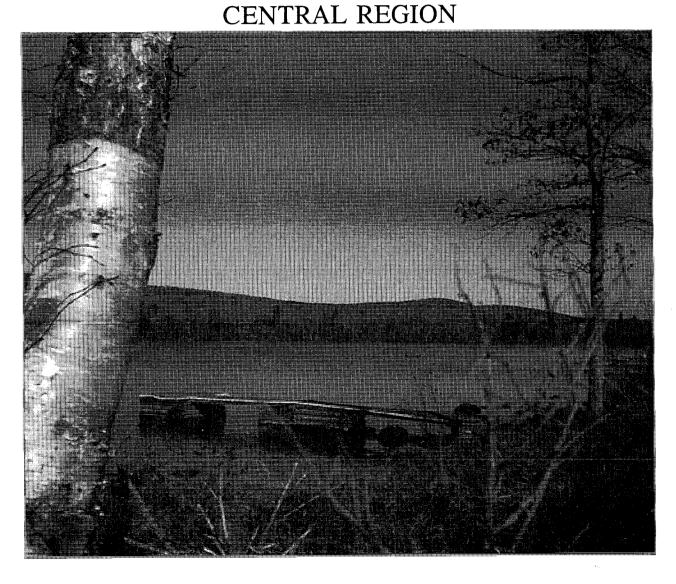
The National Cooperative **Observer**



EASTERN REGION

SOUTHERN REGION



WESTERN REGION

ALASKA REGION

PACIFIC REGION

noaa

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE

THE NATIONAL COOPERATIVE OBSERVER

National Climatic Data Center Publication Staff: Sara C. Lackey, Cynthia B.Karl, and Grant W. Goodge Alexander Radichevich, NWS Coordinator

NATIONAL COOPERATIVE OBSERVER is prepared, funded, and distributed by the National Oceanic and Atmospheric Administration (NOAA) and is provided free of charge to Cooperative Observers.

Photographs are taken by NWS employees unless otherwise noted. Narratives are prepared and submitted by the NWS. Narratives are edited only for grammatical errors, space limitations, and consistency.

The Cooperative Observers Climatological Network was created in 1890. The program is currently administered by the National Weather Service, a line office of the National Oceanic and Atmospheric Administration, an agency within the Department of Commerce. One of the responsibilities of the National Weather Service is to take meteorological observations which are used to record the climate conditions of the United States. The National Weather Service relies heavily on a vast network of cooperative weather observer volunteers to achieve this objective.

The National Weather Service determines where observations are needed and furnishes standard meteorological instruments to individuals who volunteer their time to take and record daily observations of the weather. Currently, there are about 8000 published volunteer observing stations located in the United States and its territories. In addition to the thousands of cooperative observations stations operated by individuals, many are maintained by institutions and commercial firms (universities, utility companies, etc.). All cooperative observers submit a monthly report summarizing daily weather observations. These contributions to the climate record of the United States are invaluable.

The publication staff of NATIONAL COOPERATIVE OBSERVER welcomes your help in acquiring stories concerning experiences by cooperative observers and significant weather events. We request our observers to mail such items to:

Cynthia B. Karl or Grant W. Goodge National Climatic Data Center 151 Patton Avenue Room 120 Asheville, NC 28801-5001

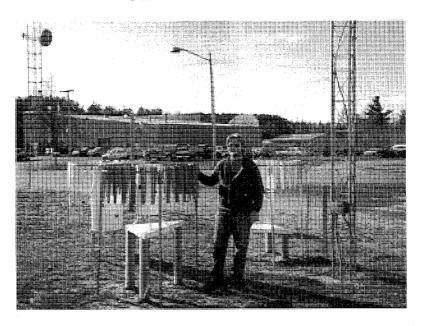
Any such items received by the editor will be for use in the NATIONAL COOPERATIVE OBSERVER only. Any other use will be with permission of the owner of said items. Materials submitted will be returned if requested.

NOTE: No submissions were received from the Alaska or Pacific Regions.

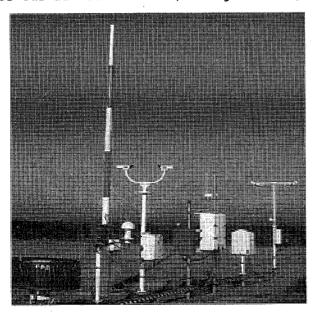
CONTENTS

																													Page	e
Central Region			•		•	•		٠	•																				3	_
Eastern Region	•	•	•	•	•	•	•	•								•													17	
Southern Region				•			•																						23	
Western Region										_	_	_	_	_	_	_	_	_	_	_		_	_	_	-	-			26	

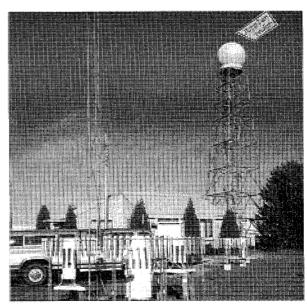
Cover: The lower inlet, in the vicinity of Copper Harbor, MI on the Keweenaw County Peninsula protruding in Lake Superior. What a pristine respite to share with us in your hectic meandering. (Photo courtesy: Roland Friedrick, CPM)



At this testing field of the WSO in Marquette, MI, where a comparative measurement of precipitation has been conducted among several heated and non-heated gages (Tipping Bucket, Universal, Fisher and Porter, and Standard Rain Gage) for the Automated Surface Observing Systems (ASOS) modernization. Under futuristic management of Dave Gunther, MIC, and our ubiquitous Roland Friedrick, CPM (now HMT), we often forget the versatility of our ET-team. Voila, George Fiflar, electronic technician. Bravissimo!



New ASOS are being installed at over 850 sites. This program is a joint effort of the National Weather Service, the Federal Aviation Agency, and the Department of Defense. ASOS updates observations every minute, 24 hours a day, every day of the year.



NWS installed a Doppler radar (also known as NEXRAD = next generation weather radar) (right), that can help forecasters predict severe storms earlier, and at greater accuracy, than ever before. Photo by Roland Friedrick, HMT, Green Bay, WI.



PETER KOCHER, VOLUNTEER WEATHER OBSERVER, HAGUE, ND, has been named recipient of the highest service award given by the NWS. North Dakota Area Manager James Fors presented THE THOMAS JEFFERSON AWARD to Kocher during an informal ceremony at the Kocher residence in Hague.

Mr. Kocher was recognized for "outstanding efforts and contribution" during his 40 years as an observer. A retired farmer, Mr. Kocher began taking weather observations August 1, 1954. His recordings include data on precipitation, snow density, and snow depth.

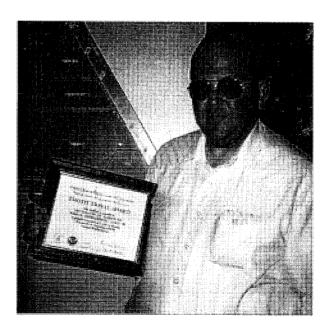
"Peter Kocher is the epitome of what a dedicated observer should be," Roller said in learning of the award. "His dedication and knowledge should be an inspiration to everyone."

