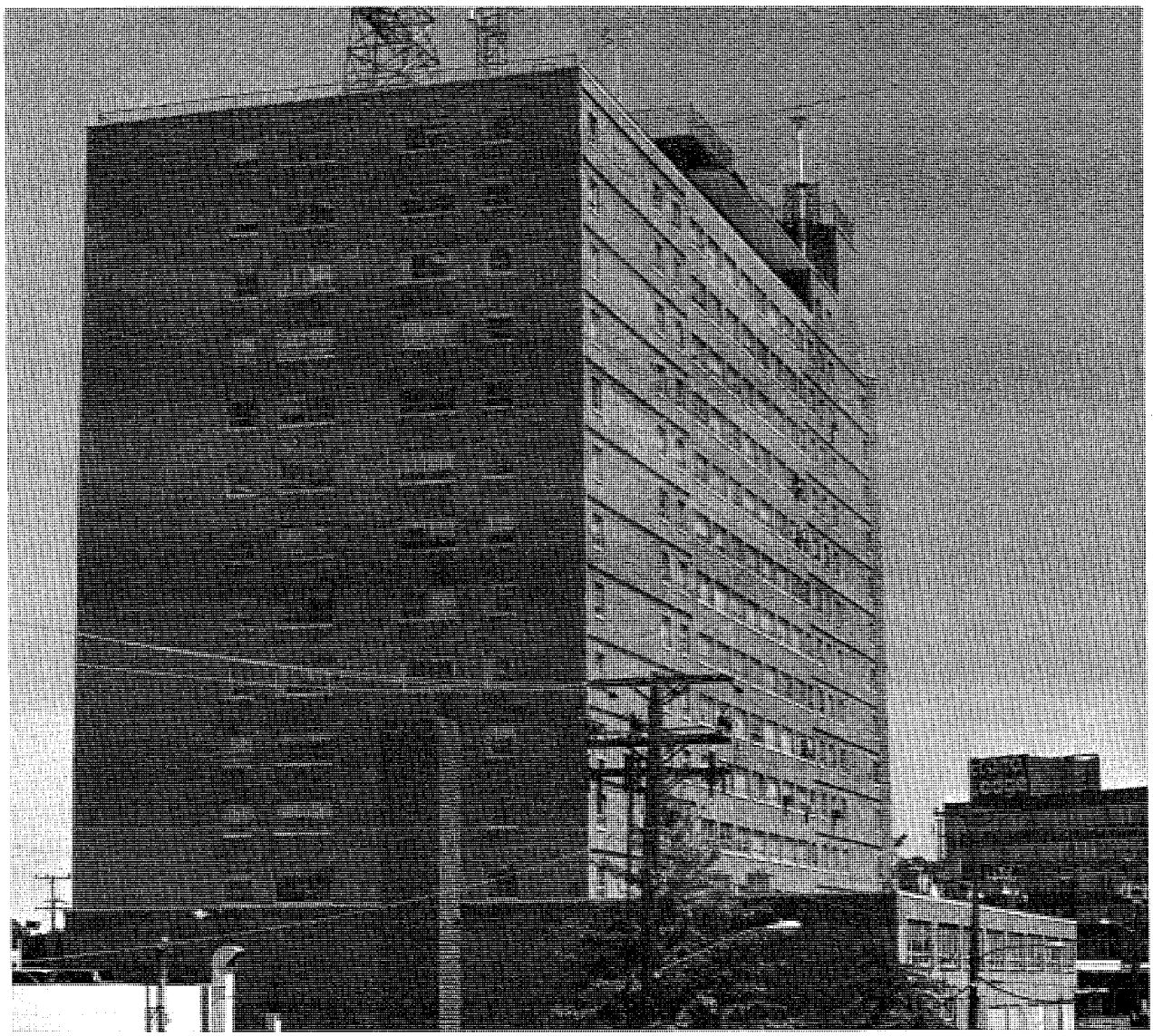
The National Cooperative Observer Newsletter

WINTER 1985 Volume 3 Number 2

EASTERN REGION SOUTHERN REGION
CENTRAL REGION



WESTERN REGION
ALASKA REGION PACIFIC REGION

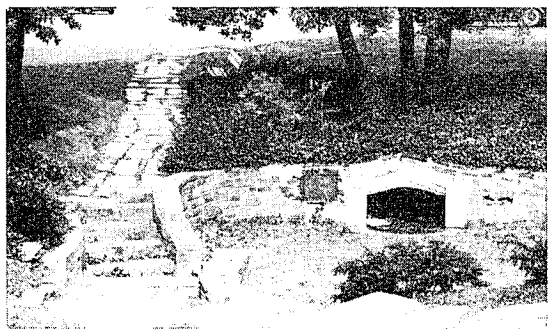
noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE

About the cover: The National Weather Service Headquarters (NWS-Hqtrs.) at the "Gramax Building" in Silver Spring, Maryland. (Today, this century old ex-rural town has become a fast developing modern city of almost 100,000 residents; with many county, state, and federal agencies, as well as fine stores, gourmet restaurants and refreshing parks, including a subway-Metro station, nearby NWS-Hqtrs.). We have selected NWS-Hqtrs., west side view, to present our Engineering Division third floor platform, with numerous meteorological instruments and hydrological equipment, including some proto-types. All field observers complaints are verified here, various sensors are tested and re-calibrated, before NWS-validation.
(The photos and text; by Alexander Radichevich, NWS-Hqtrs.)

