

The National Cooperative Observer

Spring 2005

Inside

Coop Observer Extraordinaire 2

From Great Depression to New Millenium

Typical Cooperative Station Visit in Alaska

Thomas
Jefferson
Award Winner

John Campanius Holm Award Winners

Length of Service Awards 75 Years: 5

Using Coop
Data To
Forecast
Water Supply
And River
Flows

COOP in Urban Savanna; Weather and Wildlife Mix Well

Mark Farnsworth, Observation Program Leader, WFO Honolulu

In the heart of Waikiki lies an African Savanna teaming with gazelles, giraffes, monkeys, rhinoceroses, lions and even laughing hyenas. Created in 1914, the Honolulu Zoo sits on land granted by King Kalakaua at the base of the Diamond Head Volcano and directly across from Waikiki Beach.

In 1964, NOAA's NWS installed weather equipment monitored by zoo personnel as part of the Coop program. Savanna Keepers Miki Nagatoshi (primary), Brian Okamoto and Kim Kessler are the current observers tracking zoo weather conditions. The data they collect also has an application to their work at the zoo.

Miki explains that when the rain gauge shows more than an inch of rain, the giraffes are restricted to their quarters until the area dries up. If conditions are too wet, the roaming area becomes slippery and poses a danger for giraffes, who could easily lose their footing and break a bone.

On the other hand, tortoises enjoy the wetter conditions. The best time to see tortoises doing a happy dance is after a good rain, Kim says.

Zoo plants also depend on weather. The day I visited, Brian brought some grateful giraffes branch cuttings that had been growing extremely well with all the recent rains.

On the temperature side, during the bone chilling Hawaiian winter when the Temperature Sensor shows an overnight low temperature of 62 degrees—sometimes even colder!—a giraffe with sore leg joints may need arthritis medicine to help him start the day off on the right hoof.

Not only are the Savanna Keepers devoted to upholding the Zoo's mission to, "foster an appreciation of our living world, with an emphasis on tropical ecosystems, by serving as a center for



Coop Observer and Zoo Keeper Miki Nagatoshi at the Honolulu Zoo

environmental education, biological study, and recreation and conservation activities," but by volunteering to record weather information, they provide a sound database of climatological records for NOAA and its study of Hawaiian Islands and global ecosystems. It is a true pleasure working with such enthusiastic professionals.

True Confessions: Why I Rejoined Coop

By Misha Nogha, Observer

Greetings fellow Coop weather observers! I was asked to write a little essay about why I wanted to be a coop weather observer again. I say again because, after some 10 years of being an observer, I took a several-year hiatus and then asked to be hooked up again. I first became an observer because I thought it would be educational for my children. But as they are reaching the 30 zone, I have to say that reason has gone by the wayside.

Still, I can think of three reasons. The first is and I'm sure a lot of you are with me on this— I recently saw a Hollywood movie where weather

The Earl Stewart Award. presented to observers for 75 years of service, is waiting in the wings. Only three Coop observers have served more than 75 years.

observers were life-flighted by the U.S. government out of a ticklish situation. Well who wouldn't want to be life-flighted? I can think of a recent example where it would have come in handy when, just at dawn, I ran outside in my silk cat jammies and muck boots, brandishing a wooden spoon to chase some juvenile delinquent coyotes out of the calving paddock. How was I to know there would be joggers out at that hour of the morning?

I was a bit chagrined to be caught standing in my driveway in that outfit, hollering "G'wan get!"



Multnomah Falls, Oregon

just as these fellows came running down the road. A life-flight out of that situation would have been good. I can't help but notice that recent weather disaster movies portraying storms of mythological proportions make a weather observer almost like a valued national treasure and superhero.

The second reason I wanted to be an observer again is because weather as reported by usual means, such as thermometer boards at corner groceries and local a.m. radio stations, are pure fiction. You go down to the local Ma and Pa store and the marquee reads 101 at 10 a.m. on a June morning—when you know darned well it isn't a click above 75. Someone must have put their sensor in the sunshine!