Kocher's dedication has earned him praise from others involved with the weather as well. North Dakota State Climatologist, John Enz, ran a check of his records to assist Roller in preparing the nomination form and was flabbergasted. There was, "not a single day missing", out of the 14,235-plus days in Kocher's reports.

Pictured from right to left, Charlene Prindiville, Service Hydrologist, WSFO Bismarck; James Fors, WSFO Bismarck; Peter Kocher, Hague, ND, Jefferson Award Recipient; and Vern Roller, CPM, WSFO Bismarck, ND.



Dennis Allacher accepted a 75-YEAR INSTITUTIONAL AWARD for TRENTON DAM, NE, presented by Mike Elias, CPM/GLD. Charlie Mack is the observer.



Samuel D. Evans accepted a 75-YEAR INSTITUTIONAL AWARD for the UNIVERSITY OF MINNESOTA EXPERIMENTAL STATION, MORRIS, MN.

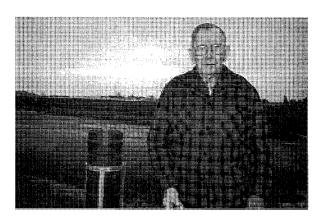


GRACE SANDERSON, SIGOURNEY, IA, received the EDWARD H. STOLL AWARD FOR 50 YEARS OF SERVICE. Pictured left to right: Randy Settje, CPM/Des Moines; Grace Sanderson; and John Feldt, MIC/Des Moines.



Don Essler (left) presented a 35-YEAR and a 38-YEAR SERVICE AWARD to retiring JAMES BAIRD.

Mr. Baird began taking observations in Jun 1956. These observation continued the record which began in 1941 with the Green Giant Company.



OSCAR NELSON was presented a 45-YEAR PIN AND CERTIFICATE to mark his years of service to the community of MAHNOMEN, MN.



JOHN N. PAYNE, JR., MCCUTCHANVILLE 4 N, IN, was presented a 45-YEAR LENGTH-OF-SERVICE AWARD by Roger Kenyon (left). Assisting were John T. Curran (AM/IN); Norm Carroll (MIC/EVV); Gerald C. Lindsey (DAPM/IN); and the EVV staff. Mr. Payne is a well-known figure at the EVV office having previously received two Holm Awards and the coveted Jefferson Award.

John maintained records of the Evansville station for 43 years. There are not enough good things to say about John Payne. He records beginning and endings times of thunderstorms to the minute...even through the night. His handwriting could be an example to every schoolboy and girl in the country and his insistence on reading the thermometers with a magnifying glass is only because of precision, not a lack of sight capability.



JAMES AND ELEANOR KING (center) of STEPHAN, SD, were presented the JOHN CAMPANIUS HOLM AWARD by David Olkiewicz (left), CPM; and Greg Harmon, South Dakota area manager, both of Sioux Falls. Mr. and Mrs. King display the PLAQUE presented to them for outstanding accomplishments in recording weather information for the NWS for NEARLY 42 YEARS OF SERVICE.

James (80) and Eleanor (75) King became volunteer weather observers on November 1, 1952, on their newly-started ranch about five miles northeast of Stephan. In April 1953, they relocated to the Crow Creek Indian Reservation at Stephan and have continued observations there since. Over the years, they managed the Stephan General Store, raised six children, ranched, were active and contributing members to their church, and continued taking weather observations. Mrs. King was also a substitute teacher for 30 years. They have braved blinding snowstorms, ice storms, and driving rain to accurately record data.

Now semi-retired, the Kings continue to share their weather recordings with the Weather Service and others. Temperature and precipitation data is forwarded to the State Climatological Office at South Dakota State University, where it is used in studies of the state's climate. Mrs. King earned distinction in 1988 and 1989 for compiling 10-year rainfall data used by local ranchers and farmers to substantiate crop and livestock losses caused by severe drought conditions.



BILL GAEBE (center), OBSERVER, NEW SALEM, ND, with his 40 YEAR LENGTH-OF-SERVICE AWARD. The New Salem station has been in the Gaebe family for 88 years beginning with his grandfather John Christiansen in 1906. Ralph Erhardt, (right), the new observer since July 22, 1994, has now taken over the station. Bill's sister Gladys Toepke remains the backup observer. At left is Vern Roller.



FLORA SANDOZ, ELLSWORTH 24 NNE, NE, was presented a 40-YEAR LENGTH-OF-SERVICE AWARD by Mike Elias.

Flora Sandoz settled in the valley 77 years ago. Flora studied to be a horticulturist but wound up a rancher. Flora Sandoz is the custodian of one of Nebraska's most celebrated historic places - the Sandoz Ranch.

Confidant and financial supporter of her sister in the early years; botanist and lecturer on wildflowers; teacher; orchardist; and storyteller. This is Flora Sandoz.



DOROTHY GERARDY, CLAY CENTER, KS was presented a 35-YEAR LENGTH OF SERVICE AWARD by Jim Packett, OIC/Concordia.



DALE E. HAWKINS, OBSERVER, BROOKLYN, IA, received a 30-YEAR LENGTH-OF-SERVICE AWARD.



RICHARD A. FESER was presented a 30-YEAR CERTIFICATE to mark his anniversary as the official observer for the community of SPRINGFIELD, MN.



DARRELL AND JO ANN HUNTER, ARDMORE 2 N, SD, were presented a 30-YEAR LENGTH-OF-SERVICE AWARD by David Olkiewicz. Pictured left to right: Darrell, Jo Ann, and Greg Harmon.



DARLENE FLOYD, ECHETA 2 NW, WY, WAS PRESENTED A 30-YEAR LENGTH-OF-SERVICE AWARD and PIN at her home by Ray Kowrach, CPM/WY.



BETTY KRULL (left), HARROLD 12 SSW, SD, was presented a 30-YEAR LENGTH-OF-SERVICE AWARD by David Olkiewicz (right).



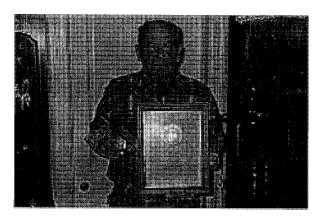
ARNOLD E. KUHN, HEMINGFORD, NE, was presented a 30-YEAR LENGTH-OF-SERVICE AWARD by Mike Elias.

Native of Hemingford, NE, lifetime journalist except short stints as lab technician for Bureau of Reclamation during building of Box Butte Dam; Apprentice Plate Printer at Bureau of Engraving in Washington, DC, printing money; WWII USN musician in bands at Anacostia, DC, and Dallas TX; bank clerk at Farmers National in Torrington, WY; and commercial manager at Radio Station KCOW, Alliance, NE.

At Hemingford Ledger as printer, reporter-photographer, advertising manager, editor, publisher, and now retired-owner.



MARTHA M. NEILSON, LANCE CREEK 1 W, WY, was presented a 30-YEAR LENGTH-OF-SERVICE AWARD CERTIFICATE AND PIN at her home near Lance Creek. The presentation was made by Ray Kowrach, CPM/WY.