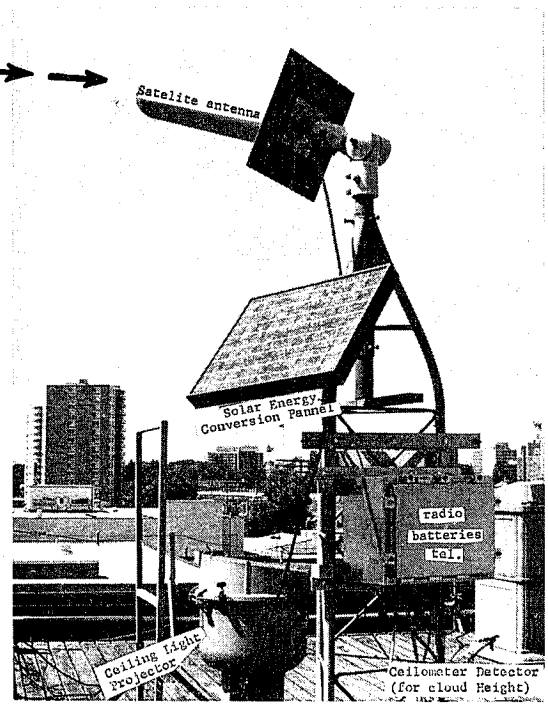
The community of Silver Spring, Maryland, derives its name from this spring, discovered in 1840 by Francis Preston Blair and his daughter, Elizabeth, while riding on horseback in the woods beyond Washington. Rays of sun on Mica sand particles in the water caused Mr. Blair to name it "The Silver Spring." This also identified his estate and summer home built in 1842.

This Park was acquired in 1942 by the Maryland-National Capital Park and Planning Commission. It was restored and dedicated on May 28, 1955, by the following organizations "as an ever-flowing tribute to the men and women responsible for the greatness of Silver Spring, Maryland, and its bright future through civic and community service."

The Allied Civic Group, Inc.
The Silver Spring Inter-Club Council
The American Institute of Architects (Potomac Valley Chapter)
The Silver Spring Board of Trade
The Maryland-National Capital Park and Planning Commission



·*The Acorn Park*·



Greenbrier/Route 3, West Virginia, River Station; it is owned by U. S. Geological Survey. However, NWS has equipped it with AHOS system, which automatically transmit the river stage data (from critical areas, among 12,000 sites) by a satellite to the National Meteorological Center (NMC).
To secure a prompt river data collection and transmission - 57 Hydrological Service Offices are helping 13 River Forecast Centers (RFC) for an alert and flood prediction.

AHOS (Automatic-Hydrologic-Observing-System), NWS-Hqtrs. It transmits River Stage Data by radio, with batteries running during the night or overcast sky, via Satellite antenna to Wallops Island (Atlantic coast of Virginia) NWS tracking station. Then, all data are conveyed to the National Meteorological Center in Suitland, Maryland, for processing and evaluation, with further global distribution.

NATIONAL WEATHER SERVICE

The National Weather Service (NWS) of the National Oceanic and Atmospheric Administration (NOAA) maintains a constant vigil to detect life-threatening dangers such as hurricanes, tornadoes, winter storms, and floods. Public weather forecasts issued by the National Weather Service influence the daily decisions of most Americans. Forecasts are vital to pilots, boaters, water resources managers, as well as those involved in utility, industrial, and recreational interests. The conduct of the Nation's agricultural economy is influenced by forecasts issued for farmers and foresters.

Vital to the protection of life and property are the timely notices of impending natural hazards provided by the watch and warning program. The National Hurricane Center in Miami, the Pacific Hurricane Offices in San Francisco and Honolulu, the National Severe Storms Forecast Center in Kansas City MO, and River Forecasts Centers around the Nation are on year-round, alert for dangerous storms. The NWS also provides a "tsunami" warning system with centers in Hawaii and Alaska. These deadly waves - literally, "harbor waves" as translated from Japanese -- are earthquake-generated.

Numerous daily decisions are affected by weather forecasts. For example, farmers depend upon the National Weather Service's forecasts to determine the best times to plant or harvest as well as when to apply fertilizers, pesticides, and/or herbicides. Aircraft pilots rely upon forecasts for the conduct of safe and economical operations. Forecasts are crucial to pilots of both transcontinental and domestic flights, since they are indicators of expected weather en route and at airports here and abroad. Fishermen and ocean shippers require timely weather observations to avoid storms and conserve fuel. State, county, and city government personnel depend on accurate forecasts to dispatch road clearance crews and operate businesses and schools safely during snow or storm emergencies.

The NWS collects observations from over four hundred professional weather observing stations spanning nine time zones, including the United States and islands in the Pacific and Atlantic oceans. Data come from surface and upper-air observing stations, weather radar sites, environmental satellites, and very importantly, over 11,000 volunteer Cooperative Observers! These observers frequently report river stage and lake level data from 9,000 gages by telephone and radio as well as through Remote Observation System Automation (ROSA). There are 1,000 sites equipped with Automatic Hydrologic Observing Systems (AHOS) which interrogate and transmit data by telephone or satellite to NMC. Over 1,000 ships, members of the Voluntary Observing Ship (VOS) Program, take marine weather observations and send daily reports to global centers. Additionally, over 200 fixed and drifting buoys automatically convey sea level pressure, wind speed and direction, air, and water temperature, with wave height and length to the National Meteorological Center (NMC) in Suitland, Maryland.

NMC computers incorporate more than 100,000 daily weather reports into models of the atmosphere from which weather forecasts are produced. The forecasts may be for 48 hours or represent "outlooks" for up to 10 days.

