE JUMP" PROJECT UNDER WAY

PUBLIC Law 657 directs the Weather Bureau to investigate severe storms such as thunderstorms, squalls, tornadoes, hurricanes, etc. As a part of the Bureau's plans for activity under this Act, it has been proposed to activate, when funds become available, a dense network of observing stations in the Midwest to assemble data which will lead to better understanding of violent disturbances. The "pressure jump" hypothesis of squall lines and tornadoes will be tested. (This hypothesis is developed in a paper, "A Proposed Mechanism of Squall Lines -- the Pressure Jump Line," by Morris Tepper of the Scientific Services Division, to be published in the February 1950 issue of the JOURNAL OF METEOROLOGY.)

A small pilot project has been established in the vicinity of Washington, D. C., to get into the practical side of the field plan for "pressure jump" investigations. Sixteen stations have been selected within a radius of 50 miles of Washington to comprise the pilot network. Included are four first-order Weather Bureau Stations, one Air Force station, three Navy stations, one Department of Agriculture Station, one Bureau of Mines station and six Weather Bureau cooperative observing stations. Each of these stations has automatic instruments to record the behavior of pressure, temperature, humidity, precipitation and wind. The facilities of the Washington National Airport station are being utilized for upper-air observations and for radar tracking of storms that affect the network.

Elkins, W. Va., Front Royal, Va., and Frederick, Md., have been designated as "alerting stations". Whenever a pressure jump of moderate intensity is registered on the barograph at any one of these stations the time and intensity of the jump are to be reported as soon as possible. Elkins will report via teletype; Front Royal and Frederick will telephone their reports to Washington National Airport.

It is planned to operate the network until about June 30.

DISTRIBUTING SCIENTIFIC PAPERS

FROM time to time research papers, scientific reports and other technical publications are distributed to field stations. In the case of the larger stations, as many as four copies may be sent out since a single copy has been found in many instances insufficient to meet the needs of the station.

Several copies of technical publications are necessary at the larger forecast stations to assure prompt dissemination of the material to all professional personnel. This is particularly true where the station carries on district airway forecasting, FAWS and research activities. Since time for reading the paper is generally available only during an occasional spare moment or during off-duty hours, each individual may take some time to complete the reading. On a routing list to all forecasters, the paper thus might not make the rounds for weeks or months. It has therefore been found desirable, whenever possible, to make a copy immediately available to each major activity (district forecasting, airway forecasting, FAWS, research), even though they are all under the same roof.

The mailing system used for this distribution may result in each copy arriving in a separate envelope. Although it requires additional envelopes, this procedure saves considerable time because it eliminates checking a station list to determine the number of copies to be placed in the mechanically addressed envelope.

Since not all papers are available in sufficient quantity to supply a copy to each activity at a station, the use of separate envelopes is even more desirable for maintaining a system of priorities. The mailing list is separated into three priority categories, determined by the kind of activity and its physical location relative to other activities in the station. The priorities for a station with all activities under one roof would be: district forecaster, 1; research forecaster, 2; airways forecaster, 3; FAWS, 3. At a station where FAWS was in a separate buidling it would have a priority higher than 3.

Separate address stencils are maintained for each priority category. However, the address merely indicates a priority in routing and should in no way restrict the eventual routing of the paper to all professional personnel in the station. It is intended that each copy of a paper received at a station become a part of the station file regardless of the activity to which it is addressed.

If a station receives more copies of a paper than it requires for its permanent file, after the initial routing excess copies may be returned to Central Office stock. The following reports are now out of print, so extra copies not required at a station could be used to fill requests received by the Central Office: RESEARCH PAPERS Nos. 2, 3, 4, 7, 8, 9, 10, and 11, which are collected in a

publication entitled "A Collection of Reports on Extended Forecasting Research;" RESEARCH PAPERS Nos. 15, 16, 17, 19, 22, 23, 25, 28; MONTHLY WEATHER REVIEW SUPPLEMENTS Nos. 1, 2, 3, 6, 15, 17, 20, 22, 23, 24, 25, 28, 31, 32, 33, and 45.

IS INFINITIVE SPLITTING A SIN?

IN AN organization which depends upon letters to carry on much of its business, effective use of the English language assumes considerable importance. Since our correspondence from time to time yields up examples of poor language management, we intend publishing occasional brief articles on the subject.

This month we bring hope to those in whose minds still lurks a fear of that ancient taboo, "Thou shall not split infinitives." Modern authorities do not consider the separation of the word pairs, "to be," "to report," "to analyze," etc., so reprehensible as was once the case. While they do not advocate indiscriminate splitting their attitude is that under some circumstances a split infinitive is necessary if the meaning is to be clear.

First of course, we should be sure that what at first glance appears to be a split infinitive really is one. Thus, "to actually report" is definitely a split infinitive; "to actually be reported" is also one; but "to be actually reported" is not. Failure to make this distinction may lead to such distortions as, "The situation needs carefully to be analyzed." Only slightly less awkward is, "The situation needs to be analyzed carefully." Here there is absolutely no reason to avoid "to be carefully analyzed."

Although it is generally agreed that separation of "to" from its infinitive (be, do, sit, etc.) is not in itself desirable, a real split infinitive is deemed preferable to either ambiguity or or artificiality. H. W. Fowler (MODERN ENGLISH USAGE) feels that it is better to write, "Our objective is to further improve our public relations," than by correcting into "Our objective is further to improve. . . ," leave it doubtful whether an additional objective or additional improvement is needed. He also makes the point that such reminders of a tyrannous convention as "attempting to forbid flatly all such practices" are far more abnormal than the abnormality they evade.

While admitting that sufficient recasting of the sentence will get rid of any split infinitive, Mr. Fowler and others maintain that the merits of each case should determine whether such recasting is worthwhile. It is better to be brief and clear than to be lengthy without greater clarity.

HOLCOMB COMPLETES 45-YEAR CAREER

ELWARD W. HOLCOMB, OIC at WBO Springfield, Ill., since 1932, retired December 31, completing more than 45 years with the Bureau. Mr. Holcomb's early life was spent in South Dakota; born in Millette, he grew up and attended school in Huron. In 1904 he was appointed as messenger at the Huron Weather Bureau Office, where he was promoted to assistant observer in 1908, then transferred to Evansville, Ind. Following this transfer, until 1914, he served for varying periods as assistant at New Orleans, Pensacola, Elkins, Philadelphia, Columbia, Peoria, and Little Rock. In July 1914 he returned to Huron as first assistant. He remained there until 1917, then went to Indianapolis as first assistant. In 1920 he was placed in charge at Pensacola, remaining there until 1931. From September 1931 to October 1932 he was OIC at Mobile and then transferred to Springfield in charge.

Mr. Holcomb's present address is 1035 South Second Street, Springfield, Ill.

Until a successor for Mr. Holcomb can be named, John J. Keyser of the Central Office will serve as acting OIC at Springfield.

CARBON TETRACHLORIDE COST SAVED

LEWIS C. NORTON, assistant analyst in the WBAN Analysis Center, Washington, D. C., has been awarded $15 for his suggestion concerning the use in the Analysis Center of carbon tetrachloride to clean the "acetates" (transparent work sheets) used in the preparation of analyses and prognoses. As a result of the suggestion, the Analysis Center is now using a cheaper grade of carbon tetrachloride than formerly,

BOSS—OR LEADER?

TO AN anonymous Government employee, and to the magazine PERSONNEL ADMINISTRATION, we are indebted for the following distinctions between a "Boss" and a "Leader:"

The Boss drives his men; the Leader coaches them.

The Boss depends on authority, the Leader on good will.

The Boss inspires fear; the Leader inspires enthusiasm.

The Boss says "I"; the Leader says "We."

The Boss says "Get there on time"; the Leader gets there ahead of time.

The Boss fixes the blame for the breakdown; the Leader fixes the breakdown.

The Boss knows how it is done; the Leader shows how.

The Boss makes work a drudgery; the Leader makes work a game.

The Boss says "Go"; the Leader says "Let's go."

FLETCHER RETIRES AT SACRAMENTO

EDGAR H. FLETCHER, OIC at WBO Sacramento for the past 17 years, retired from active duty December 31. He thus completed 38½ years of service with the Bureau, having entered the Bureau at the Central Office in 1911.

Born in Capon Springs, W. Va., in 1882, Mr. Fletcher attended a one-room school there and later, after completing a teacher's course at the Capon Bridge Normal, taught for five years at the crossroads school he first attended. He graduated from Valparaiso University, Valparaiso, Ind, in 1907, majoring in pharmacy. It was while working as a drug clerk in Washington, D. C., that he became interested in weather work as a career.

Appointed in 1911, he completed two months training at the Central Office and then was assigned to Meridian, Miss. After a year there he was transferred to New Orleans for service under Dr. Isaac M. Cline. His next station was Richmond, Va., with temporary details to Raleigh and Wilmington, N. C., and then back to Washington, D. C., to assist in the preparation of an "Agricultural Atlas." From 1913 to 1918 he was stationed at Philadelphia. From there his career took him west, first to Wagon Wheel Gap, Colo., where the Bureau maintained an experimental station with the Forest Service for studying the effect of forest cover on climate and streamflow. Following that, for about a year, he was stationed at Phoenix, Ariz., and while there was given the task of locating a site for a solar observatory for the Smithsonian Institution. From October 1919 to February 1928 he was OIC at Yellowstone Park, Wyo., and then left snow country for good. While OIC at Roseburg, Oreg., from 1928 to 1932 he made a special temperature survey for forecasting frost in the Umpqua Valley.

Since October 1932 Mr. Fletcher has been in charge at Sacramento. One of the major projects at this station is the river and flood program. Largely through Mr. Fletcher's efforts the river and flood service has been organized into a successful warning system. According to statistics, the warnings from the Sacramento office have saved the people of the lower Sacramento Valley a million dollars a year since 1935. For his long and outstanding service he was awarded the Meritorious Service Award by the Department of Commerce in 1949.

Mr. Fletcher's present address is 501 Pico Way, Sacramento, Calif.,

Until a permanent successor is selected for the post of OIC at Sacramento, Arthur W. Johnson of the Central Office will be acting official in charge.

TERRE HAUTE OIC RETIRES

OTTO E. MOERY, OIC at WBO Terre Haute, Ind., who reached his 70th birthday January 4, retired voluntarily December 31 instead of waiting until the end of January when his retirement would have been compulsory. He had been with the Bureau more than 40 years, 36 of which were as OIC at Terre Haute.

Most of Mr. Moery's life was spent in the Hoosier State. He was born in Birdseye, Ind. in 1880, and after attending school in the State taught in the grammer and high schools in Jasper. He was also principal of the grammer school and assistant principal of the high school. In 1909 he was appointed assistant observer in the Weather Bureau and after a month in the Central Office was transferred to Cleveland, Ohio. This assignment lasted 6 months, until May 1910 when he was transferred to Peoria, Ill. In July 1912 he was placed in charge at Terre Haute and remained as OIC until 1927. During this period he attended the Indiana State Normal School at Terre Haute and received his A.B. degree in physics in 1915. From February 1927 to February 1928 he served as first assistant at Indianapolis and then returned to Terre Haute once more as OIC. This time he remained until retirement.

Mr. Moery's present address is 2402 South Beacon Street, Muncie, Ind.

CENTRAL OFFICE DRAFTSMAN RETIRES

WILLIAM E. KINNEAR, chief draftsman of the Hydrometeorological Section, C&HS Division, retired December 23, 1949, because of disability. He had been in Government service 18 years, 11 of which were in the Weather Bureau at the Central Office. Mr. Kinnear was born in Sprague, Wash., in 1888 and attended grade and high school in Sprague and Spokane. He also attended the Hill Military Academy in Portland, Oreg., 1901-1903, and the Art Institute of Chicago in 1909. From 1909 to 1930 he was in private business, either as a partner in his own business or employed as a draftsman or statistician. From 1931 to 1933 he was with the Office of Public Buildings and Public Parks of the National Capital as a draftsman, and then with the Bureau of Public Roads in the same kind of work. He was with the National Recovery Administration as a statistician from 1934 to 1936. He was employed by the Veterans Administration and the Commodity Exchange Administration during the following two years, and joined the Weather Bureau as an engineering draftsman in June 1938.

PLUMMER DIES AT MIAMI

IRA C. PLUMMER, official in charge at Key West, Fla., died at Jackson Memorial Hospital in Miami December 31. He had been in charge at Key West only since November 13. On December 19 he took sick leave, then by December 27 had determined to see a specialist in Miami. He collapsed when leaving the hotel and was taken to the hospital in Miami where he died early in the morning of the 29th.

Mr. Plummer, who was born in Sangamon County, Ill., in 1901, joined the Bureau as a messenger at Springfield, Ill., in 1917. Two years later he was promoted to assistant observer and transferred to Duluth as first assistant. He remained in that assignment for 5 months and then transferred to Chicago. In 1923 he resigned from the Bureau to become a flying cadet in the Army Air Corps. In the spring of 1924 he returned to the Bureau and was assigned to Houston, remaining there 3 years. From September 1927 to July 1929 he served as first assistant at Boise, and then was placed in charge at Galveston. In May 1934 he was transferred to Jacksonville as first assistant, serving in that position until 1946. From 1946 until November 1949 he was administrative officer at the San Juan overseas supervisory office.

FORMER DAVENPORT OIC DIES

TRUMAN G. SHIPMAN, who was OIC at Davenport, Iowa, until his retirement in 1944, died November 27 of a heart attack in his home at Sunbury, Pa. Mr. Shipman was born in Sunbury in 1882 and entered the Bureau in 1904 at New York City. He subsequently served as assistant at Philadelphia, Madison, Augusta, Bismarck, Columbus, Buffalo, Little Rock and Indianapolis. He was in charge at Fort Smith from 1922 to 1930 and in charge at Davenport from 1930 until retirement.

F. W. Reichelderfer

F. W. REICHELDERFER
Chief of Bureau.

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WEATHER BUREAU

TOPICS

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Volume 9 Number 2

THE BUREAU HAS A BIRTHDAY

ON FEBRUARY 9, 1950, the National Weather Service reached the age of 80 years. It was on February 9, 1870, that Congress approved a Joint Resolution creating a weather service as part of the Signal Service (later Signal Corps) of the Army. This undertaking had largely grown out of the efforts of Prof. Cleveland Abbe (1838-1916), who was at that time director of the Cincinnati Observatory. With the assistance of the Cincinnati Chamber of Commerce and the Western Union Telegraph Company, Professor Abbe had in 1869 organized a system of telegraphic weather reports, daily weather maps, and weather forecasts. It was the first undertaking of its kind in America, and was the prototype of the service established the following year by the Federal Government. What has happened to the National Weather Service since is history, but the circumstances of its inception are perhaps less well known. Let Professor Abbe's own words, written only a few months before his death, describe these beginnings.

My boyhood life in New York City has impressed me with the popular ignorance and also with the great need of something better than local lore and weather proverbs. The popular articles in the New York daily papers by Merriam, Espy, Joseph Henry, and others -- notably Redfield and Loomis -- had by 1857 convinced me that man could and must overcome our ignorance of the destructive winds and rains. It was in the summer of 1857 that I read the beginning of the classic article by William Ferrel in the MATHEMATICAL MONTHLY. I realized that he had overcome many of the hidden difficulties of the theories of storms and winds. From that day he was my guide and authority. During 1859-1864, in the practice and study of astronomy with Brunow at Ann Arbor and Gould at Cambridge, Mass., I was impressed with the unsatisfactory state of our knowledge of atmospheric refraction. Two years later, my experience at Poulkova, Russia, and at our Naval Observatory, Washington, seemed to justify my conclusion that astronomers who would improve their meridional measurements must investigate their local atmospheric conditions more thoroughly, and to this end must have numerous surrounding meteorological observations. In my inaugural address at Cincinnati on May 1, 1868, I stated that with a proper system of weather reports much could be done for the welfare of man, and astronomy also could be benefited.

This suggestion was taken up by Mr. John Gano, president of the local chamber of commerce; a committee met me, approved my plans and promised the expenses of a first trial. I had the total solar eclipse of August 7, 1869, on my hands, but immediately began to arrange for 40 voluntary meteorological correspondents. On my return from the eclipse at Sioux Falls City I stopped at Chicago and formally invited the Chicago Board of Trade to join in extending the Cincinnati system to the Great Lakes, but this invitation was declined by the Chicago Board of Trade. . . . I returned at once to Cincinnati, issued the first number of the CINCINNATI WEATHER BULLETIN promptly, as promised, on September 1, 1869; it contained only a few observations telegraphed from distant observers and announced "probabilities" for the next day. . . .

My forecasts were treated very kindly by all. I had anticipated a slow increase in accuracy; I ventured to write my father in New York City; "I have started that which the country will not willingly let die." I wrote a short note to the NEW YORK TIMES (or TRIBUNE) telling them how useful we could be to their shipping. On September 3, 1869, I even ventured to offer a daily telegram by the French cable to Le Verrier, as founder of the BULLETIN

HEBDOMADAIRE DE L'ASSOCIATION SCIENTIFIQUE, and who could fully sympathize with my hopes and plans. . . . My daily telegram from Milwaukee came from the well-known Smithsonian observer and author Prof. Increase Allen Lapham. He had known and appreciated the works of Espy, Loomis, and others, and although he had become absorbed in other studies he urged the local Milwaukee society to do something for Lake Michigan. His friends were just about to go to the Richmond meeting of the National Board of Trade; there they met William Hopper and John A. Gano. These merchants of Cincinnati found that they had the same idea as H. E. Paine of Milwaukee, i.e., that the Federal Government should develop the Cincinnati enterprise and make it useful to the whole country. The National Board of Trade endorsed this idea; Professor Lapham of Milwaukee drew up some statistics of storms and destructions on the Lakes; the Hon. Halbert E. Paine prepared a bill; each put his shoulders to the wheel, and behold, on February 9, 1870, the Secretary of War was authorized to carry out this new duty.

WILLIAM LEWIS RECEIVES LOSEY AWARD

FOR the fourth time since its establishment in 1940, a Weather Bureau employee has received the Robert M. Losey Award "in recognition of outstanding contributions to the science of meteorology as applied to aeronautics." William Lewis, meteorological advisor now attached to WBO Albany, N.Y., was presented with the 1949 Award by the Institute of the Aeronautical Sciences at its annual Honors Night in New York, January 23. Basis for the award to Mr. Lewis was his outstanding work in aircraft icing research from 1944 to 1949 with the National Advisory Committee for Aeronautics.

The Losey Award was established in 1940 to honor the memory of Capt. Robert M. Losey who was killed in Norway in that year while serving as a meteorological observer for the U.S. Army. First Weather Bureau official to be honored was Dr. F. W. Reichelderfer who received the 1942 award. Dr. Harry Wexler received it in 1945 and Paul A. Humphrey in 1948.

Mr. Lewis has been with the Bureau since 1940. However, he twice served briefly before that, first at Modena, Utah, for a few months in 1929, and then at WBAS Los Angeles from January 1930 to September 1931. He resigned in 1931 to complete his studies at the University of California at Los Angeles, receiving his B. A. degree in physics in 1933 and his M.A. in 1934. He returned to the Bureau in 1940 at Los Angeles, transferred to the Central Office in 1942, and remained there until 1944. Work with the NACA icing project took him to Minneapolis in November 1944 and then to San Francisco the following spring when the icing project moved to Moffett Field, Calif. He remained there until June 1949. Mr. Lewis is now assigned to Albany, but his work consists of advising the General Electric Laboratory at Schenectady on meteorological aspects of cloud seeding, and advising the NACA at Cleveland on meteorological problems involving cloud physics.

CHANGES MADE IN INSPECTION PROGRAMS

AS PART of the reorganization of regional administration, a number of fundamental changes have been made in the administration of the field aide, electronics technician, hydroclimatic inspector, and area hydrologic engineer programs.

It has been found advantageous to assign these men to smaller designated areas rather than to continue operations out of one central point in the region. This not only decreases travel time and expenditures but enables each man to maintain closer contact with the assigned group of stations. These officials now report directly to the Central Office instead of through the regional offices. However, copies of the inspection reports are sent to the regional office.

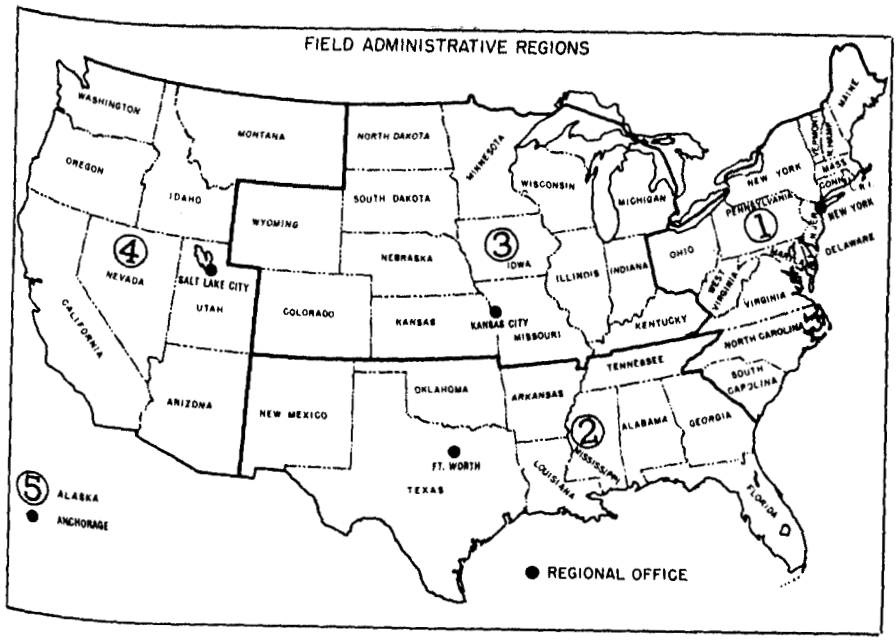
Consolidation of the regions is described in Circular Letters 45-49, 83-49, 129-49, and 153-49. Boundaries of the regions as now constituted are shown on the map on the following page. Copies of this map, letter-size, are being furnished to regional offices, and will be available to field offices upon request.

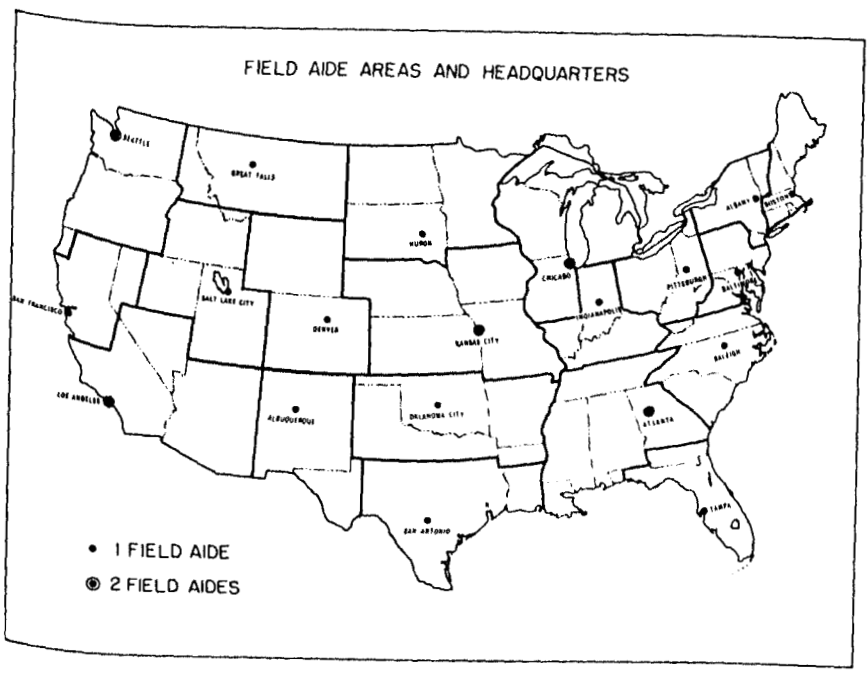
The area engineer program is described in Circular Letter 13-50, and the area of responsibility for these officials are shown on a map accompanying that issuance. Administration of the hydroclimatic network is the subject of Circular Letter 8-50. Areas of responsibility and headquarters of field aides, electronics technicians, and hydroclimatic inspectors are shown on the maps illustrating this article.

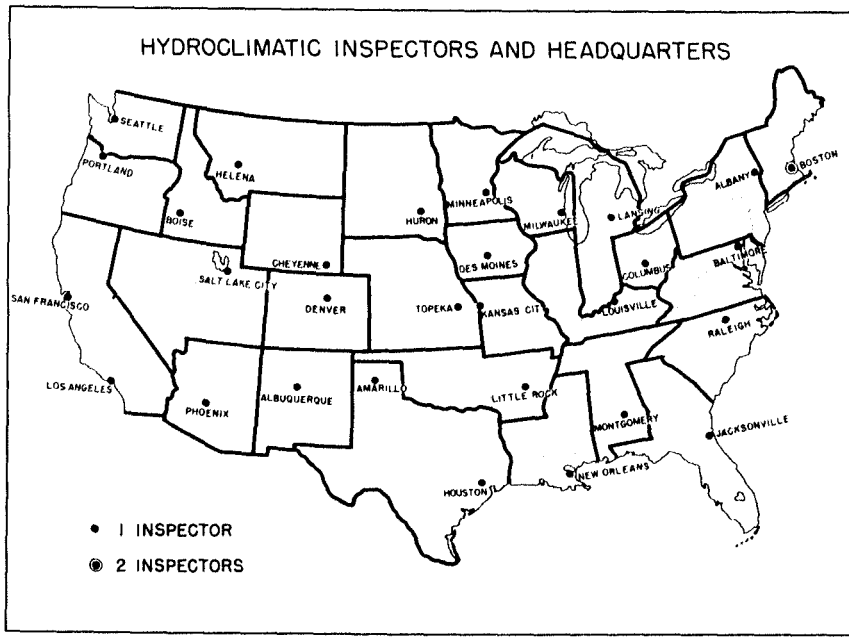
Since the Central Office prescribes inspection procedures, and the inspection and engineer personnel report to the Central Office, the official in charge at the headquarters station is not considered the inspector's supervisor, nor does he engage in inspection of any first-order stations. The OIC is, however, responsible for "housekeeping" details such as time-and-attendance reports, salary checks, etc., for all personnel headquartered at his station.

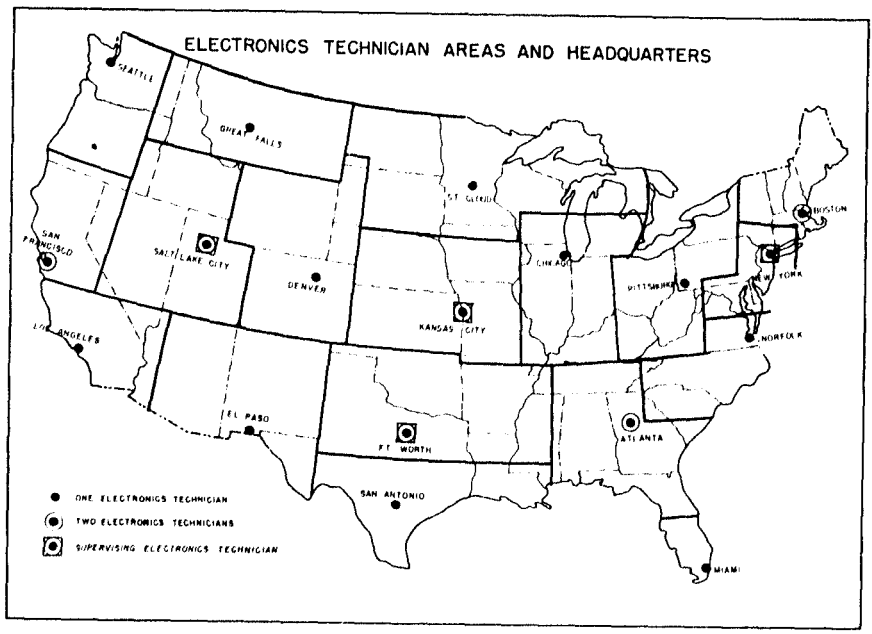
Each hydroclimatic inspector has been assigned to a specified section center, but while on inspection trips in another assigned climatological section is responsible to the section director of the State in which working, and acts as the representative of that director. All section directors are responsible for administration of the hydroclimatic networks in their respective States as outlined in Circular Letter 8-50.

The inspection programs of the Bureau aim at the accomplishment of several important objectives. One is to bring field operations into a more direct relationship with Central Office project leaders so that excellence in field programs can be more effectively and uniformly maintained. Another is to standardize practices as far as practicable, looking to the most effective and


FIELD ADMINISTRATIVE REGIONS
WASHINGTON
OREGON
CALIFORNIA
IDAHO
NEVADA
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
SOUTH CAROLINA
NORTH CAROLINA
VIRGINIA
WEST VIRGINIA
PENNSYLVANIA
NEW YORK
MAINE
DELAWARE
SALT LAKE CITY
KANSAS CITY
FT. WORTH
ALASKA
ANCHORAGE
REGIONAL OFFICE


FIELD AIDE AREAS AND HEADQUARTERS
SEATTLE
GREAT FALLS
HURON
CHICAGO
SALT LAKE CITY
DENVER
KANSAS CITY
ALBUQUERQUE
OKLAHOMA CITY
ATLANTA
SAN ANTONIO
TAMPA
• 1 FIELD AIDE
◉ 2 FIELD AIDES


HYDROCLIMATIC INSPECTORS AND HEADQUARTERS
SEATTLE
PORTLAND
BOISE
HELENA
HURON
MINNEAPOLIS
MILWAUKEE
LANSING
ALBANY
BOSTON
CHEYENNE
SALT LAKE CITY
DES MOINES
COLUMBUS
BALTIMORE
SAN FRANCISCO
DENVER
TOPEKA
KANSAS CITY
LOUISVILLE
RALEIGH
LOS ANGELES
PHOENIX
ALBUQUERQUE
AMARILLO
LITTLE ROCK
MONTGOMERY
JACKSONVILLE
NEW ORLEANS
HOUSTON
• 1 INSPECTOR
◉ 2 INSPECTORS


ELECTRONICS TECHNICIAN AREAS AND HEADQUARTERS
SEATTLE
GREAT FALLS
ST. CLOUD
BOSTON
SAN FRANCISCO
SALT LAKE CITY
DENVER
CHICAGO
PITTSBURGH
NEW YORK
KANSAS CITY
LOS ANGELES
NORFOLK
EL PASO
FT. WORTH
ATLANTA
SAN ANTONIO
MIAMI
ONE ELECTRONICS TECHNICIAN
TWO ELECTRONICS TECHNICIANS
SUPERVISING ELECTRONICS TECHNICIAN

economical service programs at field stations. A third aim is to provide more direct technical and scientific leadership by the project leaders in each special field for the service as a whole.

The former separation of observational and management inspectors has been discontinued. The inspection job of the field aide now requires him to report on station facilities and observations, but only in a limited way on public service programs. Especial attention is to be given to the observational program in all aspects including data used on maps, and on the quality of records work.

Field stations should keep the regional offices posted on work which they feel a field aide should do at the station, so the regional office can prepare a work sheet and forward it to the field aide.

In the field program of the Bureau the inspector holds a unique and indeed a very significant position. By virtue of his experience and training he is in an excellent position to discuss current developments with station officials. He can also demonstrate the latest and most effective operational procedures, and suggest the elimination of practices which duplicate effort or consume valuable time which might be applied to better purpose. In addition to stimulating the wider utilization of better operating practices, he reports directly to the Central Office on those items which have possibilities of modification so that authorization for changes can be obtained from the responsible project leaders.

Basically, the efforts of inspection officials tend toward greater standardization. But standardization is primarily a guide and not a goal. It has no value in itself; it has value only insofar as it leads to better service. In this respect it is like any administrative rule or procedure -- not to be applied unreasonably and not to be used as a restraint upon the individual initiative and good judgment which constitute the core of an intelligent scientific service.

Success of the inspection programs depends largely upon the cooperation and understanding to be developed between the inspection official and the staffs of the station he visits. Great emphasis has been laid upon the ability and integrity of the inspection official. To a considerable extent he is his own supervisor and must be motivated by a deep sense of personal responsibility. His effectiveness depends on the respect and voluntary cooperation he elicits. He does not have an easy task, and if the program is to succeed, station staffs must do their part to maintain the cooperative and understanding relationship which is so necessary.

SUGGESTION AWARDS NOW TOTAL 32

FOUR new suggestion awards made during December 1949 brought the total of such awards made under the Employee Suggestion Program to 32 as of December 31. The total amount paid out in awards since the inception of the program is $1427.50.

Harry E. Altman, meteorologist in the SR&F Division, received an award of $15 for his suggestion that correspondence routed about the Central Office for review and signature be assembled in a folder. The outgoing letter to be signed is fastened to the right-hand side of the folder, and previous correspondence and other background material is clipped to the left-hand side facing it. This facilitates the task of background reading to understand the letter being reviewed.

Another $15 award went to Howard Simmons, principal assistant at Evansville, Ind. His suggestion was to eliminate the daily telegram from Evansville to the Cincinnati River Forecast Center on river stages and rainfall amounts. Since the Army Corps of Engineers was already collecting similar information and relaying it to the River Forecast Center, Mr. Simmons suggested that they include the information usually carried in the Evansville telegram. The Engineers agreed to do this, so the result will be an annual saving of approximately $180 to the Weather Bureau.

Milton O. Swenson, fiscal assistant in the Salt Lake City Regional Office, was given a $15 award for his idea of using Treasury Department Internal Revenue Service Forms W-2 in fanfold style, interleaved with carbon paper. No direct money saving will result from using the fanfolds in fiscal units, but considerable time is expected to be saved in the preparation of Forms W-2, which must be made out at a time when the work load of fiscal offices is heaviest.

The fourth award in December was made to a CAA employee, Stanley R. Shumway, maintenance technician in charge at the CAA's Cleveland communication station. His suggestion for modifying teletype equipment and procedure to save teletype paper was originally made to his own agency, and the CAA awarded him $375 for its adoption. However, the Weather Bureau estimated that the saving for the 100 Bureau teletypes operating 24 hours a day would be some 12,000 rolls of teletype paper annually. This would mean a money saving of approximately $5600 per year, so the Department of Commerce Awards Board authorized an award by the Weather Bureau of $125.

The Employee Suggestion Program was announced in the Bureau on September 29, 1947, through Circular Letter 86-47, and the first suggestion arrived in the Central Office only eight days later, on October 7. By the last day of 1949 a total of 640 suggestions had been submitted. Of these, the 32 accepted

will save the Bureau some $35,735 annually. An average award of $44.60 was made for each suggestion accepted.

Although money savings appear to be the most obvious effect of suggestions accepted, this is but one aspect of the purpose of the Suggestion Program. Awards are also made for ideas which help to do work more efficiently, improve administrative routines, better working conditions, provide greater service to the public within existing means or in any other way improve the operations of the Bureau. The program offers a way for any employee, wherever placed, to participate in the management of Bureau activities through his own thinking and initiative.

SR&F SECTIONS REORGANIZED

FORECAST service problems of district forecast centers and general public service operations are to be the full-time concern of a new "General Forecast Section" in the SR&F Division. It will deal with such aspects of the Bureau's forecast program as district forecasts, forecast improvement, verification, weather summaries, and the development of the FORECASTERS' FORUM. Oscar Tenenbaum, who comes to the position with a background of more than two years as head of the Domestic Aviation Section and several years of district and airway forecasting experience at the Chicago and Kansas City forecast centers, will be chief of the new section.

This reorganization is aimed at strengthening the technical liaison among forecast centers, and between field forecasting and forecast programming in general. The section consolidates once more the responsibilities which were first drawn together when a position of "Forecasting Coordinator" was established in the Central Office in 1946. For almost a year that position was filled by C. F. Van Thullenar, but when he left the Bureau temporarily to head up the Air Weather Service meteorological program in Germany, the responsibilities of the position were temporarily distributed among several other positions and sections.

The former Public and Special Services Section has become a "Local and Special Forecast Section," with Milton L. Blanc continuing as its chief. Functions of this section now include technical supervision of the preparation and distribution of forecasts and warnings by local offices, and the operation of specialized forecast services such as those for hurricane warnings, fruit-frost, fire-weather, winter sports, and agricultural operations.