Then again, last summer we had an incredible severe storm. There was a deluge that made you think you were standing under Multnomah Falls with roll clouds the size of the Titanic, small outbuildings rolling across the wheat fields and lightning as big as your forearm crashing all around you. Meanwhile the local radio station was reporting, "Partly cloudy today, chance of showers, 20 percent." What in the world? Are we in the same county or had I already been life-flighted? Or had someone recorded the forecast early that a.m. and just kept playing it? Hmmmmm? No, I wanted the real facts and the

instruments to measure them at my fingertips.

And the final reason I asked to be reinstated is because I realized the first thing I did when I woke up at dawn was check the sky. The second thing I did was check the thermometer, and the third thing I did was log onto the National Weather Service online forecast for the day. And maybe the next time I got on the computer I read the forecast discussion. And then later I found myself trying to use my cursor to exactly locate Cove, OR, on the forecast map. I had to admit to myself—all patterns seemed to indicate one thing: weather obsession.

Let's face it—when you hear that old Happy Trails lyric, "Who cares about the clouds when we're together?" and you answer, "I do!" then it must be your destiny to be a Coop weather observer.

From Great Depression to New Millenium

By Ralph Izzo, Data Acquisition Program Manager WFO Upton, NY

When Richard Hendrickson took his first reading as a coop observer, the year was 1930 and Herbert Hoover was President. Since then, twice a day the Bridgehampton, NY, farmer has chronicled the nation's climate history at his Long Island station.

Richard began his long career as a weather watcher when a family friend, author Ernest S. Clowes, asked if he could set up an observing station on the Hendrickson farm. Richard helped with the chore and when his friend retired, Richard took over. Richard's list of NOAA awards are numerous:

- Thomas Jefferson Award: 1975 Most Prestigious Award
- Edward H. Stoll Award: 1984
 50 years Dedicated Service
- Helmut E. Landsberg Award: 1994 60 years Dedicated Service
- Albert J. Meyer Award: 1997 65 years Dedicated Service
- Ruby Stufft Award: 2001 70 years Dedicated Service

The **Earl Stewart Award**, for 75 years of service, is waiting in the wings. Only three Coop observers have served more than 75 years.

With his many years of record keeping, including notes on the great Long Island hurricane of 1938



Richard Hendrickson, farmer, sailor, hunter, collector of antique guns and cannons, and local historia.

and the many East End snow storms, Richard has compiled an amazing amount of historical weather information. In fact, he authored a book, "Winds of the Fishes Tail," which highlights his years of observing the weather on Long Island's east end. Richard's take on the weather is also widely read in a column carried in local Long Island newspapers.

Recently, NOAA proposed a multi-year initiative to expand the Coop program and upgrade monitoring equipment to an automated system that sends data every 5 minutes. The wind sensors will be installed in the spring. Richard agreed to take part in the modernization and the new equipment was installed on January 20.

When Richard was asked to modernize his station, he did not hesitate to volunteer. He simply said "It's what I do for my country." \heartsuit

Typical Cooperative Station Visit in Alaska

By Peter Rahe, Alaska Region Cooperative Program Specialist

How do I get to Blashke Island, Hidden Falls Hatchery, Little Point Walter? What do you mean I can't get there from here?

We've all heard it: that simple line that has us laughing about a remote spot. Well if you intend to visit these, and many other Coop sites in southeast Alaska, you really can't get there from here—at least if you plan on driving.

These are just a few of the many Coop sites in southeast Alaska accessible only by boat or plane, and not a comfy, warm 747 with flight attendants serving drinks. This will be hold-on-to-your-hat flight in a chartered float plane, maybe followed by a jaunt in a skiff to the next site on your annual visit list.

This stop might just find you eating fresh oysters—right out of the ocean!—while you discuss Coop modernization with the observer.

When it comes to observers, Don Nicholson is one of our best. Don lives on one of the many tiny islands in the northern reaches of Clarence Strait, a vast and windy stretch of land. He operates an impressive oyster farm, shipping his product to cities across the western United States.