Such predictions are sent to National Weather Service facilities in every part of the United States, enabling meteorologists and hydrologists to prepare forecasts and warnings for both the public and specialized users. Monthly and seasonal predictions of temperature and precipitation over North America are produced at NMC Headquarters.

Weather Service Forecasts Offices (WSFO) at 52 locations use regional and NMC data to issue warnings and forecasts for over 600 zones throughout the United States. Forecasts are produced four times daily for a 48-hour period and are updated as necessary. Extended forecasts are issued at least once a day for state-wide areas and cover a time period from 48 hours to five days. Local forecasts -- adaptions of zone forecasts for metropolitan areas cities and towns -- are publicized by 52 WSFO's and by more than 240 smaller Weather Service Offices (WSO), including River Forecast Centers (RFC) for flash-flood alert and control.

International agreements, both bilateral and through the United Nations' World Meteorological Organization, provide access to global weather data. These agreements help the NWS provide global analyses and forecast services, enabling the United States to aid other nations in improving their weather services.

All United States' weather records are sent to the National Climatic Data Center (NCDC) in Asheville, North Carolina. Here they are processed, evaluated, and validated for various users. NCDC publishes an annual summary, "Climatological Data National Summary", comprised of data from 8,000 stations, as well as several state, regional, and local climatological bulletins.

The monthly "Climatological Data" (CD) provides basic weather observation elements such as daily high and low temperatures and precipitation amounts for each site by state. "Hourly Precipitation Data" (HPD) bulletins contain verified and certified 24-hour precipitation data from various charts which are generated by NWS automatic recorders, located at 2,600 sites. "Storm Data", prepared in collaboration with the University of Chicago, provides narrative descriptions of outstanding storms with photographic illustrations. NCDC compiles statistics on deaths, injuries, and damage from tropical storms, hurricanes, tornadoes, and winter storms.

The "Weekly Weather and Crop Bulletin" has been published since 1872 by the National Weather Service, jointly with the U. S. Department of Agriculture. This publication provides brief descriptions of nationwide weather and crop conditions, synopses by state, and global summaries for each zone within the five continents.

NWS Headquarters maintains the Master Weather Station file in the form of micro-film and computer tapes. The file has complete documentation for over 11,500 observation sites and contains information concerning recorded observations which span over a century.

The Gramax Building, located in the northern corner of Washington, D.C. metropolitan area in Silver Spring, Maryland, is the "office" for over 600 employees. It hosts many national and foreign visitors and scholars. We hope that you, too, will visit us! The welcome mat is always out!

EASTERN REGION

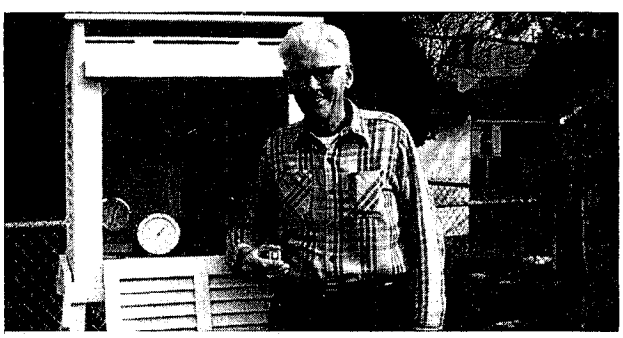
James C. Faris, Jr. (right), observer, Catawba, SC, was presented the 50-year old Edward H. Stroll Award by Sam Baker, Hydrologist, Columbia, SC, and Earl Rampey, Cooperative Program Manager, Columbia, SC. Mr. Faris succeeded his father, James C. Faris, Sr., who served from 1907 to 1934. Together they have served more than 37 years.

In 1975, Mr. Faris received the Thomas Jefferson Award for unusual and outstanding service as a cooperative weather observer. The Jefferson award was named after the late President who made an almost unbroken record of the climate at Monticello from 1776 to 1816.

He received the John Campanius Holm Award in 1965 for outstanding accomplishments in the field of meteorological observations.

Left to right: Rebecca and Joe Faris, Dorothy Faris, Earl Rampey, Neil Burne and William Culp (Winthrop College observers), Oliver Faris and James C. Faris, Jr.

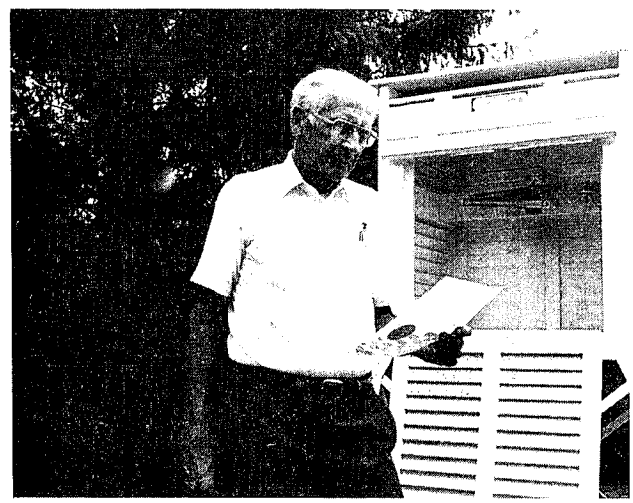
Ethel Carey, observer, Edmeston, NY, was presented a 45-year length-of-service award by Ray West, Cooperative Program Manager, Albany, NY.