These arrangements have been made in order to give the general forecast program more concentrated attention. Suggestions, comments, and criticisms from the field regarding any of the programs will continue to be welcome.

OBSERVER-BRIEFER TRAINING FOR ALL

STAFFING of the most active airport stations with professional observer-briefers has made necessary the intensive training of personnel newly assigned to such positions. Since sufficient travel funds were not available for personal visits by area training officers, much of the training has been done by mail through use of guides specially prepared for the purpose. These guides are now available in quantity and can be furnished to all stations in position to benefit from them.

The job of the observer-briefer, as the name implies, is observing and briefing. The GS-7 grade assigned depends largely on the amount of briefing to be done, but at most airports whether staffed with GS-7 observer-briefers or not there are varying proportions of observing and briefing work. All personnel at these stations may therefore be interested in the observer-briefer training guidance, regardless of the official title of their positions. Meteorological aides can use the training as a basis for possible improvement and advancement. Professional assistants and officials in charge should consider themselves part-time observer-briefers, differing only in the percentages of time devoted to observing and briefing and in the technical level at which these and related tasks are performed.

Limited staffs make it generally necessary and desirable that all personnel acquire the widest possible knowledge of routine station duties in order to carry the load at times of shortage in personnel because of leave or other causes. Stations that have not achieved the highest integration of personnel may find profit in the use of the training materials prepared for the observer-briefers. They are invited to request the guides from the Training Section, Central Office, or their area training officer.

MIT TO HOLD SUMMER COURSE IN CLIMATOLOGY

THE Massachusetts Institute of Technology is planning to hold a special program in climatology during this coming summer. According to Prof. Henry G. Houghton, Chairman of the Department of Meteorology of MIT:

"The program is designed primarily for persons with a meteorological background and the approach to climatology will be meteorological rather than geographical. Courses will be offered in general climatology, regional climatology, applied climatology, micrometeorology, low level turbulence theory, statistics, and micrometeorological measurement. College credit will be given for successful completion of each of these subjects. The program will follow the MIT Summer Session Calendar which consists of two six-week terms, the first starting on June 12th and the second on July 24th. It is desirable that students attend during the entire twelve weeks, but they will be

accepted for either six-week term. Since there will be no repetition of courses, students wishing to attend only the second half will need more preparation. Tuition will not be over $320 for the entire course. Because of limited facilities it will probably be necessary to limit enrollment in each term to about fifty."

All employees interested in taking the summer course at their own expense or under benefits of the "GI Bill of Rights" (Public Laws 16 and 346) may apply for leave-without-pay for that purpose. Applications for LWOP must be endorsed by the local official in charge and the appropriate regional office.

Six full scholarships for the first term of the summer program in climatology at MIT will be granted to qualified Weather Bureau meteorologists. Requirements for the scholarships are: (a) A good meteorological background, preferably including university training in meteorology; and (b) a definite possibility for use of the training in climatology in the applicant's career plans.

Meteorologists who believe they have the necessary qualifications and who wish to attend the summer program under a scholarship should apply to the Central Office by letter not later than April 1, 1950. The letter of application should specify how the applicant meets requirements (a) and (b) above. It should be endorsed by both the local official in charge and the appropriate regional director.

It is possible that the scholarships may be extended into the second term if funds permit and if the students believe that continuance will be beneficial. Incident to the scholarships, travel to Boston and return will be at Bureau expense.

BUREAU EMPLOYMENT FALLS OFF

ON DECEMBER 31, 1949, the Weather Bureau could count 15,471 persons working for it, a decrease of 228 from the total the previous year. Of these, 7745 were cooperative observers serving without pay, 4569 were full-time paid employees, and 3157 were employed part time. The decrease during 1949 was greatest among the cooperative observers, there being 121 less than on December 31, 1948. Full-time employees decreased by 91, and part-time by 16.

Of the full-time employees, 4235 are working in the continental United States, 257 in territories or possessions, and 77 in foreign countries. The Washington area accounted for 847 of those in the continental U. S., with 3388 elsewhere in the States.

Women numbered 2475 of the 7726 employees, 55 of these being veterans. The total number of veterans, both men and women, was 2760, of whom 2388 served in World War II.

SCHEDULING SUPERVISORS' DUTIES

FROM time to time, mostly at our large field offices, supervisors have been found to be devoting a disproportionately large amount of time to purely supervisory or administrative duties. In a few cases, supervisors have divorced themselves almost entirely from the technical activities of regular shifts. This is contrary to Bureau policy, which is that every supervisor should schedule a portion of his time, regularly, to actual performance of the work he supervises.

The importance of good supervision is not overlooked, for in any organization the first-line supervisor is the cornerstone of management. But in extremely few positions in the Weather Bureau does supervision present more than a part-time demand on attention. It is difficult to make a general statement on what proportion of time should be allotted relatively to performance and to supervision, for circumstances vary. However, it has been found that purely supervisory duties seldom require more than 20 to 25 percent of the supervisor's time. If the proportion in any instance runs much higher than this, organization of the work and delegation of responsibility should be carefully examined. It will usually be found that administrative interests (which are extensible almost indefinitely) have elbowed out more important professional or technical duties.

In many instances it may be necessary during periods of annual or sick leave for the official in charge to work a regular duty shift most of the time. In any case, however, the OIC should arrange to work a duty shift on a regular basis at least once a week. A supervising forecaster, supervising observer, or other unit supervisor, should take assignment to a regular duty shift 3 or 4 days weekly and, if necessary during periods of leave, to a regular duty shift 5 days weekly. Further, since each supervisor should be well acquainted with the work assigned to each shift and the problems encountered by all personnel under his supervision, he should take occasion to work every shift scheduled, at one time or another, at least several times in the course of the year. This will enable the supervisor to fill in on the various shifts during periods of sickness to prevent disruption of the current work schedule, as well as keep him in position to evaluate the demands on personnel regularly assigned to the various work shifts.

The Bureau needs men with the broad viewpoint developed by experience in several areas of Bureau work. The man who knows and is skilled in both technical and administrative work will find many opportunities for advancement opening up to him. It is therefore to the advantage of the individual employee as well as to the Bureau for an employee to maintain his technical skill and keep abreast of professional progress as well as to develop

his supervisory or administrative skills. The primary purpose of the Weather Bureau is meteorological service and scientific advancement, not administrative supervision.

COMMON FAILINGS OF SUPERVISORS

IN A survey of employees in his agency who were responsible for getting other people to turn out work, one Washington personnel director found that the following were the most common failings of supervisors:

1. Unwillingness to delegate.
2. Incapacity to follow through to make sure that delegated responsibility was properly discharged.
3. Inclination to do only what told to do; hesitation to take initiative within scope of authority.
4. Lack of adequate knowledge of work carried out in group supervised.
5. Ineffectiveness in training new employees.
6. Failure to train understudies.
7. Failure to assign specific responsibilities for particular functions to given individuals; tendency to leave fuzzy areas of responsibility.
8. Reluctance to discuss shortcomings of subordinates frankly and face to face.
9. Failure to initiate classification or other personnel action when necessary.
10. Dissatisfaction because employee hasn't done what he should, even though he may not have been told what is required of him.

WICHITA OIC HOSPITALIZED

VICTOR V. PHILLIPS, OIC at WBO Wichita, underwent an emergency major operation on the night of January 4-5. His condition was serious for several days following the operation, but he is now making satisfactory progress toward recovery. It is expected to be late March or early April before he is permitted to return to duty.

RETIRED OBSERVER DIES IN WEST INDIES

LOUIS GAUBERT, who retired in September 1949 after serving the Weather Bureau for 17 years as a special observer at Roseau, Dominica, British West Indies, died January 8. Mr. Gaubert, in addition to his duties as an observer for the Weather Bureau was formerly local manager of Cable and Wireless (W. I.)Ltd. at Castries, St. Lucia. Additional information concerning him may be found in the October 1949 TOPICS.

FIVE WB OFFICIALS ON NACA COMMITTEES

FIVE officials of the Weather Bureau have been reappointed to technical subcommittees of the National Advisory Committee for Aeronautics. Dr. F. W. Reichelderfer, Chief of Bureau, has been reappointed Vice Chairman of the Executive Committee, Vice Chairman of the Committee on Operating Problems, and Chairman of the Subcommittee on Meteorological Problems. Dr. Harry Wexler, chief of the Scientific Services Division, was reappointed Chairman of the Special Subcommittee on the Upper Atmosphere and a member of the Subcommittee on Meteorological Problems. Dr. Ross Gunn, chief of the Physical Research Division, and D. M. Little, Assistant Chief of Bureau (Operations), were also reappointed to the Subcommittee on Meteorological Problems, while B. C. Haynes, chief of the Observations Section, was renamed to the Subcommittee on Icing Problems. This announcement was made by Dr. Jerome C. Hunsaker, Chairman of the NACA.

Members of the NACA's technical committees and subcommittees are selected because of their technical ability, experience, and recognized leadership in their special field of competence. They serve in a personal and professional capacity without compensation in contributing their knowledge toward formulation of the research programs required of the country's air leadership.

Responsibilities of subcommittee members include: Advising on problems related to the assigned technological field of the technical committee or subcommittee; reviewing research in progress both at NACA laboratories and at other organizations throughout the country; recommending research projects; and assisting in coordination of research programs.

Through meetings of such leaders in the aeronautical sciences, effective coordination and the gearing of research activity to the needs of the military, the aircraft industry, and air transport operators are achieved. The interchange of ideas and information by subcommittee members has an important and direct bearing on the nation's continuing progress in aeronautical development.

STEWART NEW OIC AT TERRE HAUTE

THE new official in charge at Terre Haute, Ind., is Philbert G. Stewart, former field aide at the Chicago Regional Office. He succeeds Otto E. Moery, who retired December 31.

Mr. Stewart has been with the Bureau since 1941. He graduated from the Indiana State Teachers College in 1936 and then taught science and mathematics in the high schools of Indiana until he became a junior observer at the Indianapolis airport in January 1941. He was made first assistant in 1943, and then in 1944,transferred to Boston for service with the Atlantic Weather Patrol. After a year with AWP he took an assignment

as observer at WBAS Chicago until July 1946. This was followed by a year as professional assistant at Fort Wayne, Ind. Then in August 1947 he became a field aide at the Chicago Regional Office, remaining in that position until his assignment to Terre Haute.

The Terre Haute WBO is a combined airport and city office, furnishing aviation and general weather service to a service area population of about 100,000. Principal interests served by the station in addition to the general public are agriculture, aviation, canneries and food processors, manufacturers and mercantile interests, mining interests and public utilities.

FORECASTER ADDS TO COW COMFORT

A SEASICK cow is no fun for anyone, and is apt to be in a non-milk-giving mood even after she reaches terra firma. So officials of the Matanuska Valley Farmers Cooperating Association had a problem. They planned to ship a herd of dairy cows to Alaska in December and wanted the bossies to ride in comfort. They came to WBO Seattle for help, and District Forecaster Wendell Woodward discussed the problem with them. Waves cause the ship to pitch and roll, so winds along the route to Alaska had to be favorable. Some of the cattle were to be flown, and "bumpy" air avoided. Forecaster Woodward gave them his best advice and awaited developments. They were reported to him in a letter from one of the Association officials.

The cows and their steamship transportation we discussed recently have turned out to be surprisingly favorable. They are aboard the M. V. SQUARE KNOT which should be near Whittier, Alaska, by now. They will have to go to Seward next, which requires a short run in the open Gulf of Alaska. The ship in its run from Cape Spencer to Yakutat, and on to Prince William Sound encountered light easterly winds, which were the "following" winds we had hoped for. The weather was cold but the sea conditions were unbelievably smooth for this time of the year. The weather was clear to partly cloudy. We are very fortunate and the cows will certainly appreciate this kind of weather.

The "lows" you discussed with me did keep to the south of the Gulf resulting in the easterly drift of surface winds north of the Ketchikan latitude. The cows we sent by air left in temperatures around 45 here and some trips The cows we sent by air left in temperatures around 45 here and some trips ended at Anchorage in -21 degrees, but continued to milk OK after leaving the planes. The plane trips were routine, and no difficulty was experienced with the cows by the noise during take-offs.

MANILA SECRETARY DIES OF PNEUMONIA

MRS. AMILIA ANN NEWSOM, 40, secretary in the Philippine Rehabilitation Program at Manila, died of pneumonia November 5, 1949, at Rizal City, P.I. She had been with the Weather Bureau Mission in the Philippines since December 1948. Mrs. Newsom is survived by her husband, John H. Newsom, a civil engineer in Manila.

HOW TO WRITE LIKE A BUREAUCRAT

STAND up; speak up; shut up:" is the succinct advice a famous authority on public speaking gives to his students. Similar advice might well be applied to writing. Government writing, especially,is often criticized for obscurity and wordiness. People who ordinarily say what they have to say and then stop often feel they must clutter office correspondence with ponderous words and phrases which sound "official" but mean little. How a personal letter would sound if written like much official correspondence is illustrated by the "Love Letter of a Bureaucrat" which had caused many chuckles in Washington.

My Sweetheart (unless hereinafter revoked),

You are never, as stated in my letter of the 15th inst., out of my mind and now as always I find it difficult to correlate my feelings regarding you and to adequately convey them to you as of this date. I miss you very much and a careful check of the over-all picture establishes it as a corroborative fact that my loneliness without you is up to 10 percent over the figure for the corresponding period of the previous year. It is my belief, based on a careful coordination of my thoughts and moods, that it will go up another 2 percent within the next 30 days.

The time has come, according to a conservative estimate, to tell you that I love you with a complete utilization of all available factors. I take it that you have evaluated your feelings toward me and have concluded to reciprocate to the maximum in the interest of unity. We must now channelize our emotions with celerity for the attainment of our ultimate goals.

My policy is one of continued devotion with a complete expression of the same so far as it is possible in keeping with a full understanding of all economic factors involved. I have given your affections a careful study and I now make it a directive that you consider this a proposal (except as hereinafter qualified) and I desire that you process this matter at once so that our union may be facilitated. I take it there is full accord that a collaborative effort for our common good is mandatory for the fulfillment of our welfare.

In your last letter, according to my files, you said something about the financial aspects. I consider this an unrelated factor at the moment, indicative of certain maladjustments in your thinking. A statement of my resources as of this date, with data on the long-range view is herein enclosed, however.

Coordinating my conclusions, I desire to place my heart, within the meaning of sub-paragraph 5, at your feet as categorically listed, and without in any way modifying my policies as previously outlined. It is my definite conclusion from a complete summarization of all factors, that an early marriage is desirable for the attainment of the objectives to which we have set ourselves.

The 20th of March, at 3 o'clock, Eastern Standard Time, would be convenient for me. Kindly reply by the enclosed form if this is satisfactory and I will issue the necessary directives to the printer, clergy, florist, etc., and arrange for the matter of the church and ceremonial personnel.

I send you the usual quota of kisses and five questionnaires which I wish you would fill out and return promptly. With all my love I am your devoted slave within the ceilings as previously set.

BILL BUREAUCRAT
Special Assistant to the
Chief Assistant

P.S. A blueprint of plans for the future is being forwarded under separate cover, together with a prospectus as ordered. Pursuant to her wish, you may inform your mother that I shall advise my secretary to arrange an appointment so that I may meet her.

ST. PAUL ISLANDERS TAKE UP "BOMBING"

IF IT'S "pin-point bombing" that the Air Force wants to develop, our St. Paul Island (Alaska) staff might be a fruitful source of bombardier talent. Region Five's newsletter, BOREALIS BRIEFS, reports that our weathermen there sent a radiosonde instrument to 80,000 feet and then dropped it back to hit the tiny island dead center. In addition, the transmitter traveled the more than 250 miles to the Dutch Harbor area before returning to St. Paul Island. Comments BRIEFS, "When last seen, Bill Holman was setting up a pickle barrel in front of the rawin building."

W. PERCY LONG DIES IN WASHINGTON

W. PERCY LONG, 50, assistant meteorologist in the Instrument Division, who once set up weather stations throughout Brazil, died January 21 at his home in Washington, D. C., after a long illness.

Mr. Long, who had been with the Bureau a total of 24 years, first joined it as an assistant observer at Leesburg, Ga., in 1918. (He was born in Leesburg in 1899.) In 1920 he resigned to attend school and then rejoined the Bureau in 1921 at Due West, S. C. After 6 months there and 4 months at the Central Office, he once again resigned in November 1921 to assist the Brazilian Government to modernize its equipment, set up weather stations throughout Brazil, and train weather personnel.

Upon his return to the United States in June 1923, Mr. Long was reinstated in the Weather Bureau and served at the Central Office until September 1925. Between that date and March 1931 he was again out of the Bureau, farming near his native Leesburg. Upon his return to the Bureau in 1931 he was stationed at the Central Office until his death.

Mr. Long is survived by his widow, Mrs. Lillian Stanton Long, and a brother, Ragan Long, who is with the Army at Albany, Ga.

CORRECTIONS

ON PAGE 15 line 2, of January TOPICS it was stated that Ira C. Plummer died December 31. This is an error; Mr. Plummer died December 29.

On page 14, line 5 of the same issue it was stated that 36 of Otto E. Moery's 40 years service were as OIC at Terre Haute. Mr. Moery informs us that we are in error, that he was OIC for only 29 years, since his first 7 years at the station were spent as first assistant.

NORTH PLATTE OIC DIES OF HEMORRHAGE

A CEREBRAL hemorrhage caused the death of Frank T. Henley, OIC at North Platte, Nebr., December 11, 1949. About 4 p.m. that afternoon he had swept the snow from the sidewalk in front of the Weather Bureau Office and then went inside, sitting down at his desk with his overcoat still on. A few minutes later he slumped over on the desk. A doctor was called and he was taken to St. Mary's Hospital where he died about 8 p.m.

Mr. Henley was only 43 at the time of his death. He was born in Boston, Mass., December 17, 1906, and spent his early years in Braintree, Mass., working as a candy cutter, stock clerk, farm worker, foundry worker, and a railway brakeman before becoming a junior observer at the Albany, N.Y., Weather Bureau Office in 1930. Three years after that he transferred to Detroit and remained there until 1937; while in Detroit he attended Wayne University. From September 1937 to April 1940 he was in charge of the airport station at Baltimore. Following this assignment he was first assistant at Sheridan, Wyo., until he was placed in charge at Casper in February 1943. In August 1944 he was transferred to the Anchorage Regional Office for duty as a liaison official, and returned to the United States as OIC at North Platte in 1947.

Mr. Henley was buried in Boston; he is survived by his widow and three sons.

Until a permanent OIC is selected for North Platte, Marvin D. Magnuson, principal assistant and climatologist at WBO Des Moines, is serving as acting official in charge.

F. W. Reichelderfer

F. W. REICHELDERFER
Chief of Bureau.

WEATHER BUREAU

TOPICS

MARCH
1950

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Volume 9 Number 3

MOBILE UNITS AID FIRE-FIGHTING

SPECIALIZED fire-weather forecasts for forest areas, provided by the Bureau's Fire-Weather Warning Service, make it possible for the Forest Service and other land management agencies to prevent many fires from starting, keep small fires from becoming conflagrations, and reduce costs of protecting forest resources from fire. About 33 Bureau employees at 12 fire-weather centers in 8 fire-weather districts provide this service to 24 States.

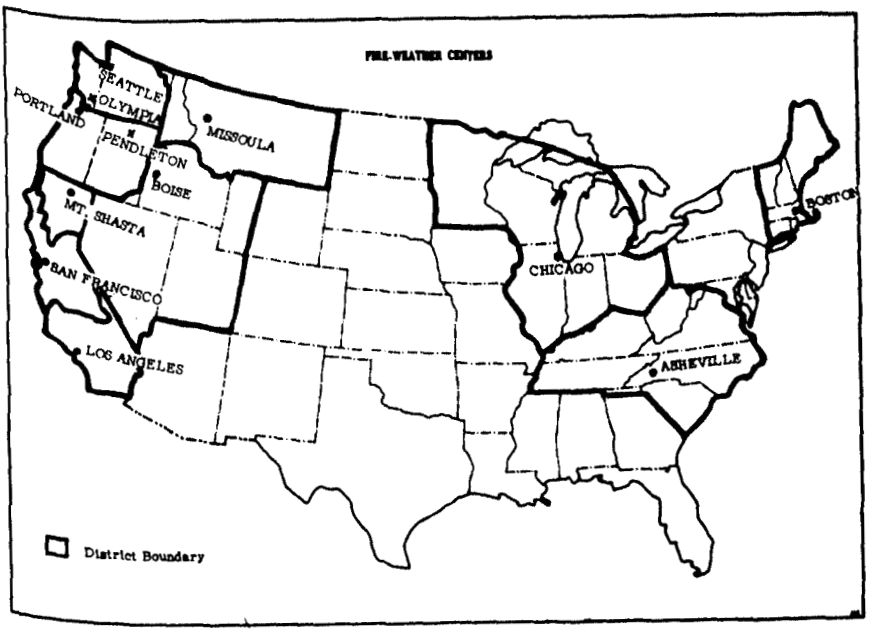
Mobile weather units are assigned to nine fire-weather centers in the Far West to assist fire-fighting crews in the national forests and grazing lands where the largest and most damaging fires occur. Annual reports from eight of these fire-weather centers provide a dramatic picture of the activities of the mobile units working with the fire fighters (Los Angeles will submit its report at a later date).

The Central California mobile unit, operating out of San Bruno, operated on three going fires during the 1949 season. Fire-Weather Supervisor John M. Lanning took the unit to the Stansbury Fire, along the northern California coast in Humboldt County, July 21-23. Mr. Lanning and Raymond W. Williams gave forecast service to the Balls Canyon Fire, August 4-7, which was outside the normal territory of the Central California Fire-Weather District, in the Toiyabe National Forest in Nevada. The unit was taken by Mr. Williams alone to the Walton Spur Fire, August 23-26, on the Stanislaus National Forest in the Central Sierra Nevada Mountains.

The Mount Shasta unit also operated on three major fires: the Sheepwell Fire on Shasta National Forest, the Manzanita Fire on the Trinity National Forest, and the Pat Morris Springs Fire on the Lassen National Forest.

On September 27 the Portland mobile unit was dispatched into the Polk-Benton district of the coastal section of Oregon. Slash fires were out of control, with many blazes over the entire area. Although the unit was relatively close to Portland, two-way radio communication was impossible because of the high radio noise level in downtown Portland. It was only through the use of telephone that any service at all was provided, and this proved inadequate. It was necessary to forward messages from Portland to Dallas, Oregon, by telephone, then relay them to the mobile unit via radio over an already seriously overcrowded radio frequency. The unit returned to Portland September 28.

Mobile unit service was needed on two fires in eastern Oregon during the season. The Portland unit, manned by Robert Selover of Portland and F.D. Beers of Pendleton, was in operation on the Gunbarrel Fire on the Malheur National Forest July 14-17. This fire spread to approximately 10,000 acres during a period of high fire



hazard following a heavy lightning fire load on the forest. Radio contact was maintained with the base office at Pendleton for weather data. Regular morning and evening forecasts were furnished the fire boss and his staff, and additional weather advice and information was supplied as needed.

The same unit was dispatched to the Squaw Creek Fire on the Ochoco National Forest August 3, manned by Mr. Selover and W.O. Peterson of Pendleton. Again radio contact was established with Pendleton and service was furnished on three fires in the vicinity: Squaw Creek, 300 acres; Hardscrabble, 1200 acres; and Black Canyon Creek, 100 acres. Wind direction and velocity forecasts August 4-7 enabled the fire boss to make effective distribution of manpower and fire-fighting equipment. The fires were controlled without destruction to stands of valuable timber near two of them.

The Forest Service fire dispatcher at Portland on September 26 requested that the Seattle Fire-Weather mobile unit be sent to the Green Fork Fire which was burning out of control on the southern part of the Gifford Pinchot National Forest. W.B. Allen and W.R. Donaldson left Seattle that night, arriving at the Sunset Guard Station at 0340 the next morning. From the surface and upper-air reports received by radio from Seattle, a map was prepared and a special forecast was ready for the fire boss by 0630. On the 28th, conditions permitted the mobile unit to return to Seattle, following which arrangements were made to transmit special forecasts for the fire area over the Seattle fire-weather radio. These forecasts were continued until the fire was completely controlled.

In District Four, with headquarters at Missoula, many serious fires took place simultaneously during August. The first to become really hazardous was the Mann Gulch Fire at the Gates of the Mountains about 20 miles northeast of Helena, in which 13 fire-fighters were burned to death. The fire "blew up" on the afternoon of August 5, and the mobile weather unit was requested the following afternoon. The Weather Bureau had no radio equipment for the unit, and all Forest Service sets both at Missoula and Helena were in use, so Charles Syverson and Dell Stangland were forced to establish forecasting headquarters at WBAS Helena instead of going to the site of the fire. Following the first forecast at about 2100 the night of arrival, regular forecasts were issued to the Forest Service dispatcher for transmission at 0600 and 2030. The forecasters were available 24 hours a day for special check forecasts for fire-control planning and for dropping supplies to the fire camps. The Forest Service had contracted with a local flying service for aerial detection flights over the forest, and the forecasters attempted to make at least one trip over the fire each day to study its behavior. This fire was controlled the evening of August 10 and the mobile unit returned to Missoula.

Boise's mobile unit was called to the scene of only one going fire during the 1949 season. James R. Miller left with the unit for the 15,000 - acre Circle End Fire on the Payette National Forest on August 27, locating at the Rock Creek Fire Camp. At 0630 and 1830 each day the fire boss was briefed on expected weather conditions over the fire area. The forecasts were then disseminated by radio to the other fire camps from where they were rebroadcast to the fire crews. The fire was brought into control September 5 and the mobile unit returned to Boise.

COMMENT ON STORM WARNING FLAGS

STORM warning flags are now being furnished to field stations in two types. Both are manufactured with a length of rope sewed into one end and extending beyond the edges of the flag, but this rope is attached to the halyard by different means in each case. On one type, in use for many years, one end of the rope is spliced into a loop and the other is bent around a wooden toggle. On the second type, adopted more recently, a metal ring is fastened in one end and a metal snap in the other. For purposes of standardization and economy the Central Office believes the exclusive adoption of one kind or the other would be desirable. Comments as to which type is preferable are desired from stations using either or both. Such factors as convenience in attaching to the halyard, performance in stormy weather, durability, etc., should be considered. Comments should be addressed to the Central Office attention Materiel Section.

MACHINE METHODS IN WEATHER STATISTICS

HISTORY, scope and purposes of the WBAN Punched Card Library, and associated Weather Bureau, Air Force and Navy Tabulation Units at New Orleans are the subject of a new publication, MACHINE METHODS OF WEATHER STATISTICS, recently distributed to all field stations.

This pamphlet deserves close review (and future reference use) by meteorologists everywhere, since it has been prepared

> with the single purpose in mind of bringing to the attention of the professional meteorologist the existence and extent of development of an important and basic meteorological facility. . . . Perhaps the Joint Punched Card Library of the Air Force, Weather Bureau and Navy, together with the attendant machine facilities, may be the answer to the problem of handling and processing the great masses of basic weather data that are required by the operational and research people in the field of meteorology.

Of particular importance to the practicing meteorologist are the comprehensive discussions, in Chapters IV and V, of the variety and extent of punched card data now on file at New Orleans, and the operations and functions of the New Orleans machine units.

"Sources and Card Decks," Chapter IV, is a valuable, though condensed, catalog of the contents of the Joint Punched Card Library. The usual library catalog merely apprises the user of the fact that desired data is or is not available in the library's stocks. This catalog of punched card decks, however, performs the unique and important function of defining for the meteorologist the areas of weather records which can be analyzed for him by the library itself through use of machine facilities.

Furthermore, horizons for variety or complexity in research studies or climatological analyses of the cataloged data have been greatly expanded by the capacity, versatility and speed of the punched card machines. Chapter V, "Operations and Functions," describes in considerable detail the types of routine and special analysis which have been prepared by the New Orleans tabulation units. The equipment can perform any tabulations which can be done by human effort. The variety of climatological investigations possible with high speed machine techniques is virtually without limit.

As the library grows (at the rate of 2,000,000 cards per month) its potential usefulness increases. It is hoped that the associated machine facilities can keep pace with the demands placed on them for tabulating service.

STUDENTS AID ARCTIC PROGRAM

ADVENTURE is as appealing to young men today as it ever was if the Bureau's student assistant program is any indication of attitudes. For but $1 a day with rations, quarters, and transportation 36 college students from the United States and Canada have worked hard and enthusiastically during the past two summers for the unique experience of an Arctic voyage. Many more were willing to do the same but could not be utilized.

In the resupply of Arctic stations each summer the problem of caching and inventorying "satellite" station supplies delivered in large quantities at Thule and Resolute has presented serious difficulties. It is necessary for men to accompany the supply ships to do this work. But the relatively short periods of intensive work at the points of unloading are accompanied by relatively long periods of travel from the United States to the first port of unloading, between the unloading points, and back again to the U. S. This makesit uneconomical to pay regular salaries for labor. Accordingly, it was desirable to recruit men for this work who would benefit from the opportunity to travel and see the remote Arctic country.

A plan was initiated in 1948 to recruit university students, on the presumption that many students would welcome an opportunity to visit the Arctic during the summer vacation and be willing to work hard in return. Universities to be solicited were selected on the basis of particular interest in Arctic matters, general interest in scientific matters, or position in the field of meteorology. The schools themselves were believed better able to make the initial selection than could the Weather Bureau from Washington. In order to get a desirable cross section of student experience, each university was asked to nominate students with various types of background which would be useful in the Arctic operations. From these nominations the Bureau made the final selections. The Canadian Meteorological Service followed a similar method in selecting students from Canadian universities.

In 1948, because of the late date of beginning, contact was made with only four American schools -- Carlton College (Northfield, Minn.), Dartmouth College, Harvard University and the Massachusetts Institute of Technology. In spite of this late beginning more students applied than could be taken. Eight American and four Canadian students were selected. In 1949 four additional universities were reached -- the University of Chicago, Goddard College (Plainfield, Vt.), New York University, and Pennsylvania State College. The number of American student assistants was increased to 18 and Canadians to 6.

Duties of the student assistants consisted principally of unloading supplies, sorting them into classes and stacking

them in storage dumps, operating tractors and a fork lift, and taking inventory of supplies already cached. The men assumed a personal interest in successful completion of the mission. They worked long, hard hours on the strenuous task of moving and storing heavy crates and cases of equipment and supplies, and they quickly adapted themselves to the requirements of the Navy and the Weather Bureau. When Navy working parties were made available for work in the cache areas student assistants were often assigned as supervisors of the parties.

When the program was inaugurated, the Bureau hoped that participation in the Arctic Operations Program might promote an interest in Government service among the university students. This expectation has been justified. One of the 1948 students, A. J. Faller from MIT, is now an observer at Resolute. Of the 1949 group, Samuel Griggs has been employed in a position in the Arctic.

The student assistant program so far appears to be a distinct success from all angles. For the Bureau, the supply function, both in Boston and in the Arctic, was accomplished at minimum expense. All students have been industrious and reliable, and throughout both summer programs their enthusiasm was undiminished.

LENGTH-OF-SERVICE AWARDS TO 280

DECADES of service with the Weather Bureau brought awards to 280 Bureau employees this year under the Commerce Department's Second Honor Awards Program. Only one man in the Department passed the half-century service mark, a Weather Bureau employee, William H. Tracy, OIC at WBO Boston, who entered the Bureau January 1, 1899 at Nantucket.

Of the 21 awards for 40 years service, 5 came to the Weather Bureau. These went to Ernest L. Felton, OIC at WBO San Francisco; Otto E. Moery, who retired December 31 after 29 years as OIC at Terre Haute; Roy J. Rogers, OIC at Pomona; Herbert C. Springman, meteorologist at the Chattanooga WRPC; and Walter M. Weld, professional assistant at WBO Denver.

In addition to these awards, 30-year emblems went to 7 employees, 20-year emblems to 122 and 10-year emblems to 145.

Last year 1077 such awards were made, but since this was the first such program ever held in the Department, everyone eligible was presented with an award. This year of course, many employees with 10, 20, 30 or 40 years service already have their emblems.

THE WBAN ANALYSIS CENTER TODAY

LARGEST meteorological unit of its kind, it is believed, is the Weather Bureau-Air Force-Navy Analysis Center in Washington. This Center has grown out of the Weather Bureau Analysis Center which was organized in 1942. (An article in the April 1947 TOPICS described the Weather Bureau Center.) In the summer of 1947 the Weather Bureau Analysis Center was combined with the Air Force Master Analysis Center and the Navy Weather Central to form the WBAN Analysis Center.

Joseph Vederman one of the supervising analysts in the Analysis Center, describes the Center in detail in the December 1949 BULLETIN of the American Meteorological Society. For those who did not have access to Mr. Vederman's article we believe a condensation will be valuable.

Functions of the Analysis Center are to: (1) provide field stations with analyses of surface-weather maps and upper-air charts prepared by a group of specialists; (2) standardize the the analysis of meteorological charts so pilots and others visiting several stations within short time intervals will not be confused by differing charts; (3) save field stations time in plotting and analyzing data; (4) provide field stations with prognostic surface and upper-wind charts to be used as aids in making local and State forecasts; and (5) provide forecast centers with the independent opinion of other experts on the probable motion of highs and lows, fronts, troughs and ridges.

Headed by J. R. Fulks, the staff of the Center consists of about 150 persons, although this number varies from month to month. At the time this issue of TOPICS went to press, 28 Weather Bureau meteorologists, 19 Air Force weather officers and 6 Navy aerologists were assigned to the Center. Plotting and coding crews included 46 Weather Bureau chartman together with 15 Air Force and 36 Navy non-commissioned personnel. Two clerical personnel assist in the administration of the Center.

The enormous amount of data pouring into the Analysis Center must be plotted with great speed. Five or six persons are assigned to plot the surface-weather map of the United States. The blank map is cut into sections corresponding to the teletype circuits over which the data arrives, and each plotter enters data on a section as fast as it comes from the teletype machines. When plotting is complete the sections are taped together and turned over to the analyst.

Between 0100 and 0130 EST, 140 raobs are plotted on pseudo-adiabatic charts, 7 or 8 men working on them at once. The 850-, 700- and 500-mb charts are plotted within one-half hour after the data begins to arrive, and the 300-, 200- and 100-mb charts about 1½ hours later. Three persons begin plotting the winds-aloft charts as soon as upper-wind reports begin to arrive. Similar procedures are used for other data.

Before analyzing the U. S. surface-weather map the analyst first spends about 2 hours reviewing the surface and upper-air data for the preceding 24 hours. He then carefully analyzes the 3-hourly surface map preceding the regularly transmitted 6-hourly map. On his 3-hourly surface map he places the frontal analyses arrived at independently by forecast centers. These opinions are given careful consideration in arriving at the final frontal analysis.

The analyst is now ready to work at high speed producing the 6-hourly map. He draws the isobars and fronts on his charts and labels them for coding. He places the proper code figures on highs, lows and important ridges and troughs; he also identifies air masses. As he draws and labels significant features of the map, the information is quickly encoded for teletype transmission and then decoded from this message onto another map. The decoded map is then compared with the original manuscript map to detect errors in coding. This insures that stations decoding the message will arrive at an analysis closely resembling the official one.

The Analysis Center 6-hourly map of the U.S. and adjacent areas is plotted with reports from every available station and all the ships at sea which have reported at the time for which the map is prepared. It is analyzed with the aid of surface data from more than 750 stations and is the most complete weather map in the United States. It is fully plotted within one hour after the data start coming in; it is completely analyzed, and the analysis encoded, decoded and on its way to field stations half an hour later.

Also prepared for distribution are 12-hour, 30-hour and 54-hour sea-level prognostic charts, and a 36-hour 700-mb prognostic chart. These contain fronts, centers and isobars or contours for verifying times. Each chart is issued twice a day. Considerable thought has been given toward increasing the usefulness of the prognostic charts by adding to them expected precipitation areas and representative temperatures.

When a hurricane approaches the coast of the U.S. it becomes particularly important for forecasts by forecast centers and prognostic charts from the Analysis Center to be correct and consistent as to intensity, path and rate of motion of the hurricane. Use is made of a special hurricane teletype network connecting New Orleans with Miami, and Miami with the Washington, New York and Boston forecast offices. Ideas are exchanged among the forecasters over this circuit so that a clear picture of the storm's development and motion is finally presented to the public.