Between oyster hauls, Don provides daily temperature and precipitation data as well as interim reports as conditions warrant in an ever changing and often harsh environment. Recently selected as one of the most valuable spotters for Southeast Alaska,



Don Nicholson at his Blashke Island, AK, home and weather station

Don conveyed numerous timely reports on the record number of thunderstorms this past summer season.

With no Doppler radar coverage and no lightning data for the area, Juneau forecasters rely on reports like Don's to update short-term forecasts and issue special marine warnings. These warnings have made a huge difference to mariners when thunderstorms were heading their way. Don's reports also might have saved a few lives by notifying Southeasterners that dangerous lightning was coming.

A dedicated Coop observer since April 2001, Don has filled a gap in a region that provides a livelihood to thousands of mariners, fisherman and cruise ship employees.

I can't help but notice that recent weather disaster movies portraying storms mythological proportions make weather observer almost like a valued national treasure and superhero both at once.

Thomas Jefferson Award Winner



George S. Hatch (center) holds up his Thomas Jefferson Award. He is flanked by James Campbell, Western Region Deputy Director (left) and Larry Dunn, MIC WFO Salt Lake City (right).



George S. Hatch and the Koosharem Elementary School students hear congratulatory letters from Utah's Senators, Members of Congress and Governor.

Recognizing 56 years of dedication, WFO Salt Lake City presented the Thomas Jefferson Award to George S. Hatch of Koosharem, UT, on January 14. The award was presented at the Koosharem Elementary School. Both Utah Senators, all three Utah members of Congress and the former governor provided congratulatory letters to the cooperative observer, which were read aloud and presented to George during the ceremony.

George has received several other cooperative observer honors, including the John Campanius Holm Award for outstanding service in 1979, the Stoll Award for 50 years of service in 1998 and the Benjamin Franklin Award for 55 years of service in 2003.

John Campanius Holm Award Winners

John P. Chase
and his wife Gini,
of Lieter, WY, receive the Holm
Award from Keith Meier, MIC
WFO Billings.
The award recognized
39 years of dedicated service by
John, a proud grandfather and
owner of the Buffalo Creek Red
Angus Ranch.



John Campanius Holm and 50 Year Award Winner

Frenchy Montero receives his John Campanius Holm Award and the Edward H. Stoll award for his 50 years of outstanding service as a cooperative weather observer. A luncheon ceremony was held December 9 at the Martin Hotel Restaurant in Winnemucca, NV. Frenchy also received certificates of recognition from Nevada State Senator John Ensign and State Representative Jim Gibbons.

The awards were presented by Kevin Baker, MIC, in Elko, Harold Knocke, CPM regional manager, and Troy Marshall, HMT. Also attending were members of Frenchy's family, including his son Leonard Montero who is alternate weather observer for the site. Leonard has expressed a desire to continue the family tradition of service as a Coop weather observer.



Frenchy Montero, Leonard Creek Ranch, NV, receives the Holm award from Kevin Baker, MIC, Elko, NV.

75 Year Institutional Length of Service Award

Doug Garcia and Fred Espersen of PG&E accept an Institutional Award for an amazing 75 years of support at the Coop site at Placerville, CA.



John Campanius Holm Award Winners



The John Campanius Holm Award
was presented
to Alan Galbraith
in Sac City, IA. Pictured
from left are WCM Jeff Johnson,
WFO Des Moines, IA;
Alan Galbraith and
WFO CPM Brad Fillbach.

From left are
Bill Runyon, DAPM,
San Antonio, TX; Holm award
winner Edwin O. Lungren,
observer at Elgin, TX;
Joe Baskin, HMT,
San Antonio, TX; and
MIC Joe Arellano.





Wayne Jones, right, received the prestigious Holm Award on October 12, from James Weyman, MIC, WFO Honolulu, HI.