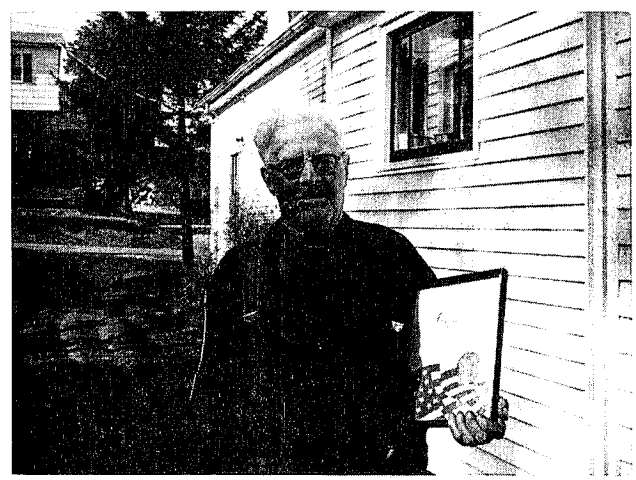
Irving J. Nygren, observer, Audubon, NJ, was presented a 35-year length-of-service pin by James Smith, Cooperative Program Manager, Baltimore, MD.

A. Worth Phillips, observer, Idlewild, NC, was presented a 45-year length-of-service award by Earl Rampey. Photo: Mr.& Mrs. Phillips.

In 1980, Mr. Phillips received the John Campanius Holm Award for outstanding contributions in the field of meteorological observations, and continues to serve in an outstanding manner.

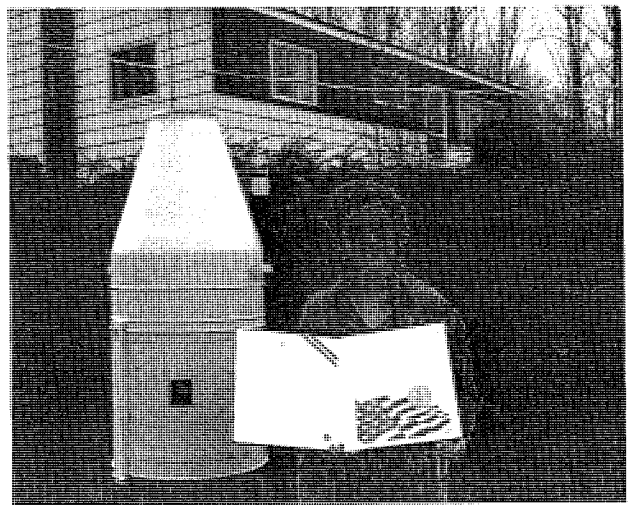


Harold Hollis, observer, Cooperstown, NY, was presented with a 35-year length-of-service pin by Ray West.



William Jordan, observer, Machias, ME, was presented a 30-year length-of-service pin by James Donahue, Cooperative Program Manager, Portland, ME.

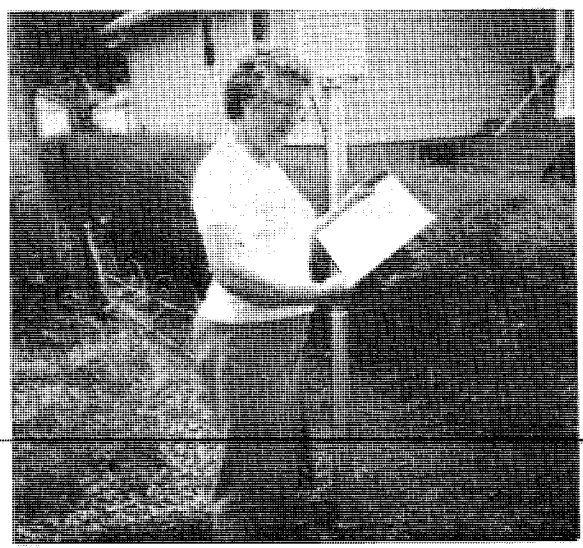
Julia Schoff, observer, Madera, PA, was presented a 30-year length-of-service award by Stan Smith, Cooperative Program Manager, Pittsburgh, PA. Photo: Mr. & Mrs. Schoff



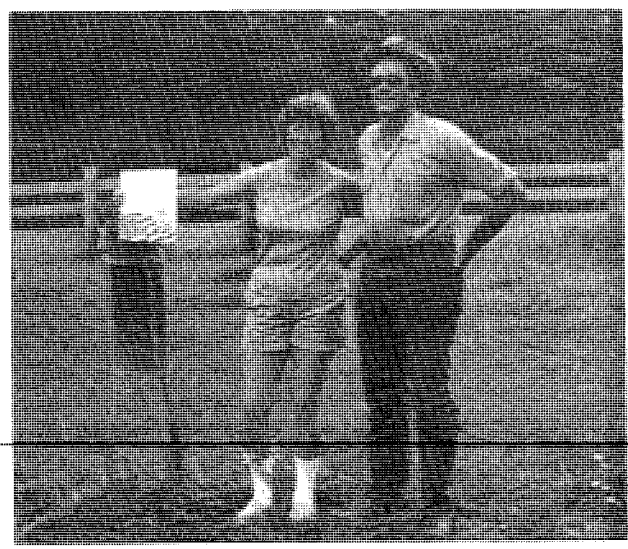
Emma Shaulis, observer, Boswell, PA, was presented a 25-year length-of-service pin by Stan Smith.

Vera Muir, observer, Candor, NY, was presented a 25-year length-of-service pin by Ray West.

Arlene Cole, observer, Newcastle, ME, was presented a 20-year length-of service pin by James Donahue.



Mildred Schips, observer, Fort Jarvis, NY, was presented a 25-year length-of-service pin by Vincent Nunziata,



Mr. & Mrs. William H. Speiden, observers, Somerset, VA, were presented a 20-year length-of-service pin by James Smith.