Teletype is used to transmit to the field: (1) the analyzed surface-weather map for the United States every 6 hours; (2) the analyzed surface-weather map for most of the western half

of the Northern Hemisphere every 6 hours (on Service "O"); (3) analyzed 850-, 500- and 300-mb charts on Service "O", and the 700-mb chart on Service "C", every 12 hours; (4) prognostic sea-level charts for 12 and 30 hours, and a 36-hour 700-mb prognostic chart, every 12 hours; and (5) a 54-hour prognostic sea-level chart on Service "O" every 24 hours.

Facsimile transmission is used to send out: (1) the analyzed surface-weather map for North America and the northeast Pacific Ocean every 12 hours; (2) the analyzed surface-weather map for the United States and a portion of the North Atlantic every 12 hours; (3) analyzed 850-, 700-, 300- and 200-mb charts every 12 hours; (4) prognostic 30-hour sea-level charts every 12 hours; (5) prognostic 54-hour sea-level charts every 24 hours at the 12-hour point between transmissions of the chart by teletype; (6) 700-mb 36-hour prognostic chart every 12 hours; (7) 32 plotted raobs for stations evenly distributed over the country every 12 hours; (8) a raob analysis chart every 12 hours; and (9) winds-aloft up to 40,000 feet every 6 hours. These charts reach more than 100 Air Force stations, over 50 Navy stations, as well as a number of Weather Bureau, airline, and commercial forecasting service offices.

Finally, the WBAN Analysis Center distributes to ships at sea via Naval Radio Station NSS the isobaric and frontal analysis of the North Atlantic Ocean and the Gulf of Mexico, together with storm warnings prepared by the Washington National Airport Station when appropriate.

PORTUGUESE METEOROLOGISTS STUDY IN U. S.

TWO meteorologists of the Portuguese National Meteorological Service, Mr. Domingos Ramalhete and Mr. Armando Almeida C. Riberio, arrived in the United States early in February to study hydrometeorology and meteorological services to agriculture in this country. Their visit grew out of discussions with Dr. H. Amorim Ferreira, Director of the Portuguese Meteorological Service, who visited the U. S. in November 1949.

Both men will stay in the United States for 7 to 8 months. During the first week they familiarized themselves with the organization and operation of the Weather Bureau by studying in the Central Office. From there they went to Pomona, Calif., to study the horticultural protection program. Other points of study will be the District Forecast Center and the WRPC at San Francisco; and the Des Moines, Iowa, Section Center; Iowa State College at Ames; the River Forecast Center at Cincinnati, Ohio; and back to the Central Office for a period in the C&HS and SR&F Divisions. They will also visit the Johns Hopkins University Laboratory of Climatology at Seabrook, N.J.

ORGANIZATION CHARTS GO TO FIELD

AS AN aid to understanding the organization of the Bureau, each first-order field station is being furnished a copy of a special edition of the annual WEATHER BUREAU ORGANIZATION CHARTS. These "functional charts" explain activities conducted in offices of the Central Office, describe functions performed in the field service and indicate service activities carried on at individual field stations.

Even though the Weather Bureau has a highly specialized mission the activities of its operating divisions and sections are very diversified. The organization charts present the activities of the entire Bureau in concise and logical form to assist each employee in understanding how the work he performs relates to the complete Bureau program. Besides being a source of interest to employees with career goals in the Bureau, the publication should prove of value in explaining the Weather Bureau to the public and acquainting users with weather services available at individual stations.

FIRST 1950 SUGGESTION AWARD MADE

FIRST suggestion award for 1950 goes to Paul W. Sorenson, official in charge at Flagstaff, Ariz. His idea, for which he received $15, was to cover thermometer correction cards with a plastic material to keep the figures legible for a longer length of time. Field aides are to be supplied with a liquid plastic which can be sprayed on the cards, producing a sturdy transparent coating in a matter of seconds. The Instrument Division plans to coat all cards made out in the future before they are sent to the station. A saving of $150 per year in time necessary to replace the correction cards in the Bureau is the estimated result of the suggestion.

AFFECT--OR EFFECT?

TWO words often confused by letter-writers are "affect" and "effect" when used as verbs. Although the words are quite similar in look and sound, they are totally different in meaning. "Affect" commonly means to alter, influence, change; "effect," to bring about, cause, produce, accomplish. "This action will effect his promotion," means that the action will bring about the promotion. "This action will affect his promotion," on the other hand, means that the action will influence the promotion in one way or another, may even cause it to be disapproved. Thus the whole meaning of a sentence may be seriously affected if a clear distinction between the words in the writer's mind has not been effected.

THE CALF PATH

ONE day through the primeval wood
A calf walked home as good calves should;
But made a trail all bent askew,
A crooked path as all calves do.
Since then three hundred years have fled,
And I infer that calf is dead.

But still he left behind his trail,
And thereby hangs my moral tale.
The trail was taken up next day
By a lone dog that passed that way;
And then a wise bell-wether sheep
Pursued the trail o'er vale and steep,
And drew the flock behind him, too,
As good bell-wethers always do.
And from that day, o'er hill and glade,
Through those old woods a path was made.

And many men wound in and out.
And dodged and turned and bent about.
And uttered words of righteous wrath
Because 'twas such a crooked path;
But still they followed -- do not laugh --
The first migrations of the calf,
And through this winding wood-way stalked
Because he wobbled when he walked.

This forest path became a lane,
That bent and turned and turned again;
This crooked path became a road,
Where many a poor horse with his load
Toiled on beneath the burning sun,
And traveled some three miles in one.
And thus a century and a half
They trod the footsteps of that calf.

The years passed on in swiftness fleet,
The road became a village street;
And this, before men were aware,
A city's crowded thoroughfare.
And soon the central street was this
Of a renowned metropolis;
And men two centuries and a half
Trod in the footsteps of a calf.

Each day a hundred thousand rout
Followed this zigzag calf about
And o'er his crooked journey went
The traffic of a continent.
A hundred thousand men were led
By one calf near three centuries dead.
They followed still his crooked way
And lost one hundred years a day;
For thus such reverence is lent
To well established precedent.

A moral lesson this might teach
Were I ordained and called to preach;
For men are prone to go it blind
Along the calf-paths of the mind,
And work away from sun to sun
To do what other men have done.
And still their devious course pursue,
To keep the path that others do.
They keep the path a sacred groove,
Along which all their lives they move;
But how the wise old wood-gods laugh,
Who saw the first primeval calf.
Ah, many things this tale might teach --
But I am not ordained to preach.

--- Sam Walter Foss

CARMICHAEL OIC AT MERIDIAN

NEW official in charge at WBO Meridian is Jesse V. Carmichael. Mr. Carmichael has been with the Bureau since December 1947 when he was appointed professional assistant at Greensboro, N. C. He moved to Tampa, Fla., as principal assistant in September 1948, and to Meridian as OIC in February 1950. Mr. Carmichael was a weather officer in the Army Air Forces in the war, and received his B.S. degree in meteorology from the University of Chicago in 1947. Prior to this he had also attended the University of Oklahoma and the University of North Carolina.

Responsibilities of the OIC at Meridian include an observational program of hourly airway and 3- and 6-hourly synoptic observations, together with aviation and general weather service to a population of about 44,000 in the local service area. Manufacturing is the principal interest in the area, with farming and stock-raising carried on to a lesser degree.

THE JOB OF MANAGEMENT

LAWRENCE A. APPLEY, Vice President of the Vick Chemical Company, sums up his concept of the job of managing an enterprise as follows:

> Management is the responsibility for accomplishing results through the efforts of other people. . . . Management is not the direction of things, it is the development of people. The administrator's job is not to make things or to direct things; it is to select and develop people who can. It is to create an organization of human beings who can accomplish those activities for which the administrator is held responsible.
>
> This is not an idle dream; neither is it a fleecy, intangible ideal taken from the glorious sphere of unreality. It is a practical, hard-hitting, inevitable conclusion that anyone will reach who is willing to take the time to analyze exhaustively and conclusively the responsibility of management.

SUGGESTION REDUCES MAP SIZE

FOR his suggestion that a smaller area of North America be reproduced on WB Map 1706 (pibal chart), Henry C. Schaefer, observer-briefer at WBAS Milwaukee, has been awarded $50. Since the winds aloft in the areas near the borders of the old map were of little real use to most field stations except those on the West Coast and in Alaska, Mr. Schaefer advanced the idea of printing only the center area of the map which is actually of use. He also suggested that a standard space for indicating altitude be placed on the map for the convenience of those reading it. The new map is expected to speed up plotting through reduction of the distance between points where winds are plotted, save in paper and printing costs, and make a neater display. The old map will still be available for use of offices needing the stations cut off the new map.

BILLINGS OBSERVER DIES

EDWARD C. HIGGINBOTHAM, meteorological aid at Billings, Mont., died December 11, 1949, at his home in Billings. He was 34 years old and had been with the Bureau since 1946. A native of Montana, Mr. Higginbotham attended the Eastern Montana Normal School and the University of Montana, and taught in the rural schools of the state from 1937 to 1942. He was with the Army Air Forces during the war. Mr. Higginbotham is survived by his widow, Mrs. Rosina S. Higginbotham, and two children.

F. W. Reichelderfer

F. W. REICHELDERFER
Chief of Bureau.

WEATHER BUREAU

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MANAGEMENT IMPROVEMENT ACTIVITY

OUT OF the monumental study by the Hoover Commission of the organization of the Executive Branch has grown a government-wide program for the systematic appraisal and improvement of government operations. The program will be a continuing one, and as a first step all government agencies, including the Weather Bureau, have been required to submit to the Bureau of the Budget an initial statement of their management improvement plans. As time goes on plans will be further developed, and the Weather Bureau will be required to report progress at the time its budget estimates are submitted.

Outlines of the Management Improvement Program were first announced by the President in a Cabinet meeting July 29, 1949. An Advisory Committee on Management Improvement was set up at that time to assist in carrying out the program. This was a new development in federal management, with the Advisory Committee comprising both government and business executives. Executive Order 10072 was issued at that time. It directs department and agency heads to give increased and regular attention to the economy and effectiveness of the programs for which they are responsible. The Classification Act of 1949 devoted a section to management improvement, and the President in his 1951 Budget Message set forth the program in greater detail.

This program in the government is concerned with improving: the organization structure of the Executive Branch; the government-wide staff activities such as budgeting, accounting, property management and personnel management; and the conduct of operating programs and administrative activities in the bureaus, departments or agencies. The Bureau of the Budget points out that in the third aspect the benefits of the improvement program must be principally realized, for the purpose of improving government-wide organization structure and staff services is to assist in the more effective management of operating programs.

Maximum participation in the Management Improvement Program by all employees is regarded as an important element. To encourage participation, Congress has authorized certain employee awards, including suggestion awards, exceptional and meritorious service honor awards, and cash awards for outstanding performance by organizational units as authorized by the Classification Act of 1949. This award program will be described in greater detail at a later date.

The Management Improvement Plan of the Bureau is concerned with: systematic reviews to determine the efficiency and economy of Bureau operations; discovering opportunities for program improvements and proposing ways to achieve them;

identifying units rendering outstanding performance and those supervisors and employees who make outstanding contributions to improved efficiency and economy; and reporting general progress under the plan.

In all aspects of the Management Improvement Program the use of systematic reviews is stressed. Reviews of Weather Bureau activities, functions or organizational units will be aimed at: determining the extent to which the prescribed objectives and goals of the Bureau are clearly defined; evaluating the effectiveness, efficiency and economy of the operations; appraising the Bureau's organization, procedures and staffing every level; identifying problems either in organizational structure or operating procedures, and developing proposals for the solution of such problems; reviewing completed actions to evaluate accomplishments or deficiencies, identifying for purposes of awards, the organization units that are outstanding in efficiency and economy of operation; and identifying, for purposes of awards, the individual supervisors and employees who have made outstanding contributions to efficiency and economy.

This continuing review and appraisal of the Bureau's operations is to be accomplished in a variety of ways. The normal processes of supervision are one means, including staff meetings, supervisory participation in work supervised and individual consultation between supervisors and workers. The analysis and use of factual data derived from reports of various kinds is also one of the most basic techniques of review. The periodic formulation of work programs and related budget estimates will provide a regular and formal opportunity for evaluating operating effectiveness. In addition, periodic surveys or special studies may be used to identify, study and work out solutions to operating problems, through coordinated action of program analysts and work supervisors.

Each year, to accompany its budget estimates, the Bureau will be required to submit a report on the operation of its Management Improvement Plan. This report will present a summary evaluation of the plan, and the stage of progress reached to date. Also reported will be major actions taken and benefits realized during the year as well as actions proposed for the coming year. The Bureau of the Budget will receive and consider such reports from all departments and inform the President on the overall progress and results of management improvement in the Executive Branch.

CLIMATOLOGICAL PROGRAMS PROGRESSING

APPLICATION of climatology to numerous fields of endeavor has been under special attention in recent years. The new summer program of the Massachusetts Institute of Technology announced in February TOPICS is one evidence of an increasing recognition of the need for specialized training and the development of improved techniques for presenting climatological information.

Since 1946, when the Climatological and Hydrologic Services Division was organized under Merrill Bernard, special attention has been given by the Weather Bureau to effective utilization of climatological services in the national economy. Applied climatology has become the label for a heretofore undefined field within the broad parent science, meteorology. The Weather Bureau's role as custodian, processor and summarizor of climatological data, and collaborator in their interpretation and application, has emerged more definitely than ever before. Under the leadership of R. E. Spencer the Climatological Branch of the C&HS Division devotes much effort to processing and applying climatological records for use in problems involving the relationship of weather and climatic variability to commercial production, biological processes, consumer demand, transportation, marketing and advertising. As problems in these fields are brought to the attention of the Bureau, studies are made, and where feasible to do so, the presentation of climatic data is shaped to supply broad needs that emerge from such studies.

One ever-increasing basic problem in climatology overshadows all others, namely the sheer physical-difficulties that attend the collection, verification, processing, publication, dissemination, filing and servicing of the vast quantities of records on hand and accumulating at an accelerating rate. The weather records processing program has proved effective in dealing with mass checking, processing and publishing phases of the work. But improvement in these phases only emphasizes the problem of filing and servicing the records after treatment for first publication.

Almost all progress in climatological aspects of the Bureau's program during the past year relates directly or indirectly to implementation of the punched card program, which has attained noteworthy effectiveness. The brunt of this load is borne by three Weather Records Processing Centers (consolidated in recent months from the former seven). The New Orleans Tabulation Unit, however, continues to bear an increasing amount of the processing work related to special projects because of the tremendous library of card punched records available at that office, which is also pioneering in the development and use of new tabulation techniques.

Use of tabulating machines and methods has made possible the introduction of a number of new climatological summaries. The mimeographed Monthly Summary (Form 1030) prepared for many years has been superseded by a combination of Form 1001C and special machine summaries. Where possible, summary tables have been designed in cooperation with the industry for which the table is most useful, usually through such organizations as the Air Transport Association, American Society of Heating and Ventilating Engineers, etc.

Progress in marine climatological work since the mid-1930's has been slow because of the lack of a growing fluid data source. While the collection of marine climatological data has proceeded at an increasing rate, the punching -- and hence the summarization -- of these data has long been at a standstill. The Bureau's marine data files are now being augmented by the acquisition of marine punched card decks from other countries. To date the 7,000,000-card Deutches Seewarte (German Marine) deck, and a small number of Japanese cards have been secured.

Climatological research is being carried on in cooperation with five educational institutions: Iowa State College, North Carolina State College, and the Universities of Minnesota, Missouri and Wisconsin. Iowa State has completed extensive research on corn phenology, and the quality of the harvested crop as related to weather factors. It has also finished studies of network accuracy, normals, freeze hazards and drought probability. Work necessary to prepare a complete climatic analysis for the State of Iowa is now in progress. North Carolina State College has completed studies on the relation of weather factors to the growth of cotton and is at present engaged in field plot experiments on the effect of weather on tobacco, the state's most important cash crop. Agreements with the three universities named above are too recent to permit completion of any studies as yet.

A general climatological information service is provided to the public and to other Government agencies, and the number of inquiries answered in the Central Office averages about 125 per week. Many times this number are handled at field stations. Methods of answering such inquiries vary widely according to the requirements in each case. To meet the flood of ordinary "curiosity" requests, standardized replies in the form of pamphlets, charts and short articles are being developed.

In addition to its national climatological responsibilities, the C&HS Division contributes to international climatology through membership in the technical commissions of the International Meteorological Organization.

STORMS BRING DIFFICULTIES TO OBSERVERS

EACH winter brings its quota of reports from the field of weather observing and reporting in the face of blizzards, ice storms, floods and other severe weather conditions. This year has been no exception.

At Devils Lake, N. Dak., a blizzard swooped down on the community on the evening of March 6. OIC Earl N. Hoffman reports that freezing rain first coated wires, trees, poles and other exposed objects with glaze about 1/16 inch thick. Then falling temperatures, northerly gales, snow and blowing snow began about 2300, continuing until about 1100C the next day. As people began to recover from the storm it was believed that damage to power and communication lines and poles was the worst in the history of North Dakota. Preliminary counts revealed over 3000 telephone poles down in the state, and more than 1000 power poles felled in the northeastern part of the state alone. Three days after the storm a hundred communities were still without communications other than radio.

Devils Lake being one of the communities cut off from the outside, the Weather Bureau office resorted to the following measures to get its reports onto the teletype network: (1) Reports were given to the local commercial radio station; which (2) radioed them to another commercial station at Grand Forks; (3) the latter gave them to the CAA communication station at Grand Forks; which (4) relayed them to the CAA communication station at Fargo, which (5) placed the reports on Service "C."

Difficulties in taking and reporting river observations on the St. Marys River at Decatur, Ind., during a flood from February 14 to 20, are reported by B. B. Whittier, official in charge at Fort Wayne. With the highest water measured at Decatur since the establishment of the river gage, the river observer, Herman B. Meyer, found his gage isolated on an "island" bridge. Mr. Meyer, however, made regular and even special observations by enlisting the aid of county highway trucks to get through the water to the gage. Then, since all wire communications had been cut off by a glaze storm he obtained the assistance of local police officials in transmitting the reports to Fort Wayne over the police radio.

ALASKAN CITY IMPORTS SNOW

FIFTY-FIVE inches of snow fell on Anchorage, Alaska during the first 5 months of this past winter -- just 5 inches short of the seasonal average for the city. Yet, reports Roy L. Fox, OIC at WBAS Anchorage, snow was hauled into the city by trucks and deposited on the streets.

The occasion was the annual "Fur Rendezvous," a 4-day winter sports carnival beginning on Washington's Birthday. A featured part of the program is a 100-mile dog team race which begins and ends in the main part of the city. Snow is needed on the streets during the Rendezvous to provide a good sled surface for the dog-team racers.

A freakish winter was responsible for this unique importation of snow. The snowfall, while near-normal in amount up to the time of the carnival, was far from normal with respect to its distribution. All measurable amounts of the 55 inches fell prior to January 6. By mid-January snow removal equipment had cleared most of the snow from the main thoroughfares and the city engineer was temporarily satisfied with a task well done. However, as the time for the Rendezvous approached it became apparent that the few traces of snow which fell after the middle of January would be insufficient to furnish proper cover on the streets for the dog-team races.

On February 20 the Weather Bureau, thoroughly checking its charts after being told of the predicament, issued a forecast of "no snow" before the 23rd or 24th, and possibly none during the whole 4-day period beginning February 22. As a result of this forecast city trucks were put into operation hauling snow back onto the streets from which it had been removed 5 weeks earlier. The job was completed in time for the first 25-mile heat of the race on Washington's Birthday, and the celebration proceeded without a hitch.

The forecast? It was verified; no snow fell on Anchorage between February 20 and 26.

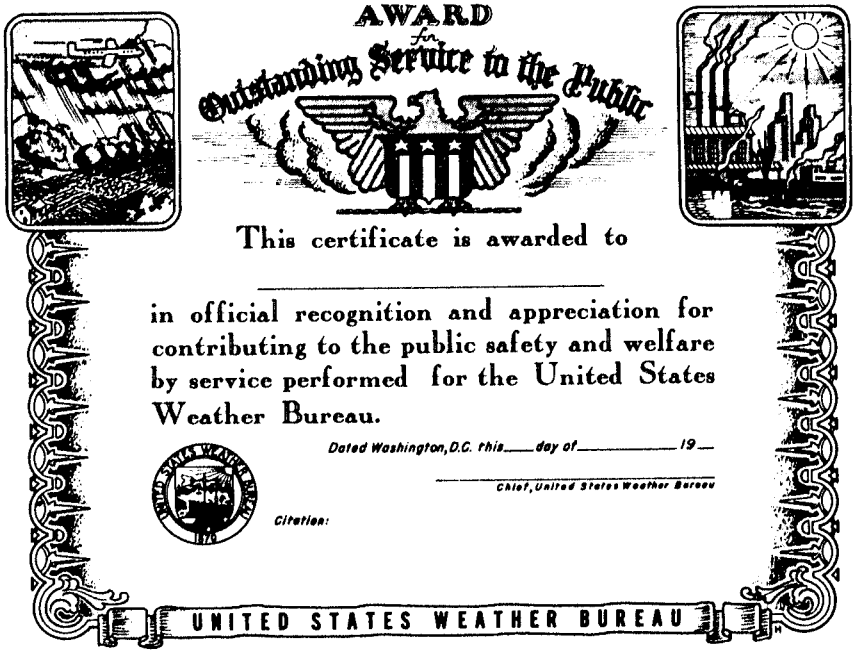
GOLDSMITH TAKES CHARGE AT KEY WEST

SAMUEL M. GOLDSMITH, first assistant and acting OIC at Key West, Fla., has been made official in charge of the station. Under his supervision will be both the airport station and the city office, which together serve a population of approximately 25,000 in the local service area. The stations furnish general weather service for Key West and vicinity, as well as aviation weather service for military installations and civilian aviation. Marine forecasts and hurricane warnings furnished by the Miami Hurricane Center are adapted and distributed in the local service program.

Mr. Goldsmith succeeds Ira C. Plummer who died December 29, 1949 after only a few weeks as OIC at Key West. Mr. Goldsmith entered the Weather Bureau in October 1917 as a messenger at Memphis. In August 1920 he was transferred to Key West and in 1923 was made first assistant.

VOLUNTARY SERVICE TO BE RECOGNIZED

OFFICIAL recognition and appreciation by the Weather Bureau of outstanding volunteer service which contributes to public safety and welfare is the purpose of a new award certificate issued by the Bureau. Principal recipients of the award are expected to be observers in local severe storm warning networks who make it possible for Weather Bureau officials to provide warnings that save life or property. The awards may also be used to recognize any voluntary service for the Bureau in the way of contribution to public safety or welfare.



Identification of individuals who deserve such awards is not always easy. In one recent instance, a tornado situation, the OIC of the local Weather Bureau office reports, "Three persons deserve awards but the highway patrolman shuns publicity, one person hung up the phone without giving his name, and a third person had the telephone operator relay the report, saying he was heading for a tornado cellar." Nevertheless it is Bureau policy that awards be made if at all possible to every deserving individual. Bureau officials are being requested to submit recommendations to the Central Office whenever they believe the award is justifiable, and in each case to describe the circumstances.

Local severe storm warning networks became an important part of the national defense program during the early 1940's. Local Weather Bureau officials established many such networks in the vicinity of military establishments and defense plants to provide warnings of the approach of severe local storms. The networks proved so successful that many are still in operation, particularly near large cities or industrial areas. An even larger number of unofficial networks are in operation in the Midwest, where farmers and townspeople, fully aware of the seriousness of tornadoes, spread the alarm by siren or bell, a special signal on rural telephone lines or by warnings from the local telephone operator.

The official storm warning networks consist of voluntary observers who have been given appointment certificates (WB Form 1193) and the "Severe Storm Warning Service" booklet, containing instructions for cooperation. A large number of observers are usually required because of the small size of tornadoes, and the poor visibility that attends many severe storms.

When an observer sights a tornado or other severe local storm he reports its location and direction of travel to the local Weather Bureau office by telephone. In some cases the report is furnished to a keyman such as a city safety official, who makes one report to the Weather Bureau so that the office telephone is not overloaded with numerous reports of the same storm at the same location. Prior arrangements with telephone companies make it possible for such reports to be put through immediately.

Arrangements with radio stations in all towns within a WBO'S sphere of influence permit immediate emergency broadcasts when the Weather Bureau office notifies them of the presence of tornadoes reported by network observers. Delay in copying warnings at the radio stations is eliminated by furnishing them with prepared bulletins beforehand, lacking only current information about a tornado's location, direction of travel and areas endangered. These data are entered on the bulletin at the radio station from information phoned by the Weather Bureau office. Bulletins are also furnished in advance for use in broadcasting an "all clear" and for false rumors.

Even near radar stations it is necessary to know that a tornado is actually occurring before it is possible to identify it on the radar scope. When a radar observer has this information he can then track the storm and provide information for warnings broadcast to all in the storm's path.

An educational program is carried on to help sustain interest in the networks. Observers and telephone operators are contacted at intervals to remind them of the important part they

play and to encourage them to be on the alert at all times. Assistance of civic organizations is enlisted in the development of esprit de corps among network observers. Press interviews are arranged to remind citizens of their interest and needed support. Officials are continually watching for ways to improve the networks, and "dry runs" are sometimes made to discover weak spots in the organization that might otherwise go undetected until diaster struck.

Local publicity programs also emphasize the importance of preventing panic and confusion in the community and of taking proper safety precautions. Safety literature is distributed to schools and adult organizations, and newspapers print information on action needed in advance of an emergency. Some officials believe this general educational phase of the warning service merits the greatest amount of emphasis. Each season the facts are presented about the infrequency of tornado occurrence, the limited areas covered by most tornadoes, and the excellent results to be expected from proper safety precautions.

Reports received at the Central Office indicate that these severe storm warning networks and attendant publicity are effective tools for reducing hazards to life from severe local storms. The saving of one life attributable directly to any network justifies the time and effort of local officials in organizing and keeping activated such a specialized extension of the local weather service.

COOP OBSERVERS GET AWARDS

TWENTY-FIVE of the Weather Bureau's cooperative and part-time observers have served at least 50 years, and 67 others have served at least 40. This was revealed when the Bureau recently recognized the service of these people by the issuance of Length-of-Service Awards. A total of 1757 lapel buttons (for men) and pins (for women) were awarded to cooperative observers for service of 10 or more years with the Bureau. Of these 222 were for 30 years, 465 for 20 years and 978 for 10 years. Awards were made to 1536 men and 221 women. Region III garnered the largest number of awards with 548 buttons and pins.

Distribution of the awards will be principally by mail from section centers and river district offices, although in some cases personal presentation will be possible. A letter from the Chief of Bureau, prepared in multiple form, will accompany each award, and local officials supervising the work of these observers are encouraged to add their own letters of congratulations.

BARROW OBSERVER RESCUED ON TUNDRA

BECAUSE Max Ungarook, mechanic at WBO Barrow, Alaska, is an expert tracker, John L. Wilson, trainee observer, is alive today. Mr. Wilson, who had been assigned to the station since September 1949, became lost on the snow-covered "tundra" around the station on the night of January 10. He was rescued as the result of Mr. Ungarook's ability to lead a search party to him before he perished.

Frank Dundas, OIC at Barrow, realized something had happened when Mr. Wilson did not report for his shift at 0400 AST and could not be located anywhere around the Government installations or in the village. Mr. Ungarook found a set of tracks out across the snow which he thought might be Mr. Wilson's. Mr. Dundas requested a "weasel" from the Navy base and at 0645 one arrived at the Weather Bureau office driven by Roy Roose, CAA station manager. With blankets, woolen socks, hot soup, etc., the three men set off in the weasel to follow the tracks. Mr. Dundas relates:

> It was very dark with the moon just dimly visible through the overcast. Not having any idea what time John had started on this hike we were resigned to whatever might be found on the cold tundra. The temperature was -18 Fahrenheit when we started but was rising slowly. The tracks were lost a number of times but each time Max picked them up until finally it appeared they were completely lost. But by making a wide circle, Max picked up the trail. Snow was now blowing over the tracks and it appeared that our chances were diminishing. We stopped for another search on foot for the tracks when it seemed we heard a distant sound. The motor was shut off and we heard John's call. We proceeded in the direction of the call and in the rays from the headlight we saw John on his feet and walking toward us. Believe me, it was a heartening sight. We helped him into the weasel, put on warm sox, wrapped blankets around him, and fed him hot soup.

Mr. Wilson was taken to the local hospital in Barrow, given first aid by the nurse there, and flown to the Fairbanks hospital for more thorough medical attention. While he suffered from exposure, his timely rescue and the care he received while hospitalized prevented him from losing fingers or toes. One more hour of exposure, it was estimated, would have been fatal.

MAIL CLERK RETIRES

MRS. EMILY T. MORGAN, mail clerk in the Records Management Section of the Central Office, retired March 31 on account of disability. Mrs. Morgan entered the Weather Bureau January 8, 1945, by transfer from the Recreation Department of the District of Columbia Government. Her entire government service covered a period of over 23 years. Her present address is 4113 51st Street, Bladensburg, Md.

MAKING FRIENDS BY TELEPHONE

MUCH has been written on the importance, in both Government and private business, of courtesy on the telephone. However, one of the most telling comments we have ever seen was made by the late Robert Benchley.

Being a mild-mannered man, I am not peeved more than once every two minutes during the day, but, year in and year out, I think my blood pressure rises prettiest to the behavior of the high-powered businessman who says to his secretary, "Get me Mr. Benchley on the phone." and then goes and hides in the broom closet.

His secretary gets my secretary and says, "Mr. Gavin Gormley calling Mr. Benchley." And my secretary says to me, "Mr. Gavin Gormley on the phone." That's where the first flaw shows up in the routine. Mr. Gavin Gormley is not on the phone.

I take over and say, as I was taught to say by my French governess, "Allo?" And Mr. Gormley's secretary says, "Just a minute, Mr. Benchley, Mr. Gormley wants to speak to you." My reply to that is, "So I have just been informed." Then begins the hunt for Mr. Gormley, with occasional crumbs of hope thrown me by his secretary, like "Just a minute please." or "Mr. Gormley is busy on another wire now. Will you hold on, please?" At this point, when I am in form, I hang up.

If, however, I am in a sissy mood, I hang on like a dope. I hum hymns, or hymn hums, and draw little airplanes on the blotter, waiting for Mr. Gormley to finish on the other wire. (Don't forget, it was Mr. Gormley who called me.)

And then comes the crowning insult. Mr. Gormley is finally put on the wire with me and says, in a very brusque voice, "Hello, who's this?" as if I were trespassing on his time.

Then, sissy or no sissy, I pull my telephone cord out of the wall so hard that it pulls Mr. Gormley's receiver right out of his hand, even if he is blocks away, and I hope it smashes his inkwell and knocks his paper cutter so that it flies up and gives him a nasty cut right under the eye. If it doesn't, I'll go over and do it myself.

More and more, according to a recent report, business firms, municipal agencies, labor unions and other organizations are recognizing the importance of telephone manners in their relations with the public. The Bell Telephone System, which long ago discovered that good manners are good business, offers assistance through its local offices to organizations requesting help in improving the telephone manners of their employees.

KEFLAVIK A HEALTH RESORT?

DESPITE its reputation for poor weather and climate, Keflavik -- and Iceland as a whole -- is a very healthy place to live, according to Raymond R. Belknap, OIC at WBO Keflavik. The 6 men currently making up the forecast staff, Mr. Belknap writes, used no sick leave during the 9-month period from May 15, 1949 through February 18, 1950. This is a total of 240 forecaster man-weeks without loss of time because of sickness. In general, colds and other contagious diseases are rare in Keflavik; the base hospital has few customers, and most of these are the result of accidents.

SUTTON NEW OIC AT SPRINGFIELD

PAUL F. SUTTON, supervising public service forecaster at WBO Chicago, has been selected as OIC and section director at WBO, Springfield, Ill. This station is section center for the State of Illinois, and exercises supervision over 150 climatological substations as well as more than 100 crop reporters during the crop season. General weather service is furnished to a population of approximately 100,000 in the local service area, and a separate airport station provides aviation weather service.

Mr. Sutton joined the Bureau as a junior observer in November 1929 at Richmond, Va. He transferred in September 1932 to Asheville, N. C., as first assistant, and during his nearly 9 years there concentrated principally on fire-weather work. In February 1941 he was transferred to the fire-weather center at Missoula, and in November 1942 moved to Chicago as fire-weather supervisor. His experience at Chicago has also included both airway and district forecasting, and while there he completed work for a B. S. degree at the University of Chicago, in June 1946. Before entering the Bureau he had attended the University of Maryland for 2 years.

Preceding Mr. Sutton at Springfield were Elward W. Holcomb who retired as OIC December 31, 1949, and John J. Keyser of the Central Office who was acting official in charge until a permanent successor to Mr. Holcomb could be selected.

SELLING A CEILING LIGHT

A STORY about a ceiling light has come to us from a small off-airways city in Wisconsin. The town had never had a weather station and had not had air transportation service very long. A proposal was before the city council to install a ceiling light at the airport. It was explained that the light would be directed upward to measure ceilings. But one of the councilmen remonstrated, "Why, it would blind all the pilots coming in here!" When it was explained to him that a ceiling light would not endanger pilots but would actually add to flying safety, he changed his mind and voted for the light.

REPORTING AMOUNTS OF INCOME

EACH Weather Bureau employee is furnished a Treasury Form W-2 showing the gross amount of his income for salaries paid and taxes withheld during the calendar year through a particular payroll office. If he is paid from the same payroll office during the entire calendar year, he receives one Form W-2 in January following the end of the year concerned. However,

if his payroll office changes during the year he receives a Form W-2 immediately after the last payment is made by the former office. Forms W-2 received during the year must be retained by the employee for use in making his income tax return after the close of the year.

Amounts received by employees as reimbursements for travel expenses are not included on Forms W-2, nor are subsidiary reports of such reimbursements made to them. However, all such amounts received must be reported as income, although the actual costs of travel are deductible from the total income reported. Each employee must therefore keep his own record of reimbursement payments for inclusion as income in accordance with regulations of the Internal Revenue Service.

F. W. REICHELDERFER
Chief of Bureau.

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A NEW OIC LOOKS AT HIS JOB

THE broad management and improvement of Bureau programs and services to the public on a national scale is a function of Central Office staff and operating divisions. After programming has been defined, the job passes to field officials carrying out their assigned field program responsibilities. A sense of responsibility for results, and for continuing effort towards improvement in ways of doing business is the prime mover for efficient and productive public service -- reason for our existence as a government agency.

Whenever a new official takes charge of a station it is now customary of the Central Office to prepare a "program letter" outlining in some detail his station program. This gives the OIC initial guidance, but after he has been on the job for some months he is asked for an evaluation of results and for his recommendation as to improvements within the means and staff made available for his work. A constructive and creative approach to this evaluation is illustrated by the following comments from one official who recently reported on his station program after some months in his new position.

Generally speaking, I believe the program is satisfactory and quite adequate from a public service standpoint. We have made a few additions during the past six months and have revised operational procedures and facilities in several instances, all of which have tended to increase the efficiency of our operations and improve the quality of our service.

GENERAL WEATHER SERVICE TO THE PUBLIC. Perhaps the most important phase of this service is the radio weather broadcast. . . .For a period of about two weeks in October, the radio station announcers, at our instigation, requested comments from the public concerning the style and adequacy of our broadcasts. Without exception the responses were favorable and in many cases quite complimentary. Although our people were doing a good job on the weather broadcasts it occurred to me that further improvement might be achieved if each person participating in the broadcasts could hear himself as others hear him. . . .Accordingly we asked the manager of the radio station to make recordings of several of the broadcasts. . .to bring to the attention of the broadcasters any faulty speech they might have acquired and to obtain expert criticism and advice from radio officials.

For several weeks we considered the problem of how to determine the coverage of our broadcasts before we hit upon the idea that our cooperative climatological observers provide an excellent field for the information we wanted. A brief letter was sent to each substation observer and the percentage of response was unexpectedly high. . . .