Special Service Award



Kenneth Thompson, observer,
New Raymer, CO, was
presented a Special Service
Award. He decided to retire for
health reasons after 39 years
of service. Presenting the
award, Carl Burroughs, (left)
Hydrometeorological
Technician, Boulder, CO.
Picture by Jim Kalina,
Met Intern, Boulder, CO.

50 Year Institutional Length of Service Award

Stacey Matousek and Paula Sarmento of the Orland Water Users Association accepting their 50 year Institutional Awards for the Coop sites at Stony Gorge and Orland, CA.



The Anderson Pollution Control Facility in Indiana received it's 50 Year Institutional award last October. The facility has been taking daily observations of maximum/minimum temperature, rain and snowfall since 1954. In addition, the crew maintains an automatic precipitation gage.

Official weather records have been recorded at Anderson since October 1895.

The observations recorded at Anderson are part of a unique network of stations called the Historical Station Network (HCN). These stations provide benchmark weather information for the country.



Pictured from left: Mayor Jeff Muir, Kevin Smith, Steve Guinness, Brian Smith and Jim Phillips. The 50 Year Award was presented by Roger Kenyon, HMT, and Al Shipe, Service Hydrologist, WFO Indianapolis, IN.



The staff of the Fall Creek Fish Hatchery received a 50 Year Award. Pictured from left are Dale Doig, Joyce Mahr, David L. Rogers, James Campbell, Matt Frank, and Steve Todd.

On October 13, 1954, the Fall Creek Fish Hatchery began recording rainfall amounts for the Weather Service. WFO Portland, OR, presented a 50 Year Award and letter of appreciation to David L. Rogers, Hatchery Coordinator, Matt Frank, Alsea Fish Hatchery Supervisor, and Joyce Mahr, manager of the Fall Creek Hatchery and current cooperative observer taking weather observations.

Presenting the award was James Campbell, Western Region Deputy Director; Steve Todd, MIC, WFO Portland, OR; and Rodger Nelson, Cooperative Program Manager.

The continuity of data is especially important for long term research of climate changes. Joyce Mahr stressed her work was a team effort with strong support from her supervisors and the Department of Fish and Wildlife.

The staff at the California State Department of Forestry in Susanville, CA, proudly holds up their certificate recognizing 50 Years of Service for the Cooperative Observer Program.

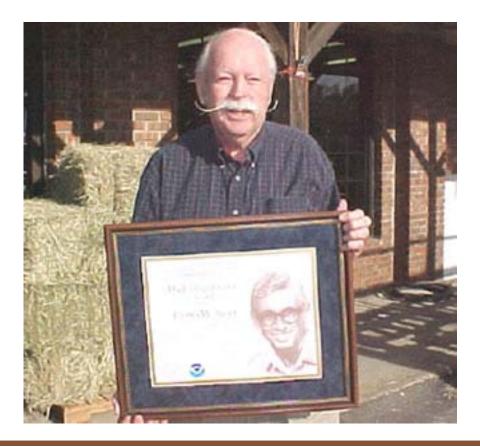


45 Year Length of Service Awards



Warren Ronning (right), Rock Springs, MT, shows off his award for 45 years of unstinting Service to the Coop Observer Program. The award was presented by Keith Meier, MIC, WFO Billings, MT.

45 Years Dick Hagermeyer Service Award



Cicero W. Swint of Jonesboro, GA, receives his 45 Year Dick Hagermeyer Length of Service Award from WFO Peachtree City, GA.

40 Year Length of Service Award

From left CPM, HMT Rick Lasher presents the 40 Year Award for Service to Nolan Weilbaker of Palmyra, IN.



40 Year Dick Hagermeyer Award

Harold Orcutt, observer at South Phoenix, AZ, was presented with a 40 Year Length of Service Award and a letter of congratulations from the NWS Director. Pictured from left are son Steve Orcutt, who took over the post last September; Harold Orcutt; Phoenix MIC Anton Haffer; and Western Region MSD Chief Richard Douglas.





Lorene and Jack Davis of Livingston, MT, receive a 40 Year Length of Service Award from Keith Meier, MIC, WFO Billings. Lorene and Jack have previously received the Holm Award for their years of dedication.