SOUTHERN REGION

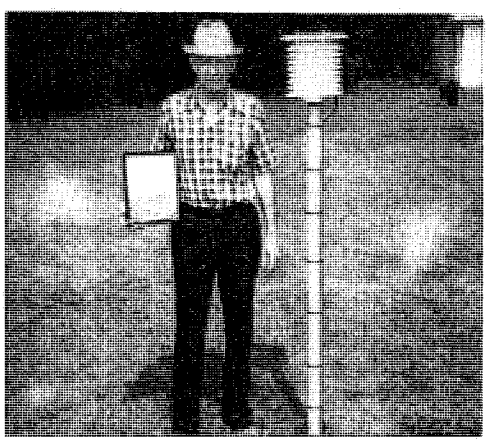
Charles E. Ridge, Chief of the Southern Region Cooperative Branch, with 2,800 volunteer observers, just retired on January 3, 1986, after 35 years of Federal Service, after a dozen years dedicated to NWS finest network. Good luck, Charlie, in your longing new landscaping business.

(The photo: 1981 Chiefs Conference' dinner at NWS-Hdqtrs. by A. Radichevich).

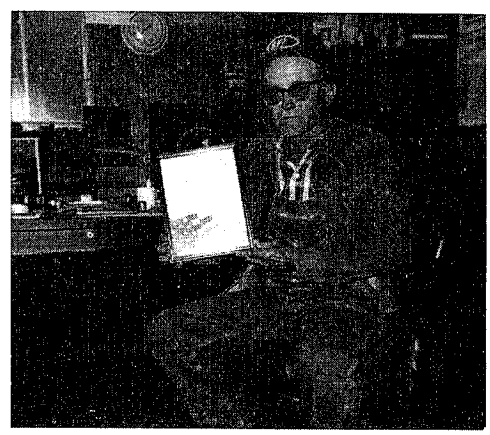
Clara A. Johnson, Johnson Ranch, NM, was presented a 35-year length-of-service award by Dick Snyder.

G. Arthur Coffman (left), Cameron, NM, was presented a 40-year length-of-service award by Chuck Megee, CPM Lubbock, TX.

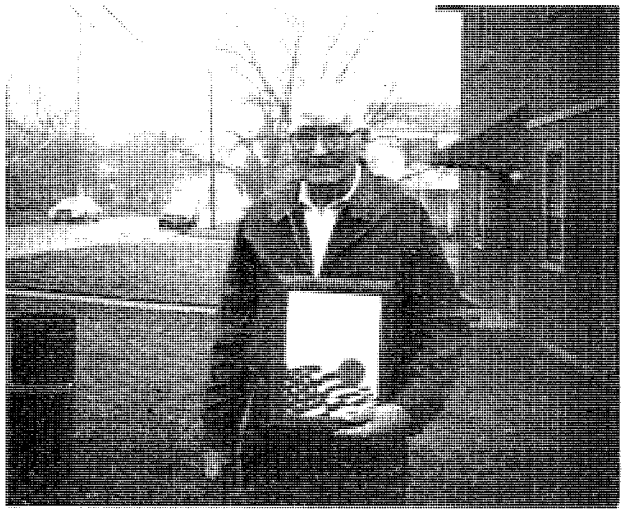
Jewell P. Lowe, Reklaw, TX, was presented a 35-year length-of-service award and a Special Service award fron WSO Shreveport. Malcolm Moreau, CPM Baton Rouge made the presentation.



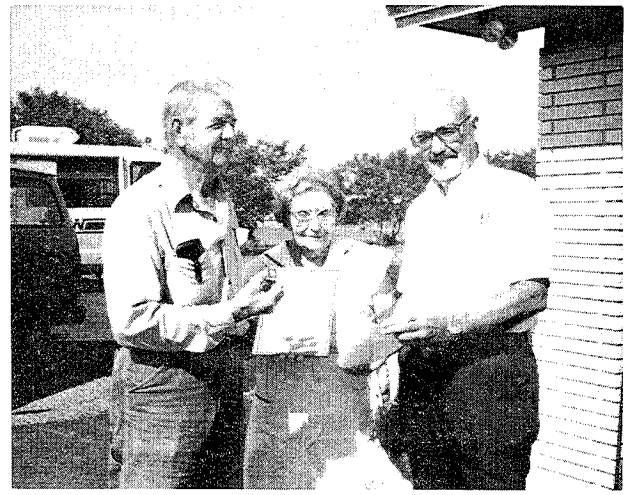
Hubert Baker, Stamps, AR, was presented a 35-year length-of-service award by Woody Currence, CPM, Little Rock, AR.



William E. Black, Mount Ida 3 SE, AR, was presented a 30-year length-of-service award by Woody Currence.



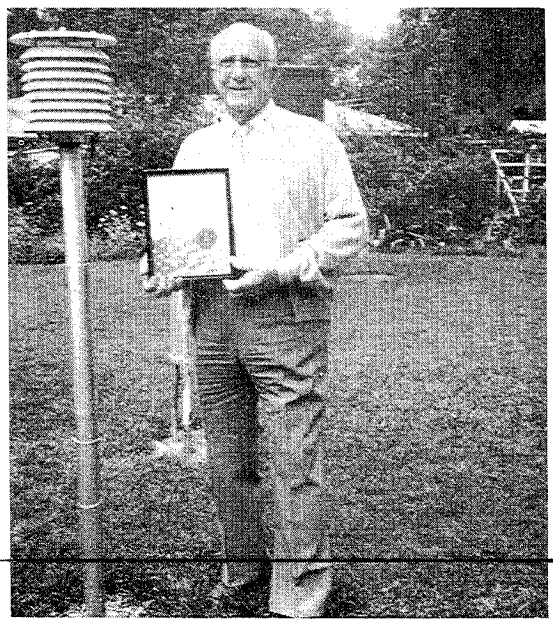
S. L. Brunson, Ennis, TX, was presented a 30-year length-of-service award by Alan Starnes, CPM Waco, TX.