STEWART E. NEWBERG, ALCESTER, SD, received a 30-YEAR LENGTH-OF-SERVICE AWARD from David Olkiewicz.



VERN AND ROSALLIE SIMONS (right), RED OWL, SD, were presented a 30-YEAR LENGTH-OF-SERVICE AWARD by Greq Harmon.



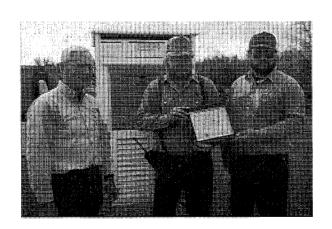
NOLAN WEILBAKER, PALMYRA, IN, was presented a 20-YEAR LENGTH-OF-SERVICE AWARD by Al Shipe (right) SH/IN, Pete Tellez (left), Mike Callahan (left center), and Roger Kenyon (not pictured).



BOYS TOWN, NE, received a 30-YEAR LENGTH-OF-SERVICE AWARD. Alfred Witcofski is the observer.

Left to right: Roy Osugi, SH, Omaha; George Matuella, DAPM, Omaha; Dorothy Loptin, sister to observer; Alfred Witcofski, observer; Terry Landsvork, CPM/HMT, Omaha; and Ernie Tilluton, HMT/Omaha.

Alfred is a Charter Member of Boys Town - One of the <u>Original Boys</u> of Boys Town.



Don Essler (left), HMT-C, presented a 25-YEAR INSTITUTIONAL AWARD to WORKERS OF THE WASTE WATER TREATMENT PLANT, MORA, MN.



EUGENE FRYE, CEDAR RAPIDS, IA, received a 25-YEAR LENGTH-OF-SERVICE AWARD from Randy Settje (right).



RALPH H. HERRON, RED OAK, IA, was presented a 25-YEAR LENGTH-OF-SERVICE AWARD.



GILBERT KOCH, EUSTIS 2 NW, NE, was presented a 25-YEAR LENGTH-OF-SERVICE AWARD by Mike Elias.



MRS. MARK POPE, MAPLETON, IA, was presented a 25-YEAR LENGTH-OF-SERVICE AWARD by Randy Settje (right).



DON SEEDORF (left), WENTWORTH 2 WNW, SD, received a 25-YEAR LENGTH-OF-SERVICE AWARD from David Olkiewicz (right).



ANGOSTURA IRRIGATION DISTRICT, GRAL, SD, was presented a 25-YEAR INSTITUTIONAL AWARD by Greg Harmon (left) and David Olkiewicz. Also shown are: Joe Kramer, District Manager; Bob Rittberger, District Director; and Leo Hausman, District Director (right).

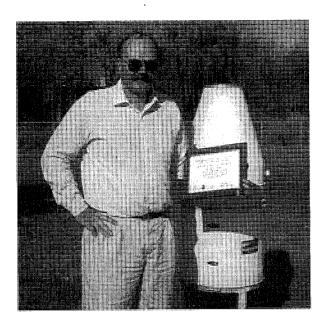


FAIRBAULT, MN, is a cooperative observer station for the National Weather Service.

Each day Howard Helgeson or one of his fellow employees take and write down the maximum and minimum temperature at the waste water treatment plant, also check and note any precipitation.

The station began in April 1951 and was located at radio station KDHL. Records were not published until 1960. Then in 1969 the duties were passed to the waste water treatment plant and the first observer was Howard Helgeson.

Accepting the 25-YEAR LENGTH-OF-SERVICE AWARD is Howard Helgeson.



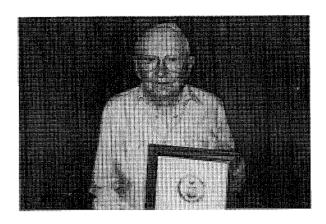
NORTHFIELD, MN, is a cooperative observer station for the National Weather Service in MN.

Each month an employee of the waste water treatment plant in Northfield takes a punch tape off of the rain gage and sends it to the NWS Office in Minneapolis who in turn sends it to the National Climatic Data Center in Asheville, NC. This information is published in monthly and annual climatological pamphlets.

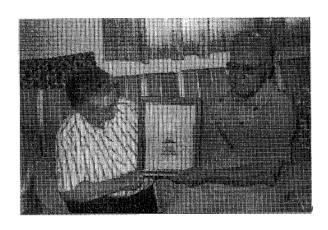
Accepting the award for 25 YEARS OF SERVICE at the NORTHFIELD WASTE WATER TREATMENT PLANT is the plant supervisor, Glenn Lindroos.



MARY ABBIE ANDERSON, POTTER 4 N, NE, was presented a 20-YEAR LENGTH-OF-SERVICE AWARD by Mike Elias.



CHARLES FINEGAN, HYANNIS, NE, received a 20-YEAR SERVICE AWARD from Mike Elias.



MR. AND MRS. CLOYD HOYT, MCCOOK 4 SW, NE, were presented a 20-YEAR LENGTH-OF-SERVICE AWARD by Mike Elias.



BERNARD V. STEINERT, JR., WAUNETA, NE, was presented a 20-YEAR LENGTH-OF-SERVICE AWARD by Mike Elias.



MAYBELLE WEBER, OBSERVER, MUD SPRINGS, WY, was presented a SPECIAL SERVICE AWARD for 20-YEARS SERVICE as a Fischer-Porter precipitation observer at her ranch. The presentation was made by Ray Kowrach. Mud Springs is located 24 miles southeast of Rock Springs, WY.



LORING WOODMAN, owner of the DARWIN GUEST RANCH, was presented a SPECIAL SERVICE AWARD FOR 20 YEARS OF supporting the cooperative program at the Darwin Ranch, WY. Loring and wife Melody are pictured at their ranch with the spectacular Sportsman Ridge and the Gros Ventre River in the background. This station is located in a remote wilderness area of northwest Wyoming with the only access being by air or four wheel drive vehicle.



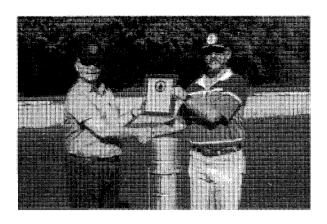
ROGER BAUER (left), MCINTOSH 6 SE, SD, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD by David Olkiewicz. Pictured Emil Bauer (recently deceased, center) and Brad Bauer (right).



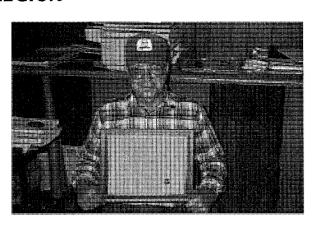
EVELYN J. BLANCHARD, CARSON, IA, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD.



DOYLE FUNK, OBSERVER, BOWLING GREEN, IN, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD by Al Shipe, SH/IN (right), and Jerry Lindsey (left). Picture by Roger Kenyon.



ALAN D. GALBRAITH, SAC CITY, IA, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD by Randy Settje (right).



DENNIS RAUSCH, ONAKA, SD, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD.



ANDY HAUGAN was presented a 15-YEAR CERTIFICATE to mark his services as cooperative observer for WALES 2 E, MN.