As a general rule we are able to handle all telephone calls for weather information without inconvenience; however, during periods of bad weather we are "swamped" with calls despite the broad dissemination given forecasts and weather information by the local radio stations. The only logical way to lighten the telephone load in such instances is by information broadcast by radio, and we are taking advantage of every opportunity to educate the public along these lines.

CLIMATOLOGICAL SERVICE. The climatological work at this station is under. . .capable leadership. . . .The substation reporting network is functioning smoothly except for the usual difficulties experienced in. . .getting good observers in isolated localities. It is my intention to visit as many substations

this spring as practicable with the travel funds available. . . .A great deal of. . . time is required to answer numerous requests for weather data. . . .A good portion of these inquiries can be answered by simply mailing them a printed publication but many of them call for individual letters and in some cases special tabulations are necessary. We are making a study of the kinds of requests received most often with a view toward developing methods of handling them more effectively and with less demand on our limited manpower.

RIVER DISTRICT CENTER WORK. The river district work intrigues me particularly; perhaps because it is relatively new to me. I have made considerable progress in familiarizing myself with the problems involved. Arrangements are in effect to have at least two employees in addition to myself fully trained and familiar with the procedures and techniques for preparing forecasts of expected river stages and flood warnings.

AIRWAY FORECASTING. The airway forecast program at this station is well organized and operating smoothly under the established policy for this type of service. . . .

The responsibility for our pilot briefing service is divided between the Airway Forecast Unit and the FAWS Unit. We would prefer that FAWS handle the major portion of this work but that unit is on the second floor of the airport administration building and many pilots are reluctant to walk up a flight of stairs for weather information. We have signs directing pilots upstairs for briefing but rather than insist that they get their weather information from FAWS and perhaps discourage their making use of our flight assistance service we try to take care of their requests in the Airway Forecast Unit. . . .

FAWS (Flight Advisory Weather Service). The . . .control area served by our FAWS Unit enjoys a great deal of good weather and for this reason. . . a considerable amount of chart work is assigned to FAWS, which has improved the overall efficiency of our office. The chart work is distributed quite equitably and there is little duplication of effort. When the weather is bad the FAWS Unit is extremely busy and it becomes necessary to relieve them of some of the assigned chart work. If the physical layout of our quarters would permit, I would be inclined to recommend consolidation of the Airway Forecast and FAWS Unit because I believe we could render perhaps a more effective service with a saving of manpower. . . .Just recently we have instituted a training program for FAWS personnel. Each week one FAWS man receives four days training in airway forecasting. After a few months each FAWS man should be fairly well qualified to relieve an airway forecaster. . . .Since the inauguration of FAWS several years ago I have felt that FAWS men were potential candidates for airway forecasting and I have been a strong advocate of training these men in airway forecasting at every opportunity.

OBSERVATIONS. . . .I am insisting that each observer receive complete RAOB training and if we find anyone who cannot become proficient in the work after a reasonable period of training I shall recommend his transfer to a station where RAOBS are not made. Although it may be possible to maintain a record comparatively free of RAOB errors by utilizing only two or three of the best qualified observers in that work, I feel that we would be severely handicapped if each observer were not experienced in every phase of observational work at this station.

MISCELLANEOUS ITEMS. A careful study of our telephone setup revealed the possibility of making a few slight revisions and effecting a saving of more than $7.00 a month without adversely affecting our operations. The changes were made recently after receipt of Regional Office approval.

HYDROLOGIC SERVICES MAKE ADVANCES

THE old River and Flood Division moved progressively through the Office of Hydrologic Director and, in 1946, into the new Division of Climatological and Hydrologic Services headed by Merrill Bernard. Since then the hydrologic program of the Bureau has received more emphasis than ever before. The Hydrologic Branch of the C&HS Division, under Ray K. Linsley, now gives technical and administrative direction to the river and flood forecasting service, and performs liaison with, and service to other agencies engaged in hydrologic work.

The river and flood forecasting service is conducted principally through 85 river district offices, 6 river forecast centers and 1 water supply forecast unit. Twenty-seven of the district offices are served by forecast centers, but over much of the country, the entire forecasting responsibility is still in the river district offices. First of the river forecast centers, Cincinnati, was established in the fall of 1946, to be followed only a few days later by the Kansas City RFC. At St. Louis and Tulsa, RFC's went into operation late in 1947. Harrisburg was established a short time later. At Portland, Oreg., a water supply forecast unit has been in operation for about two years, but early in 1950 a full river forecast center went into action. A two-man water supply forecast unit established at Salt Lake City in 1947 continues to operate.

Representing the C&HS Division in the field are the Area Hydrologic Engineers. These men act in an advisory capacity to the river district offices, river forecast centers and section centers on matters falling within the scope of the hydroclimatic and the river and flood programs. They maintain liaison with field offices of cooperating agencies such as the Corps of Engineers, Bureau of Reclamation, Geological Survey, etc. They also represent the Bureau on field interagency committees, carry out or direct the operation of specific projects, investigate and recommend action on field problems, and serve as liaison between the Central Office and field stations on technical matters relating to hydrologic problems.

The administrative work involved in the management of the river and flood forecasting service is carried on by the River Services Section. This section also serves as a clearing house for current information on river and flood conditions over the country. It analyzes weather and river conditions each day and prepares a daily river bulletin and a 24-hour precipitation map for information within the Central Office and for distribution to other Federal agencies in Washington. In addition to current information, records of river stages for about 1000 river gaging stations are collected for processing and publication, and evaporation records for 300 evaporation stations are summarized.

Most of the section's work is in the nature of continuing projects, such as: the preparation and distribution of daily 24-hour precipitation maps; preparation of flood history and forecast tabulation sheets; annual publication of daily river stages for about 700 river stations; preparation of monthly flood reports; organization and operation of flood emergency amateur radio networks; and the establishment and operation of headwater warning projects. The section also serves as a river district office for the Potomac and Rappahannock River Basins.

Studies directed toward improvement of river and water supply forecasting techniques are the primary concern of the Procedures Development Section. Methods are first derived in the section and then submitted to the river forecast centers where integrated sets of procedures are prepared for their respective areas of responsibility. Typical projects include the development of methods for forecasting snowmelt in both mountainous terrain and in plains areas; application of 30-day forecasts to estimation of water supplies; developing an improved index of moisture conditions; verification of river forecasts; preparation of water supply forecasts based on both precipitation and snow-survey data; seasonal forecasting of minimum flow; and revision of water supply normals. In cooperation with the Instrument Division, the section also devotes a limited amount of time to the design and improvement of hydrologic instruments. Recently developed, or now being considered, are an electronic flood routing machine, pressure type river gage, radio rain gage, evaporation station equipment, soil-moisture and temperature equipment, and a standpipe storage precipitation gage.

The second primary function of the Hydrologic Branch is to provide hydrometeorological research service to other agencies engaged in hydrologic work. Service to the Corps of Engineers is the responsibility of the Hydrometeorological Section, while service to the Bureau of Reclamation is a function of the Cooperative Studies Section.

Projects under way by the Hydrometeorological Section include: Studies of storm rainfall in the United States; preliminary estimates of storm rainfall for urgent or unexpected needs of the Engineers; generalized charts depicting the regional distribution of maximum possible precipitation for areas up to 500 square miles and durations up to 48 hours; a study of hurricane winds over Lake Okeechobee, Fla., and tabulation and publication of world-record point-rainfall values.

The Cooperative Studies Section was organized in 1945 to make hydrometeorological studies for the Bureau of Reclamation, which transfers funds for a portion of its maintenance. Its objectives are similar to those of the Hydrometeorological Section -- to determine the optimum meteorological conditions

for maximum possible runoff. However, whereas the former is generally concerned with studies for relatively large basins east of the Continental Divide, the Cooperative Studies Section specializes mostly in small basins, often under 500 square miles, in the mountanious region west of the Divide. Since its organization, the section has completed 10 basin reports covering studies for 19 basins. In the past two years the section has been devoting much time to research for improving old and developing new hydrometeorological techniques. A series of 14 isohyetal plotting maps is being completed, giving the location of most of the precipitation stations over the western half of the United States. Other problems being studied include that of synthesizing storms for small basins, the determination of optimum meteorological conditions for maximum possible flood in the Upper Snake River drainage area, and analysis of the depth-area-duration relations of storm precipitation in the western U. S.

FOX REPLACES PIERCE AT BILLINGS

TO TAKE the place of L. T. Pierce, who is to be in charge at WBO Columbus, Ohio, Roy L. Fox will be transferred from his position as OIC at WBAS Anchorage to be in charge at Billings. A native of Kansas, born at Perth in 1909, Mr. Fox attended school in the State, graduated from Kansas State College in 1931 and taught science in Kansas high schools from 1931 to 1938. In 1937 he received his M.S. degree from the University of Michigan. He was appointed junior observer at WBO Topeka in October 1938 and remained there until August 1939. A transfer took him to Tulsa, but he returned to Topeka in February 1940. From May 1941 to August 1943, Mr. Fox was assigned to WBAS Atlanta, and then was an instructor at the University of Chicago for a couple of months before being assigned to the university as a Bureau scholarship student for the 1943-44 academic year. Upon completion of his meteorological study at the university he was transferred to Anchorage as an airway forecaster in July 1944. He was promoted to OIC in June 1948.

Billings is a combined city office and airport station. It is both a district and airway forecast center, as well as river district center for the Yellowstone River Basin. Service rendered is mostly to aviation and the general public; the service area population is approximately 75,000. The station also serves agriculture, livestock raising, minor industries and several Government agencies. Sugar beet raisers require special attention during planting, thinning and harvesting time. Fire-weather forecasts are prepared in season, and small-craft warnings are issued in summer for the Fort Peck reservoir.

HOLLADAY HEADS UP NORTH PLATTE

RETURNING to duty in this country after three years in Manila as chief of the Operations Section of the Philippine Rehabilitation Program, G. Cleveland Holladay has been assigned as OIC at North Platte, Nebr. He replaces Marvin D. Magnuson, principal assistant at WBO Des Moines, who has been temporarily in charge since the death of Frank T. Henley in December.

Mr. Holladay was born in Weakley County, Tenn., 35 years ago. After graduating from Murray State Teachers College at Murray, Ky., he taught mathematics in the Harlan, Ky., junior high school from March 1937 to December 1938. He joined the Weather Bureau as a junior observer at Louisville in the latter month, and served at that station until July 1941. Following this he attended the Massachusetts Institute of Technology for 6 months, studying meteorology under the Civilian Pilot Training Program. In March 1942 he was assigned to the Central Office, then went on military leave in September to join the Air Corps. Returning to the Bureau in February 1946, he was made first assistant at Chattanooga. In January 1947 he was transferred to the Atlanta Regional Office for service as a liaison official, but in May transferred to Manila with the Philippine Rehabilitation Program.

WBO North Platte is a consolidated city office and airport station serving a local population of about 18,000. Major occupations in the area are agriculture and livestock raising. Aviation service is furnished not only to airlines but to considerable numbers of private flyers. Other forms of transportation, public utilities, and the general public are likewise served by the station.

TORNADO SAFETY INFORMATION PUBLISHED

THE April issue of DISASTER, a magazine published by the American National Red Cross, contains information on tornado characteristics, tornado safety rules and a description of how to construct a tornado cellar. A copy of the magazine has been mailed to each first-order station and each regional office for use in answering questions from the public. Additional copies may be secured from the Supply and Publications Unit of the Central Office which has a limited supply.

Since the Red Cross has advised all local chapters to include public instruction about tornado safety precautions in their preparedness plans, a number of local Weather Bureau officials have enlisted Red Cross aid in an educational program to avert public confusion during periods of tornado alerts or rumors.

EFFICIENCY RATING OPINION SURVEYED

SUPERVISORS and employees of the Department of Commerce in the Washington, D. C., area were asked in the summer of 1949 for their frank opinions, given anonymously, of the adequacy and value of the "Uniform Employee Efficiency Rating System" used generally throughout the federal service. In a survey by the Office of Personnel Administration, questionnaires were distributed in the Washington area to all Commerce Department supervisors of three or more employees and to a representative sampling of employees. Requested were not only opinions on the present efficiency rating system, but also information for the development of an improved system.

Results of the survey have now been issued by the Office of Personnel Administration. The fundamental finding was confirmation of the common belief that there is general dissatisfaction with the present system by both supervisors and employees. The survey also revealed a striking degree of unanimity by supervisors and employees alike in favor of a simpler system.

More than 95 percent of the supervisors and over 94 percent of the employees considered an efficiency rating system to be of practical value. Ninety-two percent of the supervisors and 80 percent of the employees considered the present system unsatisfactory or only partially satisfactory. Eighty-two percent of the supervisors and 63 percent of the employees indicated that they thought the present system should be simplified. Sixty-six percent of the supervisors and 50 percent of the employees did not like the 5 adjective ratings (unsatisfactory, fair, good, very good, excellent) used on the present form, preferring a simplified system with fewer adjectives. Seventy-one percent of the supervisors and about 60 percent of the employees thought periodic ratings should be made annually. The supervisors were about equally divided on whether rating notices to employees should be detailed or should consist solely of an overall adjective rating. A majority of the employees felt that the rating notice should be in detail. Half of the supervisors and a majority of the employees favored efficiency rating interviews between employees and their supervisors. A large majority of both supervisors and employees believed that effiency ratings should be considered in connection with promotions, demotions, reduction-in-force, within-grade salary advancements, reassignments and efficiency. Sixty-eight percent of the supervisors felt that 31 rating elements on the present form should be reduced in number. Non-supervisory employees were not asked this question.

As reflected in this study, the opinions of supervisors and employees as to the characteristics of a revised efficiency rating system are as follows: It should be simpler than the

present Federal Uniform Efficiency Rating System. Fewer than the five final rating adjectives now included on the form should be used. Fewer than the 31 appraisal elements listed on the present form should be used. Periodic ratings should be on an annual basis. Employees should receive written notices of their ratings. Supervisors should discuss the ratings with their employees. The rating notice to employees should be of a detailed nature. Ratings should be considered in connection with promotions, demotions, reduction-in-force, within-grade salary advancements, reassignments and efficiency.

The results of this survey are expected to be given consideration in connection with efforts by the Civil Service Commission to improve the present efficiency rating system.

IMPROVING COOP INSTRUMENT EXPOSURES

AS PART of the Bureau's plan for improving the quality of data obtained from cooperative stations, hydroclimatic inspectors have been assigned to designated areas of activity, usually with headquarters at a section center. They will work closely with the section director to improve the quality of data obtained from precipitation and temperature reporting stations. In addition to installing and maintaining instruments and equipment, and instructing observers in observational techniques during periodic visits, the inspector's job includes noting the exposure of instruments and, where necessary, moving equipment to a more acceptable site.

Examination of the exposure of instruments at such stations has been found to be especially important, since the growth of vegetation, trees and shrubs, as well as man-made alterations in the environment of the station, may change an excellent exposure to an unsatisfactory one in a relatively short time. A summer's growth may shield instruments enough to affect adversely the accuracy of temperature and rainfall measurements. However, most environmental changes affecting the quality of observations take place so gradually that the observer may not be aware of them.

Because of the convenience of the present installation, or for other reasons, cooperative observers are sometimes reluctant to permit a change in the location of a shelter or gage. One way of convincing a reluctant observer to move the shelter has been to utilize a spare thermometer to show temperatures in a good location. Occasionally it may be necessary to install another set of equipment at a convenient location where the exposure is good, permitting the observer to note the difference in measurements. In this way he may convince himself that it is a waste of time to record inaccurate data from the old location.

PIERCE FOR MINDLING AT COLUMBUS

UPON retirement of George W. Mindling on April 30, WBO Columbus, Ohio, has been placed in charge of Leland T. Pierce, former OIC at Billings. Mr. Pierce will not actually take over the office, however, until he has completed the summer course in climatology being given at the Massachusetts Institute of Technology (see February TOPICS). He has been granted a Weather Bureau scholarship for this course, and will not be on duty at Columbus until late in the summer. In the meantime, Albert V. Carlin, head of the Central Office Training Section, is Acting OIC of the station.

Mr. Mindling, who completed nearly 42 years in the Bureau, was born in Waterford, Ohio, in 1882. He grew up in Ohio and was graduated from Marietta College. He was appointed observer at Ithaca, N.Y., in 1907 and served there until 1916. His next assignment was as first assistant at Philadelphia from 1916 to 1924. In February 1924 he resigned to start his own multigraphing business. When this venture was not successful he returned to the Bureau in January 1925 and was placed in charge of Winnemucca, Nev. The following November he was transferred to Portland, Me., in charge. From April 1929 to September 1932 Mr. Mindling was first assistant at Boston. After that he was OIC at Atlanta until January 1942, the date he took charge at WBO Columbus. Considerable recognition, including a meritorious promotion, came to him following publication of his book, WEATHER HEADLINES IN OHIO, in 1944 by Ohio State University. Mr. Mindling's address upon retirement is 261 North Stanwood Road, Columbus 9, Ohio.

L. T. Pierce, succeeding Mr. Mindling as OIC, is a native of Pennsylvania and is 47 years old. He joined the Weather Bureau as a junior observer immediately after graduating from Cornell University in 1925 with a degree in Agriculture. His first assignment was at Madison, Wis., from June 1925 to May 1926. After a brief stay in Ithaca, N.Y., in the summer of 1926 he was transferred to Cleveland for a 4-year assignment. In 1930 he was detailed to the Central Office for forecast training, and then served at Chicago from March 1931 to February 1932. Following that he was OIC at Asheville until 1935. As the result of his fire-weather work at Asheville he became fire-weather project leader in the Central Office from July 1935 to August 1940. From this assignment he went to Kansas City as a district forecaster, and in October 1942 was transferred to Billings as OIC.

Columbus is a section center of above average importance and difficulty, in a state whose average annual farm receipts are about $450,000,000. Mr. Pierce will supervise approximately 120 cooperative observers. Columbus is also a river district

center for a district with an average annual flood damage of $100,000. The city office provides general weather service for Columbus and nearby areas, a population of about 400,000. Manufacturing, mercantile and transportation interests account for the bulk of the service, although specialized forecasts are prepared for contractors, utilities, shippers, agriculture and miscellaneous activities such as Ohio State University, the State Highway Patrol and the State Highway Department.

EXCHANGING JOBS IN THE FIELD

EXPENSES of transferring an employee from one station to another can be paid by the Bureau only if the transfer is justifiable for official reasons, not the convenience of the employee. Exchange of assignments by approved arrangement without expense to the Bureau, can be assisted through the use of TOPICS as a medium of information on specific opportunities and preferences.

Anyone desiring a transfer to another location under these conditions may now write to the Central Office, attention TOPICS Desk, requesting that a notice to this effect be placed in TOPICS. Information for the notice should include the employee's name, classification and grade, job title, present station, and desired station or area. Another employee interested in exchanging jobs may then correspond directly with the first employee. If both are willing to transfer without change in grade or salary and to pay their own travel and moving expenses, and if the supervisors involved have no objection, the Bureau will arrange the transfer. Application should be made through the official in charge to the regional office. The regional office will process the cases under its jurisdiction and forward the others to the Central Office for action.

Exchanges can be approved only when qualifications for job performance are acceptable with respect to the new assignment in each case.

NEW CIRCULAR "T" AVAILABLE

THE 10th Edition of Circular T, OCEAN STATION INSTRUCTIONS FOR METEOROLOGICAL PERSONNEL (SUPPLEMENTARY), has been issued to ocean stations. Copies were also forwarded to all regional offices, forecast centers and area training offices. Any other station desiring a copy of Circular T may obtain one upon request to the Central Office.

BUREAU WANTS FACTS ON RAINMAKING

RAINMAKING has been much in the news in recent months and the "attitude of the Weather Bureau" has on occasion been the subject of comment. However, actual Bureau policy on the question of artificial stimulation of precipitation is not always clear from the newspapers and magazine articles. In the following excerpt from a letter to Stephen J. Carney, Water Commissioner of New York, this policy is summarized by the Chief of Bureau.

The papers have described experiments you have under consideration and we are impressed by the importance you are placing on an engineering approach with an impartial evaluation of the results. The greatest difficulties we have found in getting the facts about artificial techniques for increasing the amount of rain or snow are the frequent absence of unbiased evidence,and the extravagant claims of success in rainmaking some of which are certainly without foundation. The commercial rainmaker often (and in some cases sincerely) believes that he has produced heavy rain by artificial methods when it is wholly the result of natural causes. He ignores that rain in equivalent amounts has occurred nearby at the same time outside the possible range of his dry ice or silver iodide and that at least the circumstantial evidence points to natural causes rather than artificial.

Our reluctance to accept doubtful claims has led rainmakers to conclude that the Bureau is opposed to experimentation and that we have closed minds as as to the possibilities. That conclusion is incorrect. The Bureau simply wants to get the facts. The 200 or more field tests we have made with dry ice and silver iodide in Ohio, Alabama and California show that the answer is not a simple one.

It appears to us that there are certain special weather situations where the use of artificial means would be worthwhile, but unless we can find ways to identify these cases reliably the public is likely to be misled into advancing large sums of hard cash for rain that would have occurred anyway from natural causes. We are very much interested in having the results of well-planned tests such as you are making to add to the evidence we now have and we hope you will let us have a copy of your conclusions when available. If our office can furnish cooperation in any way, please let us know.

OIC-INSPECTOR RELATIONS

MAKING selected first-order stations the headquarters of inspection personnel instead of regional offices has brought a number of questions as to the administrative relationship between inspectors and field officials.

When inspection personnel are at their headquarters station they are expected to observe regular office hours of duty unless the OIC has been advised of other approved arrangements. The OIC or station assistant is expected to be aware at all times of the inspector's daily schedule so that the time-and-attendance form can be prepared for transmittal to the Regional Office. When the inspector takes annual leave or compensatory time he will inform the OIC beforehand, and if sick he will notify the OIC at the earliest possible time.

When away from headquarters station the inspector will report promptly to the official in charge of the station where the inspection is to be made. Although inspection personnel work an 8-hour day, they do not necessarily have to schedule their work during the regular daytime hours, because certain aspects of the work can be pursued more advantageously in the evening or at night. The inspection schedule at a station will be worked out with the local OIC, however, so that the regional office or Central Office may reach the inspector if necessary, and the work program and staff at the station can be best adjusted to secure maximum benefit from the visit with a minimum dislocation of station routine.

METEOROLOGY SCHOLARSHIPS FOR 1950-51

EMPLOYEES interested in receiving professional meteorological training at a university during the 1950-51 academic year at Weather Bureau expense may now submit their applications for Bureau scholarships. Applications should be forwarded to the Central Office, attention Training Section, before July 1, 1950.

The training will be given at New York University beginning in September 1950 and ending in May 1951. If a successful candidate lives near another university which provides a full meteorological curriculm, he may elect to attend that institution. As in other years, the candidates will be transferred to the university at government expense. They will continue to receive their present salaries while on this assignment and their tuition will be paid by the Weather Bureau.

Only applications from personnel with permanent Civil Service status will be accepted. Applicants must have a least 60 semester hours of college credits, including a one-year course in general college physics (not a survey course) and college mathematics through differential and integral calculus.

The shortage of housing in New York is still acute, and applicants should not plan to take their families with them if they are selected for training there.

In making application it is important that information on all the following be given: (1) Name, age and station; (2) marital status and dependents; (3) availability (endorsement by official in charge and regional director is necessary); (4) scholastic qualifications; (5) reasons why you desire the meteorological training; and (6) your ambitions in the Weather Bureau. In addition, a complete college transcript must be furnished; if a copy is on file at the Central Office, that fact should be indicated.

MAGAR NOW OIC AT SACRAMENTO

LLOYD H. MAGAR, formerly a management analyst in the Plans and Program Management Office, has been selected as official in charge at WBO Sacramento. He replaces Arthur W. Johnson, also of P&PMO, who has been temporarily in charge of the station since Edgar H. Fletcher retired December 31.

Mr. Magar, who is 39, came into the Bureau as a junior observer at Lander, Wyo., in 1930. He was born and reared in Dodge City, Kans. In December 1934 he was transferred to Rock Springs, where he stayed until January 1940. This was followed by about a year at Billings. Then, since he was an officer in the Army Reserve, he was called to active duty with the Armored Forces at Fort Knox, Ky. Because of his Weather Bureau background he was soon transferred to the Air Corps for duty as a weather officer. In the AAF Weather Service he rose to be regional control officer of the Army's Fourth Weather Region, and later RCO of the Sixth Weather Region in Central and South America. He was discharged with the rank of colonel. Returning to the Weather Bureau, he accepted a position in the Station Operations Division. When P&PMO was organized in 1948 he was assigned to that office.

WBO Sacramento furnishes general weather service to an area population of 225,000, mostly for use of engineering interests, agriculture, transportation, utilities, courts and lawyers, and the general public. It is a river district center of outstanding importance and difficulty. Under its supervision are about 75 river and rainfall reporters taking observations in a drainage area which has an average annual flood damage of $2,400,000. A separate airport station is also under the general supervision of the WBO.

F. W. Reichelderfer

F. W. REICHELDERFER
Chief of Bureau.

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MANAGEMENT SURVEYS OF FIELD STATIONS

SYSTEMATIC reviews of Bureau operations are at the heart of the Weather Bureau's management improvement program. One type of review is the on-station survey made by an analyst from the Plans and Program Management Office, often accompanied by a field aide. Primarily the surveys are intended to provide a factual study of the relationship between available manpower and service requirements. Decisions based on these surveys are thus adapted to the individual station needs and limitations, as related to the broader program of the Bureau.

For its success the survey depends on cooperation between the analyst and every member of the station staff. Supervisors and OIC's in particular have responsibility for making periodic reviews of operations, but few have the time, the techniques or the detachment for the most effective analysis. These the analyst contributes, but he must depend upon the supervisors and the staff for intimate knowledge of the stations's day to day operations and local problems. Pooling such efforts leads to improvements helpful to the station, to the regional office, and to the Central Office. Recommendations for changes, arising from these efforts, are thus the result of group discussion—a joint product growing out of our mutual commitment to the proposition that changing conditions and demands require progressive review of staffing, program and operation. Such efforts are directed to the end that the most effective service organization will be maintained with the means at our disposal.

A management survey by a P&PMO analyst has two phases. In the first the analyst visits the field station, usually for about a week, to secure a complete picture of the operations conducted there. This is primarily a fact-finding activity although tentative conclusions and recommendations are reached as a rule in the final discussions at the station, before the analyst returns to the Central Office. The second phase of the survey takes place at the Central Office where the analyst summarizes all information collected, secures comments from project leaders concerned, and develops recommendations for final review and appropriate action.

A systematic procedure is used to obtain and analyze the facts about station management. The basic techniques for work simplification and work measurement studies have had long and effective application in government and industry, and these are applied in a form adapted to Weather Bureau operations, along the following lines.

First of all, each employee at the station is asked to prepare a "task list" showing every task and duty he performs, with the amount of time devoted to it during a specified period, usually a 40-hour work week. This is commonly produced ahead of the analyst's visit so that he need not waste time on arrival. After

explaining to supervisors the purpose and procedure of the survey, the analyst collects the task lists and prepares a "work distribution chart", showing the relation of the individual tasks of each employee to the total station program. This enables the analyst to get an overall view of the station work. The task lists are also used to discuss each employee's job with him; in this way obscure points are cleared up and additional information secured.

Other information about the operation of the station is developed from work schedules, tabulations of telephone calls and personal contacts with the public, conversation with representatives of major local interests, etc. By the end of the survey period this systematic approach has usually resulted in a number of tentative conclusions in the analyst's mind. These, together with the data collected, he discusses frankly with the OIC, but the analyst may not himself direct any changes in station program or practice. His role at the station is to do fact-finding and assist the local staff with information on Central Office point of view.

When the analyst returns to Washington he makes an intensive study of the work distribution chart and other data collected, and prepares a report containing his conclusions, recommendations and supporting facts. Copies of this report are forwarded to the Central Office program divisions concerned, and to the regional director, with request for comments. When fully coordinated, the report is submitted to the Chief of Bureau. Recommendations approved by the Chief of Bureau are embodied in a letter to the official in charge, with a request for his reaction to the proposals made. Where changes in station program, staffing or management result, the field official is expected to report at a later date as to whether the changes have effectively improved the operations of the station, or unforeseen difficulties call for further review and possible modification of the decision.

Each management survey is thus a cooperative enterprise, with every person affected having opportunity to present his ideas and have his interests considered. More than 25 field stations have been surveyed in this manner during the past two years, and others will be visited as available staff and travel funds permit. The ideal objective is to survey all stations periodically; meanwhile, stations are being chosen for survey as typical of a class or of a problem. Similar surveys are being made of organizational units in the Central Office.

Encouraging results in improvement of the Bureau's program make it quite clear that these techniques are taking us in the right direction.

WORLD FLIGHT RECEIVES SPECIAL SERVICE

WHEN Mr. and Mrs. R. E. Bixby made their round-the-world flight early in April in an attempt to better the existing speed record, the weather was of course a determining factor in their plans and in the flight itself. Forecast service required special coordination. The Weather Bureau furnished this service from San Francisco to Newark and Paris, and also on the final lap from Midway Island to San Francisco. Forecast service at other stops was provided by the French, Egyptian, Indian and Pakistanian Meteorological Services, and by the Air Weather Service of the U. S. Air Force.

Mr. and Mrs. Bixby first began checking weather for their flight at WBAS Los Angeles, late in March, and arrangements were made through the Central Office for service by other Weather Bureau offices concerned. By the end of the month, weather over the United States and over the North Atlantic appeared favorable, and the take-off was planned for April 1. On March 31, WBAS Los Angeles notified WBAS San Bruno that the Bixbys would leave from the San Francisco airport about dawn the next morning, and relayed a Newark-Paris forecast prepared by WBAS La Guardia Field.

The route forecast across the United States, and the folder for the Bixbys' use were prepared by C. L. Smalley, supervising airway forecaster at San Bruno, who arrived at the office at 0200 PST to work up the material. Using a final forecast from La Guardia for the sector 94°W to Newark, in addition to the current regional forecasts from Chicago, Kansas City, Denver and Salt Lake City, he made up a composite forecast for the route across the United States. The folder prepared consisted of a chart showing the location of surface fronts along the route, a chart of the winds at 25,000 feet, and a vertical cross-section of the weather along the route. Immediately prior to take-off, Mr. Smalley was taken to the hangar where the Bixbys were preparing their plane and briefed them on the weather. After the take-off a press release was given to the newspapers concerning the weather expected for the flight and the Weather Bureau's part in rendering forecast service.

The flight to New York went much as expected and was completed within 16 minutes of the estimated time. A route forecast of the Newark-Paris leg was prepared by the IAFS Unit at WBAS La Guardia and sent to Newark by facsimile. The Bixbys were given a folder consisting of surface and 300mb. prognostic charts, a vertical cross-section, and terminal forecasts. The French Meteorological Service was requested by the Chief of Bureau to furnish a flight forecast for the flyers from Paris to Cairo.

The Bixbys made their flights to Paris, Cairo, Karachi and Calcutta on schedule, but out of Calcutta their converted British "Mosquito" bomber developed engine trouble and they were forced to turn back, thus abandoning their attempt to set a record. They continued their flight, however, and on April 12 the IAFS Unit at WBAS San Bruno prepared a route forecast from Midway Island to San Francisco. A great circle route passing near the weather ship OBOE (40°N, 142°W) was recommended by the Unit, and the flyers followed this route, landing at San Francisco airport at 0350 PST, April 13.

REED AND YOUNG ON SPECIAL PROJECTS

IN A move designed to utilize the talents of Bureau employees with outstanding qualifications of background and experience for an attack on forecast service problems, T. R. Reed and Floyd D. Young have been assigned as staff consultants for special field projects.

In recent years the specialization of forecasting services has brought out new demands and opportunities which the Bureau is not fully prepared to meet. Moreover, the coordination of specialized weather forecasts (for aviation and specific localized application) with the general forecasts disseminated by press, radio and other channels, has become more difficult as these forecast programs require action by separate offices with responsibilities that overlap in the areas served.

These problems have been studied by field officials and Central Office project leaders. Many suggestions and recommendations for improvement have been put forth. But because the proposed solutions seldom agree, and in fact often raise new issues as we try to adapt them to existing service requirements and limitations, it has become obvious that further study is required before solutions can be reached for application on a broad scale.

Such questions are closely related to Weather Bureau field services in general. Because of their importance in future program planning, these problems must have the attention of men with long practical experience in the Bureau and broad background in service and administrative activities. For some time the Central Office has hoped that officials with such background and experience would be available to give special attention to problems of coordination of field forecasting services. It has now become possible to take specific steps in this direction through assignment of Mr. Reed as staff consultant for Eastern Forecast Developments, with offices at Atlanta, and Mr. Young in similar capacity for Western Special Projects with offices at Los Angeles and Pomona.

These officials have had long experience as leaders in weather forecasting and public service activities, and have had close contact with many field stations in the regions where they have been directors for several years. This gives them outstanding qualifications to assist with study and analysis looking to further improvements in the coordination and extension of special weather forecasting projects. Further information on the activities of their offices will be presented in future issues of TOPICS, the FORECASTERS' FORUM and other media as specific proposals are developed.

LINDLEY NEW OIC AT ANCHORAGE

SELECTED to suceed Roy L. Fox as official in charge at WBAS Anchorage, William L. Lindley is being reassigned from his post as OIC at Fairbanks. He has been in charge at Fairbanks since February 1948.

Born in Nebraska 34 years ago, Mr. Lindley is a graduate of the South Dakota School of Mines with a degree in mining engineering. He received this degree in 1940, then, after a few months of mining work was accepted in October of that year for graduate training in meteorology under the Weather Bureau-CAA training program. Completing his meteorological studies at the University of California at Los Angeles in June 1941, he was shortly thereafter commissioned by the Navy as an aerological officer. During his Navy years he spent considerable time in Alaska, at Kodiak, Dutch Harbor, Chirikof and Amchitka. When he was released from the Navy early in 1946 he was appointed to the Weather Bureau as an airway forecaster at Burbank airport station, and then in March 1946 transferred to Juneau, Alaska. In February 1948 he was transferred to Fairbanks and promoted to official in charge.

WBAS Anchorage is an airway and district forecast center, serving an area population of about 25,000 people with aviation, marine, fire-weather and general weather forecasts. Among its "customers" are farming and truck interests; construction and engineering interests; fishing and shipping interests; commercial airlines; charter and private pilots; Alaska Highway Commission; Alaska Fire Control agency; Alaska Railroad; CAA; two local daily newspapers and three local radio stations.

STOWELL TAKES OVER AT FAIRBANKS

DAVID J. STOWELL, airway forecaster at WBAS Los Angeles, has been selected to replace William B. Lindley as official in charge and supervising forecaster at WBO Fairbanks.

Mr. Stowell has been with the Bureau since 1938, except for

service with the Army Air Force during the war. Born and reared in Spokane, Wash., he attended high school there, followed by three years at Whitworth College in the city. After graduating from the University of Washington in 1937 he took additional work at Washington State College and then joined the Weather Bureau as a junior observer at Spokane in December 1938. Mr. Stowell was stationed at Spokane until called to active duty with the Army in 1942. He received graduate training in meteorology at the University of California at Los Angeles in 1943 and then served at several stations in the United States before being transferred to Alaska where he was in charge of the Air Forces Base Weather Station at Adak in the Aleutians. Returning to the Weather Bureau upon release from the Air Force in 1946, he was assigned as airway forecaster at WBAS Burbank. When the forecast center was moved from Burbank to Los Angeles in 1947 he accompanied it.

WBO Fairbanks is both an airway forecast center and a district forecast center, serving an area population of approximately 20,000. It provides forecast service for airlines and private flyers; mining interests; Alaska Railroad; Alaska Highway Commission; Navy and Air Force projects; University of Alaska; the city engineer; and the general public through two radio stations and one daily newspaper.

STATIONS TO GET PERSONNEL ROSTER

TWICE each year, as of January 1 and July 1, the Personnel Division of the Central Office prepares and publishes a roster of all Bureau personnel, showing the name, grade and place of assignment for each employee. Heretofore, this roster has been distributed only within the Central Office and the regional offices. The widely expressed desire of employees for information on the location of other employees has led to decision to send the PERSONNEL ROSTER to all first-order stations, beginning with the July issue, which will be available some time in August.