Mr. and Mrs. Thomas S. Morgan, Calliham, TX, were presented a 30-year length-of-service award by Billy C. Crouch, Area Manager, South, TX.

Charles T. Hawkes, observer, Arlington, TX, was presented a 30-year length-of-service award by Bob Manning, CPM Fort Worth.

Roy F. Shoenradt, Hillsboro, NM, was presented a 30-year length-of-service award by Dick Snyder.



Dr. Eldon Lyle, Tyler, TX, was presented a 30-year length-of-service award by Bob Manning.

Col. Oran Stovall (center), Bowie, TX is shown accepting his 30-year length-of-service award from Tommy Trimble (left), OMIC/FTW, and Frank Cannon (right), OIC/Wichita Falls.

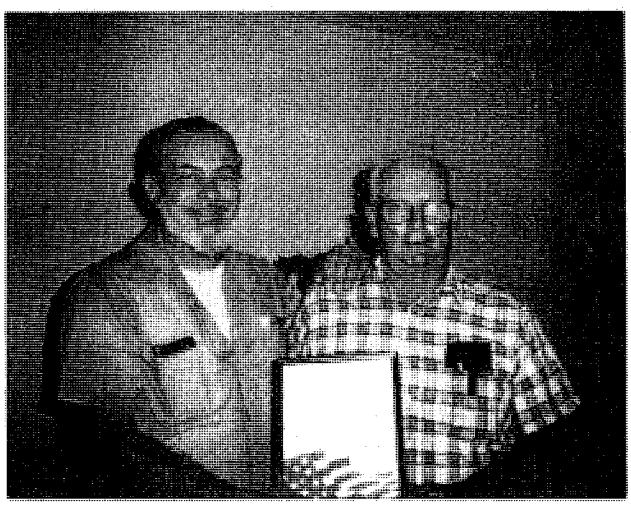
CENTRAL REGION

Ruby Stufft, Elsmere 9 ENE, NE, was presented a 65-year Service Award on May 26, 1985, by Mike Elias, CPM Goodland, KS and Tom Sinclair, CPM Omaha, NE.

Ruby Stufft's sons and daughters attended her 85th birthday and presentation of her 65th Service Award. Rear: Lester, Francis, Allan, and James Stufft, Elsmere, NE. Front: Vera Goodrich, Ruby, Dorothy Muenchau, and Evelyn Moody. Many grandchildren were present.

J. Bon Hartline, Anna 1 E, IL, was presented a 40-year length-of-service award by Jerry Wolfe, CPM-SPI.

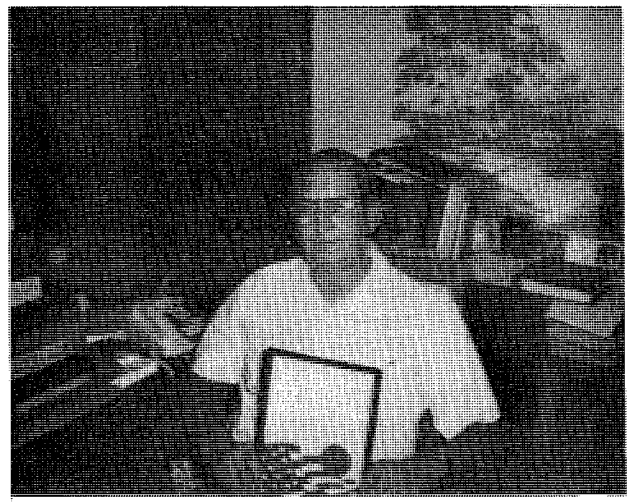
Clyde Kennedy, Granada, CO, was presented a 30-year length-of-service award by Mike Elias.



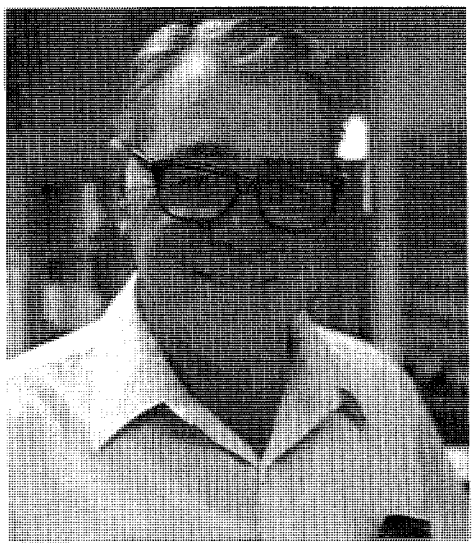
Willis Blume, Sublette, KS, was presented a 35-year length-of-service award by Mike Elias.

Joseph Provost, observer, Duluth Harbor Station, Duluth, MN, was presented a 25-year length-of-service award by Leo Behrens.

Lorena Elliott, Harrison 9 W, NE, was presented a 20-year length-of-service award by Tom Sinclair.



Bernard Griffiths, Long Island, KS, was presented a 20-year length-of-service award by Mike Elias.



Postmaster Cletus Gilleland, Manassa, CO, was awarded a 20-year length-of-service pin by CPM Bill Tate. (Note, that Manassa is the home town of the Manassa Mauler, Heavyweight, Jack Dempsy).

Millie and Tony Mignone, observers, Marion 4 NNE, IL, were presented a length-of-service award for over 20 years of service. Jerry Wolfe made the presentation.