LARRY SANDAL (left), PLAINVIEW 4 SSW, SD, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD by David Olkiewicz (right).



A 15-YEAR LENGTH-OF-SERVICE AWARD was presented to NADINE JENSEN, MASSENA, IA. Pictured left to right: Randy Settje; Nadine Jenden; and Ken Jensen (her husband).



JUDITH SMITH, OSHKOSH, NE, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD by Mike Elics.



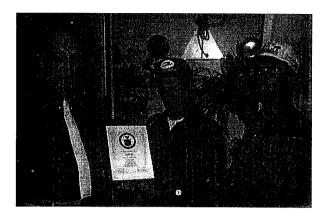
MAX STONE, OBSERVER, NEWBERRY, IN, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD by Al Shipe (on left) and Jerry Lindsey, DAPM/IND (on right).



ROLAND WICKS, CARPENTER, SD, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD.



ROSE WITTWER, MCCOOK, NE, was presented a 15-YEAR LENGTH-OF-SERVICE AWARD by Mike Elias.



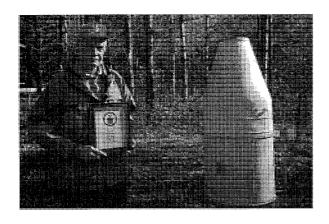
pon BARRETT, WHITESTOWN, IN, was
presented a 10-YEAR LENGTH-OF-SERVICE
AWARD by Al Shipe (right); Jerry Lindsey
(left); and Roger Kenyon (not pictured).



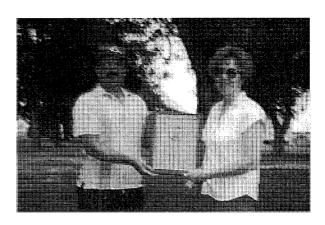
JOHN BLOMSTEDT, HERSHEY 5 SSE, NE, was presented a 10-YEAR LENGTH-OF-SERVICE AWARD by Mike Elias.



LEE K. DABY was presented a 10-YEAR CERTIFICATE to mark his service as the weather observer for the community of CAMPBELL, in west-central MN.



DR. ROD HANSON, OBSERVER, DODGE CENTER, MN, was presented a 10-YEAR LENGTH-OF-SERVICE AWARD.



LAVONNE NAU, BELLEFONT, KS, received a 10-YEAR LENGTH-OF-SERVICE AWARD from John Orgler, DAPM/DDC.



DIANE KNUTSON (left) and RICK KNUTSON (right), SUMMIT 1 W, SD, were presented a 10-YEAR LENGTH-OF-SERVICE AWARD by David Olkiewicz.



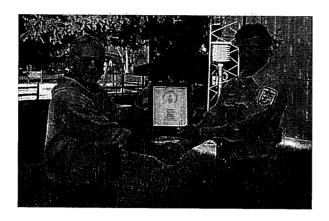
SANDY SCOGGAN, CRAWFORD, NE, was presented a 10-YEAR LENGTH-OF-SERVICE AWARD by Mike Elias.



JOHN MARTY, OBSERVER, KENDALLVILLE, IN, was presented a 10-YEAR LENGTH-OF-SERVICE AWARD by Russ Marshall, OIC, FWA (center), and Roger Kenyon, CPM/IND (left).



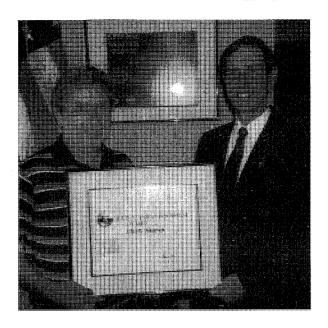
MENNO J. WALTER, IROQUOIS, SD, was presented a 10-YEAR LENGTH-OF-SERVICE AWARD by David Olkiewicz.



GARY TISCHER (RIGHT), OBSERVER, AGASSIZ WILD LIFE REFUGE, MN, was presented a 10-YEAR LENGTH-OF-SERVICE AWARD by Don Essler (left), HMT-C.

OTHER AWARDS - CENTRAL REGION

KANSAS James Black Wilma Rissen Raymond Halstead Manhattan Dpsl Plt Kurt Kessinger Melba Bruce Arthur Kidwell	Chapman Lyndon 3 ENE Salina 3 W Manhattan Burlingame 2 Minneapolis Enterprise	YEARS 31 25 20 20 N 10 10 5
KENTUCKY	December 1 D	YEARS
Howard B. Hyde	Franklin 1 E	20
<u>MICHIGAN</u>		YEARS
Merlin Kraft	Sparta	30
Larry Brown	Allegan	15
Jean Postma	Rudyard	15
<u>NEBRASKA</u>		YEARS
Ansel Ellis	Merriman	15



JOHN R. ANDERSON, WALPOLE 2, MA, received the JOHN CAMPANIUS HOLM AWARD during a ceremony held at the Northeast River Forecast Center in Taunton, MA. Ron Martin, Hydrologist-in-Charge/NERFC, made the presentation, witnessed by Sue Anderson; Alan Dunham, Data Acquisition Program Manager; Tony Mach, Cooperative Program Manager; and the River Forecast Center staff.

John began as a cooperative weather observer in 1962 in Norwood, MA, where he kept a daily weather record; made phone reports in support of the river Forecast and Flood Warning Program; and maintained a recording rain gage at the near-by airport. Since he moved to Walpole in 1972 he has continued at his home, overlooking Cobb's Pond.

After many years of research and data entries, the self-employed civil engineer and land surveyor compiled a Local Climatological Data publication in 1989. He used his records and those from two other sites that dated back to 1902.

Mr. Anderson is a member of the Atlantic Coast Observer Network and vice president of the Blue Hill Observatory Weather Club and Museum in Milton, MA.

Photo left to right: John R. Anderson and Ron Martin.



FRANK MARTINO, AVENUE V, BROOKLYN, NY, was a 1993 RECIPIENT of the JOHN CAMPANIUS HOLM AWARD. The award presentation was made at the Cardinal Stritch Council of the Knights of Columbus, where Mr. Martino is a past Grand Master, and was attended by about 140 family members and friends. The presentation was made by Tony Mach.

Frank began in 1950 as the observer at Bensonhurst, NY. Following service with the U.S. Army, he continued with the program as the primary observer at the Avenue V station operated by NYC Dept. of EPA. Even after his retirement he continues to walk from his home to the Institutional site to take the observation and oversee the duties.

Frank is a member of the Long Island Weather Observers (LIWO) and assists in operating a network that reports daily to the NYC Forecast Office now located at Upton, NY. A letter from Mike Wyllie, NWS Area Manager and Meteorologist In Charge, accompanied the award; recognizing Mr. Martino for his contributions to the Forecast and Warning Program and emphasized the importance of his data to the calibration of the new WSR-88D radar.

PHOTO: Left to right: Tony Mach and Frank Martino.