OBSERVER-BRIEFER GIVEN AWARD

DELANCE O. MARTIN, observer-briefer at WBO Burbank, has been awarded $15 for his suggestion that stations which relay reports from other stations to Service "C" collections always begin the transmission with their own report. The Bureau has adopted the suggestion and the CAA has changed its teletype instructions to provide for this procedure. Adoption of the suggestion is expected to help eliminate the plotting of weather reports at wrong locations on the map.

FROST PROTECTION WITH WATER

EFFECTIVE fruit-frost forecasts by the Weather Bureau permit growers to protect crops against damage by low temperatures. Most fruit farmers use orchard heaters or wind machines for this purpose. Floyd D. Young reports, however, following a recent trip through the Salt River Valley of Arizona, that one leading grower this past winter has successfully used an unusual but effective method of protecting his citrus crop where other means had failed. Extracts from Mr. Young's report follow:

On (April 12) I visited many of the citrus districts in the Salt River Valley in company with Colonel Dale Bumstead, the owner of the largest and most successful citrus property in Arizona. Stops were made at citrus packing houses en route, to discuss frost damage with marketing personnel. Damage caused by the freezes of the winter 1949-50 was uniformly heavy throughout the valley. Very little fruit was saved, and defoliation of orange, lemon and grapefruit trees was general. On this morning's trip not one citrus tree was seen that did not show heavy defoliation.

In the afternoon I visited Colonel Bumstead's and adjoining citrus properties in the vicinity of Peoria, Arizona. Last November Colonel Bumstead had called on the writer at Pomona and had asked specific and detailed advice regarding action to be taken to protect his 150 acres of grapefruits and oranges from frost damage. Water pumped from wells on the property has a temperature of 76 to 84 degrees. We determined the number of heat units made available in cooling this water down to 32° and freezing a portion of it and decided an additional water supply would be necessary in order to afford complete protection from the severest freezes which had ever been recorded in the valley. Colonel Bumstead was informed that running water in ordinary irrigation furrows would be ineffective; that it would be necessary to create wide, flat furrows so that the greatest possible water surface could be exposed to the air.

The December and January freezes arrived before a new well could be completed, but all other recommendations had been adopted. Wide, shallow furrows made it possible to cover about 85% of the total soil area with water. Run-off from neighboring groves farther up the slope was gathered and used and water run-off from the lower end of the Bumstead property was reclaimed and used again. Running water was started in the Bumstead groves about four hours before the temperature reached the danger point. Practically all other growers in the vicinity waited until the temperature had fallen to the danger point before starting their water.

Although the temperature reached 19° outside the irrigated area, the loss of fruit from frost damage in the Bumstead property was only about 12%, and most of this damaged fruit was sold to the juice canneries. There was no foliage or tree damage, in fact the trees on the Bumstead ranch looked better than I have ever seen, including those in Florida and Texas. The crop of fruit without a trace of damage is estimated at 40,000 boxes, for which a price of from $3.00 to $3.50 per box, f.o.b. is being received. Protective measures on this property saved approximately $125,000.

Freeze conditions, said to be the most severe on record in the valley, lasted three nights. Including frosty nights of less severity, water was run on twelve nights during the season. 8,500 gallons of water per minute was available last winter from all the wells on the property. The new well has since been completed, making 12,000 gallons per minute now available from all sources for combating future freezes. On higher ground about 200 acres of young lemon trees under another ownership were destroyed by the freeze.

Mr. Young also visited all the orchards in the valley equipped with either orchard heaters or wind machines. He reports that in this freeze wind machines proved of no value, and even the groves equipped with orchard heaters lost all their fruit and suffered heavy tree damage. A few groves in the valley can be protected by water as was done by Colonel Bumstead, Mr. Young says, but unfortunately most ranchers do not have the quantity of water necessary to protect their crops.

JOB EXCHANGES DESIRED

IN RESPONSE to the announcement in May TOPICS (page 73) that this publication may now be used as a medium of information by employees wishing to exchange jobs without cost of the Bureau, three requests have been received.

Nielo K. Lampi, GS-7 meteorologist, flight briefing officer at Willow Run Air Terminal, WBAS Ypsilanti, Mich., desires a transfer to Minnesota, Upper Michigan, Iowa, Wisconsin, Eastern North Dakota, or Eastern South Dakota.

George R. Sanderson, GS-7 meteorologist, professional assistant at WBO Fargo, N. Dak., would like a transfer to an airport station in Region I, with first preference for a city with an Air National Guard Squadron. He says that the 178th Fighter Squadron, Air National Guard, at Fargo has a vacancy for one lieutenant weather officer at this time.

Leland F. Vandecar, GS-6 meteorological aid, observational supervisor at Willow Run Air Terminal, WBAS Ypsilanti, Mich., wishes a transfer to the coastal or central region of Southern California.

Anyone interested in exchanging jobs with these employees should correspond directly with them. If the exchange is mutually satisfactory and can be carried out under the conditions outlined in the May TOPICS article, application for transfer should then be made through prescribed channels.

NEW EDITION CIRCULAR "O" NOW OUT

THE 4th edition, Circular "O," MANUAL OF WINDS-ALOFT OBSERVATIONS (WBAN), has now been published and distributed. This manual will be effective July 1, 1950, and supersedes all outstanding instructions concerning winds-aloft observations. Two copies are being furnished to each pibal station. A single copy is being sent to each non-pibal first-order station, and to each field aide. If the new manual is not received before the effective date, the appropriate number of copies may be requested from the Supply and Publications Unit of the Central Office.

NEW SECURITY LEGISLATON PASSED

AN ACT "to enhance further the security of the United States by preventing disclosures of information concerning the cryptographic systems and the communication intelligence activities of the United States" has been enacted by Congress and approved by the President. This Act (Public Law 513, 81st Congress, approved May 13, 1950) is of concern to all Weather Bureau personnel. It provides, in part, as follows:

> That whoever shall knowingly and willfully communicate, furnish, transmit, or otherwise make available to an unauthorized person, or publish, or use in any manner prejudicial to the safety or interest of the United States or for the benefit of any foreign government to the detriment of the United States any classified information (1) concerning the nature, preparation, or use of any code, cipher, or cryptographic system of the United States or any foreign government; or (2) concerning the design, construction, use, maintenance, or repair of any device, apparatus, or appliance used or prepared or planned for use by the United States or any foreign government for cryptographic or communication intelligence purposes; or (3) concerning the communication intelligence activities of the United States or any foreign government; or (4) obtained by the processes of communication intelligence from the communications of any foreign government knowing the same to have been obtained by such processes, shall be fined not more than $10,000 or imprisoned not more than ten years, or both.

("Communication intelligence" is defined in the Act as "all procedures and methods used in the interception of communications and the obtaining of information from such communications by other than the intended recipients.")

TECHNICAL PUBLICATIONS DISTRIBUTED

IN RECENT weeks a number of technical publications have been distributed to field offices. These include:

"Tentative Normal Diurnal Height Change of the 700-mb. Surface over the United States and Adjacent Areas," by Sidney Teweles, Jr., reprinted from MONTHLY WEATHER REVIEW, June 1949. Mailed to forecast offices.

"Texas-West Gulf Cyclones," by Walter J. Saucier, reprinted from MONTHLY WEATHER REVIEW, August 1949. Mailed to forecast offices.

THE DEVELOPMENT OF AN AIRBORNE RADAR METHOD OF AVOIDING SEVERE TURBULENCE AND HEAVY PRECIPITATION IN THE PRECIPITATION AREA OF THUNDERSTORMS AND LINE SQUALLS, American Airlines System, September 1949. Mailed to airways forecast offices.

"On Forecasting Winter Precipitation at Washington, D. C.," by R. R. Rapp, reprinted from MONTHLY WEATHER REVIEW, September 1949. Mailed to forecast offices.

"Objective Temperature Estimates from Mean Circulation Patterns," by Donald E. Martin and Walter G. Leight, reprinted from MONTHLY WEATHER REVIEW, October 1949.

"Persistency of Rain and No-Rain Periods during the Winter at San Francisco," by Donald L. Jorgensen, reprinted from MONTHLY WEATHER REVIEW, November 1949.

"Further Studies in Hawaiian Precipitation," by Samuel B. Solot, Weather Bureau RESEARCH PAPER NO. 32, Washington, D. C., January 1950.

MADISON METEOROLOGIST IS HEALTHY, TOO

SPEAKING of good health, as we did when we mentioned the healthful climate of Keflavik in our April issue, Lothar A. Joos, OIC at WBO Madison, believes that his professional assistant, Rupert J. Batz, holds something of a record for enduring good health,too.

Mr. Batz, who is 59, completed 20 years of service June 10, all of it at the Madison city office. During this entire 20 years, according to Mr. Joos, Mr. Batz has never missed a day, or even an hour, of duty because of sickness or ill health. A veteran of World War I, he is an ardent conservationist and is very fond of outdoor sports. Hunting is his specialty, and he is now planning his third annual hunting trip to The Pas,Manitoba, in September, for an early season on wild ducks and geese.

JAKL COMPLETES 49 YEARS SERVICE

VINCENT E. JAKL retired May 31, bringing to a close 49 years of government service, 46 of which were with the Weather Bureau. Born in 1880 in Prague, he came to this country as a small boy with his parents, who settled in Omaha, Nebr. He grew up in that city, attended grade and high school there, and worked as a mail clerk with the Post Office from 1901 to 1904. The Weather Bureau enrolled him as an assistant observer at New Orleans in 1904. A year later he was returned to Omaha and was stationed there until 1907. From 1907 to 1911 he was at Huron, S. Dak.; this was followed by a brief stay at North Platte, Nebr., and then 3½ years at Escanaba, Mich.

In 1914 he was transferred from Escanaba to the kite station at Drexel, Nebr., and in 1917 was placed in charge of the Ellendale, N. Dak. kite station. A year later he returned to Drexel as OIC and remained there until 1923, followed by assignment at the Central Office for 3 years for special aerological studies. In 1926 he returned to the field at Chicago as field leader in the organization of a network of pibal stations along the Nation's airways.

At the end of this assignment he spent a year at Cleveland, followed by 5 years at Omaha as OIC of the Fort Crook airport station. Then, from 1933 to 1935, he was supervising airway forecaster at Kansas City, followed by similar assignment for six years at Chicago as OIC of the airport station. He was one of ten field supervisors for the Bureau's airway weather service at that time.

When the field regions were set up in 1941, Mr. Jakl was named regional director at the Chicago Regional Office, and continued in that position until the regional consolidation in 1949.

Since July 1949 he has been a consultant to the Chief of Bureau on problems of forecasting, field administration and organization. Mr. Jakl's address on retirement is 9904 South Damen Ave., Chicago 43, Ill.,

GITTINGS RETIRES AFTER 45 YEARS

COMPLETING 45 years of service with the Weather Bureau, Edwin B. Gittings, OIC at WBO Denver since 1937, retired May 31 at the age of 69. Mr. Gittings has spent most of his life in Colorado, a State which he has always loved. He was born at Monument, Colo., on January 3, 1881, grew up in Colorado Springs, and has been stationed at WBO Denver since 1914. In 1943, when for administrative reasons it was necessary to reallocate the position of official in charge at WBO Denver, Mr. Gittings preferred to remain in that city, of which he felt so much a part, rather than transfer elsewhere even at a higher grade.

Mr. Gittings began his long service with the Bureau in 1905 as an assistant observer at Tacoma. He served there until 1907, then returned to the Rocky Mountain area for a 2-year assignment at Cheyenne, Wyo. From 1909 to 1913 he was official in charge at the Yellowstone Park station. Then, following brief assignments at Omaha and Little Rock he was transferred to Denver in 1914. There he became first assistant, was promoted to professional grade in 1918, became assistant district forecaster in 1925, and then district forecaster and official in charge in 1937.

He was district forecaster for several years, but has not been actively engaged in forecasting during the latter years of his assignment.

His address upon retirement is 1356 Dexter Street, Denver, Colo.,

HURON SECTION DIRECTOR DIES

ROBERT V. LAWRENCE, section director at Huron S. Dak., died May 23 at St. Johns Hospital in Huron. Rheumatic fever with lobar pneumonia was the cause of death.

Mr. Lawrence was born in Royal Center, Ind., March 19, 1899. He grew up in that city and entered the Weather Bureau at the station there in 1918. Five years later he was transferred to the Central Office for a 2-year assignment and then returned to Royal Center in 1925. In 1929 he became first assistant at the Omaha airport station, and from 1933 to 1937 was official in charge there. From 1937 to 1942 he was supervising airway forecaster at WBAS Kansas City. When the Kansas City Regional Office was established he became executive assistant in 1942,

then later assistant regional director. Mr. Lawrence was placed in charge at Huron in May 1949. Additional information about Mr. Lawrence may be found in the August 1949 TOPICS.

OIC DIES AT CANTON, N. Y.

FOLLOWING an illness of several weeks, Hobert E. Heyer, OIC at Canton, N. Y., died May 10 at a hospital in Canton. He had remained on duty, although ill, until it was absolutely necessary for him to enter a hospital about two weeks before his death.

Mr. Heyer was born in Enosburg Falls, Vt., December 19, 1887. He attended the Enosburg Falls High School and graduated from Norwich University at Northfield, Vt., in 1909. After a year as a reporter for a Montpelier newspaper, he joined the Weather Bureau in May 1910 as assistant observer at the Central Office. In December of the same year he was transferred to Providence, R. I., serving there until 1923. From August 1923 to October 1929 he was OIC at Grand Haven, Mich. From Grand Haven he was transferred to his last assignment at Canton.

Since Mr. Heyer had completed 40 years of service with the Bureau just before his death, a 40-year length-of-service pin was presented to his widow, Mrs. Florence E. Heyer, as a posthumous award.

ALBUQUERQUE FAWS SUPERVISOR DIES

CLIFFORD G. WILSON, FAWS supervisor at Albuquerque since 1947, died May 13. He had been in poor health since 1948.

Mr. Wilson, who was 47 years old, joined the Bureau in 1930 as a junior observer at Louisville, Ky. His early years had been spent in Jeffersonville, Ind., where he was born and attended grade and high school. He attended the University of Louisville for a year, but graduated from Hanover College, Hanover, Ind., in 1925. The Weather Bureau assignment at Louisville lasted 3 years, following which he was first assistant at Nashville for 3 more. In November 1947 he was transferred to WBAS Fort Worth, and in December 1939 was made OIC at WBAS Little Rock. This assignment lasted until 1943 when he was transferred to WBAS San Antonio as a FAWS forecaster. He was made FAWS supervisor at Albuquerque in June 1947.

FORMER RAPID CITY OIC DIES

HARLEY N. JOHNSON, OIC at Rapid City, N. Dak., from 1914 to 1948, died April 22 in a hospital in Rapid City following a long illness. Mr. Johnson, who was 72 at the time of his death,

joined the Bureau in 1906 at Portland, Oreg., and his total service extended over more than 41 years. Before settling in Rapid City in 1914 to complete his career, Mr. Johnson served at Modena, Utah; LaCrosse, Wis.; and Dubuque, Iowa. One son, Leland H. Johnson, is now a Weather Bureau fruit-frost forecaster at Pomona, Calif. Additional information concerning Mr. Johnson may be found in the March 1948 and September 1949 TOPICS.

F. W. REICHELDERFER

Chief of Bureau.

WEATHER BUREAU

TOPICS

JULY
1950

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SUPERIOR ACCOMPLISHMENT RAISES FOR TWO

FOR superior accomplishment in carrying out their jobs two meteorologists have been awarded within-grade salary increases. Morris H. Frankel of the Scientific Services Division and Paul C. Kangieser of WBAS San Bruno have earned this recognition for carrying on their jobs in an outstanding manner, and making contributions to the efficiency and effectiveness of Bureau operations far beyond the normal requirements of their jobs.

Mr. Frankel, a meteorologist in the Meteorological Statistics Section, was officially commended and given the salary increase for his work in the development of machine tabulation methods. He was able to apply such methods to extended forecast and research projects and other phases of the Bureau's program. As the result of his initiative and ability to adapt tabulating equipment and non-standard procedures to special problems, the Bureau has been able to make a greater and more efficient use of available data for research. Procedures he has developed or assisted in developing have permitted a large number of special studies to be accomplished that could not otherwise be conducted so well.

Mr. Kangieser is a flight advisor in the FAWS Unit at San Bruno. Despite the heavy workload demands of his position, he has carried on several outside projects of his own initiative. The most outstanding one has been to design and construct a relief map of the topography of Central California as an aid to forecasting and flight-briefing in the San Francisco Bay area. Primary purposes of the relief model, which is estimated as being worth $5000 if purchased from a commercial map maker, is to provide aid for flight advisors in interpreting flight weather conditions, especially in connection with contact flights into and out of the mountain-rimmed Bay Region. It is also an aid to briefing flight controllers and pilots on these conditions. For his initiative Mr. Kangieser has been commended by the Chief of Bureau and awarded the salary increase.

A within-grade salary increase for superior accomplishment is considered to be the highest monetary award for outstanding service which can be made by the Department of Commerce. As a basic requirement for eligibility for such an award, one or both of the following conditions must apply: (1) Sustained work performance for 3 months or more of a very high degree of efficiency, a major contribution to the program of the Bureau and the Department, or a special service in the public interest substantially above normal position requirements; or (2) initiation and development of a very beneficial suggestion which increases the efficiency or effectiveness of the public service, for which the awards provided under the Employee Suggestion Program do not apply or are not deemed adequate.

IMPROVEMENTS SUGGESTED BY EMPLOYEES

SUGGESTIONS for improving Bureau operations, adopted by the Bureau, have resulted in commendations to seven employees in recent weeks, accompanied in some cases by cash awards.

A number of ideas concerning the use of a printed form for reporting communications toll expenditures were submitted by employees during the past year. In April a form was adopted and instructions issued to all stations concerning its use. Since Robert J. Ahrens, OIC at WBAS Milwaukee, was the first to send in an idea for the form, the Employee Awards Committee adjudged him eligible for the award. He received $15 in cash and was commended officially by the Chief of Bureau.

Modification of two other forms, WB Forms 1076 and 1076A, thermograph sheets, was suggested by Allen G. Braund, meteorological aid at Devils Lake, N. Dak. His idea, which has been adopted, was to print the zero line on these forms in a contrasting color or a heavier line of the same color to make it stand out from the other temperature lines. This is expected to result in more accurate comparison with readings of thermometers in the instrument shelter when temperatures are at or near zero. A reduction in errors in the computation of hourly temperatures from the thermograph sheets for transposition to the daily record form is also expected. For this suggestion Mr. Braund was commended by the Chief and given an award of $15.

Donald A. Bush, supervising observer at WBO Macon, Ga., proposed a method of checking dewpoint and humidity values which has been used successfully at Macon. The method was found to be unsuitable for general application by all stations, but a modification of it has been given to field aides for possible use in training observers where they feel it would be useful. Since the suggestion was not adopted generally, Mr. Bush could not be given a cash award. He was, however, commended in a letter from the Chief of Bureau for his interest and ingenuity in developing and proposing his idea.

James W. Decker, OIC at Block Island, R. I., suggested that addresses on WB Form 1001-C, "Station Meteorological Summary," be printed on the folded form itself, saving the cost of wrappers and the labor of wrapping. The suggestion has been adopted for use on those Forms 1001-C which are printed on only one side, and Mr. Decker has been awarded $25 and commended by the Chief of Bureau.

As the result of a suggestion by Curtis M. Eggers, supervising observer at Las Vegas, Nev., instructions for radiosonde observations now provide for a periodic check of the relation between the visual frequency of the electronic frequency unit and the radiosonde recorder. Such a check will detect "drift"

or change in readings and thus improve radiosonde observational procedure, particularly in cases of recorder failure. Mr. Eggers received $15 and a commendation from the Chief for his idea.

This is the second suggestion from Mr. Eggers to be adopted by the Weather Bureau. He was one of the first two employees to gain recognition in this way following the inauguration of the Employee Suggestion Program. An idea from him concerning on-station card punch procedure has saved the Bureau an estimated 3500 manhours annually.

Edwin J. Rebman, meteorological aid at WBO Spokane, is the author of a suggestion to pad the metal counterweights on the SCR 658 directional antenna with some kind of white material to prevent painful head bumps by observers. Difficulties in padding the counterweights has prevented the adoption of this part of the suggestion at this time, but they will be painted white, and this is expected to contribute to safety. Mr. Rebman was awarded $25 and commended by the Chief for his idea.

By shading data blocks "A" and "B" on adiabatic charts (WBAN Forms 31A and 31B) a light green, Roy J. Vickery, meteorological aid at WBAS Albany, N. Y., was able to facilitate the selection of data in coding the teletype message. This resulted in greater accuracy and a saving of time. The idea has been adopted by the Bureau, and in the latest reprinting of the adiabatic chart forms these blocks are colored. For his initiative and ingenuity, Mr. Vickery has been commended by the Chief of Bureau and awarded $15 in cash.

JOBS FOR EXCHANGE

EMPLOYEES desiring to exchange jobs at personal expense this month include one from the Central Office and two in Region I.

Miss Madeleine Christian, GS-4 clerk-stenographer-secretary in the Domestic Aviation Section, SR&F Division, Central Office, would like to transfer to either the San Francisco or Los Angeles area, with first preference San Francisco.

John K. Rhyne, Jr. GS-5 meteorological aid at WBAS Charleston, S.C., desires to be near his home in Mississippi, with preference for Little Rock or New Orleans.

Alfred J. Shaw, GS-7 FAWS forecaster at WBAS Cleveland, Ohio, will consider exchanging his job with a comparable one most anywhere.

Responses to these offers should be made directly to the employee concerned. If exchanges can be worked out in accorddance with the conditions set forth in the May TOPICS, formal application for transfers should be made through prescribed channels.

SUPERVISING OBSERVERS MEET

OBSERVATIONAL standardization conferences, attended by supervising observers from radiosonde stations throughout the United States, were held during the last two weeks of June at Pittsburgh and Denver. Purposes of the conferences were to: (1) Study means of maintaining high quality in observing programs through effective supervisory methods; (2) review specific technical problems for the purpose of standardizing observations; (3) discuss supervisory problems relating to general station management, such as station appearance, work distribution, etc.; and (4) study means of improving local effectiveness of area training activities, observation manuals, and checking station, field aide and electronics technician programs.

In addition to supervising observers, representatives from Instrument Division, SF&MO and P&PMO in the Central Office, and area training officers, field aides and electronics technicians from the field attended the conference. Subjects discussed included: Basic supervisory responsibilities and general considerations in supervision and training; supervisory responsibilities in surface and upper air observations; technical problems in surface observations, pibals and raobs; and the establishment of effective relationships between local observing programs and related activities and facilities such as area training, field aides, electronics technicians, etc.

BUREAU ACQUIRES NEW AIRPLANE

TO REPLACE its old "Norseman," which had become non-airworthy after several years use in Alaska, the Bureau has purchased a new all-metal, 5-passenger Cessna Model 190 airplane. This craft is equipped with modern instruments and radio air-navigation aids, including VHF radio equipment that permits navigation by reference to the new CAA "omni-range" type radio ranges.

The new airplane is being operated in a dual role. It is used for in-flight checking and on-station inspection of the domestic aviation weather service. It is also used for familiarization of personnel with the practical bearing of their day-to-day work on the safety and efficiency of flight operations.

Pilots of the aircraft are George Brewster of P&PMO and Carl Reber of the Domestic Aviation Section. Mr. Brewster pioneered for the Bureau in the use of an airplane to secure first-hand operational contacts for evaluation of the aviation weather service. He flew his own plane to do so. The results of his work were so impressive that this plan to procure and use a Bureau-owned plane has come to fruition.

EXPENSES FOR COURT TESTIMONY

IF A Weather Bureau employee is served with a subpoena requiring him to appear in court officially as an expert witness, he must do so in accordance with the laws of the State where he appears. If his testimony is in behalf of the United States Government he can be reimbursed for per diem and travel expenses. However, if he is subpoenaed on behalf of a private party in a court suit, the Comptroller General has ruled that recovery of such expenses "appear to be for adjustment between the employee and the party requesting the issuance of such subpoena." In consequence, employees are encouraged to urge parties desiring them to read the weather records in court to accept a certified copy of the records whenever possible in lieu of personal appearance.

The unfortunate experience of one field official is a case in point. Subpoenaed unexpectedly in a civil suit involving an automobile accident, this official was forced to appear in court two days in succession in order to read the weather record. Because of the location of the Weather Bureau airport station, and the unexpectedness of the subpoena, he found it necessary to spend $7.50 in taxi fares in order to testify. The lawyer issuing the subpoena refused to concern himself with these expenses.

Upon appeal to the judge trying the case, the Weather Bureau official was informed that the State law did not require payment of fees or expenses when the person subpoenaed lives in the county in which the case was tried. The ruling held that expert witnesses appearing in a civil suit must make arrangements for their expenses with the litigant desiring their services.

The employee then submitted a travel voucher to the Bureau, on the thesis that since he was appearing in court on official business as a representative of the Weather Bureau, the Government should pay his travel expenses. This voucher was turned down by the Comptroller General, who ruled that since the Weather Bureau had been deprived of the official's services during his appearance in court (since he appeared in behalf of a private party), his expenses could not be paid by the Weather Bureau. This decision was appealed by the Solicitor of the Department of Commerce, but the ruling was reaffirmed. It was pointed out that under present laws this was the only thing that could be done.

While such situations are relatively rare, employees should be on their guard. If at all possible, private litigants should be induced to accept a certified copy of the record. If the litigant refuses to do this, the position of the Weather Bureau employee should be pointed out in order that the litigant may arrange to cover expenses incurred in connection with testimony given in person.

LEGAL COUNSEL FOR BUREAU EMPLOYEES

UNITED States Attorneys have been authorized by the Department of Justice to represent Weather Bureau and other Government employees in civil suits or criminal prosecutions which result from the performance of their official duties. This policy is set forth in Department of Justice Circular 4122, dated May 11, 1950. excerpts of which are quoted here.

It has long been the general policy of the Department to afford counsel and representation to Government employees and servicemen who are sued civilly or charged with violation of local or state criminal laws as a result of the performance of their official duties. The amenability of the United States to suits for the torts of its employees and of members of the armed forces . . . is an additional reason for the continuation and effectuation of this policy. Therefore, in situations where time does not permit communication through Department heads in Washington, United States Attorneys may, upon the request of a local officer of a Federal agency, afford counsel and representation to Government employees and servicemen in such cases. . . .

In cases in which it is certain that no property damage, personal injury, or death resulted, such as minor traffic violations, the United States Attorneys may in their discretion decline to make court appearances on behalf of employees or servicemen, unless specifically authorized to do so by the Department. . . .

In cases where an appearance or answer date is sufficiently in the future and the circumstances permit of delay, the United States Attorney may advise the Federal officer requesting representation of an employee or serviceman to communicate the request through the usual channels. However, in all cases in which it appears likely that a tort suit will ultimately be brought against the United States on account of the occurrence involved, the United States Attorney should take steps to learn the pertinent facts and the names of witnesses as soon as he is advised of the occurrence. In cases where the employee or serviceman is being represented by a legal officer of the agency or military or naval establishment with which the individual is connected, the United States Attorney may cooperate with such legal officer to the end that the interests of the United States are properly protected.

More detailed instructions on what to do in case of civil suit or criminal prosecution of a Weather Bureau employee resulting from his official actions will be issued soon as a Manual chapter. In the meantime any such legal action should be taken to the nearest United States Attorney for advice and counsel.

APPEARANCE ON TELEVISION PROGRAMS

UP TO the present time the Bureau has not found it possible to use television as a direct means of service by Weather Bureau employees in a manner analogous to the wide-spread practices of direct radio broadcasting from Weather Bureau offices.

Numerous requests have been received from Bureau employees for permission to participate in television programs. Such requests have been denied except for experimental periods or occasions.

The problem of Bureau participation is made especially acute by the fact that television presentation, for the most part,

requires the careful preparation of specialized materials, and personal appearance at a television studio to put the material before the public. The potential time demands on limited Weather Bureau staffs, therefore, preclude general participation on this basis.

Within the limits of staff and time, the preparation of rough material for use by television station staff or private specialists has been authorized. Where facilities permit, the filming of material at stations, for later transmission from the television studio, has likewise been authorized.

Requests from employees to make appearances on television for weather programs on their own time, with or without compensation, have been denied. Such outside activities cannot be separated from the fact that the Weather Bureau and Weather Bureau employment are recognized as the official source of public forecasts and warnings; hence, it is impossible for the public to distinguish between the employee in private and public capacity when he disseminates weather information.

The experience of the Bureau to date indicates the best course is to furnish visual material for studio presentation by the television station itself. Should the development of television networks and the results of experiments now under way warrant the future presentation of weather programs for wide-spread dissemination from a specialized weather information center, such methods will be adopted when the television industry can make use of the service and the necessary manpower can be assigned to the job.

EMERGENCY SERVICE GIVEN PAA OPERATION

WHEN Pan American Airways took on the job of flying 5000 Puerto Rican agricultural workers from San Juan, P.R., to Saginaw, Mich., to meet a harvesting emergency there in June, they needed special weather forecast service in a hurry. The Weather Bureau sucessfully provided that service.

Chicago was asked by SR&F to prepare a terminal forecast for Saginaw from June 12 daily for about 10 days, for inclusion in a collective to be forwarded to San Juan. Washington National Airport was asked to prepare 12-hour route forecasts for the route Wilmington, N. C., to Saginaw, for transmission to San Juan every 6 hours. These were prepared and transmitted by WNAP 3 hours before the beginning of the respective forecast periods, but, because of transmission delays, San Juan did not receive them until 1½ hours after the beginning of the period. The forecasts used for briefing each flight from San Juan were therefore found to expire several hours before the end of the flight. An urgent call was made to Washington for improved service. As a result special advisory route forecasts were

issued by WNAP for transmission a full 8 hours before the beginning of the forecast period. This gave San Juan the information it needed in sufficient time, and the operation went ahead without further hitch, being completed June 17.

Writes O. J. Studeman, PAA Division Operations Manager at Miami, to the Chief of Bureau, "The meteorological service made available on a very short notice met all requirements and was a most important factor in the successful conduct of this operation."

FLOOD DAMPENS PEMBINA OBSERVERS

WATER was 4 inches deep in the CAA observational station at Pembina, N. Dak., and 18 inches in front of the office during a recent flood, reports Field Aide Earl Phillips. The observers had to remove the clock from the weighing raingage because the water was halfway to the top of the gage. After the water became too deep for the observers to reach the instrument shelter in a pair of waders they installed the psychrometer in a small box on a post a few feet from the office door in order to obtain hourly temperatures. Maximum and minimum temperatures were obtained by boat from the instrument shelter. All communication lines were down for a few days, so reports were transmitted by radio to Grand Forks for placing on the teletype circuit.

BECOMING AN OUTSTANDING FAILURE

ONE of the easiest achievements in organizational life is mediocrity, according to an article in MODERN INDUSTRY on "How to Become an Outstanding Failure." This is a condition in which neither the person nor his work is much noticed until one day he disappears and is replaced by a man the agency hopes will do better. It is much harder to be an outstanding failure, the kind of rocket that gives as brilliant a fizzbang coming down as it did going up. This, according to the article, is because so few have studied the principles of failure. For the benefit of the small contingent in the Weather Bureau who may have serious intentions of becoming outstanding failures, we are reprinting a number of these principles.

If a subordinate makes a mistake, let him have both barrels, preferably in front of others.

Never accept responsibility for a decision if you can possibly avoid it.

Develop your ability to pass the buck--take private lessons at night, if need be.

If a superior gives advice, endear yourself to him by letting

him know you really don't need it, because you know everything already.

Keep your finger on every little detail of your work, every day, relentlessly.

Never consult with others in arriving at decisions; don't discuss anything with anyone; always talk, but above all never listen.

Never teach a younger man how to do your job or fill your shoes after you've moved up.

Never check up on your health, or if you do, pay no attention to the doctor's advice.

Be so impatient for advancement that you fail to learn what your present job has to teach.

Be sparing of praise for a job well done.

Let prejudices for and against people and methods sway your decisions, not reason.

Never bother to find out specifications for your job, nor measure your performance.

Similarly, keep subordinates in the dark of what's expected of them.

Develop techniques for looking overworked, or better still, if good executive habits are too ingrained to abandon easily, really overwork; never relax.

RILEY RETIRES AT KANSAS CITY

JOHN A. RILEY, regional director at Kansas City since the field service was first regionalized in 1941, voluntarily retired June 30 at the end of more than 40 years of Weather Bureau service. His address upon retirement is 620 East 66 Terrace. Kansas City, Mo.

Born in 1887 at Dixon, Ohio, Mr. Riley grew up in Indiana, graduated from high school at Howe, Ind., and attended Purdue University. He became an assistant observer with the Weather Bureau at the Central Office in April 1910, and after short periods at the Central Office, Little Rock, Cairo and Evansville, settled at Little Rock for a 6-year stay. This was broken in 1912 and 1913 when he resigned to try farming for a year.

From July 1917 to March 1918 he was given training in aerological work at the Central Office, Ellendale and Drexel, and then was placed in charge of the newly-established kite station at Broken Arrow, Okla. In this assignment he made noteworthy contributions to the techniques of upper air sounding. As the airway weather service developed in the late 1920's, Mr. Riley was called to take charge of the Atlanta airport station and organized the airway forecasting activity there. In 1930 he was transferred to Dallas airport in a similar capa-

city. Having expressed his preference for the West Coast, in 1934 he was placed in charge of the airway forecast center at Oakland.

Late in 1940, Mr. Riley was called to the Central Office to organize a field liaison program for the eastern part of the United States. In this assignment he worked closely with the problems of field organization and administration, and contributed to the plans for the formulation of regional offices.

When these plans were put into effect in 1941 Mr. Riley was made director of the new regional office at Kansas City, and there, in 1949, he successfully solved the problems of merging the Chicago and Kansas City offices as the prototype in a program to reduce the regional offices in the United States from seven to four.

Mr. Riley has been a member of the American Meteorological Society, American Geophysical Union and the American Association for the Advancement of Science, and is the author of several articles on upper air soundings and weather forecasting, published in the MONTHLY WEATHER REVIEW, BULLETIN of the AMS and other publications.

Characteristic of Mr. Riley was his remark in a letter to the Chief of Bureau early in 1950: "I have worked with a lot of people, known something of their faults and failures as well as their finer qualities. Without too much strain of conscience I can say with Will Rogers, "I have never met a man I didn't like."

VAN THULLENAR SUCCEEDS RILEY AT KCRO

WHEN John A. Riley retired from his position as regional director at Kansas City on June 30, he was succeeded by a man who three times has been his assistant. Clayton F. Van Thullenar, new regional director of Region III, was first assistant to Mr. Riley at Broken Arrow in 1923, at Dallas in 1930, and assistant regional director at Kansas City in 1949. Other aspects of Mr. Van Thullenar's career were reviewed, when he took over the latter position, in the July 1949 TOPICS.

Since 1941, when the position of regional director was first created, the place of the position in Bureau administration has undergone a slow evolution. At the present time the regional director is, first, considered a top field advisor to the Central Office, and a staff assistant in evaluating the professional, sicentific and technical activities of the Bureau's field services. In this capacity his responsibility includes general knowledge of the Bureau's activities in his region and advice to the Central Office regarding needed improvements and service developments. The regional director does not issue instructions or directives with respect to technical and professional services. These are

issued by the Central Office for the field establishment as a whole, hence the regional director does not have executive authority over "line" functions in the stations.

Secondly, the regional director is the manager for the Bureau of the administrative services for payrolling, accounting, supply and personnel staffing in clerical and subprofessional grades in his region. In this capacity he has executive authority.

The regional director, as well as the assistant regional director, are expected to spend a considerable time visiting field stations in the region. These top regional officials assist the Central Office through impartial appraisals of how well field stations and field personnel are meeting their service responsibilities. These appraisals are expected to extend beyond the usual local service activities to broader programs in such fields as forecasting, climatology, etc., and to wide geographical areas of service.

Central Office division chiefs are also encouraged to make extensive field trips to obtain views on how well their particular programs are being carried out and to determine what modifications may be necessary to effect improvement. However, the regional director and his staff assistants are in position to be much more intimately acquainted with all the area, the local requirements and the station staffs available to perform the work. It naturally follows that they should report frequently and fully to the Central Office so that their findings as to service effectiveness, their recommendation for modifications in program and their evaluation of field operations and personnel can enter into decisions at the highest level. It is the role of the regional director to contribute facts and advice to assist the Chief of Bureau in discharging his responsibility for the Bureau's overall operation.