OTHER LENGTH-OF-SERVICE AWARDS

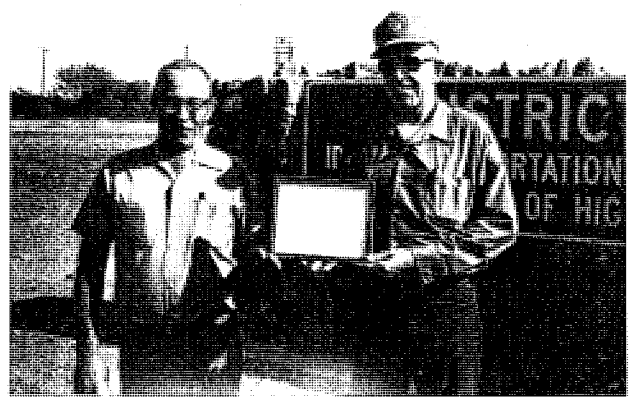
State	Station	Years
Colorado		
Frank Clark	Durango	10
Illinois		
Raimason F. Smith	Galva	15
Walter J. Wenzlaff	Wenona	15
Kansas		
Rose Doxon	Wakeeney	10
Roy Gwin	Tribune 1 W	15
Wilford Martin	McDonald	15
Eugene Normandin	Damar	15

WESTERN REGION

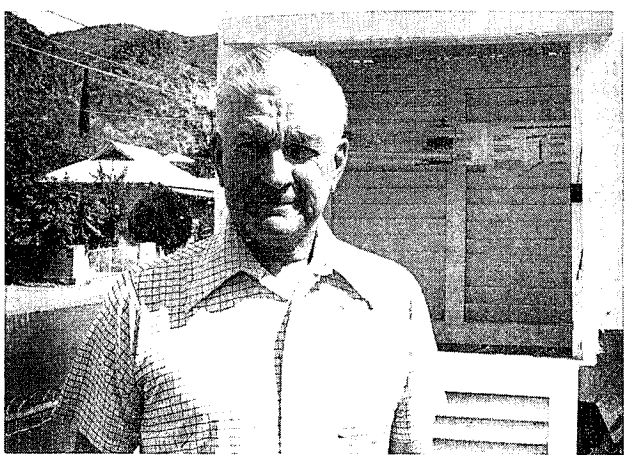
Jay Vargas accepted a 75-year service award for Hetch Hetchy Water Supply. The station is located at the O'Shaughnessy Dam in the northwest corner of Yosemite National Park, CA.

Eleanor Kennedy, Lower Hay Creek, OR, was presented a 40-year service award and pin by CPM Clint Jenson. The weather station is located on the Richardson recreational ranch, known to rockhounds the world over. The ranch is run by John and Norma Richardson, who are substitute observers, along with John Chester Richardson.

Mona Kurtz, observer, Irene Mountain rainfall station near Wauconda, WA, was presented a 60-year pin and congratulations from Area Manager Richard Hutcheon of the NWS Forecast Office, Seattle. In 1971, Mrs. Kurtz received the John Campanious Holm Award and in 1977, the Edward H. Stoll Award for her services.

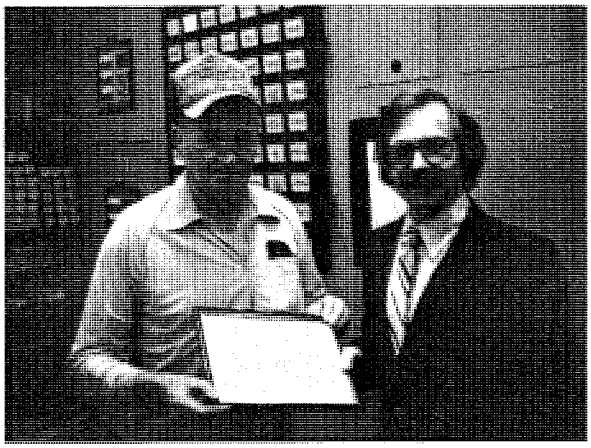


A 25-year institutional award was presented to two of the staff at the Idaho Department of Highways Office at Shoshone, ID, by Ingve Olson, Cooperative Program manager, Boise.

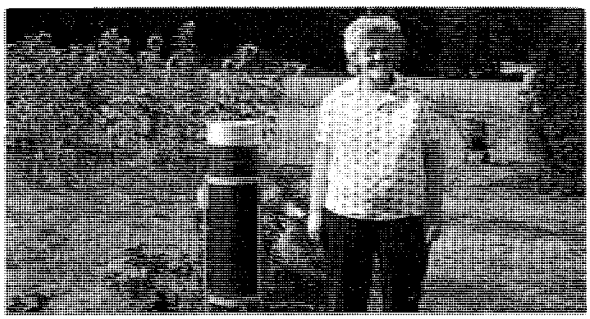


E. Danenhauer, Clifton, AZ, was presented a 40-year length-of-service award. The town of Clifton is subject to flashfloods, which makes Mr. Danenhauer's reports very valuable.

The City of Madras, OR, was presented the NWS 25-year Institutional Award. Shown receiving the award is the Mayor of Madras, Ray Murray, and the main observer, Gene Ward. Gene has been taking "obs" for the full 25 years. He is shown here with a letter of appreciation from George Miller, NWS Area Manager for Oregon.