RICHARD G. HENDRICKSON, BRIDGEHAMPTON, NY; was presented the coveted HELMUT E. LANDSBERG AWARD for over 60 YEARS OF CONTINUOUS SERVICE AS AN OBSERVER. Dr. Susan F. Zevin, National Weather Service Eastern Region Director, made the presentation on behalf of NWS Director, Dr. Elbert W. Friday. Congratulatory Letters from Dr. Friday and Dr. Zevin accompanied the award. In addition, U.S. George Hochbrueckner Representative recognized the service of Mr. Hendrickson with a special Certificate of Merit. Congressional Aide, Marge Acevedo, made the presentation on his behalf. ceremonies were held in the Hendrickson home, Hill View Farm with close friends and media representatives in attendance. Besides Dr. Zevin, NWS was also represented by Betty Borger, Regional Cooperative Program Manager; and Tony Mach. A luncheon, prepared by Mrs. Hendrickson, followed the presentation.

Mr. Hendrickson, who received the Thomas Jefferson Award in 1975, is well known on Long Island as a walking encyclopedia of weather information. He has written numerus articles for the newspapers of Eastern Long Island and early in 1995 a lifelong ambition of Mr. Hendrickson will culminate with the publication of a book he has authored.

Photo left to right: Dr. Susan F. Zevin, Mr. Hendrickson; Lillian Hendrickson; and Marge Acevedo.



IVY BUCHANAN, OBSERVER, MAPLETON DEPOT, PA, was presented the EDWARD H. STOLL AWARD by Dr. Susan Zevin. This award is given to all observers who achieve 50 YEARS of taking weather observations. The award was presented at the ceremonial opening of the Weather Service Office located at State College, PA.

The Mapleton cooperative observation station was established in 1938. The first observer was Ivy's father, Elijah Smith. Mrs. Buchanan became the observer in January 1943. She has reported rainfall and river stage data on a daily basis for this entire time period. The observations are reported via telephone at the present time, but in the 40's and 50's the reports were transmitted via a radio system. The reports were encoded during World War II. In 1968 Mrs. Buchanan received the John Campanius Holm Award and the Thomas Jefferson Award.

Photo left to right: Tom Bowman, Congressional Aide to U.S. Senator Arlen Specter; Dr. Susan Zevin; Bob Case, Meteorologist in Charge, State College, PA; Ivy Buchanan; Tom Baumgardner, Hydrologist in Charge, Middle Atlantic River Forecast Center, State College, PA; Tony Mach; Dr. Mark Davison, Great Nephew of Mrs. Buchanan; and Mike Flanagan, Congressional Aide to U.S. Representative William F. Clinger, Jr.

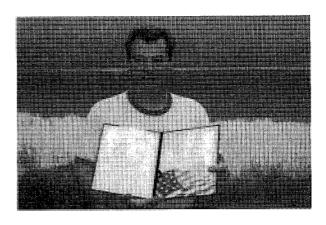


A 50-YEAR INSTITUTIONAL AWARD was presented to the SALISBURY WATER PLANT, SALISBURY, MD. Accepting the award (photo left to right) were Ray Miller, water plant operator; Bill Dotson water plant supervisor; and Tom Potts, Director of Public Works for the City of Salisbury. Presentation was made by James Smith, Hydrometeorological Technician, Sterling, VA.



More than 50 people gathered at a special luncheon honoring JOE C. MINOR (left), cooperative weather OBSERVER FOR 37 YEARS IN BOONE, NC. Mr. Minor was presented the prestigious THOMAS JEFFERSON AWARD by Cliff Crowley (right), Chief Observations and Facilities Branch, Eastern Region Headquarters, Bohemia, NY.

Other presentations included a framed copy of the first monthly B-91 submitted by Mr. Minor by Grant Goodge, National Climatic Data Center, Asheville, NC. Milton E. Brown, Director of the Southeastern Regional Climate Center in Columbia, SC, presented Mr. Minor with a certificate of appreciation. Dave Keller, Data Acquisition Program Manager, Blacksburg, VA, gave Mr. Minor an American flag to mark the occasion.



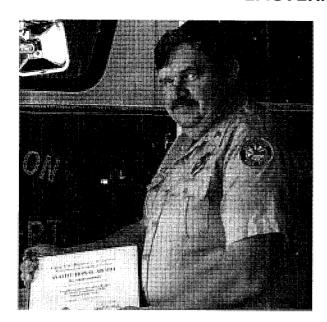
A 30-YEAR LENGTH-OF-SERVICE AWARD was presented to TERRY KNOCHE, ROUND POND RESERVOIR, RIDGEFIELD, CT, by Tony Mach.



RAY ALLEN, OBSERVER, SOUTH HERO, VT, was presented a 25-YEAR LENGTH-OF-SERVICE AWARD by William Grady (right), Data Acquisition Program Mgr, Burlington, VT.



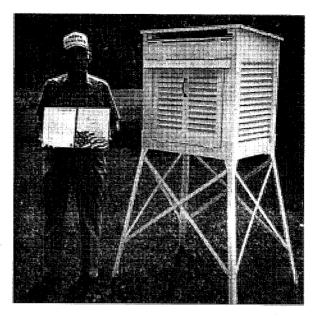
RUTH JONES, OBSERVER, WEARE, NH, received a 25-YEAR LENGTH-OF-SERVICE AWARD from James Donahue, Hydrometeorological Technician, Portland, ME.



A 25-YEAR INSTITUTIONAL AWARD was presented to the ANDERSON FIRE DEPARTMENT STATION #2, ANDERSON, SC. Accepting the award on behalf of the Anderson Fire Department was Fireman Sam Cheek. Mike Wyatt, Hydrometeorological Technician, Columbia, SC, made the presentation.



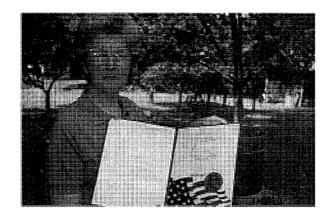
PERCY OLTON, OBSERVER, TAMWORTH, NH, was presented a 20-YEAR LENGTH-OF-SERVICE AWARD by James Donahue. Mrs. Olton (right) often shares the observing work. Mr. Olton shares his data with others: the area newspaper publishes his weekly summary, and the New Hampshire Fish and Game Dept. uses his data in their studies of the game population.



WALLACE J. RUPPE, OBSERVER, FOREST CITY, NC, was presented a 20-YEAR LENGTH-OF-SERVICE AWARD by Clara Gillentine, HMT, Columbia, SC. Mr. Ruppe is also a HAM radio operator and an active Skywarn observer.



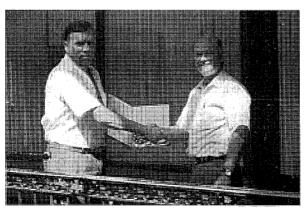
WALTER KOLADZA AND JOHN GUARNIERI were presented a 20-YEAR LENGTH-OF-SERVICE AWARD. Walt, operations manager, has overseen the program for two decades at GREAT BARRINGTON AIRPORT, MA. John, who is the primary observer, is an aircraft mechanic. Daily precipitation and max/min temperatures are recorded here in the Berkshires and very reliable and consistent phone reports are made to the hydrologists at Northeast River Forecast Center in Taunton, MA; and the Forecast Office in Albany, NY. Tony Mach made the presentation. Photo left to right: Walt Koladza and John Guarnieri.