In all matters concerning local station "housekeeping", field station officials look to the regional office for guidance, The regional office arranges for procurement of supplies and equipment, processes fiscal and personnel papers and provides general assistance in the establishment, maintenance and operation of the field offices. In other words, the regional office manages the administrative functions of the Bureau's field program, using broad guidelines established by the Central Office, but it is the local field official's responsibility to accomplish the service mission delegated to him in his job sheet. In this form of field administration the Bureau hopes to gain the advantages of decentralizing responsibility for local services to the responsible local official in charge and still maintain close contact between field stations and the Central Office.

In the selection of Mr. Van Thullenar, and in selecting regional directors in the future, it was felt that these officials should be meteorologists in their prime -- usually between

40 or 45 and 55 or 60 years of age. This is the period when men have attained the necessary experience and judgment and still have their full vigor and resourceful viewpoint for the strenuous demands of the job. After a period of 10 to 15 years as regional director, these men will be expected to take up other professional duties or operating assignments, e.g., OIC of a principal field office or an important staff position in the Central Office. The Central Office believes such a practice will be a means of preventing an eventual overemphasis on administration as such--organization that has all the appearances of efficiency but lacks the vitality and incentive for scientific progress and the best results in meteorological services. The regional director is expected to be a professional leader in his region, not an administrative director in the literal sense.

MOXOM ENDS 45 YEARS SERVICE

WITH more than 45 years in Weather Bureau service, nearly 9 of which were as regional director at New York, Walter J. Moxom voluntarily retired June 30. His address from now on will be Woolford, Md., where he built a country house in preparation for this step.

Mr. Moxom was born in Springfield, Mo., in 1885. He joined the Weather Bureau as a messenger at Springfield in 1904 and was stationed there until 1907. In September of that year he was transferred to St. Louis. Before entering the Bureau Mr. Moxom had been a printer for three years in Springfield, and from 1912 to 1914 he was designated printer at the St. Louis office. In 1914 he was made first assistant at that station, a position which he held until 1920. From February 1920 to December 1923 he was in charge of the Dayton station, then resigned from the Bureau for about a year and returned in August 1924 for a series of roving assignments including one season of fruit-frost work in California.

In June 1925 he became a field inspector at St. Louis for the River and Flood Division, and continued in this position until 1930, when he was transferred to Washington as assistant chief of the River and Flood Division. During the latter assignment he did much to bring into order the basic information and engineering data regarding river gaging stations, and also acted as the central coordinator of flood warnings. He was in this job during the historic flood of 1937 in the Ohio and lower Mississippi Valleys, and was selected to effect personal liaison between the Weather Bureau and President Roosevelt and his White House aides dealing with the public emergency and associated mass relief work. Mr. Moxom acquitted himself with great credit in this relationship.

In 1938 he transferred to St. Louis as official in charge, and when the field service was regionalized in 1941 Mr. Moxom was chosen as director of Region I. There he rendered distinguished service during the war and since. In the summer of 1946 he represented the Bureau in meetings at Paris of the International Meteorological Organization, and in the fall of 1949 was Chairman of the Professional Qualifications and Promotion Review Board in the Central Office.

A successor to Mr. Moxom as regional director has not yet been named. Pending this decision, L. E. Brotzman, chief of the Office of Plans and Program Management, will be on detail in New York as acting regional director.

MITCHELL RETIRES AT CENTRAL OFFICE

CHARLES L. MITCHELL, recognized for many years as one of the Bureau's most brilliant forecasters, voluntarily retired June 30 at the age of 67, with 46 years of service. For several years prior to retirement, he has headed a unit making experimental 7-day forecasts, and acted as a consultant to the Chief of Bureau and Central Office forecast officials on forecast research problems. His address upon retirement is 1340 Jefferson St., NW, Washington 11, D. C.

Mr. Mitchell was born in Dunningsville, Pa., in 1883. He attended the Dunningsville grade and high schools, then graduated from the Southwest State Normal School at California, Pa., in 1901. From 1901 to 1904 he taught in the rural and grade schools of Pennsylvania, joining the Weather Bureau as an assistant observer at Tampa on July 1, 1904. After a year at Tampa he was transferred to Mobile, to stay there for two years. In March 1907 he moved to Pittsburgh, and spent a year in that assignment before being placed in charge at Rapid City in June 1908. In September 1909 he returned east as first assistant at Louisville, then in January 1911 was again stationed at Pittsburgh, this time as first assistant. From April 1915 to August 1920 he was assistant district forecaster at Chicago, and it was there that his "remarkable aptitude and ability" in forecasting was conclusively demonstrated. From Chicago he was transferred to the Central Office as district forecaster, and in 1925 he became senior district forecaster for the Washington district, at that time the largest and most important forecast district in the country. All his service since 1925 has been in Washington, and in forecasting duties. During the war he rendered outstanding services to the armed forces. His forecasts for the Navy in 1942 were an important factor in the invasion of North Africa. From March 1946 to August 1947 he was official in charge at the Washington National Airport station, and thereafter held a unique position as research forecaster and

advisor on forecast problems.

In 1949 Mr. Mitchell received the Meritorious Service Award of the Department of Commerce for his long and outstanding service as a forecaster. The citation for this award said of him:

> Charles L. Mitchell, one of our early outstanding forecasting meteorologists, has been with the Weather Bureau since 1904. As early as 1925, Mr. Mitchell demonstrated unusual ability for making accurate and timely forecasts. He possessed a rare ability in interpreting weather changes. Subsequently he became principal meteorologist in the Extended Forecast Division. His name will long be remembered as an outstanding forecaster among Weather Bureau meteorologists.

FORMER MOBILE OIC HONORED

FRANK T. COLE, official in charge at Mobile, Ala., from 1932 to 1949, received the honorary degree of Doctor of Science from Gettysburg College at Gettysburg, Pa., on June 5. Mr. Cole, who retired in February 1949 after 39 years in the Bureau, has been active in the American Meteorological Society, Alabama Academy of Science, Southern Institute of Science and Industry and the Engineer Club of Mobile. Additional information concerning his career may be found in the March 1949 TOPICS.

F. W. Reichelderfer

F. W. REICHELDERFER

Chief of Bureau.

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WEATHER BUREAU

TOPICS

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HUBBARD KILLED IN ARCTIC CRASH

CHARLES J. HUBBARD, chief of Arctic Operations, was killed July 31 in an airplane crash at Alert, on Ellesmere Island, NWT, Canada. Mr. Hubbard was one of nine men who perished when the RCAF four-engined Lancaster, from which supplies were being parachuted to the Alert station, crashed and exploded. Apparently a chute became fouled in the tail structure and forced the plane into the fatal dive. The other eight victims were Canadians.

Alert is about 500 miles south of the North Pole and is probably the northernmost land-based weather station in the world. It was near there that Mr. Hubbard in 1948 found a flask containing original documents left by Admiral Peary on his dash to the North Pole in 1905.

Mr. Hubbard had been with the Weather Bureau since 1946. More than any other person, he was responsible for the conception, planning and establishment of the network of six weather observational stations now operated jointly by the U. S. and Canada, and the U. S. and Denmark. In February 1950 he was awarded the Exceptional Service Award by the Commerce Department for this accomplishment.

Born in Kansas City in 1902, Mr Hubbard gained his first taste of Arctic exploration at the age of 14 when he accompanied the Grenfell Mission to Labrador. He was educated at Milton Academy, Milton, Mass., and Harvard University. He received his A. B. degree, cum laude, in 1924, and his B. S. degree, summa cum laude, in 1925. He was an All-American guard in football in 1922 and 1923, and was a member of the Harvard crew. In his senior year he received the Francis H. Burr Award given annually to the senior who best combines "qualities of leadership, scholarship and athletic ability."

From 1931 to 1941 Mr. Hubbard was an explorer and free-lance writer. In 1931 he was a cartographer and aviator on the Forbes Grenfell North Labrador Expedition. In 1932, 1933 and 1934 he led other expeditions to Labrador for mapping and other purposes. On these latter operations he owned and captained the expedition ship. In 1936 and 1937 he sailed his own small schooner to the Galapagos Islands on a special assignment for Liberty Magazine. During this period he wrote extensively for popular magazines.

Between 1941 and 1945 he served with both the Navy and the Air Force. As special assistant to Gen. H. H. Arnold, he headed the development of Arctic facilities to support the North Atlantic flight route, and established the first weather stations in Labrador, Baffin Island and Greenland. In 1944 he was assigned to develop a Search and Rescue Service for the world-wide flight routes of the Air Transport Command.

At the end of the war, anxious to make use of new operational techniques for the penetration of the remote Arctic where scientific research had previously been almost prohibitively dangerous and expensive, he proposed the Arctic program subsequently authorized by Congress and instituted by the Weather Bureau. While developing this program he spent a year in research in the techniques of Arctic operations, under the auspices of the Massachusetts Institute of Technology. Since 1946 he had headed the Bureau's Arctic Section, with responsibility for planning, establishment, operation,and supply of the Arctic weather stations.

Mr. Hubbard was a member of the American Geophysical Union, American Meteorological Society, Explorer's Club, Arctic Institute of North America, and American Geographical Society.

He is survived by his widow, Mrs. Harriet Bissell Hubbard, and four children, in addition to one brother and two sisters.

BURRWOOD STATION REACTIVATED

UPON completion of the 1500 GCT observation on July 31, the rawinsonde equipment at New Orleans was dismantled and transferred to Burrwood, La., where a first-order station is to be reactivated after having been closed for 3½ years. Rawins were to begin about August 15. In addition to upper-air work, the program will include radar and 3-hourly synoptic observations, and special surface observations and pibals on an "on-call" basis.

WBO Burrwood will be under Elden R. Etier, who was OIC of the station when it was deactivated in December 1946, and has since been upper-air observational supervisor at New Orleans. Mr. Etier has been with the Bureau since February 1941, when he became a junior observer at Albuquerque. In April 1942 he was transferred to the Fort Worth Regional Office and remained there until August 1946. From then until the following December, he was in charge at Burrwood, and then was transferred to New Orleans.

AEROLOGICAL DAYS SET FOR 1950

THE 10-day period October 17-26 has been chosen as the Second Period of International Aerological Days for the year 1950. Only regularly scheduled upper-air observations are contemplated by the Weather Bureau for this period. A Circular Letter on this subject will be issued shortly.

FLOOD WARNINGS AID LINCOLN

FLASH floods" resulting from sudden and intense storms frequently cause loss of life and heavy property damage in communities along small streams which are not ordinarily dangerous. A warning of an hour--or even less--will save lives and even some property damage. With the means at hand, the Weather Bureau is providing warning service, and in more than a score areas has organized voluntary warning networks for this purpose.

In the Lincoln, Nebr., area a flash flood warning network has been in operation for several years, since Lincoln is subject to sudden floods from Salt Creek through the city. A number of rainfall reporters in the drainage area upstream have instructions to telephone reports of heavy rainfall to WBO Lincoln.

Between 1830 and 1930 CST, May 8, 1950, several of these reporters telephoned rainfall amounts ranging from 2 to nearly 7 inches. Rain was still falling when the reports came in, and communication failure prevented calls from two other stations. (At Lincoln itself the total for the storm was 1.17 inches.) After consulting with the County Engineer and communicating with personnel on duty at WBO Omaha, Ray A. Dyke, OIC at Lincoln, issued a warning at 2110 CST:

> Serious flooding indicated tonight on Salt Creek lowlands south of Lincoln and some overflow indicated along railroad tracks and in lowest places in southern Lincoln. Stage near 40 feet, which is 20 feet above low water, indicated on gage at Lincoln late tonight or Tuesday morning.

Reports and warnings were disseminated generally in the area, principally through radio stations, but by other means as well, The Highway Safety Patrol and the Sheriff of Lancaster County were on the job early, warning people south of Lincoln and aiding in rescue work.

Reports reaching the Weather Bureau office through the County Shop and the County Engineer indicated by 2200 CST that a very serious flood was approaching Lincoln from the south. The WBO therefore issued warnings through the police and over the radio stations that persons in the lower parts of the city should be evacuated immediately, since it was evident that the flood was approaching rapidly. Public agencies concentrated on the work of evacuation, and several industrial and commercial firms were engaged in safeguarding and moving property in low locations. Highway workers moved State property from the low yards.

The overflowing waters began entering the city soon after midnight. Rising water thereafter necessitated considerable rescue work by the Fire Department and the National Guard with boats and "ducks."

Two bulletins were issued by the Weather Bureau following up the warnings, at 0200 and 0600 CST, respectively, on May 9:

At two o'clock this morning Salt Creek at Lincoln had reached a stage of 36.5 feet, a rise of 15 feet in eight hours and ten feet in the last two hours. Parts of west Lincoln under water, also low places in south Lincoln with water still rising. Reports south of Lincoln indicate water is higher than in 1942. Rise will continue and reach crest stage of 42 feet at mid-morning Tuesday, which is 22 feet above low water at Lincoln. Points downstream from Lincoln to Ashland should prepare for flooding in lowlands during Tuesday.

Salt Creek at Lincoln at stage of 41.8 feet at 6:00 A.M., will crest near or slightly above 42 feet, near 22 feet above low water, at about 8 o'clock this morning. Now about a foot higher than the 1942 flood and has caused considerable overflow in low residential and industrial areas of Lincoln. People in lowland below Lincoln and at Ashland should prepare for extensive and serious flooding, beginning this morning and continuing into tonight in the lowest reaches.

The observed crest of the flood at Lincoln was 42.4 feet at 0900 CST, May 9. Only one person was drowned in the city, the occupant of a trailer near the creek bank. The warning service was lauded as highly effective.

OBSERVATIONAL WORK EXCHANGED WITH NAVY

SCHEDULED rawinsonde, pilot balloon and synoptic obvations were started by the Weather Bureau at Midway Island on June 4, taking over the upper-air observations from the Navy. At Honolulu on June 19, the Weather Bureau discontinued radiosonde and pilot balloon work; these observations are now taken by the Navy.

Russell H. Williams, formerly at Honolulu WBAS, is official in charge at Midway. Mr. Williams has been with the Bureau since August 1947, when he became a meteorological aid at Medford, Oreg., following graduation from the University of Oregon.

PHILIPPINE PROGRAM ENDS

THE U. S. Weather Bureau program to rehabilitate the Philippine Weather Bureau under the terms of the Philippine Rehabilitation Act of 1946 came to a successful conclusion at the end of June 1950. The last U. S. Weather Bureau employee left Manila on June 20 and all Philippine students studying in the United States will have returned to their homes by September 30.

The Central Office wishes to express appreciation to all Weather Bureau personnel who assisted with the training program at their respective stations.

SUGGESTIONS BRING AWARDS

SUGGESTIONS for improvement of Bureau operations brought commendations and cash to one meteorological aid and one former meteorological aid in July.

Herbert E. Cole, at WBO New York, suggested that the shipping labels on all boxes and packages shipped by the Bureau carry a listing of the contents, to save opening packages to determine the contents before storing. In some types of shipments the Bureau was already doing this, but it has not been standard practice for all. It was decided that such a listing was not necessary, or desirable in all cases, for packages sent by parcel post or first-class mail. On express and freight, however, Mr. Cole's suggestion resulted in a revision of the shipping labels to provide in all cases for information about the contents. Mr. Cole was commended by the Chief of Bureau and awarded $15 in cash for his idea.

Frank C. Kulhanek, a meteorological aid at WBAS Anchorage when he made the suggestion but since resigned from the Bureau, suggested improvements to pseudo-adiabatic charts. As a result, pressure code figures for mandatory heights will be printed in the constant pressure data blocks on WBAN Forms 31A and 31B, contributing to the speed and accuracy of computation of raob data. Mr. Kulhanek was commended by the Chief of Bureau and was awarded $15 in cash.

CONSERVATION FOR NATIONAL DEFENSE

THE Government, as well as the public, must exercise great restraint in the use of those goods and services which are needed for our increased defense efforts," the heads of all executive departments and agencies have been told by President Truman.

The Weather Bureau, in common with other agencies, has been requested to review its program in detail "with the object of giving first priority to those which contribute directly to national defense and deferring, curtailing, modifying, or slowing down projects and activities whenever practicable to lessen the demand on services, commodities, raw materials, manpower, and facilities which are in competition with those needed for national defense."

This means that all Bureau offices must, whenever possible, eliminate or reduce less necessary activities in order to give more attention to duties which are vital to defense efforts. It applies most immediately to the conservation of supplies and equipment, especially typewriters, motor vehicles and other equipment using critical materials.

COLLEGE PAYS OFF FOR FOUR

FOUR former meteorological aids, who recently returned to duty from leave without pay to complete Bachelor's degrees or graduate study in meteorology, have received professional assignments as a result.

Albert Frost, formerly at WBAS Spokane, Wash., received his Bachelor's degree from the University of Washington in June 1950, and has been assigned as professional assistant at Spokane. Nathan Ellis, who recently completed graduate work at Pennsylvania State College, has been transferred from the WBAN Analysis Center, Central Office, and assigned as meteorologist at WBAS Baltimore, Md. Roger L. Moore, former observer at Miami, Fla., completed graduate study at the University of Chicago and has been assigned as professional assistant at WBAS Baton Rouge, La. John A. Greene, WBO Greenville, S. C., completed his Master's degree at Massachusetts Institute of Technology, and has been assigned as hydrologist at the River Forecast Center, Kansas City, Mo.

Four other employees, who have also been on leave without pay to continue their meteorological training, have returned to duty and, although the lack of suitable vacancies elsewhere has prevented their immediate reassignments, they will be considered on the basis of their additional qualifications and performance as opportunities arise.

GRAY RETIRES AT CINCINNATI

AFTER 37 years with the Weather Bureau, 36 of which were spent at Cincinnati, Julian T. Gray, meteorologist at WBO Cincinnati, retired July 31 at the age of 63. His address upon retirement is 2556 Homestead Place, Cincinnati 11, Ohio.

Mr. Gray has spent practically all his life in Ohio. Born in New Concord, Ohio, on August 28, 1886, he grew up in that city, attended high school, and graduated from Muskingum College there in 1908. For several years thereafter he taught science and mathematics in high schools in Pennsylvania, Iowa and Nebraska. He joined the Weather Bureau as an assistant observer at St. Joseph, Mo., in August 1913, and after short periods of service at Chicago, Ludington and Columbia, was transferred to Cincinnati in August 1914. From 1920 to 1942 he was in charge of the Abbe Observatory. When the observatory work was transferred to the city office, Mr. Gray also went to that office. Since 1942 he has been concerned with public service work in the climatology and river programs. He was much liked and respected by fellow workers and Cincinnati townspeople for his personal and professional qualities.

JOBS FOR EXCHANGE

MARGARET R. BUCKINGHAM, GS-5 meteorological aid at Spartanburg, S. C., is interested in exchanging jobs with someone at a station within a 200-mile radius of New York City.

Donald B. Chelsey, GS-7 observer briefer at WBAS Weir Cook Municipal Airport, Indianapolis, Ind., desires transfer to a station in New England, especially the more rural areas of Maine New Hampshire or Vermont.

Charles J. Merritt, GS-5 meteorological aid at WBAS Raleigh Durham Airport, Raleigh, N. C., would like to exchange positions with someone at any station in Texas.

Anyone wishing to exchange jobs with these employees at their own expense, as outlined in the May TOPICS, should contact them directly. If mutually satisfactory arrangements can be worked out, formal application for transfer should be made through prescribed channels.

MERCURY REQUESTED

AT SOME field stations impure or dirty mercury has accumlated as a result of repairs to mercurial barometers or the shipment of defective mercurual barometers to the Central Office. These stations are requested to send such mercury to the Instrument Division of the Central Office in accordance with instructions in paragraph 189 of Circular F. Containers used should be glass, iron or other material that does not amalgamate with mercury.

CLEVELAND ASSISTANT RETIRES ON DISABILITY

NEAL W. HUGHES, professional assistant at WBAS Cleveland, was retired July 31 on account of disability. Thirty-seven years old at the time of retirement, Mr. Hughes had been with the Weather Bureau since February 1945. At that time he entered the Bureau as a meteorologist in the Scientific Services Division of the Central Office. From July 1946 to September 1949 he was professional assistant at Trenton, N. J., and has been at Cleveland since then. Mr. Hughes is a graduate of Brown University and has done advanced work at Columbia and New York Universities. His address upon retirement is 7311 River Road, Olmsted Falls, Ohio.

PRINCIPLES OF POOR WRITING

BOOKS and articles on good writing are numerous, but where can one find sound practical advice on how to write poorly? Certainly, poor writing is so common that every educated person ought to know something about it. Dr. Paul W. Merrill, in the SCIENTIFIC MONTHLY, gives some excellent advice on how to write poorly, from which every Weather Bureau employee who writes letters or scientific papers should benefit.

The world is divided into two camps, opines Dr. Merrill, yourself and others. A little obscurity or indirection in writing will keep the others at a safe distance; if they get close they may see too much.

Write as if for a diary. Keep your mind in a direct course between yourself and the subject; don't think of the reader--he makes a bad triangle. This is fundamental. Constant and alert consideration of the probable reaction of the reader is a serious menace to poor writing; moreover, it requires mental effort.

Ignore the reader whenever possible. All the way through you must write for yourself, not for the reader. Practice a deadpan technique, keeping your facts and ideas all on the same level of emphasis with no telltale hints of relative importance or logical sequence. Use long sentences containing many ideas loosely strung together. AND is the connective most frequently employed in poor writing, because it does not indicate cause and effect, nor does it distinguish major ideas from subordinate ones. BECAUSE seldom appears in poor writing, nor does the semicolon--both are replaced by AND.

Camouflage transitions in thought. Avoid such connectives as MOREOVER, NEVERTHELESS, ON THE OTHER HAND. If unable to resist the temptation to give some signal for a change in thought, use HOWEVER. A poor sentence may well begin with HOWEVER because to the reader, with no idea what comes next, HOWEVER is too vague to be useful.

The cardinal sin of poor writing is to be concise and simple. Avoid being specific; it ties you down. Use plenty of deadwood; include many superflous words and phrases.

Poor writing, like football, is strong on razzle-dazzle, weak on information. Adjectives are frequently used to bewilder the reader. It isn't much trouble to make them gaudy or hyperbolic; at least they can be flowery and inexact.

If you abide by these principles, it can be guaranteed that your letters or papers will be poor enough to satisfy the most critical reader.

LAKELAND FIRST ASSISTANT DIES

PHILIP J. POWELL, first assistant at Lakeland, Fla., died June 29 at a hospital in Memphis, Tenn. He had undergone a brain operation June 12 and seemed to be making a rapid recovery, but suffered a relapse.

Mr. Powell was 38 years old at the time of his death, having been born at New Ark, Arkansas, March 31, 1912. His first position with the Weather Bureau was as minor observer at Memphis from 1930 to 1933. This job terminated because of Government economy measures; thereafter he worked for private business for a few months, then enlisted in the Army. Because of his Weather Bureau experience he was soon in the Meteorological Section of the Signal Corps. When the Bureau was again able to offer him a job he obtained his discharge and was reinstated as an observer at Jacksonville. He served there until 1937, then transferred to Lakeland for fruit-frost work. Except for two hurricane seasons at Pensacola and Miami, respectively, he remained at Lakeland until 1943. From June 1943 to November 1944 he was stationed at WBAS Miami, and then returned for his final assignment as first assistant at Lakeland.

F. W. Reichelderfer

F. W. REICHELDERFER
Chief of Bureau.

WEATHER BUREAU

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RESPONSIBILITY IN WEATHER BRIEFING

THE accuracy of weather information used in pilot-briefing is a basic concern of the Weather Bureau since, by law, the Bureau is responsible for the national meteorological service. This is recognized by the CAA in pilot weather briefing which is considered to be part of the CAA's flight assistance service.

In the field of pilot briefing it is the practice of the Weather Bureau and the CAA to make the service as convenient and simple as possible. Wherever practicable, the services of the two agencies are brought together physically so that the pilot may complete his pre-flight planning in one office or by one telephone call. Where there is no Weather Bureau office, CAA personnel provide pilots with official Weather Bureau forecasts, the latest weather reports and other factual data. Also, they may and do at times interpret weather data as to flight applications, e. g., indicate to the pilot the best altitude for flight, considering winds, present location of fronts, hazardous flight conditions, etc. Likewise, Weather Bureau personnel have similar joint responsibilities where there is no CAA office, in furnishing the pilot with available non-weather aeronautical information provided under the basic responsibility of the CAA. Where there is both a Weather Bureau and a CAA office it is accepted practice for the Bureau to handle the weather briefing and CAA the non-weather services.

Whenever we deal with aviation requirements the confidence of pilots in our weather briefing depends largely upon the kind of service rendered by individual pilot briefers. If our briefers fall into a cut-and-dried attitude toward their duties and pilots are left with a feeling that their problems are little understood or appreciated, they will inevitably turn to CAA personnel for all pre-flight services. We can and should be so expert in flight weather service as to hold against any competition the essential place that belongs to us in air commerce. This depends, however, on the individual employee engaged in the Bureau's aeronautical services, who must accept responsibility for satisfying the weather needs of pilots with expertness and real understanding of the problems of flight application of weather factors.

SWOPE AND WEYANT RETURN TO U. S.

WHEN the North Korean army advanced into South Korea late in June, two Weather Bureau employees, Paul H. Swope and William S. Weyant,with their families were stationed in the city of Seoul. Mr. Swope was in charge, with Mr. Weyant, his first assistant, at the Main Meteorological Office established at Kimpo Airport in 1949 by the ECA American Mission in Korea.

Both men and their families were evacuated. The Central Office was notified June 26 that dependents of the men had been flown to an evacuation center in Kyoto, Japan, and on June 29, word was received that Swope and Weyant had been evacuated to Japan. They were detailed to Tokyo where they assisted the 2143rd Weather Wing of the Air Weather Service.

Swope and Weyant have now returned from Japan by air for new assignments in the United States; Swope to Chicago, and Weyant to New York.

NICHOLSON TAKES OVER AT WAKE

ROBERT W. NICHOLSON, former flight briefer-observer at the Chicago airport station, has been selected as official in charge at Wake Island, Pacific. There he will be responsible for a program of surface, pilot balloon and rawinsonde observations, as well as pilot briefing service to commercial and government aircraft. The station also provides storm and hurricane warnings to the Island administration, sea swell forecasts to ships lying offshore discharging or taking on cargo, and climatological data and forecasts to the U. S. Engineers and contractors working on the island.

Mr. Nicholson, who is 32, joined the Bureau in 1940 as a junior observer at South Bend, Ind. He was stationed there from February 1940 to June 1941, then was transferred to Dayton, Ohio, for a brief assignment before entering the armed forces. In the Army Air Forces he completed the meteorology course at the University of Chicago and served as a weather officer until his separation in 1945. Before returning to active duty with the Bureau, he took extended leave without pay to complete his B.S. degree in meteorology at the University of Chicago. (Before the war he had attended Valparaiso University at Valparaiso, Ind., and Notre Dame University at South Bend.) In May 1947 he was assigned to Minneapolis as a FAWS forecaster and in July 1948 to his position at WBAS Chicago.

OBSERVER IMPROVES RADIOSONDE CHARTS

A SUGGESTION by Galen A. Schreier, meteorological aid at Lake Charles, La., that ten-second-interval lines be printed between the zero and No. 1 ordinate lines on radiosonde recorder charts will improve the efficiency of making radiosonde observations. These additional markings provide for a more accurate setting of time on the chart and will make unnecessary the timing with an auxiliary clock of the beginnings of high and low reference contacts to determine elapsed time. Mr. Schreier was awarded $25 for his idea.

KUTSCHENREUTER HEADS REGION ONE

PAUL H. KUTSCHENREUTER, OIC at WBAS Boston since 1947, has been selected as the new regional director of Region I, to succeed W. J. Moxom who retired at the end of June. L. E. Brotzman, head of P&PMO, has been acting director in the interim.

Mr. Kutschenreuter, who is 41, has been with the Bureau since 1926. He was born in San Antonio, Texas, and attended school in Houston, Texas, and Washington, D. C. In addition to high school in both of these cities, he attended Rice Institute in Houston and George Washington University in Washington.

He joined the Weather Bureau at Houston in 1926 as a minor observer, and was stationed there until 1928. In May 1928 he was transferred to Montgomery, Ala., and then in March 1929 was moved to the Central Office. After a year and a half in Washington he was returned to Houston as OIC at the airport station. This assignment lasted from September 1930 to October 1937. For two years following that he was an airway forecaster at WBAS Fort Worth, and then was first assistant and supervising forecaster at Billings from December 1939 to June 1942. An assignment to the Analysis Center sent him to Washington again, this time for about a year. In June 1943 he was placed in charge at WBAS Miami, and in August 1947 in charge at Boston.

Mr. Kutschenreuter's duties and responsibilities as regional director are similar to those described for C. F. Van Thullenar in July TOPICS.

BURKE NEW ASSISTANT AT NYRO

NEW principal assistant at the New York Regional Office is Harold N. Burke, former chief of the Facilities and Operations Section of the regional office. Mr. Burke replaces W. A. Bertrand, who was assistant regional director until his recent transfer to Indianapolis as official in charge.

Mr. Burke is a native of New York State and has spent most of his life in the state. He was born in Rochester in 1908, grew up and attended school in the city. Entering the Weather Bureau as a minor observer at Rochester in 1924 he served at that station until 1937. From 1937 to 1942 he was in charge of the airport station at Syracuse, and during that time also attended Syracuse University. In 1942 he was placed in charge of the newly established Regional Training Center for new observer personnel at La Guardia Field. As the result of his success in this position he was promoted to liaison official the following year. In 1945 he was made head of the Regional Operations Section, and when the regional office was reorganized at the beginning of 1950 he became head of the Facilities and Operations Section.

TENENBAUM IN CHARGE AT BOSTON

REPLACING Paul H. Kutschenreuter, who is now regional director at New York, Oscar Tenebaum, chief of the General Forecast Section of the Central Office, has been selected as official in charge at WBAS Boston. Mr. Tenenbaum has been with the Bureau since 1930. He was appointed junior observer at Chicago in December of that year, after having been employed in private business for about a year and a half following graduation from Northwestern University in 1929. He remained at Chicago for about 12 years, during the early part of which he attended the Northwestern University Law School, earning his Juris Doctor degree in 1934. In May 1942 he was transferred to WBAS Kansas City where he performed airway and district forecasting duties until his transfer to the Central Office in the summer of 1947. In the Central Office he was chief of the Domestic Aviation Section of SR&F Division until the General Forecast Section was organized early in 1950; he was then placed in charge of the new unit.

As OIC at Boston WBAS, Mr. Tenenbaum will be responsible for coordinating Weather Bureau activities in the Boston area. These include, in addition to the airport station, a city office which is the section center for New England, the Atlantic Weather Patrol, Solar Radiation Unit, Arctic Operations supply depot, and electronic technicians laboratory.

Boston, one of the largest population centers in the country, provides a service area population for the WBAS of approximately 2,550,000. The station provides the six New England states with state and local general forecasts; small craft, storm, hurricane, cold wave and other warnings; airway route and terminal forecasts, including flying weather broadcasts on Sundays and transatlantic terminal forecasts; fire weather service as needed from spring through autumn, quantitative precipitation forecasts; 4- and 5-day temperature and precipitation forecasts; frost warnings for cranberry culture during the spring and fall; agricultural forecasts, including those for maple sugar harvest in March and April, and those for airplane crop dusting of potato fields; forecasts for candy manufacturers and for other industrial interests in the Boston area.

BERTRAND OIC AT INDIANAPOLIS

WHEN Wallace A. Bertrand arrived in Indianapolis to take over as official in charge, he was "back home." Mr. Bertrand, who has been assistant regional director at New York since 1945, was born in Indianapolis 40 years ago, attended school and college there, served his first Weather Bureau assignment at the city

office of which he is now in charge. He joined the Bureau in 1930 as a junior observer, but served only 6 months at Indianapolis before being transferred to Bellefonte, Pa. This assignment lasted until August 1932, when he was transferred to Detroit for a few months before going to Parkersburg, W. Va. He remained at Parkersburg until January 1938 and then became assistant at Sacramento. In the fall of 1941 he returned east to become a regional liaison official at La Guardia Field. He was promoted to assistant regional director at New York in May 1945.

Indianapolis, the capital and largest city in Indiana, provides the Weather Bureau office with a service area population of approximately 517,000. Mr. Bertrand will be responsible for the preparation and distribution of local forecasts and warnings to meet the needs of agricultural, industrial and commercial interests in the service area. This program includes local forecasts for outlying communities and for special agricultural activities such as haying, tomato growing, mint oil production, fruit spraying, etc.

No direct weather broadcasts are made at Indianapolis, but complete stories are prepared for the three daily newspapers and for use by commercial announcers on farm and news programs broadcast over the five local radio stations. The office is a river district center of outstanding importance and difficulty, and development of a climatological program for the state of Indiana is one of the new OIC's major responsibilities. He is also responsible for technical and administrative supervision over a separate airport station.

Mr. Bertrand replaces Paul A. Miller who was transferred to the Central Office early in the summer. John J. Davis, who has been acting OIC since Mr. Miller left, has returned to his duties as employee relations officer in the Central Office.

HOUSE NEW ASSISTANT AT KCRO

RETURNING to the office where he began his Weather Bureau career, Donald C. House, assistant chief of the International Aviation Section, has been made principal assistant to Regional Director C. F. Van Thullenar at the Kansas City Regional Office. A graduate of the South Dakota School of Mines in 1940, Mr. House has been connected with the field of meteorology since 1941, although he did not become a career employee of the Weather Bureau until 1946. For a few months during 1941 he served as emergency assistant at Los Angeles, then entered the Army Air Forces. After doing graduate study in meteorology at the University of California at Los Angeles, he rose in the AAF Weather Service to be Regional Control Officer of the

19th Weather Squadron. Upon release from the armed forces in 1946 he joined the Weather Bureau as technical assistant at the Kansas City Regional Office. In September 1947 he was transferred to the Central Office. At the Conference of Directors of the IMO in the fall of 1947 he served as special assistant to the Chief of Secretariat. A short time later he was made assistant chief of the International Aviation Section. When ICAO held its North Pacific Regional Air Navigation Meeting at Seattle in July 1948, Mr. House was a member of the U. S. Delegation. For several months during 1949 he served as acting OIC at Albuquerque.

FREY IN MANAGEMENT INTERN PROGRAM

SELECTED by the Civil Service Commission for training in the Second Junior Management Intern Program is Carl L. Frey, position classifier in the Classification Section. Nicholas Gear, placement assistant in the Placement Section, was selected as an alternate for the program, to participate if two or more regular interns withdraw before October 2.

The Junior Management Intern Program, the purpose of which is to discover and develop managerial talent, is open for competition among Federal employees in grade GS-7 and below. During the five months of the program, the interns are relieved of their regular duties. Under the direction of the Civil Service Commission they undergo a rigorous training program of classroom work, assigned reading, visits to various agencies, discussions with outstanding authorities, and work assignments in several agencies.

Because of appropriation uncertainties, and the much greater cost of participation by field employees, this program was announced only in the Central Office. If conditions permit, the next Administrative Intern Program, open to employees in grades GS-8 through GS-11, will be given general announcement throughout the Bureau. This announcement is expected to be sometime in October.

RAYMOND STONE RETIRES

RAYMOND R. STONE, procurement clerk in the Material Section, Central Office, retired on August 31, 1950. Mr. Stone entered the Bureau as a Messenger on August 1, 1909. His entire service has been in the Central Office covering a period of over 39 years, 33 of which have been with the Supplies Division, now Material Section.

Mr. Stone will reside after his retirement at 1012 Massashusetts Avenue, N. E., Washington 2, D. C.

JOBS FOR EXCHANGE

TWO meteorological aids in Region I have written this month to request transfer to other locations at their own expense.

Arthur B. Baskin, Jr., GS-5 meteorological aid at Spartanburg, S.C., wishes to exchange jobs with someone at Daytona Beach or Orlando, Fla.

F. Robert Bauman, GS-6 observational supervisor at Toledo, Ohio, desires transfer to an airport station in Region IV, with first preference for the Western section of Oregon.