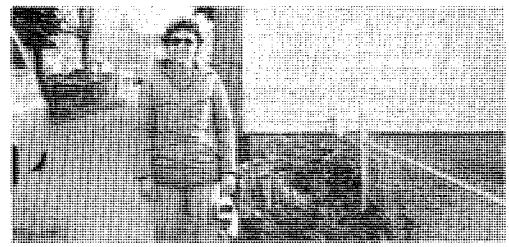


The Pacific Power and Light Company was presented a 25-year Institutional Award by Richard Hutcheon (r), Area Manager for the National Weather Service in Washington State.



Mrs. J. W. Gurney, cooperative observer, Reston, OR, which is about 20 miles west of Roseburg, OR, was presented the NWS 20-year service award. Mrs. Gruney reports precipitation and rainfall (river) data.

Mr. & Mrs. Charlie Meyers, from east of Judith Gap, MT,were presented a 20-year Service Award pin by the NWS, Great Falls. The Meyers have been recording daily high and low temperatures and daily precipitation, which is sent monthly, along with data from 300 other volunteers in the state, to the National Climatic Data Center at Asheville, NC.



Jessie Todd, Willow creek, MT, was presented a 20-year length-of-service pin. Mrs. Todd has been faithfully changing charts on a precipitation recording gage since August 1964 and mailing them to the National Climatic Data Center, Asheville, NC, where the data is published. The gage is located at her home in Willow Creek.

OTHER LENGTH-OF-SERVICE AWARDS

INDIVIDUAL

ARIZONA		
E. Danenhauer	Clifton	40
CALIFORNIA		
Russell Hunt	Bridgeville 4 NNW	10
IDAHO		
Harry U. Gibson	Kuna 2 NNE	35
Alice J. Rickman	Grangeville	30
Beth Jones	Malta Aviation	20
George Stanton	Malta 2 E	15
Montana		
Irvin G. Hutchison	Chester	35
Robert Gregg	Savage	30
John R. Loch	Dutton 6 E	25
John M. Mamuzich	Conrad Airport	15
Mabelle Seaholm	Grassrange	15
Bill Schwarzkoph	Forsyth	10
Jim Moore	Menard 3 NE	10
NEVADA		
William B. Gibbs	Gibbs Ranch	20
Farnes G. Egbert	Metropolis	20
Ferris T. Brough	Clover Valley	20
Bob Steward	Lake Valley Steward	15
OREGON		
Betty Oliver	Ironside 2 W	30
UTAH		
David C. Bagley	Callao	15
Leonard Eliason	Moroni	15
Cleo Oyler	Loa	10
WASHINGTON		
Norma Booher	Smyrna	15

INSTITUTIONAL

CALIFORNIA		
Metro Water Dist.	Iron Mountain	50
Los Angeles County Flood Control Dist.	Palos Verdes Estates	25
Los Angeles County Flood Control Dist.	Walnut Patrol Stn.	25
Apply Valley Ranchos	Apple Valley	25
MONTANA		
Central Montana Exp. Station	Moccasin Exp Stn.	75
Montana Power Co.	Hebgen Dam	50
OREGON		
Radio Stn. KRCO	Prineville 4 NW	25
UTAH		
Provo River Water Users Assoc.	Deer Creek Dam	25

ALASKA REGION

Since the last issue of the newsletter, two river stations were opened, Bethel Slough in southwest Alaska and Lawing Trail River 2 N on the Kenai Peninsula. A new climate station was opened at Shageluk in western Alaska and a second station at Port Alcan, the U.S. Custom station on the Alaskan-Canadian border. The aviation and climate stations at Kake in southeast Alaska and Point Mackenzie northwest of Anchorage were put on the inactive list. The station at Funter Bay was put on the inactive list in June and was relocated and reactivated in August. The station at Hoonah in southeast Alaska was reopened in August.

We just received word that the cable for the MMTS at Houston was cut by digging equipment. We hope to have it repaired in a week or so. MMTS units were installed at the following stations bringing the total units installed to 37:

Ben's Farm	Tonsina
Slana	Gakona 1 N
College 5 NW	Wasilla 3 S

A reminder to all observers that all spaces at the top of the climate form that apply to your station should be filled in, especially the time of the climate observation.

Many stories of ice worms are told in Alaska and visiting tourist believe that these are tall tales. The following article by Neil Davis of the University of Alaska should give a little more credibility to the stories.

"Recently I was surprised to learn that ice worms are found occasionally in glaciers of the Alaska Range. Ice worms are numerous in the warmer glaciers of southeastern Alaska, British Columbia, and Washington state, but they cannot tolerate temperatures much below zero Celsius.

Port Alcan climate station U.S. Custom Station Canadian Border.

Real ice worms - not the spaghetti and ink concoctions of Klondike poet, Robert Service, live in pools of water and crawl around between ice crystals near the glacier surface. When I expressed amazement that ice worms could exist in the comparatively cool glaciers of the Alaska Range, glacier expert Larry Mayo of the USGS stated that the glaciers there are not necessarily all that cold.

Even though temperatures in the mountains are sub-freezing many months of the year, glaciologist Mayo points out that the Alaska Range glaciers do contain water in liquid form the year around. From time to time, crevasses become water-filled. Also channels cut in the glacier ice by running water sometimes get locked up and then fill with water.

In winter the water near the edges of these bodies freezes into ice rinds that may be several tens of centimeters thick. Even so, if a pool of water is big enough, its center remains unfrozen, proving that the temperature at depth can remain above freezing.

Ice worms have been observed to move around the ice at depths near two meters (six feet). Even in the Alaska Range, the glacier ice at that depth obviously can remain near freezing and so can provide at least a marginal ice worm habitat. But life there can't be easy. Perhaps it's as Robert Service said:

And as no nourishment they find
to keep themselves alive
They masticate each others tail
till just the tough survive."

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