DOLLY J. BRANHAM, OBSERVER, CAMDEN, SC, was presented a 10-YEAR LENGTH-OF-SERVICE AWARD by Mike Wyatt.



GLENN D. HANCOCK, OBSERVER, HUDDLESTON, VA, was presented a 10-YEAR LENGTH-OF-SERVICE AWARD by Phil Duncan (left), Cooperative Program Manager, Raleigh, NC.



GRANT GOODGE, OBSERVER (left), SWANNANOA 2 SSE, NC, and Production and Quality Control Chief at the National Climatic Data Center, Asheville, NC, was presented a 10-YEAR LENGTH-OF-SERVICE AWARD by Mike Wyatt (right).



DALE AND REBECCA JONES, RUSSELL, PA, received a 10-YEAR LENGTH-OF-SERVICE AWARD. The Jones family takes observations for the Russell 3 E and Russell River stations. Presentation and photo were made by Don Wolfe, Cooperative Program Manager, Pittsburgh, PA.



MR. AND MRS. BUFORD, T. MARTIN, OBSERVERS, CHARLOTTE COURT HOUSE, VA, were presented a 10-YEAR LENGTH-OF-SERVICE AWARD. The two together make a great team. They love country music and host an area weekly musical jamboree. Phil Duncan made the presentation and took the photo.



SYLVIA C. STRONG, SETAUKET STRONG, NY, was presented a 10-YEAR LENGTH-OF-SERVICE This station has been continuously operated by the Strongs since 1885 when Judge Selah B. Strong began recording observations for the U.S. Army Signal Corps. He maintained the station until 1932 when his daughter, Kate W. Strong, took over. "Miss Kate" kept the records until 1960 when the official station was relocated a short distance to the home of her nephew, William Y. Strong. She continued to record observations at the original site until 1977 when she passed away at the age of 98 years. When William Strong died in 1983 his widow, the current observer, decided to keep the record in his memory. In 1985, after a century of continuous observations by this dedicated family, the station was renamed Setauket Strong in their honor. Betty A. Borger (right) made the presentation to Mrs. Strong (left), accompanied by Tony Mach.



Al Wheeler, Meteorologist in Charge, Gray, ME, is shown presenting ELVIRA HOBART, OBSERVER, BLANCHARD, ME, with a 10-YEAR LENGTH-OF-SERVICE AWARD.

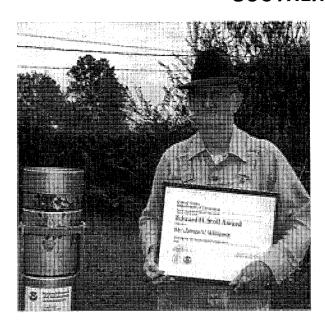
COOPERATIVE DATA IN ACTION

Clean Lakes Program: Environmental Protection Agency is assisting state and local governments in repairing lakes, ponds, and rivers throughout the nation. The state of Kansas has documented "run-off" into bodies of water located within their boundaries. They required actual and historical precipitation data to calculate the amount of farm and industrial chemicals that find their way into local aquifers. Normals, means, and extremes climate data were provided by the National Climatic Data Center, as well as, surface observations from first order and cooperative stations.

Roving Armadillos: A graduate student from the University of Arkansas recently requested the Summary of the Month data (a summary of cooperative data) to help him conduct a study on armadillo migration. Armadillos range from west Texas northward to central Missouri and eastward to South Carolina. The student hopes to prove a theory that the number of days when the maximum temperature is less than or equal to freezing limits the armadillos' northward migration.

Green Mountain Days: An essayist is penning a book entitled, "A Vermont Book of Days." Each page of the book will be a day of the year with attendant happenings on that day throughout the state's history. The emphasis will be on "everyday" events, social and economic trends, landmark occurrences, and weather. In addition, the book will chronicle the history of weather observations in the state. Climatological summaries for the state, information on the cooperative observer program, and reference materials available through the National Archives were provided.

SOUTHERN REGION



JAMES V. WILLIAMS, OBSERVER, ABBOTT, AR, was presented the EDWARD H. STOLL AWARD for his 50 YEARS OF SERVICE to the National Weather Service. The award was presented to Mr. Williams at his home by Mike Asmus, CPM/T, Little Rock, AR.



received the JOHN CAMPANIUS HOLM AWARD from Dennis McCarthy, second from left, of the NWS. At the Marlow Lions Club meeting Mr. Muncrief was honored for nearly 40 YEARS of outstanding weather observing in MARLOW. Also present were Beverly Reese, far left, and Johnny Roberts, far right, both of the NWS.

Since 1955, Mr. Muncrief has made more than 29,000 weather observations -- or two a day -- and he is still looking towards the sky for the next storm.

Mr. Muncrief enjoys his role so much that he named his dog NOAA.



A 45-YEAR LENGTH-OF-SERVICE AWARD was presented to LOUISE SWINNEY, OBSERVER, LEXINGTON 2 NNW, MS. Mrs. Swinney received the John Campanius Holm Award in 1978 and the Thomas Jefferson Award in 1992. Larry Arnold, CPM/Jackson, presented the award. Pictured left to right: Charles Ridge, retired Regional Cooperative Program Manager; Larry Arnold; Mrs. Swinney; and Maxie Brown, OIC, Meridian, MS.

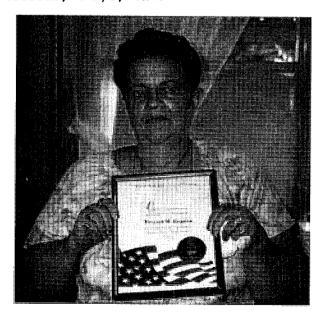


BUCK MARTIN, OBSERVER, RALEIGH, MS, received a 30-YEAR LENGTH-OF-SERVICE AWARD from Larry Arnold; and Charlie Smith, HMT, Jackson. (Pictured left to right: Larry Arnold and Mr. Martin.)

SOUTHERN REGION



A 30-YEAR LENGTH-OF-SERVICE AWARD was presented to LEON SANDERS, JR., OBSERVER, PLAIN DEALING, LA. Mr. Sanders is a third generation official observer, carrying on a tradition which officially began in 1894. Mr. Sanders was also a recipient of the John Campanius Holm Award in 1979. The presentation of the award was made by Ernest S. Ethridge, OIC, Shreveport (right), and Steve Griffin, CPM/T, SHV.



A 25-YEAR LENGTH-OF-SERVICE AWARD was presented to ALICE HERRON, OBSERVER, FORREST 3 S, MS, by Larry Arnold and Gabriel Jeffries, HMT.



RAY R. HUTTO, OBSERVER, DAMASCUS, AR, was presented a 25-YEAR LENGTH-OF-SERVICE AWARD by Mike Asmus, CPM/T, Little Rock.