Anyone desiring to exchange positions with any of these men should correspond directly with them. If the exchange can be made without expense to the Bureau, and is satisfactory to all concerned in accordance with the conditions published in the May 1950 TOPICS, action should be initiated through official channels to effect the exchange.

SALT LAKE CITY CLERK DIES

MRS. ELLEN J. ADAMS, placement transaction clerk at the Salt Lake City Regional Office, died July 28 at Olive View Sanatorium, San Fernando, Calif. Mrs. Adams, who was born in 1892, joined the Weather Bureau in 1926 as a clerk-stenographer at the Central Office. She remained in Washington until 1943, then transferred to San Francisco. A few months later she moved to Los Angeles with the regional office there. When the Los Angeles and Seattle Regional Offices were consolidated in December 1949, she transferred to that city.

F. W. Reichelderfer

F. W. REICHELDERFER
Chief of Bureau.

WEATHER BUREAU

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JOB REALLOCATION PROGRAM

PRIOR to 1923 the salaries of Weather Bureau meteorologists were very low by comparison with scientific and technical employees elsewhere in government. A major battle was won when, through persistent and able efforts of Dr. C. C. Clark, E. H. Bowie, William Weber, and R. H. Weightman, the Bureau was accorded status as a scientific and professional agency under the Classification Act of 1923, with fairly widespread allocation of professional grades throughout the service. The principal difficulty at that time arose from the absence of academic requirements in meteorology equivalent to the scientific and professional qualifications current in other fields. During the last two decades, much progress has been made in raising academic standards in the meteorological profession, and it is now usually possible to meet the scientific qualifications required for professional grades throughout government service and private practice in general.

In recent years the increasing responsibilities and qualifications expected of government meteorologists have outgrown the grade levels previously established. This condition led the Civil Service Commission several years ago to revise the grade standards for Weather Bureau positions and enabled the Bureau to present sound justifications in budget hearings for funds to reallocate positions to bring them up to Civil Service standards. Until this year, our previous requests since 1945 for funds to support this requirement have not been approved. It was found possible through savings in other ways to reallocate a limited number of positions in some categories, notably those of district and airway forecasters, but most other professional positions remained in relatively low grades.

This year, after thorough review of the Weather Bureau's case, despite the general policy of economy in appropriations for the civil departments of the government, the Congress authorized appropriations to cover reallocation of certain groups of positions in the Weather Bureau. The justifications and subsequent appropriations provided also for a considerable number of jobs to be converted from subprofessional to professional grade at stations where the volume of service far exceeds the capacity of assigned professional staff.

A working committee has been carefully reviewing the relative discrepancies in grade structure in order to reach recommendations for reallocation of positions based as far as possible on the order of merit on the basis of increased responsibilities and civil service specifications for the duties actually performed. The committee, which includes several senior officials of the Bureau, is proceeding with its work as rapidly as possible and many cases have been cleared for ap-

proval --- notably a considerable number of officials in charge of field stations where the responsibilities for public service and the demonstrated qualifications to fill the position have long called for higher grades.

The committee has weighed every important factor including evaluation of station programs with respect to both general and specialized services actually rendered since grade specifications are based in part upon these details. Obviously not all of the Bureau's more than 4500 full-time employees could be promoted at the same time. A reallocation of every position to the next higher grade would increase salary costs by more than $3,000,000 per year in the long run. In some job categories, especially those which have received increases in grade most recently, further up-grading must await additional appropriations. For example, forecasting groups, including FAWS units, cannot be reallocated at once since these jobs have already been put in line with present specifications; however, there is pending in the Civil Service Commission a new draft of job specifications for this series which, it is hoped will permit the Bureau to provide for further reallocations in forecasting positions. Many other jobs throughout the service are already up to existing specifications. Accordingly, the current prospect provides for reallocation of only about one-fourth of the total number of full-time Weather Bureau employees, and about half of these will be positions at stations where subprofessionals are now performing considerable professional work and where additional positions in professional grades are necessary.

In this connection it is of interest to every professional employee in the Weather Bureau to keep in mind that in meteorology as in other professional and scientific fields, grade standards go hand in hand with professional qualifications and service requirements and performance. This explains why the Bureau must continue to give emphasis to scientific qualifications among its professional employees. Modern service demands will continue to call for improvements in techniques which will involve higher scientific qualifications. If the Bureau is to keep up with grade levels in other scientific fields, it must also keep abreast in scientific qualifications.

In any major uprading of this kind those employees who are not in positions now under reallocation may be more or less disappointed. Feelings of disapointment should be tempered by remembering that every major improvement in the grade structure of the Bureau eventually benefits all, not only because it lifts the average grade level but also because it increases career opportunities. In a few cases reallocations may be authorized in positions which by comparison seem to have less justification than others which cannot be reallocated now. This is usually the result of uniform application of standards to certain cate-

gories where it is difficult under the rules to make exceptions even in exceptional cases. Every effort is being made to reach consistent and equitable decisions on the basis of all available facts regarding job requirements and job performance in relation to service responsibilities to the public. The Bureau's work is constantly developing and future opportunities will bring further justifications for reallocations in other categories.

Further information on progress in the reallocation program will be contained in subsequent issues of TOPICS as recommendations of the committee are received and passed by the authorizing officers. All such cases require approval by the Chief of Bureau and positions in the higher grades require approval by the Secretary of Commerce.

SUGGESTIONS RESULT IN SURVEYS

TWO suggestions from Bureau employees recently adopted resulted in examination of current administrative practices, which in turn has resulted in more efficient operations.

Robert E. Corbin, observational supervisor at Winslow, Ariz., in satisfying his curiosity about electric power rates following the installation of an electric water heater in his home, discovered that the Winslow office could save money by taking advantage of a different type of power contract than that currently in effect. The immediate result was a new contract with the power company which lowered the cost of electricity for the station about $60 annually. Mr. Corbin was commended by the Chief of Bureau and awarded $15 in cash.

A survey of regional office practice, and a clarification of administrative instructions, resulted from a suggestion by Omar I. Sinclair, meteorological aid at Troutdale, Oreg. His idea was that negative reports on use of transportation tokens and postage stamps be required only from stations which actually used these items. The suggestion was based on an interpretation of Chapters F-32 and F-33 of the WEATHER BUREAU MANUAL that reports were required from all stations even though the reports in many cases had to be negative because no stamps or tokens were used by the station. Investigation revealed that the intent of the MANUAL had been not to require this. A request to regional offices for their interpretation of the paragraphs in question brought conflicting answers; some did and some did not secure negative reports from stations. As a result, the paragraphs in the MANUAL covering the matter were rewritten to make it clear that no report need be submitted if no stamps or tokens were received or used. Mr. Sinclair was awarded $15 and commended for his alertness in calling attention to the matter.

SOME ACCOMPLISHMENTS IN FY 1950

DURING its 80th year as a national weather service, the Weather Bureau, along with other government agencies, was encouraged to pursue intensive search for more effective, efficient and economical means of operation. This was not a new departure for the Bureau, which has been actively studying and readjusting program for several years. But with the general emphasis on management improvement throughout the government the Bureau's proposals for more efficient organization took fresh impetus and gained in acceptance. Some of the more noteworthy results are reported in the annual review of work done during fiscal year 1950, just submitted to the Secretary of Commerce, from which the following notes are taken.

Consolidation of seven regional offices into four, and of seven Weather Records Processing Centers into three, gained real economies while maintaining administrative efficiency. Reorganization of the river and flood forecasting service permitted the establishment of a new river forecast center at Portland, Oreg. Field stations were brought into closer relationship with the Central Office on scientific and technical matters, and field inspection activities were reorganized to permit better understanding of mutual problems and better use of inspection reports for program planning and quality control. Late in the year a study of Bureau operations was begun by a private management firm as part of the general management improvement program of the Bureau of the Budget. The Weather Bureau was selected as a sample of government activity conducted through a complex and widespread field service. About the same time, inauguration of the management improvement program previously planned by the Bureau resulted in action to integrate the Bureau's management review activities into a single system.

International aviation service procedures were further streamlined, and improvements were made in the coordination of hurricane reports, advices and warnings as the result of international conferences. Efforts to improve domestic aviation service were intensified, and the formation of a CAA-Weather Bureau Planning Group brought about agreement on administrative principles for carrying out the respective basic responsibilities of each agency for service to aviation.

Two pilot projects were carried on in the Midwest to test the feasibility of giving local stations responsibility for service in an area larger than the usual metropolitan area. Inauguration of automatic telephone weather service at Cleveland, Ohio, brought the total number of cities with this service to eight. (A ninth city was added later in the summer of 1950 with installation of the service at Philadelphia.) Applications of weather service to

agriculture and industry were extended, including the use of weather data and forecasts in counteracting plant diseases, as well as new services to cotton growers to facilitate dusting and spraying for insect control, defoliation, etc.

A new weather station was established at Idaho Falls, Idaho, to assist the Atomic Energy Commission, two new upper-air stations were set up in the Hawaiian Islands, and the station previously operated on Midway Island by the Navy was taken over by the Bureau. A new Arctic station, Alert, was activated in April 1950 on the north end of Ellesmere Island, NWT, by airlifting supplies from Thule, Greenland. The Bureau's radar observational network was expanded along the coast of the Gulf of Mexico to include radar stations at Miami, Fla., Burrwood, La., and Victoria, Tex.

By the close of the fiscal year the Bureau had completed its assignment under the Philippine Rehabilitation Act of 1946. Principal accomplishments were the rebuilding of weather stations throughout the Philippine Islands, training of personnel in the United States and on the job in the Islands, and partial restoration of the Philippine Weather Bureau library.

In conjunction with the ECA Mission in Korea, the Bureau provided weather forecasting and briefing, as well as training for Korean nationals, at Kimpo Airport near Seoul from August 1949 until June 1950 when hostilities made evacuation necessary.

Inauguration at Washington, D. C. of complete machine checking of radiosonde data has resulted in increased accuracy and value of upper level weather data. Work was carried forward on development of procedures for use of the new Electronic Flood Routing Machine to provide faster and more accurate analysis of data for flood forecasting.

Much of the Bureau's effort in basic physical research during the year was devoted to planning, developing and procuring new laboratory facilities and specialized apparatus. Among the new projects in meteorological research was a study of line squalls, begun in a pilot project near Washington, D. C., and later expanded and moved to the Midwest for study of tornadoes as well. A second project, undertaken on request of the Air Navigation Development Board, is aimed at developing improved objective forecasting methods at Washington National Airport; such forecasts are required for operation of the Airport Time Utilization Equipment being developed by the ANDB. The first phase of a runway observation project for ILS landings was also completed at Washington National Airport.

Despite increased demands for service of all kinds during the year, the Bureau carried on its operations with fewer full-time employees than in the previous year. On June 30, 1950, the Bureau was manned by 4521 full-time employees, as compared to 4648 on June 20, 1949.

RADIOSONDES COMPARED BY IMO

A NEW step towards increased accuracy of upper-air soundings, and an example of international cooperation in meteorology, was taken during May 1950 by the Joint Sub-Commission on Experimental Aerology of the International Meteorological Organization. At that time representatives of the United States and of several European countries met at the Swiss aerological station at Payerne to compare the performance of various radiosondes now in routine use.

Comparisons were made of instruments used by Great Britain, Finland, France, Switzerland, United States and the civilian meteorological service in the U. S. Zone of Germany. In addition to the delegates submitting sondes for trial, others came from Sweden, Norway, Belgium and The Netherlands; these countries use instruments made in one or the other of the above countries. The U. S. delegation was composed of: Christos Harmantas, Weather Bureau; Leo S. Craig, Signal Corps Laboratories; and a mobile weather unit of the Air Weather Service which assisted in the soundings.

The American representatives took two types of sondes to the field trials, the one used by the Weather Bureau and a new high frequency type recently developed by the Signal Corps. In most cases the comparisons were made by attaching two radiosondes of different types, one below the other, on the same balloon and making comparisons of the recorded data. Towards the end of the trials it was found possible in calm weather to launch six radiosondes one under the other, using three balloons to provide the lift. In the beginning there was some confusion due to radio interference in addition to differences in the timing for the instantaneous comparison of data.

In addition to the scientific and technical questions involved, the meeting brought out the fact that these diversities in radiosondes have considerable economic consequences. Many errors in the drawing of altitude charts, particularly in the levels above 300 mb., can result from the difference in data recorded from the various types of sondes. These errors can in turn lead to errors in the determination of wind speed and direction at high levels. For airlines which depend on these determinations in their flight planning such errors can be serious, especially in Europe where a flight of any length will cross several national boundaries. This was felt to add further urgency to the need for international action to standardize the methods of securing upper-air data.

No definite conclusions were reached as a result of the Payerne meeting. The problem of adopting satisfactory standards in the present diverse methods of different countries for exploring the atmosphere by radiosonde is extremely difficult

and is far from being solved. The basic difficulty is the absence of criteria by which each sonde can be judged. It was concluded that such criteria can be established only when there is available a radiosonde which is reliable in all respects. Since the group considered that such an instrument would not be available for a long time, it determined that fresh comparisons would be necessary.

RAOBS BEING TRIED ON MERCHANT SHIPS

A PILOT project to determine the feasibility of taking regularly scheduled raobs on commercial ocean vessels, and to develop simpler techniques and equipment for taking raobs at sea, has been begun by the Weather Bureau.

Initial operation in the project was the assignment of two Bureau men aboard the S. S. GENERAL CALLEN of the Military Sea Transportation Service for a voyage to Trieste and return. George L. Poole of the Atlantic Weather Project staff at Boston and Vaughn D. Rockney of the Central Office Observations Section were assigned on this first voyage. They left New York September 15 and were scheduled to return about a month later.

It is expected that several similar voyages on other vessels will be made before completion of the project.

CHANGES MADE IN OCEAN PROJECTS

TO ACHIEVE more effective ocean station operations, a number of changes have been made recently in both the Atlantic and Pacific Weather Projects.

Headquarters of the AWP have been moved from WBO New York to WBAS Boston, because most of the Coast Guard vessels used in the Atlantic for weather patrol are based at Boston and Portland (Maine). Operating matters therefore can be supervised more efficiently with the AWP Supervisor, A. D. Stedry, stationed in Boston. Mr. Stedry is aided by three assistant supervisors, in Boston, New York and Norfolk.

Atlantic Ocean Station ABLE (62°N., 33°W.) has since July 22 been operated jointly by the governments of the United States and the Netherlands. Two successive patrols by U.S. vessels are followed by one patrol by a Dutch vessel. Station ABLE was previously operated entirely by the United States.

Since July 1, Atlantic Ocean Station BAKER (56°30'N., 51°W) has been operated entirely by the United States. Prior to that every third patrol was made by a Canadian vessel.

In the Pacific Ocean one station was dropped and one added. Station OBOE (40°N., 142°W.) was discontinued July 31 for the duration of the Korean emergency. Effective September 10, Pacific Ocean Station SUGAR was established at 48°N., 162°W.

CHANGES MADE IN PIBAL NETWORK

A LIMITED pibal program was inaugurated at Prescott, Ariz., September 11 as a means of partially filling a gap in the upper-winds network. For the present only one pibal daily (1500 GCT) will be taken. The number of daily scheduled pibals will be increased as soon as the station's program can be readjusted.

To reduce the workload at Bakersfield, Calif., so that more time can be allowed for briefing pilots, the pibal program at that station has been transferred to Beaumont, Calif. WBO Beaumont will take on the pibal program (four daily) without increase in staff. Pibals were discontinued at Bakersfield August 30 and begun at Beaumont September 11.

WAKE ISLAND ACTIVITIES EXPAND

BECAUSE of rapidly increasing air transport requirements in the Pacific Ocean, the Weather Bureau office at Wake Island has been expanded in recent weeks to serve the additional traffic resulting from the Far East emergency. Briefing service to air carriers equivalent to that of a Main Meteorological Office under ICAO standards will be furnished. The authorized staff is now a GS-12 offical in charge, four GS-11 International Aviation Forecast Service forecasters, one GS-7 observer-briefer, one GS-6 supervising observer and six GS-5 observers. In addition, the Air Weather Service has agreed to assign eight enlisted men for plotting or observing work.

Kenneth A. Rice, former FAWS supervisor at WBAS San Francisco, has been selected as OIC. The former OIC, Robert W. Nicholson, who served very briefly in that capacity before the station was expanded to its present size and importance, will remain as principal assistant and IAFS forecaster.

Mr. Rice, who has been with the Bureau since 1939, was born in Musselfork, Mo., in 1908, attended high school at Huntsville, Mo., and Bethany-Peniel, Okla., and graduated from Bethany-Peniel College in 1930. He taught in the high school there for a year, took his M.S. degree in physics at the University of Oklahoma in 1933, and returned to Bethany-Peniel College to head the departments of physics and mathematics until the end of 1938. In January 1939 he was appointed as junior observer at the El Paso, Tex., Weather Bureau office. He remained there until November 1940, then was transferred to the Burbank, Calif., airport station. In April 1946 he moved from Burbank and was promoted to FAWS supervisor at San Francisco.

STATION ESTABLISHED AT CHARLESTON, W. VA.

THE long-delayed establishment of a Weather Bureau Airport Station at Charleston, W. Va., has now been completed. The office will provide a public service program for the City of Charleston and the surrounding area, weather advices and warnings for aviation interests, and a surface observational program for approximately 12 hours daily. The station will be staffed with a professional official in charge and two meteorological aids.

Selected for the position of OIC at the new station was John A. Mayer, previously an assistant analyst in the International Aviation Forecast Service Unit at La Guardia Field, N.Y. Mr. Mayer, who is 34, was born in Summerdale, Ala., attended high school in Clifton, N.J., spent three years at Valparaiso University, Valparaiso, Ind., and received a B.A. degree in chemistry from Washington Square College in New York City in 1936. He took his M. Sc. degree from New York University in 1939, then was employed as a chemist in private industry until 1943. After serving as a weather officer in the Army until 1946, he was employed by the Weather Bureau as a meteorologist with the Pacific Hypo Project at Tokyo, Japan, and Shanghai, China. From December 1947 to June 1949 he was a liaison official with the New York Regional Office, then was transferred to the Weather Records Processing Center at Albany as principal assistant. When the Albany WRPC was consolidated at Chattanooga early in 1950, Mr. Mayer returned to New York for service at La Guardia Field.

PLANE SAVES EUREKA MECHANIC

CHARLES L. HAVENS, Weather Bureau mechanic at the weather station operated jointly by Canada and the United States at Eureka Sound, NWT, was the object of one of the longest mercy flights in the history of Canadian aviation. He developed blood poisoning from a finger injury incurred at Eureka late in September.

In response to a radio message, a ski-equipped RCAF C-47 took off from Edmonton, Alberta, with a doctor aboard for the 2150-mile flight to the isolated weather station. If the plane had been unable to land the doctor was prepared to parachute to the station, treat Mr. Havens on the spot, and remain until spring. The landing was successful, however, and the plane took the patient on to Churchill, Manitoba, for hospitalization. This made a total of 3650 miles for the flight.

Mr. Havens recovered rapidly in the hospital at Churchill, and has now been flown back to Eureka Sound for return to duty.

MURPHY SECTION DIRECTOR AT HURON

ALVIN D. MURPHY, Jr., former chief field aide at Seattle, has now taken over the position of section director at Huron, S.D., replacing Robert V. Lawrence who died in May. Mr. Murphy was born in Peoria, Ill., in 1909, was educated at Bradley College (Peoria) and the University of Illinois, and served his apprenticeship in the Bureau as a junior observer at Chicago. He entered the Bureau in 1937 at that city, but returned to Peoria the following year, serving at that station until March 1940. Following this he was a hydrologic inspector at Cincinnati for two years. In 1942 he became a liaison official at the Chicago Regional Office, remaining in that capacity until 1947. In July of that year he was transferred to the Seattle Regional Office and promoted to head liaison official. During his assignment there he continued his studies at the University of Washington. Since the reorganization of the field inspection service early in 1950 he has headed the field inspection unit at Seattle.

In his new assignment at Huron, Mr. Murphy will be responsible for the Bureau program at both the city office and the airport station, for providing a public service program for the City of Huron and a large surrounding area, and for managing and developing the climatological service for the State of South Dakota.

NEW STATION AT SILVER HILL, MD.

A NEW observatory has been established on a 5-1/2 acre tract of land acquired by the Bureau in the community of Silver Hill, Md., about 4-3/4 miles east of Washington National Airport. Raobs and pibals have been discontinued at the latter station, and twice-daily rawinsondes and intermediate pibals are now being taken at Silver Hill. In addition to the upper-air observations, a program of testing new equipment and observational techniques will be conducted. In view of the short distance between the old and new sites for upper air observations no change is to be made in the station designation of upper-air reports. Surface observations will continue to be taken at Washington National Airport.

The observatory is being operated by a staff of six, headed by Jeff D. Ardoin, former observational supervisor at Washington National Airport. Mr. Ardoin, a native of Louisiana, was in the AAF Weather Service during the war and joined the Weather Bureau in September 1945, immediately upon his discharge. Until June 1946 he was stationed at Sault Ste. Marie, Mich., and from there was transferred to Washington National Airport.

NEW ACKNOWLEDGMENT PROCEDURE TRIED

IN AN effort to keep the field better informed about the status of problems or inquiries addressed to the Central Office, an employee suggestion for providing acknowledgments is to be tested for several months. If it proves successful it will be adopted permanently.

On several occasions in the past two years, memoranda have been issued instructing Central Office personnel to acknowledge incoming correspondence if it was apparent that a formal and complete reply would be delayed as much as a week or more. In addition, Chapter F-10 of the WEATHER BUREAU MANUAL contains instructions regarding the acknowledgment of correspondence. But in spite of the fact that considerable effort is made to acknowledge letters promptly, delays have been reported at times with field offices awaiting reply for periods long in excess of the prescribed limit.

The suggestion has been made many times that the Central Office use a form for acknowledgment of intra-Bureau correspondence. This procedure has never been adopted, principally because of a general dislike of form acknowledgment. Now, to test whether the advantages outweigh the disadvantages, use of a form postal card will be tried for a time. This postal card will be used by Central Office personnel as follows: If a reply to the incoming correspondence cannot be mailed in five working days, the office making the reply or holding the correspondence will issue an acknowledgment.

During the next few months, when this procedure is on trial, it will be appreciated if field officials will report to the Central Office instances when correspondence remains unacknowledged, in order that corrective steps can be taken to secure a full and fair test of the plan. At the end of a suitably extended trial period there will be a survey of station reactions and the final decision will be made in the light of station opinions.

MORE AUTOMATIC TELEPHONE SERVICE

AUTOMATIC telephone installations providing current weather information and forecasts revised hourly on a 24-hourly basis have been established in Cleveland and Philadelphia. This was accomplished through the joint efforts of the local telephone companies and Weather Bureau offices in those cities. The Cleveland installation was made in April and the one at Philadelphia began operation in September. This brings to a total of nine the cities in which this service is available to the public through cooperation with local telephone companies at no expense to the Weather Bureau.

JOBS AVAILABLE

SEVERAL positions are now vacant in the Central Office for which applications would be welcome from qualified candidates. Another position, outside the Bureau, is also available for a meteorologist who can qualify as a training specialist.

Two vacancies in the Physical Research Division under Dr. Ross Gunn are to be filled in the GS-7 or GS-9 grades. Candidates should have interest and ability in physical research. Prerequisites are college education with a major in physics. Applicants may write directly to Dr. Gunn in the Central Office requesting further information if they desire.

The position of chief of the General Forecast Section in the SR&F Division is now vacant following the departure of Oscar Tenenbaum to take charge of WBAS Boston. The grade for this position will be GS-12 or GS-13. Under the direction of the office responsible for administration of weather forecasting and service, the incumbent will be responsible for planning, development and administration of general weather forecast services. He will also serve as editor of the FORECASTERS' FORUM. Prerquisites are: Experience as district forecaster and extensive knowledge of organization and channels for general public service for the Weather Bureau; also evidence of the initiative and planning ability involved in this position. Further information about the General Forecast Section may be found in the February 1950 TOPICS.

In addition to these positions in the Weather Bureau, an opening is available at the Naval Air Station, Lakehurst, N. J. for a meteorologist who can qualify as a training specialist at GS-11 grade. Candidates for the job, which is in the NAS Naval Aviation Technical Training Unit, must have "training in meteorology, supplemented by practical experience in the field of meteorology." Duties and responsibilities of the position are described as follows:

> Incumbent is responsible for recommendation of training methods to be utilized in the accomplishment of the mission of the three Aerographer's Mate Schools. Recommendations include suggestion and organization of courses of study, curricula, testing programs, and development of instructional aids. Sequence of presentation, so that it is efficiently presented, as well as technical course content is part of this task. Responsible for the development of and the use of instructional material which includes a wide variety of information sheets on three distinct educational levels. Organization of lesson guides, laboratory job sheets, and other pertinent data. Assist in the development and revision of courses of study for all Aerographer's Mate Schools. Responsible for the upgrading of instructor personnel through interviews and conferences.

Any Bureau employee interested in applying for this position should send a completed Standard Form 57 to the Industrial Relations Department, Naval Air Station, Lakehurst, N.J.

A JOB FOR EXCHANGE

WILLIAM B. MORELAND, GS-7 meteorologist (fire-weather forecaster) at Olympia, Wash., would like to exchange jobs with someone at Los Angeles, Calif., or one of the nearby cities.

Employees interested in making the above exchange at their own expense should write directly to Mr. Moreland to make preliminary arrangements. If the transfer is satisfactory to all concerned under the conditions outlined in the May 1950 TOPICS, then action to effect it should be initiated through official channels.

SIX SCHOLARSHIP STUDENTS SELECTED

SIX Weather Bureau employees are now attending universities after having been selected for scholarships which provide them with graduate training in meteorology at government expense. Four of the men chose New York University, and the other two the University of California at Los Angeles.

Those attending NYU include: Garland M. Byrum, observer-briefer from WBAS Indianapolis; George O. Collins, Jr., meteorological aid at WBO Miami; Harold L. Crutcher, formerly meteorological consultant to the U. S. Civil Aviation Mission to Peru, stationed at Lima since 1947; and Robert A. McCormick, meteorologist in the Hydrometeorological Section, C&HS Division, Central Office.

At UCLA are David A. Burt, airway forecaster from Fairbanks, Alaska, and Walter E. Highberg, meteorological aid from WBAS San Francisco.

ASSISTANT MATERIEL CHIEF DIES

JOHN J. DEAN, assistant chief of the Materiel Section, died September 20 in a hospital in Washington, D. C. Complications resulting from a serious attack of asthma caused his death.

Mr. Dean was born in Somerville, Mass., December 12, 1906. He attended schools in Somerville, and Boston University. After working for the City of Boston, the National Recovery Administration and the Veterans Administration, he joined the Weather Bureau in 1937 as a junior clerk in the Central Office. His whole service was in Washington.

Mr. Dean is survived by his widow, Mrs. Lillian J. Dean, and four children.

PRESSMAN DIES IN WASHINGTON

JOHN B. STANTON, letterpress pressman in the Central Office Printing Section, and assistant foreman of the pressroom, died in Washington August 25. He had been with the Weather Bureau nearly 33 years.

Mr. Stanton was born in Washington, D. C. February 27, 1901. He grew up in that city, and joined the Bureau in 1917 at the age of 16 as a messenger. Later he served as press feeder and folder, junior mechanic and then pressman. He was not married, but is survived by his mother Mrs. Mary E. Collier of Washington, D. C.

F. W. Reichelderfer

F. W. REICHELDERFER
Chief of Bureau.

WEATHER BUREAU

Topics

Holiday Greetings and Best Wishes for 1951

from your Central Office Friends

F. W. Reichelderfer

NOVEMBER — DECEMBER 1950

WEATHER BUREAU TOPICS

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TORNADO PROJECT TO START IN FEBRUARY

IN A major attempt to obtain better understanding of the mechanism producing severe line squalls and tornadoes, the Weather Bureau is undertaking a comprehensive program for observation and analysis of these phenomena. A special network of surface stations will be in operation in the Kansas-Nebraska-Oklahoma area from February through August 1951, and some 300 additional radiosonde and rawinsonde soundings will be made from existing stations during the same period.

Renewed interest in these severe storms has been brought about by investigations of the sharp-edged pressure waves called "pressure jumps" which accompany the storms, reported by Morris Tepper and John Freeman of the Scientific Services Division, and by the specialized forecasting techniques of the Air Force Weather Service Meteorologists at Tinker Field, Okla. For investigating these two different approaches to the problem of forecasting tornadoes, a much more detailed picture of the weather than can be obtained from the regular synoptic network was found desirable. For this reason the special network was established. An investigation will be made not only of the two methods above but of the broad synoptic picture of squall-line and tornado occurrence in an attempt to identify the factors causing them. A similar project, conducted on a smaller scale in the Washington, D. C., area from January to June 1950, indicated that excellent results should be expected from a full-scale program in the West.

The special network will contain approximately 135 stations within a rough square which includes most of Kansas and Oklahoma as well as portions of adjoining states. The network will include about 50 existing weather stations; most of the remainder will be located with present cooperative observers in order to take advantage of their assistance. The basic instrument used will be the microbarograph for detection of pressure-jumps. The instruments will be speeded up to permit detailed observation of these short-period pressure fluctuations.

Within this large square, an arc-shaped area has been selected as the area of maximum tornado incidence over the past 17 years. This arc begins at Kansas City and runs westward and southward to Anthony, Kans. In this area will be located 39 of the stations, and these will be equipped with high-speed recording rain gages, hygrothermographs and wind equipment, in addition to the microbarographs.

The surface network will be in charge of Dansy T. Williams, who had charge of the surface stations for the Thunderstorm Pro-

ject. Headquarters of the project will be at Kansas City, and much needed help will be provided by the regional office, WBAS Kansas City and WBO Topeka.

Special upper-air soundings will be made from Omaha, North Platte, Dodge City, Oklahoma City, Columbia and Little Rock. The soundings will be timed to gather as much data as possible on the upper-air structure attendant upon squall-lines and tornadoes. J. R. Lloyd, OIC at WBAS Kansas City, who has been one of the most ardent supporters of a tornado research project, will schedule the flights to coincide with periods of actual or expected tornado and squall-line activity. Similar data is to be obtained from the Air Weather Service rawinsonde station at Sherman Field (Ft. Leavenworth), Kans., and possibly from mobile stations used in the area by the AWS.

Radar coverage will be provided by the Weather Bureau stations at Wichita and Norfolk, as well as by the Air Weather Service radar installations at Offutt Field (Omaha), Sherman Field, Tinker Field and Post Field (Ft. Sill, Okla.) Photographs of the scopes will be made continuously during tornado and squall-line conditions. Solar radiation measurements in the area will also be used.

Analysis of the data will be carried on in the Scientific Services Division at the Central Office. General aspects of the work will be in charge of Roger Allen, head of the Short-Range Forecast Section, and the pressure-jump analysis under Mr. Tepper. The whole project is under the leadership of Dr. Harry Wexler, chief of the Scientific Services Division, and Ferguson Hall is acting as project chairman.

PAPER PREPARED ON RELIEF MODEL

PAUL C. KANGIESER, meteorologist at the San Francisco Forecast Center, has prepared a paper entitled "Construction of San Francisco Bay Area Relief Model", explaining the step-by-step construction of the relief model mentioned in TOPICS, July 1950, p. 92. The treatment is thorough and well illustrated by photographs of various phases of construction. The significance of Mr. Kangieser's paper is that it passes along his valuable experience and knowledge which should enable others to avoid time-consuming mistakes and to complete a model in considerably less time than the 700 hours required for the San Francisco model. For the guidance of any other Weather Bureau offices considering construction of a relief model, two copies of Mr. Kangieser's paper are available on loan from the Central Office Library.

EMPLOYEES' IDEAS IMPROVE OPERATIONS

A CRITICAL review by several Bureau employees of the work going on around them has resulted in recent months in worthwhile improvements to Bureau operations. Such things as modification of forms to better suit the purposes for which they were designed, more convenient binding of records, addition of supplementary data to the Central Office telephone directory to make it more useful, and reduction of communications costs are among the ideas submitted by employees.

The most amazing submission was that of two identical suggestions, sent in by two men stationed 1500 miles apart, which reached the Central Office on the same day and were time-stamped into the mail room only three minutes apart. John H. Crawford, meteorological aid at Santa Maria, Calif., and William J. Trebbe, OIC at St. Cloud, Minn., both had the idea that numbers should be printed along the constant pressure blocks on the left margin of WBAN Forms 31A and 31B to indicate the card which the data should be punched on. The idea was adopted and the result is expected to be simplification of the task of transferring data from the forms to punched cards. Each man received $15 for the suggestion.

Another $15 went to Richard A. Dightman, official in charge at Helena, Mont. Finding that on Form 2014, "Field Purchase Order," businessmen often filled out the form incorrectly when the "vendor" and the "payee" were different, Mr. Dightman suggested that these lines on the purchase order be filled in by the office preparing the order. Adoption of this procedure is expected to cut down on the number of such forms which must be redone because they are filled out incorrectly.

A second form, WB Form 1068C, "Barogram," is to be modified at the next reprinting to include a change suggested by Darrell D. Hudgins, meteorological aid at Birmingham, Ala. A "time on" and a "time off" box will be printed on the form, and the whole-inch digits will be left off except at beginning and end of the sheet. These changes will make a neater record for microfilming and facilitate use of the form. Mr. Hudgins was awarded $25 for the idea.

Wesley Irvin, observational supervisor at El Paso, Tex., designed a new form as an aid in coding and filing pilot weather reports for transmission by the CAA. This new working form, similar in design to WB Form 3024B, "Telegraph Blank," is being distributed; it should bring about the more frequent transmission of pireps over the circuit, a matter that has heretofore been too much neglected. Mr. Irvin was awarded $25.

Two improvements to the metal-post binders used for Forms 1001 (B and C) and 1130 (A and B) have come from suggestions made by employees. Eugene T. Hawkinson, principal assistant at Tucson, Ariz., suggested uniform title cards which can be attached to the back of each binder. These back titles have been reproduced and distributed for use at stations. An award of $15 went to Mr. Hawkinson. In addition to this, a way to permit filing a full year of observational records in each binder was suggested by Francis J. Spade, OIC at Park Place, Pa. By supplying each station with an extra set of metal posts, the binder can be extended to hold a full year's records instead of only six months. This materially reduces the number of binders to be purchased, and Mr. Spade was awarded $25 for his idea.

Supplementary information intended to increase the usefulness of the Central Office telephone directory is being included because of two Central Office employee suggestions. A floor plan of the Old Main and Annex buildings of the Central Office was the idea of Charles M. Lennahan, a supervising analyst in the WBAN Analysis Center. These buildings, erected more than 60 years ago, were not designed as offices, so the numbering of the rooms is not as logically organized as in the new administration building completed in 1940. The floor plan has therefore been found useful to employees not familiar with the building. Mr. Lennahan was given a certificate of commendation for his idea. Another useful inclusion in the directory is a numerical listing of the Central Office organizational code numbers, suggested by John I. Shope, supervisor of the Communications and Bulletin Unit, SR&F Division. This list is expected to be useful to employees in locating the office which has prepared a letter for the Chief's signature when questions arise about matters connected with the letter. Mr. Shope received $15 for his idea which makes a material contribution to more efficient use of clerical time.

Ivan W. Brunk, district forecaster at WBO Chicago, suggested that the midnight forecast which is sent to the Pere Marquette Railroad office at Ludington, Mich., from the Weather Bureau office at Detroit, could be sent via the railroad company's own lines, thus saving Western Union charges. The railroad agreed to do this, the Bureau adopted the suggestion, and Mr. Brunk was awarded $20.

An award of $25 went to Lewis C. Norton, assistant analyst in the WBAN Analysis Center, for his suggestion to use a different type of paper for reproducing manuscript maps. Following up on his idea, the Bureau found that single-coated intermediate paper served the Bureau's purposes as well as the double-coated paper

used previously and cost less. The suggestion was adopted and single-coated paper will be used in the future.

To facilitate the plotting of radar storm observations, the Bureau is going to use a transparent plexiglass overlay marked with concentric circles at stations which plot these observations. The idea was suggested by Luther B. McDonald, former meteorological aid at Albuquerque, who resigned from the Bureau in August. Mr. McDonald was awarded $25 for his idea.