Mildred E. Kloppenburg, an observer at Billings, MO, was presented a 35 Year Length of Service Award by HMT Gene Hatch, WFO Springfield, MO.





Gary Arata, Coop Observer from San Gregorio, CA, is presented with his 35Year Length of Service Award by WFO Monterey Service Hydrologist Jeff Kopps. Gary and his mother Grace Arata have been Coop observers since 1967.



Fred Briese accepted his 30 Year Service Award from photographer and HMT Joe Sheehan, WFO Sioux Falls, SD.



John W. Maddox (right) receives his 30 Year Length of Service Award from WFO Peachtree City, GA, DAPM, Frank Taylor. John continues the weather recording tradition that his family has maintained for more than 125 years.



Reed Jeffery received the 30 Year Length of Service Award as a cooperative weather observer at Delta, UT. He has also served as a Paid-A Observer for WFO Salt Lake City, UT.



Bryce Jackson, observer at Fairview, UT, was presented a 30 Year Length of Service Award by Larry Dunn, MIC, WFO Salt Lake City, UT.



A 25 Year Institutional Award was presented to the University of Montana Flathead Lake Biological Station, Big Fork, MT. MIC Bruce Bauck, WFO Missoula, presented the award. From left are Kristin Olson, Chemical Analysis Laboratory Manager; Marie Kohler, Administrative Associate; and Bonnie Ellis, Research Scientist, Limnology.



Bob Wetzsteon (right), observer, Gibbons Pass, MT, accepts a 25 Year Length of Service Award. Bob maintains a Fischer Porter precipitation gage at Gibbons Pass at an elevation of 7000 feet. He lives in Sula, MT, about 12 miles north. Bruce Bauck, MIC WFO Missoula, MT, presents the award.



Dennis Barnes, observer at the Santaquin Chlorinator weather station in Utah, was presented a 25 Year Length of Service Award by Steve Summy, Salt Lake City, UT, Observing Program Leader.



Staff at the Glenbrook Fire Station #5, Tahoe-Douglas Fire District, in Zephyr Cove, NV, receive their award for 25 Years of Service.

20 Year Length of Service Awards Awards



Don Barrett of Whitestown, IN, is honored for 25 Years of dedicated service as a Coop Observer.



Vickey Carmen shows off her 20 Year Service award for observing at Clearlake, CA.



Tim and Diane Ehman, Coop observers at Mildred, MT, received a 25 Year Length of Service Award from Matt Moorman, CPM, WFO Glasgow, MT.

Janet Monson, Warren, ID, holds up her 20 Year Length of Service Award. In addition to observing the weather, Janet also has served as postmistress for Warren for 20 years. The Coop award was presented by Victor Stegemiller and Stan Krenz, WFO Missoula, MT.





Dorothy Jean Stanley of Volborg, MT, receives a 20 Year



NOAA thanks the staff of Dix Dam in Burgin, KY, for 25 years of observations. From left are Mark Johnson, Director, Transmission of LG&E Energy and DAPM Larry Dattilo, WFO Louisville, KY.



Tom Snyder, observer, Ozark Beach, MO, shows off his 25 Year Award presented by Larry Dooley, HMT, WFO Springfield, MO.

20 Year Awards

George W. Bomar, observer at Dripping Springs, TX, received his 20 Year Award from Joe Baskin, HMT, WFO San Antonio, TX.





Roland Marney, Coop observer at Dodson and Dodson in Milk River, MT, accepts a 25 Year Length of Service Award. Matt Moorman, CPM, WFO Glasgow, MT, presented the award.



Edward L. Starling, The Rock, GA, receives his 20 Year Award from WFO Peachtree City, GA.



20 Year Award presented on her retirement from the Coop program by Denny Fruehauf, WFO Gaylord, MI.

Rose Tchorzynski proudly shows her

15 Year Awards

Tommie Strickland of Lafayette, GA, receives her 15 Year Award from WFO Peachtree City, GA.