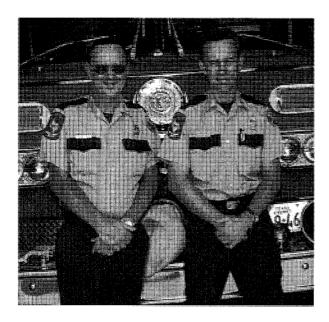


ARTHUR L. THOMASON, OBSERVER, DUSTIN, OK, received a 25-YEAR LENGTH-OF-SERVICE AWARD from Johnny Roberts, HMT, Norman, OK.



A 25-YEAR INSTITUTIONAL AWARD was presented to HEARD NATURAL SCIENCE MUSEUM, MCKINNEY, TX. Dr. Harold Laughlin accepted the award. The award was presented by Jerry Wolfe, CPM/FTW.

SOUTHERN REGION



A 25-YEAR INSTITUTIONAL AWARD was presented to LONGVIEW FIRE STATION #4, LONGVIEW, TX, by Jerry Wolfe. Accepting the award are Travis Prior (left) and Harold Moore (right). Other firemen taking observations: Dicky Jordan; John Brinkley; Dale Simcox; Ron Hollomon; Ed Norris; Paul Page; Gary Pirkey; Allen Messimer; Jerry Taylor; and David Bates.



A 25-YEAR INSTITUTIONAL AWARD was presented to STATE FORESTRY DIVISION, BEAR MOUNTAIN TOWER, OK. by Steve Griffin (left). Ronnie Scarberry accepted the award.



OLIVE B. HILL, OBSERVER, KEITHVILLE, LA, received a 20-YEAR LENGTH-OF-SERVICE AWARD from Steven Griffin (right).



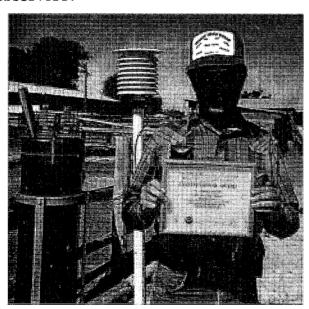
A 20-YEAR LENGTH-OF-SERVICE AWARD was presented to BILLY JOE METTEAUER, CHIRENO, TX, by Alan Starnes, CPM/Waco.



A SPECIAL SERVICE AWARD was presented to MYRTLE M. KENDALL, OBSERVER, HOLDENVILLE, OK, by her son, Joe Kendall, who recently retired as Director of O.S.F. and was previously a Lead Forecaster at Norman, OK.



ALICE RICKMAN, GRANGEVILLE, ID, accepted a JOHN CAMPANIUS HOLM AWARD ON BEHALF OF HER HUSBAND, ROBERT, AND HERSELF. The award was presented by John Jannuzzi (right), NWS Area Manager/ID, at a Chamber of Commerce meeting in The Rickmans Grangeville. are outstanding citizens and contributors to their community, as well as, excellent observers.



The NORTH SIDE CANAL COMPANY, HAZELTON, ID, received a 75-YEAR INSTITUTIONAL AWARD. Joe Cooper accepted the award for the company and the crew. Over the years everyone there has recorded the temperature and precipitation. Thanks!

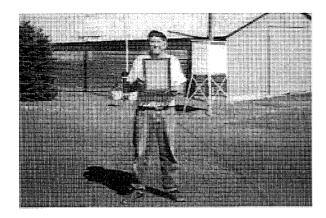
The CANTRALL FAMILY (no picture), JESS VALLEY, CA, received a 40-YEAR LENGTH-OF-SERVICE AWARD. Mr. and Mrs. Walter Cantrall began taking observations in 1954. Recently, grandson Randy Christensen has taken over the observing duties. Jess Valley is located in the northeast corner of California in the Warner Mountains.



BETHEL DOPF (center), CAMBRIDGE, ID, received a 40-YEAR LENGTH-OF-SERVICE AWARD. The award was presented by John Jannuzzi (right), and Ingve Olson (left), CPM/ID. Bethel and husband Stuart own and operate the local newspaper.



MARION DANCER (left), WALLACE, ID, received a 25-YEAR LENGTH-OF-SERVICE AWARD from Ingve Olson. Marion, an Idaho native, enjoys going camping with her husband. While he fishes, she reads. She does, however, get her hands dirty, as she cans a lot of the fish!

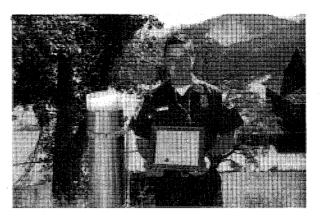


WILLIAM G. HOFMANN, ROSALIA, WA, received a 25-YEAR LENGTH-OF-SERVICE AWARD from John T. Dearn, HMT, WSFO Seattle.

RAYMOND J. MULLEN (no picture), KENTFIELD, CA, was given a POSTHUMOUS AWARD in RECOGNITION OF ALMOST 25 YEARS OF SERVICE as an observer. Mr. Mullen's daughter, Cathy Hicks, accepted the award on behalf of her father. Thanks to the Mullen family's referral, the Kentfield station will continue at the fire station less than one-half mile away and continue to serve an important public service role for the greater San Francisco Bay area.



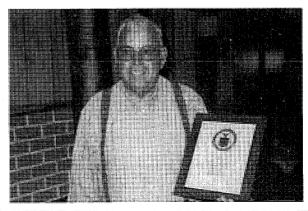
IDAHO POWER COMPANY, BROWNLEE DAM, ID, was presented a 25-YEAR INSTITUTIONAL AWARD. Roger Gunn (left), supervisor at the power plant, accepted the award from John Jannuzzi.



The VIRGINIA CITY, NV, FIRE DEPARTMENT received a 25-YEAR INSTITUTIONAL AWARD, which was accepted by Captain Gary Hames. (The rain gage is not situated under a tree. That's an optical illusion.)



The EVERETT, WA, WATER DEPARTMENT received a 25-YEAR INSTITUTIONAL AWARD. Steve Hoffman, dispatcher, accepted the award for the department. Not shown in the photo is observer Chris Ahles.



DOUGLAS DANIELS, GLENWOOD, WA, received a 20-YEAR LENGTH-OF-SERVICE AWARD for obstaken at the State Fire Hall.

OTHER AWARDS - WESTERN REGION

CALIFORNIA	71 441 at a	YEARS	MONTANA	Gibbono Dono	YEARS
Leo Dexter	Fiddletown Dexter Ranch	15	Bob Wetzsteon	Gibbons Pass	. 15
IDAHO		YEARS	WASHINGTON		YEARS
Kenneth Henry	Enaville	15	Terry Castle	Arlington	10
Douglas Smith	Craigmont	15	Don Smith	Arlington	10
Ken Andrus	Topaz	10		_	
Jack Austin	Richfield	10			
Veeann Austin	Richfield	10			
P.J. Breiding	Idaho City	10			
Jacquelyn Graefe	Howe	10			
Douglas McWhirter	Elk River	10			100
Janet Monson	Warren	10			* .
Leron Sibert	Calder	10		6	N.