Finally, the station location identifier of Fort Lauderdale, Fla., is now FLL instead of FLD as previously. Elbert C. Hill, Jr., noted that this designator was the same as the teletype abbreviation for "field." Because of the resulting confusion, Mr. Hill suggested a change; the CAA has now changed the designation and Mr. Hill was given a certificate of commendation for his suggestion.

JAPANESE METEOROLOGIST VISITS U. S.

SPONSORED by the SCAP Foreign Office of General MacArthur's headquarters in Tokyo, Japan, the Director of the Central Meteorological Observatory of Tokyo, Dr. Kiyoo Wadati, recently spent more than two months in the United States and Canada studying the weather services of the two countries. Arriving in this country in August, Dr. Wadati stopped at the Weather Bureau Offices at Anchorage, Seattle, Billings, Minneapolis and Chicago before proceeding to the Central Office for a three-week stay. He then visited Boston for about a week on his way to the headquarters of the Canadian Meteorological Service at Toronto. Returning south, he visited the Weather Bureau offices at La Guardia Field and Idlewild, in addition to the Department of Meteorology at New York University. After another period in the Central Office, he visited Miami, Knoxville, St. Louis, Los Angeles, San Francisco and Honolulu before returning to Japan.

NEW CIRCULAR M DISTRIBUTED

THE eighth edition of Circular M, "Manual of Marine Meteorological Observations" and WB Form 1210F, "Log of Ship's Weather Observations" are being distributed to the cooperating ships of the Marine Weather Service. The new Circular M corresponds in style and appearance to other Weather Bureau observation manuals. This edition does not involve a change in the basic instructions. The new Forms 1210F are issued in a folding log book. The form has been designed to eliminate dual entries and to provide ample writing space. Circular M and Form 1210F will become effective on the date of delivery to the individual ships.

RADIO DISCUSSION OF CONTROVERSIAL TOPICS

DIRECT radio broadcasts from local Weather Bureau offices have proved over the years to be one of the most effective means of getting forecasts and other weather information to the public. Because of the successful use of radio for this purpose there is always the temptation to take administrative problems, such as the need for larger appropriations, directly to the public in this manner.

Circular Letter 82-50, recently issued, restates the well known and long established policy that under no circumstances are Weather Bureau employees to discuss on weather broadcasts any legislation on the appropriations available to the Bureau, matters of government policy, or political or budgetary matters.

Such actions, if permitted, would be contrary to statutes which prohibit the use of government resources to influence appropriations, and also contrary to provisions of executive order which provide that the President stand responsible for his budget representation to Congress covering the executive departments.

The Central Office is required at appropriate times to bring to the attention of the executive departments and legislative committees through regular channels the merits of new program demands. Responsible agencies weigh the merits of our case in the light of the whole fiscal situation confronting the government, and the Congress finally determines the measure of financial support which the Bureau should administer.

Broadcast facilities are made available to the Weather Bureau for public service in disseminating weather information and not for airing administrative problems or personal views. To inject extraneous matter into weather broadcasts jeopardizes the continued availability of these important free channels of dissemination, with no gain in value to the public.

Weather Bureau employees making radio broadcasts or other public statements must remember that they cannot divest themselves of their official character in any public pronouncement on matters relating to the services rendered by the Bureau. If a government employee desires to publish his views on controversial political issues he should first make sure he will not involve his official position; in major issues he is usually expected to terminate his service with the government in order that he may speak solely as a private citizen.

CEILOMETER ASSISTS AIRCRAFT LANDING

A CEILOMETER is valuable in Alaska for more than just measuring cloud heights, according to the CAA's Eighth Regional NEWSLETTER. On September 22 the pilot of an Army Search and Rescue C-47, enroute from Elmendorf to Juneau during exceedingly stormy weather, found himself in the vicinity of Cape Spencer with barely enough fuel to reach Gustavus. It was late in the evening and head winds in excess of 100 mph. necessitated landing without delay. Turbulence, rain and practically no visibility (all land marks obscured) contributed to his difficulty in finding Gustavus.

Continuous radio contact was maintained with the aircraft by CAA Communicator Jerome Lardy at Gustavus. He alerted station mechanics and maintenance personnel who cut in the spare generator, synchronized it with the one in operation and placed the "Bartow" lights on their highest intensity. The ceilometer and ceiling lights were both kept on as well.

The aircraft was advised to come in on the southwest leg of the Gustavus range and was informed of the mountains to the north of the field. Shortly thereafter he was heard overhead to the south, and he reported seeing "a beacon" through a break in the clouds. This was the ceilometer light. A few minutes later Mr. Lardy had the aircraft on the field.

The fuel supply in the plane was such that no landing field other than Gustavus was available to the pilot.

SETTING UP A 'CURIO SHELF'

SURVEYS of official records being maintained have been made at several field stations in the past few months to determine what material should be kept and what should be thrown away. In many cases it was found that letters, bound volumes of weather maps, Signal Corps bulletins, etc., dating in some instances as far back as 1870, were being stored. Most of these old papers have no real record value in themselves, and instructions for disposing of them are being issued as a revision of Chapter F-39 of the WEATHER BUREAU MANUAL.

Samples of such materials, however, do have some historical value, and at the stations surveyed it was suggested that a few representative items might be kept as exhibits. By setting aside a portion of the bookcase as a "curio shelf," examples of early methods of handling weather information can be kept for occasional public display. Other stations disposing of old records may find such a step advantageous, and they are encouraged to set up such a shelf if they believe it worthwhile.

IS THIS A RECORD?

CARL BABB, Weather Bureau cooperative observer at Newport, Tenn., for many years, has been using the same minimum thermometer for what may be a long-time record---46 years. His observations and records are accurate and the thermometer is obviously a good one. Has anyone done better?

SPREADING PROFESSIONAL COVERAGE

A PROGRAM designed to provide most stations with additional meteorologist positions in lieu of meteorological aids is now under way. Funds for this program were appropriated because of the rising public demand for Bureau services, and the increasing complexity of forecasts, warnings and advices provided, which resulted in a need for more adequate shift coverage by professional employees. It is a challenge to all of us to see that this program pays dividends in improved services to the public.

To make the best use of professional staff, each official in charge should schedule himself and his staff in a way which provides service to the public most completely and effectively. This may mean that the OIC and first assistant will have to be scheduled for week-end, holiday or night duty in proper rotation. Since their experience is generally the most complete of all employees on the station, they should assume responsibility for night tricks or special tours when critical weather impends and makes the work of the station more than usually important to the public. In any event, all responsible officials should stand occasional night, holiday and week-end shifts for familiarization purposes. The primary objective is to have a well-trained employee on duty at all times to provide aviation and public advices, and to insure positive alerting action in the interests of the public when adverse conditions exist or are foreseen.

At a station with six professional employees (OIC, first assistant, and four GS-7 general service meteorologists) and four meteorological aids (GS-5), 24-hour professional coverage can be maintained if the OIC and first assistant act as relief employees on the professional schedule. The four subprofessional employees cannot provide continuous 24-hour coverage on observations, charting and other work; neither can they be used regularly on tricks involving a large amount of professional work. Under these circumstances, 24-hour professional coverage should be scheduled first of all, without regard to whether it is necessary for professional employees to perform

observational or other subprofessional work on some of the shifts assigned. The subprofessional employees should then be scheduled to cover surface and upper-air observations, charting, card-punching and similar duties during the periods of peak professional and public service load.

This general approach applies also where there are not enough professional employees to cover the full 24 hours of each day. With three professionals, 16-hour coverage, 7 days a week, can be arranged. With two professionals, partial 16-hour, and daily 8-hour, coverage is possible except when one professional is on leave.

The following procedures for scheduling are approved, and should be used in all applicable instances:

1. At airports, as well as at other stations whenever practicable for more than one competent employee to be on duty at the same time, employees should be scheduled to take half-hour lunch periods at convenient times during their tours of duty, so that there will be a brief period of overlap with the employee coming on duty for the next shift. When only one employee is on duty during the night shifts it is preferable for the employee to eat his lunch without leaving the office and, in these cases, the half-hour lunch period will not be adhered to.

2. If it is necessary to have double coverage daily at map, pibal, forecast and other periods occurring at 6-hourly intervals, and only three professional employees are available, schedules should be arranged so that one professional covers two such periods within an 8-hour tour, leaving 4-hour intervals between the two daily professional shifts.

3. Seven-hour weekday and 5-hour Saturday scheduling is a useful tool in spreading coverage under some circumstances.

4. Overtime, or compensatory time if possible, should be used judiciously to meet emergencies. It is not necessary to schedule a full eight hours of overtime if that much is not needed; rather, it can be scheduled an hour or two at a time as occasion may require.

In general, available professional-employee time should be spread over the greatest possible number of hours consistent with the actual needs of the public for weather service during particular periods of the day. Any scheduling which tends to place more than one professional employee on duty at the same time, while leaving important periods to be covered solely by relatively inexperienced employees, is to be avoided whenever possible.

WORKLOAD-STAFFING RELATIONSHIPS

REASONABLY accurate measurements of the amounts of time required to perform various station duties are fundamental to a proper understanding of the relationships of workload to staffing at field stations. During March of this year, a sampling was made of about 25% of all first-order stations to obtain their estimates of time required to complete various station duties. In addition, over the past several years the Central Office has from work-and-program surveys, correspondence, and other sources been able to bring together enough information to permit the striking of averages for times required to perform many basic operations at field stations. These averages have since been compared with the times shown on "task sheets" used in recent formal work and program surveys made at various stations, with surprisingly close agreement in most cases. Accordingly the Central Office feels justified in using these averages as standards to arrive at tentative estimates of basic station workloads in those cases where direct surveys are not possible, to use them in preparing fiscal estimates, and to use them in other work of similar nature where the data are applicable.

It will be recognized immediately that an average may not apply well to the situation at a particular station, or to conditions arising during specific periods of time. For example, the time required to take an airway observation during "CAVU" conditions should differ from the time required to take an airway observation when a thunderstorm is present. Also, instrumental exposures and equipment vary between stations. However, when average time requirements at a station deviate from the "basic averages" reevaluation of procedures at the station is in order.

So far figures have been developed for taking and recording observations; transmitting observations on Service "A" and "C" teletypes; maintenance of instruments; transcribing, compiling, and/or verifying records; chart work; and posting teletype weather data. We feel that this material will be of interest to all field officials and may prove useful to them in making analyses or comparisons of the local workload on their own initiative. Accordingly, a tabulation of data developed to date will be issued in the near future, probably in the form of a Circular Letter.

Work to develop averages of time required to perform all types of recurring station duties is proceeding and by this means we hope eventually to be able to construct factual pictures of average basic workloads at all stations. Necessarily, these pictures will not be complete with regard to the details of amounts of time required for irregular service, station housekeeping and

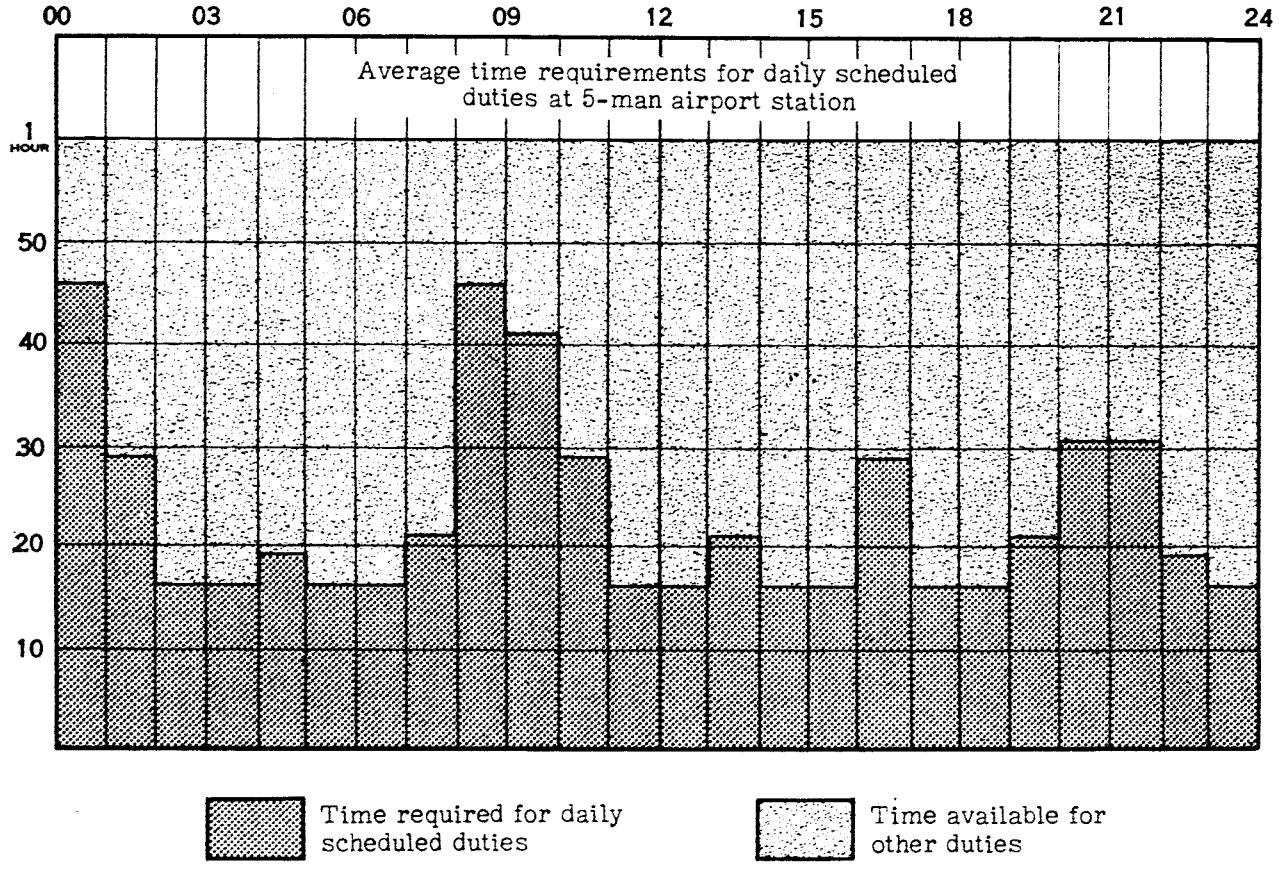
AVERAGE TIME REQUIREMENTS AT A 5-MAN AIRPORT STATION

Duties: Take airway observations; operate Service "A" teletype; draw one surface chart a day; post weather on seven clip boards. (Administrative overhead and public service are not included in this presentation.)

Daily Scheduled Duties	00		03		06		09		12		15		18		21		24
Airway hourly	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
3-hrly, 6-hrly and midnight observations	5	5			3		5			3			5		3		5			3	
Svc "A" transmissions	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Posting Weather	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
1130 checking and summary	25									10					10						
1001C (daily)		10																			
Checking awy punch cards																		15	15		
Plotting and analyzing sfc map (50 signals)							30	25													
Total Minutes	46	31	16	16	19	16	16	21	46	41	29	16	16	21	16	16	29	16	16	21	31	31	19	16

Weekly Scheduled Duties	Min. per week
Form 1068	15
Weighing rain gage chart	40
Mailing punch cards (Awy)	20
Maintenance teletypes	30
General Maintenance	60
TOTAL	165

Monthly Scheduled Duties	Min. per month
1001C Summary	180


00
03
06
09
12
15
18
21
24
Average time requirements for daily scheduled duties at 5-man airport station
1 HOUR
50
40
30
20
10
Time required for daily scheduled duties
Time available for other duties

administration, and other work of unscheduled or nondeadline character, but the availability of certain amounts of time for these purposes will be indicated as the differences between the basic scheduled work required to be performed in any given period of time and the man-hours scheduled for that period. To illustrate, a picture of this method as applied to a typical small airport station having a staff of five employees accompanies this article. Future articles on this subject will deal with application of this tool in more complex situations and to the very numerous other phases of Bureau work where a general evaluation of the workload would be of benefit.

PENDLETON OIC RETIRES

BECAUSE of continued ill health, George V. Scott, official in charge at Pendleton, Oreg., retired on disability October 17. He has been on leave without pay as the result of his illness since July 1948. At the present time he is confined in the Eastern Oregon Tuberculosis Hospital, The Dalles, Oreg.

Mr. Scott, 41, has been with the Bureau since 1939. He is a graduate of Brigham Young University at Provo, Utah, and joined the Weather Bureau as a junior observer at the Ely, Nev., airport station. From November 1940 to May 1943 he served at WBAS Seattle, then was transferred to Pendleton. He was promoted to official in charge at Pendleton in March 1945.

BUREAU TRAINS TURKISH STUDENTS

FOURTEEN members of the Turkish Meteorological Service are now receiving meteorological training at the Washington National Airport. At the request of the Economic Cooperation Administration, the Weather Bureau has arranged a course of study suited to the needs of the Turkish students.

For the most part, the students were observers and student forecasters in the Turkish Meteorological Service. Having completed a summer course in physics, mathematics and English at Wilson Teachers College in Washington, they are now engaged in theoretical and practical meteorological studies under the supervision of the Central Office Training Section. Lectures are given by instructors drawn from all divisions of the Central Office. For the final phase of their training, the students will be detailed to the various forecasting centers so that they may become familiar with the latest operational techniques and practical meteorological procedures.

Upon their return to Turkey, the men will generally be assigned to the forecasting centers of the Turkish service.

WEATHER SHIP VISITS SCOTLAND

OBSERVERS aboard the Coast Guard Cutter CASTLE ROCK made a contribution to the cementing of international relations recently, when the vessel put into Glasgow, Scotland, on September 2 for a six-day recreational visit. OIC Robert G. Hill, with Peter F. Gordon, Jack A. Hansen, Michael S. Hvizdak, and George P. Schaefer, were the Weather Bureau men aboard the CASTLE ROCK when it proceeded to Glasgow following patrol duty on Ocean Station ABLE.

Mr. Hill, with the officers of the CASTLE ROCK, was entertained by the Mayor of Glasgow and by officials of the American Consulate. All the observers visited the British weather ship, WEATHER OBSERVER, at Greenock and were shown the meteorological facilities and equipment of the vessel. The men also visited Prestwick Airport, which achieved fame as an American airbase in World War II, witnessing the pilot briefing and control tower operations there.

Representatives of both the Merchant Navy Navigational School of the Royal Technical College and the British Meteorological Service visited the CASTLE ROCK and were shown the points of interest aboard the ship.

Sir Nelson Johnson, Director of the British Meteorological Service, has expressed his pleasure to the Chief of Bureau over the mutual advantages afforded to weather personnel by the visit.

RETIRED BUREAU EMPLOYEE DIES

WILLIAM D. LEE, a Weather Bureau employee from 1914 until his retirement in 1944, died October 27 in Washington, D. C. Mr. Lee was born in Easton, Md., Sept. 11, 1879. He joined the Weather Bureau in July 1914 by transfer from the Bureau of Crop Estimates of the Department of Agriculture. His entire service was in the Central Office.

Mr. Lee is survived by a daughter, Miss Elizabeth N. Lee of Washington, D. C., and two brothers, Harry H. Lee of Washington and Dr. Claude D. Lee of Easton, Md.

SAN JUAN EMPLOYEE RETIRES

CARLOS NIEVES, laborer at WBO, San Juan, P.R. retired on October 31, 1950. Mr. Nieves has been associated with the Weather Bureau since 1917 as an unskilled laborer on a daily wage basis. He gained a formal appointment effective July 1, 1927. Mr. Nieves entire service has been in the San Juan Weather Bureau Office.

DAY'S WORK OF AN OIC

AT HUNDREDS of places in the United States, Alaska and overseas, the entire program of the Weather Bureau is, in effect, entrusted to one man, the official in charge. The public calls him "The Weatherman," as if there were no other weathermen, for in each of these places the OIC's job is the most important in the Bureau. On the front lines of our activities, he is the Bureau's direct representative in his local area.

No matter what the size of the community or area served, no matter what the size of the station, his is a big job with many... probably too many...demands on him. Under those circumstances, how can the OIC work best? In the Central Office there has been much discussion of the subject, and certain broad aspects of a better working plan have emerged. This is the first of a series of articles on the subject, and we hope that some of them will be written by OIC's...past, present and prospective.

The OIC is always responsible for more than he personally can accomplish. He must, therefore, distribute his time, and also the time of his staff, to do the job for which he is responsible. But what should he do and what shouldn't he do? What should he do first? What should he never overlook? These and similar kinds of questions we hope to answer in this series of articles.

The Weather Bureau is basically a professional and technical organization, and the OIC must be the leading professional at his station. He was chosen for his job because of demonstrated competence in the Bureau's service programs. Public respect for the Bureau depends on his maintenance of this competence. The OIC's most important responsibility is, therefore, in the professional and technical field, chiefly that of forecasting (in all its aspects, including river, frost, fire weather, etc.) and adaptation of the Bureau's many programs to local public needs. As leader and manager, he has the duty of developing his assistants along scientific lines, and he can do this best by constantly participating in the work. The supervisor is most successful who can himself demonstrate how the task he supervises should be performed.

However, the larger the station and the more varied its activities, the less likely is it that the OIC can maintain proficiency in every one of its operations. In that case, it becomes all the more important that he participate in the most important professional and technical operations that relate directly to public service. At all stations they include forecasting and public consultation; at many, personal and telephone service contacts

(on the most important calls);and at smaller stations, they include chart analysis and observational work.

In all this, what happens to "administration?" If we include in administration the management and direction of the technical program, and the recurrent appraisal of station activities leading toward greater efficiency and effectiveness, these are certainly an important part of the OIC's job, to be listed in his professional and technical activities. But there are other items, more commonly included under administration, which some OIC's also feel it their duty to perform. It is agreed that vouchers must be checked, supplies ordered, inventories maintained, and prescribed reports rendered. But the fact remains that the basic work of the Bureau is not this type of "administration." It is not the Bureau's reason for being, and is therefore not the OIC's most important work. If he concentrates on it, he neglects the more important work. Some of it he must do, but there is much he can delegate to his assistants, and he should delegate so that he may continue to be proficient in professional work.

It comes to this: The OIC is the most responsible man at the station; he should be doing the most important work. There are difficulties in mapping out a proper distribution of his time, and even greater difficulties in adhering to such a plan. Unforeseen circumstances and unexpected people keep turning up. However, there is an average distribution of time which may be maintained in general. Here is an actual breakdown of one OIC's time at a consolidated station of moderate size, located at an airport:

Forecasting	30%
Personal and telephone contacts (probably too high)	30%
Administration (includes training)	20%
Charts (analysis)	10%

These percentages total only 90%. The other 10% does not fall into any particular category. In this case, it is refreshing to note just what the administrative work consists of...conferences with staff for training and planning purposes, familiarization with instructions, correspondence. These are just the items that cannot be delegated. The personal and telephone contacts include consultations with the public. This OIC tries to keep the forecast trick as part of his daily work. When on duty, he makes the forecast he considers the most important of the day because of its greater distribution and use. He wants to be sure that this forecast is the best possible. He always spends the first hour or so of his day on it, and feels that this established routine keeps him in better forecasting trim. He makes every effort to schedule visits and consultations for other hours. His is an arrangement of daily work strongly favored by the Central Office. How does your schedule as an OIC compare?

PROGRESS REPORT ON IMPROVEMENT PLAN

EARLY in November a series of meetings was held by representatives of the Budget Office and the Plans and Program Management Office, with the heads of the various divisions and sections in the Central Office. Purpose of the meetings was to discuss progress of the management improvement work planned by these units.

This was the latest step in carrying out the management improvement program as formulated last year and submitted to the Bureau of the Budget April 1, 1950. At that time and following a series of meetings to explain the program, Central Office section and division chiefs were required to submit written reports on what they had done in fiscal year 1950 and what they planned to do in fiscal year 1951 to improve the management of their own operations. This material was submitted to the Bureau of Budget along with Budget estimates for Fiscal Year 1952.

Next spring another series of meetings, expected to include sessions with regional office supervisors, is planned as preliminary to the 1951 reviews and report to the Department and Bureau of the Budget. At present there are no plans to require these reviews from station officials, but a strong effort is being made to encourage supervisors and employees at all levels to examine their own activities with a critical eye toward increasing effectiveness in use of time and efficient utilization of available means.

As it operates in the Weather Bureau, the program consists principally of two phases. One is an effort to give every employee an understanding of the work he is doing and how it relates to the overall objectives of the Bureau. Management is the process of marshalling available resources towards the accomplishment of given objectives. The management improvement program tries to give each employee an understanding of his part in this process and to stimulate his maximum participation in it. This is carried on through personal explanation, encouragement and direction.... by supervisors, field aides, visiting officials, etc..... and through written material...the WEATHER BUREAU MANUAL, specialized technical circulars, training materials, circular letters and memoranda, TOPICS, and similar media.

The other phase of the program is a critical evaluation of work being done, to determine whether it is contributing appropriately to accomplishment of the principal objectives of the Bureau. The purpose of such evaluation is not a reduction in number of employees, but rather that all will be able to participate

productively in getting the best job done for the public. This review is carried on in various ways: By supervisors; visits of Central Office and regional officials; surveys of P&PMO analysts; field aide inspection; through reports; through the budget process; and by employees themselves.

Review by employees themselves is one of the most important means of locating activities which could be improved. The suggestion and award program carried on in the Bureau for several years has been and will continue to be a part of the incentive plans for continuing participation of employees in the critical review of operations looking to their improvement. Thus, every employee is a potential "free-lance management analyst," with real opportunity for recognition of useful new ideas.

"Management improvement," as the Weather Bureau views it, means giving the taxpayers more for their money. If by giving thought to our work we can raise the quality of our "product," or produce more of it without lowering its quality or requiring more people, more money, or materials, that is management improvement. If we can do our present work in less time or with less staff (so we can assign the excess staff to other important work), without affecting work quality, that too is management improvement.

Some of the larger projects now under study for improved results include: Reorganization of the general public forecast and aviation weather services; standardization of river and flood forecast procedures; coordination of multiple offices in local areas; raising observational standards; improving the utilization of Analysis Center data; improving utilization of climatological records; and development of an effective employee evaluation system. These are planned projects which are being given Central Office leadership, but many smaller projects are also receiving attention. Another article in this issue of TOPICS describes particular gains brought about as the result of suggestions by employees.

The widest participation of all employees in the more effective and productive use of their own or other's time, in the economical use of communications and supplies, and in efficient maintenance of physical plant, will constitute a real management improvement program, of enduring value to the Bureau and to the public.

STATION DEFINITION AND CLASSIFICATION

ALMOST everyone in the Weather Bureau has, at one time or another, wondered whether a particular Weather Bureau Office was at an airport or a downtown location. Instructions issued with the new Station Information forms, WB Forms 1144A and 1144B, define first- and second-order stations and indicate that differentiation between "Weather Bureau Office" and "Weather Bureau Airport Station" will be based on location only. "Weather Bureau Office" will be used by first-order stations at other than airport locations, and "Weather Bureau Airport Station" by those at airport locations, irrespective of other first-order stations in the locality. If a Weather Bureau Airport Station is the only Weather Bureau Office in a locality, it may locally continue to be called the Weather Bureau Office; but in Bureau correspondence and communications, Weather Bureau Airport Station will be used. A revised address book will be published soon, incorporating changes necessitated by these definitions.

Second-order stations are defined as those manned by certificated personnel. These include: (1) Synoptic, "S," and Aviation, "A," stations where reports are made by part-time observers paid by the Weather Bureau; (2) Civil Aeronautics Administration weather reporting stations, "CAA;" and (3) Supplementary Aeronautical Weather Reporting Stations, "SAWRS."

Except for military and Coast Guard weather reporting stations, those remaining are classified as "Substations." These include stations, cooperative or paid, such as those making rain, crop, and hydroclimatic reports, or displaying storm warnings.

FISCAL EMPLOYEE RETIRES

MISS FRANCES M. MILLER, accounting clerk in the Fiscal Section of the Central Office, voluntarily retired September 30 after more than 33 years of government service, 20 of which have been with the Weather Bureau.

Miss Miller was born in New Castle, Pa., January 12, 1885, and was educated in New Castle and at Northfield Seminary, East Northfield, Mass. She entered government service with the War Department(1918),spent 1920-21 with the Census Bureau, and was in the Treasury Department from 1921 to 1930. She went to work for the Weather Bureau in the Central Office in August 1930 and her entire service since that time has been in the Central Office. Miss Miller will continue, at least for the time being, to make her home in Washington, D. C. at 1736 Columbia Road, NW.

TRAINING SPECIALIST POSITION FILLED

MR. JEAN T. LEE of the FAWS unit at Jacksonville, Fla. has been assigned to the Training Specialist position in the Central Office, candidates for which were sought by a memorandum to all stations, dated October 13, 1950. There were seventeen applicants for the assignment.

Mr. Lee was enrolled at the Milwaukee State Teachers College, working toward a degree in physics and mathematics, when the war interrupted his studies. Entering the Army in April, 1943, he was assigned to the University of Chicago for advanced training in meteorology. After completion of the "A" course he served about 2½ years as an army Weather Officer in the States and in the South Pacific. After leaving the Army Mr. Lee taught physics and mathematics at Mississippi Southern College until his appointment at Jacksonville.

TECHNICAL PAPERS DISTRIBUTED

THE following technical publications have been distributed to Weather Bureau offices since the beginning of 1950:

THE DEVELOPMENT OF AN AIRBORNE RADAR METHOD OF AVOIDING SEVERE TURBULENCE AND HEAVY PRECIPITATION IN THE PRECIPITATION AREAS OF THUNDERSTORMS AND LINE SQUALLS, Final Report on Task No. 1, American Airlines, Sept. 1949.

"Further Studies in Hawaiian Precipitation", by Samuel B. Solot, RESEARCH PAPER NO. 32, USWB March 1950.

"The Present Climatic Fluctuation", by Hans W:son Ahlmann, reprinted by the Weather Bureau from the GEOGRAPHICAL JOURNAL, vol. CXII, Nos. 4-6, Oct.-Dec. 1948, London.

"The Structure of Hurricanes as Determined by Radar," by Harry Wexler, reprinted by the Weather Bureau from ANNALS OF THE NEW YORK ACADEMY OF SCIENCE, vol. XLVIII, art. 8, Sept. 15, 1947.

"Evaluation of Results of Joint Air Force - Weather Bureau Cloud Seeding Trials Conducted During Winter and Spring 1949", by Charles E. Anderson, GEOPHYSICAL RESEARCH PAPER NO. 4, Air Force Cambridge Research Laboratory, Cambridge, Mass., May 1950.

PROJECT CIRRUS, Press Branch Fact Sheet, Dept. of Defence, Office of Public Information, July 19, 1950. Reprinted by the Weather Bureau, Sept. 1950.

"A Proposed Mechanism of Squall Lines: The Pressure Jump", by Morris Tepper, a reprint from the JOURNAL OF METEOROLOGY, vol. 7, No. 1, Feb. 1950.

"Air Flow Over a Mountain Barrier", by DeVer Colson, a reprint from TRANSACTIONS of the American Geophysical Union, vol. 30, No. 6, Dec. 1949.

A METHOD OF TEPHIGRAM ANALYSIS FOR FRONTAL CONTOUR CHARTS, by G. W. Robertson, Circ. 1769, Tec. 71, 24 Apr. 1950, reproduced by the Weather Bureau by permission of the Meteorological Division, Dept. of Transport, Canada.

T. A. BLAIR DIES IN CALIFORNIA

THOMAS A. BLAIR, author and meteorologist, official in charge at Lincoln from 1924 until his retirement in 1943, died suddenly at his home in La Jolla, Calif., on September 29. He was 71 years of age at his death.

Born in Lamar, Mich., February 28, 1879, Mr. Blair was educated in California and was graduated from Stanford University. He joined the Weather Bureau in April 1907 as an assistant observer at Sacramento. Subsequently he was assigned to Minneapolis and Salt Lake City, and was in charge at Moorhead, Wagon Wheel Gap, Dubuque, Honolulu, and Lincoln.

Mr. Blair was the author of numerous publications on climate and weather, including two books, CLIMATOLOGY and WEATHER ELEMENTS. The latter is used as a textbook in many colleges. He was a member of the American Meteorological Society, American Geophysical Union, Nebraska Academy of Sciences, the honorary society Sigma Xi, the Masonic Order, and was a Rotarian for 23 years. He was a Fellow of the American Association for Advancement of Science, Director of the American Interprofessional Institute, and Associate Professor of Meteorology at the University of Nebraska.

He is survived by a brother, William L. Blair, of Pasadena, Calif.

ACCIDENT FATAL TO CONCORDIA OIC

INJURIES incurred in an automobile accident caused the death of Frank Haynes, OIC at Concordia, Kans., on October 5. He died in a hospital in Hutchinson, Kans. Mr. Haynes is survived by his widow and three children.

Mr. Haynes was born in Amarillo, Tex., February 16, 1907, and joined the Weather Bureau as a messenger at the Amarillo station in 1924. He served there until 1928 when he was transferred to Macon, Ga., for a tour of duty which lasted until January 1929. At that time he resigned from the Bureau to take over his father's business on the latter's death, but was reinstated at Denver a few months later. He served at Denver until July 1930 when he was transferred back to Amarillo. This assignment lasted 5 years, until 1935. From July 1935 to September 1942 he was in charge at Austin, and from there went to Concordia where he was in charge until his death. He was very active in church and fraternal affairs.

REPORTS OF SMOKE ALOFT

EXTENSIVE occurrence of smoke aloft during late September and early October aroused widespread public interest. In order to obtain the necessary basic observational data for a comprehensive study of this phenomenon, first-order Weather Bureau stations were recently requested to complete a special questionnaire on the subject. The response of field stations to the questionnaire was most gratifying. Articles for which the questionnaire provided the basic observational data will appear soon in the MONTHLY WEATHER REVIEW, and probably several other meteorological publications.

C&HS EMPLOYEE RETIRES

HERBERT L. CHOATE, meteorological aid in the Records and Processing Section, C&HS Division, voluntarily retired September 30 after 34 years of varied service in the Weather Bureau. He plans to continue his hobby and part-time business of poultry raising at his home at 4432 North 16th Street, Arlington, Va.

Born 1890 and educated in Ipswich, Mass., Mr. Choate entered the Weather Bureau June 12, 1916, at the Drexel, Nebr., kite station where he served until 1923. In April of that year he was transferred to the Central Office for service with the Aerological Division; he remained in the Central Office for 18 years. From April 1941 to August 1942 he served a tour of duty at San Juan, P. R., after which he moved to the Chattanooga Checking Station. He returned to the Central Office for duty in the Climate and Crop Weather Division in 1943, and remained with the Climatological and Hydrologic Services Division when that division was organized in 1946.

Mr. Choate's son, Harold L. Choate, is now a member of the observing staff at the Silver Hill Observatory, Silver Hill, Md., and his daughter-in-law, Mrs. Marion M. Choate, is a meteorological aid in the Data Survey Unit, C&HS Division.

AIRWAY OBSERVER COMMENDED

MRS. MARY M. JONES, airway observer at Ocala, Fla., has been commended by the Chief of Bureau for her devotion to duty in helping to track the destructive hurricane of September 5-6, 1950. Mrs. Jones, whose employment is only part-time, remained continuously at her post for more than 24 hours during the approach of the hurricane in order to take observations needed by the Bureau.

FORMER METEOROLOGIST DIES AT 84

FOLLOWING 46 years of service with the Signal Corps and the Weather Bureau, and 14 years of retirement, William E. Donaldson died November 3 in Washington, D. C. after a brief illness. He had made his home for many years with his daughter, Mrs. Nellie A. Hurd, also a former Weather Bureau employee.

Born in New York City, son of Walter A. Donaldson, a well known actor of his day, Mr. Donaldson was educated at St. Johns College in Baltimore. He enlisted in the Signal Corps in January 1890 and continued as a weatherman with the Weather Bureau when that agency was born in 1891. He served as assistant at Grand Haven, Toledo, Omaha, Des Moines, Ithaca and Jacksonville, and was in charge at Scranton and Binghamton. From 1905 until his retirement in 1936 he was in the Central Office, and was on the staff of the Climate and Crop Weather Division at the time of retirement.

F. W. REICHELDERFER

Chief of Bureau.