Ruth E. Gordon, observer, Waynesville, MO, was presented her 15 Year Award by HMT Larry Dooley.

15 Year Award



Deputy, IN, observer Danny Blaylock (right) and wife Judy receive a 15 Year Award from CPM Rick Lasher, WFO Louisville, KY.

10 Year Awards

Preston L. English, Unicoy State Park, GA, (right) receives his 10 Year Award from WFO Peachtree City, GA, DAPM, Frank Taylor.





Donald R. Johnson, observer, Spring City, MO was presented a 10 Year Award by Gene Hatch, HMT, Springfield, MO.



Robert Barbato and family, of Kelsey, in rural El Dorado County, CA, received their 10 Year Award from George Cline, DAPM, WFO Sacramento, CA.

Margaret Bowman, observer at Coalville, UT, was presented a 10 Year Award by Steve Summy, Observing Program Leader, WFO Salt Lake City, UT. (No photo)



Deborah Kaufman and son Konnor, Polebridge, MT, received a 10 Year Service Award from Stan Krenz, WFO Missoula, MT. The Konnor's home is a half mile west of Glacier National Park.



Wes Hill of Roberts, MT, received a 10 Year Service Award from Keith Meier, MIC WFO Billings, MT.



Ben Blonquist, observer at Coalville, UT, was presented a 10 Year Award by Steve Summy, Observing Program Leader, WFO Salt Lake City, UT.



John Eachus, foreman at the ATK Ranch just east of Wheatland, CA, was recognized for 10 years of volunteer work by George Cline, DAPM, WFO Sacramento, CA.



Edwin Penland (right) receives his 10 Year Award for service at Chatsworth, GA, from Frank Taylor, DAPM, WFO Peachtree City, GA.



Joe Sadler (right), Reelsville, IN, is honored with a 10 Year Award by HMT Phil Gray, WFO Indianapolis, IN.



Observer Areletta Koehn, Burns, KS, was presented a 10 Year Award by WFO Wichita, KS.



Jerry Simon, (left) observer at Jeddo, TX, receives a 10 Year Award from HMT Joe Baskin, San Antonio, TX.



Frank And Bonnie Swapp, observers at Kanab, UT, were presented a 10 Year Award by Steve Summy, Observing Program Leader, WFO Salt Lake City, UT.



The Carrolls of Belltower, MT, receive a 10 Year Award.

The Cooperative Observer

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Using Coop Data To Forecast Water Supply And River Flows

By Michelle Schmidt, Deputy Chief Hydrology and Climate Services Division, Western Region Headquarters

NWS River Forecast Centers (RFCs) provide streamflow forecasts for locations across the country. These are forecasts of river levels, including whether or not flooding will occur, how long a river will flood, when it will fall below flood stage and other factors. These forecasts are used by emergency managers to decide if they need to evacuate people.

The forecasts are used by people who live along rivers to know what to expect, and for recreational activities such as fishing and rafting. The models operated by NOAA hydrologists to make these forecasts are principally calibrated with Coop historical

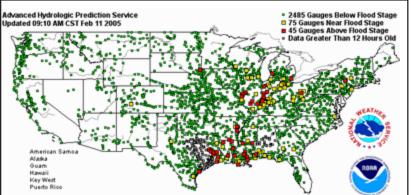
data, including precipitation, temperature and streamflow data. You can access river forecast information at: http://weather.gov/rivers_tab.php.

The RFCs in the western United States also issue water supply forecasts. These forecasts reflect the amount of water expected to run off into the rivers from snowmelt in the spring. These forecasts are used by water managers, power companies, dam owners and operators to help them plan out their year.

Water supply forecasts are essential to the economy of the country. The forecasting methods used by the RFCs are heavily reliant upon Coop data.

Monthly precipitation data from the Coop network is directly fed into the computer models. The timelier the data, the timelier the forecasts, which in turn allows users to make important decisions based on the expected volume of water.

These services would not be possible without the valuable Coop data used to calibrate or run the RFC models. •



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