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1 = Driest/Coldest, 100 = Wettest/Hottest

Region '	Precipitation	Temperature
Northeast	78	41
East North Central	59	59
Central	57	55
Southeast	93	63
West North Central	36	78
South	62	73
Southwest	44	95
Northwest	11	93
West	22	88
National	55	85

Weekly Weather and Crop Bulletin

January 10, 199

NATIONAL COOPERATIVE OBSERVER

Case In Point: The Railroads1

by W. J. Harris, Jr. Vice President - Association of American Railroads

Weather and climate - precipitation, temperature, and even wind under extreme, but not rare circumstances - can have a profound impact on the ability of the railroads to provide effective service.

Here are a few areas that suggest this impact. There are others, but from this variety it is apparent that precise information on weather and transient climate can be of assistance to the industry in planning its work and in dealing with its resources.

Railroad Operations

Railroads were laid out in most parts of the United States in the latter part of the 19th century, when earth moving equipment was not extensively available. As railroads cannot surmount steep grades with long, heavy, and efficient trains, much of the system was laid adjacent to riverbeds and in some instances, in the flood plain of these rivers. Today, when flooding occurs, railroad operations cease, and extensive rerouting required. Bridges and rail sections are damaged. Substantial rebuilding costs and delays are incurred.

Both linehaul and terminal operations are profoundly affected by large amounts of snow. Railroads have massive investments in snow removal equipment. If heavy, and unexpected snow blankets a terminal area substantial quantities of products delayed in delivery and enormous congestion results. Expensive emergency operations are required. The shippers, the consignees, and the railroads all are hurt.

Mud slides have been known to destroy sections of track. And railroads operating in mountainous terrain must, of necessity, try to anticipate rock slides, which can have a disastrous impact on the railroad.

Track Problems

The steel from which tracks are made has limited ductility which is even more limited under conditions of low temperature. Thus each winter there are

a number of rail failures because of low temperatures.

Steel, as almost all materials, is also subject to expansion on heating and contraction on cooling. When rail is exposed to high ambient temperatures and the Sun, it can expand to the point that it becomes laterally unstable. these circumstances, rail may move away from its correct alignment by 5 to 10 feet either in a specific tight curve known as a Sun kink or with a substantial lateral displacement of the whole track structure. To reduce the effects at the end of rails, the industry has made extensive use of long assemblies of rail created by welding. These nearly quarter-mile segments are connected to each other by bolted attachments.

Rail-laying practices require that rail be laid only in a narrow range of temperatures intermediate between the lowest and the highest so as to minimize the relative temperature differential when the rail is heated and thus reduce the chance for Sun kinks.

Although some modest maintenance to the geometrical relationships necessary between the two rails can be achieved during the year, all major rebuilding and much of the major maintenance is done during the summer. It must be done after the gravel or broken stone laid in the railroad bed known as ballast is completely thawed and before the freeze-up of the ballast in the winter. It is much more difficult to maintain track during and immediately after periods of heavy rain than when the track is reasonably dry. Accordingly, railroads have large crews and expensive equipment dedicated to making possible effective maintenance and rebuilding programs. The planning for the use of these crews and this equipment is profoundly affected by the weather of a particular maintenance season.

Railroad Traffic

Railroads carry a large quantity of coal. The need for coal is affected by the requirements for power and, to an increasing extent, for export. Export

¹ Taken from NOAA (a publication of the National Oceanic and Atmospheric Administration) Volume 12 Number 3, Summer 1982.

NATIONAL COOPERATIVE OBSERVER

coal demands may be conditioned to some degree by requirements for power and heating overseas. Domestic power by affected weather production Thus, a better knowledge requirements. of the relationship between climate and power requirements could lead to more definitive insights on how much coal is to be moved.

A second very important commodity or οf commodities for railroad set operations is in the agricultural sector. The timing of the harvest and the extent of the harvest can have a profound affect on the requirements for cars to move grain, in particular. Thus, if railroads had better insight into these weatherrelated circumstances, car acquisitions, and car positioning car maintenance, could be improved.

Railroads move large quantities of agricultural chemical fertilizers. A better insight into the timing of requirements for fertilizers may also be conditioned to some extent by weather issues.

Railroads move large quantities of propane and other compressed, flammable gases. The requirements for propane also are conditioned by weather, particularly in the northeastern part of the United States, where propane may be used for heating as well as for other household purposes. Better insight into the interaction between weather and propane requirements could lead to a greater insight into the demands for propane and the timing of possible propane movements.

1

Letters to the Editor



Dear Editor,

Photo Courtesy of Mira Skala - Jan 1995

Jim Shibley, who has been our "weather observer" for 38 years is retiring. He has received your publication for quite a number of years.

Ghost Ranch was a Dude Ranch for many years before the Packs gave it to the Presbyterian Church in 1955. During those early years there were scientists staying here who decided that Los Alamos, NM, would be the site chosen for the Manhattan Project. Also, over the span of many decades, the famous artist Georgia O'Keefe maintained a residence here. Many of the sources of her paintings can be seen here every day.

Jim Shibley would be honored if you could include some of the information we have included. Thank you.

Sincerely.

Kathy Morrison

James Roy Shibley has been the Superintendent of Ranchlands, Ghost Ranch Conference Center, Abiquiu, NM, for close to 40 years, beginning in 1957. During that time the Ghost Ranch has been noted for its efforts in soil and water conservation. In 1991, Mr. Shibley won the Outstanding Rancher Award for outstanding accomplishments in conservation of soil, water, and related resources. The ranch, under Mr. Shibley's management, won awards for Excellence in Grazing (1976) and Conservation Ranch of the Year (1991).

The Soil Conservation Service established Ghost Ranch as a precipitation observing station in 1939. The station was turned over to the Presbyterian Church in April of 1957. The Cooperative Program will miss such a conscientious observer! Best Wishes for your retirement.

NATIONAL COOPERATIVE OBSERVER

********* ANNOUNCING **********

NCO PHOTO CONTEST

Rules:

- 1. The photograph must be of a cooperative observer or pertaining to weather taken by a cooperative observer.
- 2. The photograph must be at least 3 1/2" x 5" in size black and white or good color print.
- 3. Information accompanying the photograph must include: the date and location of the photograph, and a brief description with names all the individuals in the photograph. Also included, must be the submitter's name, address, and telephone number.
- 4. Articles about the photograph and/or the observer are encouraged and will increase the chances of being selected.
- 5. Photographs and articles should be submitted to:

Cynthia Karl or Grant Goodge National Climatic Data Center 151 Patton Avenue, Room #120 Asheville, NC 28801-5001

- 6. Photographs will be held for one year from receipt and will be eligible for selection for any of the four quarterly publications within that year. However, no individual observer may have a photograph selected more than once within one year.
- 7. Photographs will be returned upon request.
- 8. Photographs and articles will only be used in the National Cooperative Observer. Submissions will not be used in any other publication or for commercial purposes without consent of the submitter.
- 9. The National Cooperative Observer reserves the right to edit all material submitted for publication.
- 10. No fees are paid for any submission.
- 11. The winning photograph will be selected by the National Cooperative Observer publication staff.

USCOMM-NOAA-ASHEVILLE, N.C.-1995-10,750

Inquiries/Comments Call: (704) 271-4800 (Voice) (704) 271-4010 (TDD) (704) 271-4876 (Fax)

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