



NOAA's NATIONAL WEATHER SERVICE Western Region Notes

November 30, 2006

REGIONAL DIRECTOR'S OFFICE

Please join the Western Region Headquarters staff in welcoming two new employees to the Western Region Headquarters staff, Stephen Brueske and Karl Foster.

Steve Brueske started work as Deputy Chief, SOD in October, 2006. His previous 4 years were spent as MIC of WFO Great Falls, MT. Prior to his arrival in Montana, Steve served as the Science and Operations Officer at WFO Charleston, SC from 1994 to 2002. He also served as a WSR-88D instructor in Norman, OK from 1992 to 1994. He's worked in eight states over the last 22 years as a meteorologist for both the NWS and Air Force. He has a B.A. in Chemistry from Bethel College, MN and an M.S. in Meteorology from Pennsylvania State University.

Karl Foster has been assigned to the position of Administrative Support Assistant in the Regional Director's office. Karl is new to the National Weather Service. He comes to us from the Department of Defense where he was most recently employed as an Information Technology Specialist, and prior to that he served various positions in Personnel and Administration. He recently retired from the Utah Army National Guard with twenty years of honorable service. Karl holds a Bachelor's Degree in Business Administration.

METEOROLOGICAL SERVICES DIVISION

SERVICE OF THE WEEK: For WFO Seattle, this has been a November to Remember. A series of Pacific storms has generated a suite of winter weather hazards. The month began with a period of heavy rainfall producing widespread flooding (46 river forecast points) throughout western Washington and record flood crests at a dozen river forecast points. The Governor asked the President to declare a dozen Washington counties a federal disaster area and Mount Rainier National Park will likely remain closed until sometime in 2007 as a result of substantial infrastructural damage.

In the middle of the month, the rains continued, but several storms included strong damaging winds, particularly in the northern part of western Washington. Then near the end of the month, the season's first cold air mass invaded the region, producing snowfall throughout much of the western Washington lowlands, some places reporting between one and two feet of snow.

WFO Seattle, in addition to quality forecasts, watches, and warnings, provided invaluable service and outreach to a wide array of customers during the month. Examples include:

- 1) Briefings to state, county and local transportation department staff who were quite busy with closing and repairing flooded roadways, clearing wind-blown fallen trees and addressing snow and ice covered roadways and Cascade avalanche conditions.
- 2) Power utilities were briefed via conference calls regarding wind and snow events as they struggled to maintain electric service.

- 3) Emergency management and flood district personnel were briefed as events unfolded.
- 4) As of the morning of Nov 28th, the WFO has conducted 588 media interviews, crushing the old WFO monthly record of 334 interviews in all of January 2006. These included a WFO press briefing prior to the major flooding early in the month. The press helped get the word out to the community about all of the hazardous weather events during the month.

Oh, and then there was a tsunami watch in the middle of the month as well. WFO Seattle has done a fantastic job in helping save lives and property in their community during this hectic active weather month.



Bonnie Bartling (center) presents her poster titled, "The National Weather Service and GIS?"

WFO Los Angeles/Oxnard Participates in World GIS Day: WFO Los Angeles/Oxnard staff members Bonnie Bartling, Dessa Emch, and Jamie Meier attended the World GIS Day conference, held on November 17th at nearby Ventura College. For the conference, Bonnie presented a poster describing the various ways the WFO uses GIS to enhance warning and forecast operations, and in how local users display and use the NDFD in GIS. The conference was held at the Ventura College Sciences Building and was attended by GIS users from numerous government agencies and private interests from the surrounding area, including from Santa Barbara, Ventura, and Los Angeles. The WFO contingent also viewed the various vendor exhibits, and attended several breakout sessions and sponsor presentations describing specific GIS applications and uses.

WFO Pocatello Activities: The School SnowNet Outreach

Program: To increase the number of snowfall reports during the winter season at WFO Pocatello, Forecaster Mike Cantin developed a way to get community schools involved in weather reporting. Area schools were contacted to participate in a "SnowNet." School building locations were selected mainly in rural areas where reports are generally very sparse. Those who wished to participate were trained in the art of proper snow measurement, snow board location, and how to enter data. Data is gathered through the WxCoder program, and then displayed on an internal web page for the public/media to see.

Several school visits have occurred because of this program, and feedback has been very positive. WFO Pocatello hopes to gather a plethora of snowfall data this season and make it available for the public to use. In addition, it is hoped that area students who participate will benefit from hands on science each day during the winter season.

"Not only did we discuss a variety of winter weather observation techniques," said Mike Cantin, "NWS Pocatello Forecaster, "but I took the opportunity to discuss winter weather safety. Because of the significance of severe weather in our community, teaching school children about all environmental hazards also sparked their interest in future careers in NOAA."

Hospital & Care Center Disaster Preparation Outreach: In an effort to promote safety, area hospitals and care centers were visited by NWS Pocatello Forecaster Mike Cantin. The orientation visits included a PowerPoint presentation that described National Weather Service operations, including the local warning program, severe weather, and safety tips. Planning techniques were coordinated with hospital administrators with an emphasis on obtaining NOAA Weather Radio - All Hazard receivers and locating them in areas where decisions are made. Other critical warning decision making techniques were described, including the "Weather.Gov" web page, EWARN (E-mail

transmission program), and the Emergency Alert System. In addition to the presentation, safety pamphlets and brochures were handed out to participants.

Visits were set up by contacting hospital administrators. Feedback has been very positive. One event coincided with the hospitals community outreach program, with many members of local communities in attendance.

“This is a great way to supplement the Storm Ready program for a community or county,” said Mike Cantin, NWS Pocatello Forecaster. “During disasters, hospitals play a vital role in assisting the injured. Having them prepared before a disaster hits and keeping their decision makers informed during an event may assist the community in quicker response for those who may be injured by severe weather.”

911 Dispatch Storm Ready NWS Orientation Outreach: Focusing on the Storm Ready program, NWS Pocatello WCM developed a special NWS orientation program for 911 Dispatch personnel. NWS Pocatello Forecaster Mike Cantin enhanced the program and added our Fire Weather Dispatch Centers to our presentation circuit. The concept is to increase dispatch staff awareness of NWS warning operations, severe weather warning criteria and collaboration techniques.

Warning awareness techniques were coordinated with Dispatch Supervisors with an emphasis on obtaining NOAA Weather Radio - All Hazard receivers and locating them user friendly locations. Other critical warning decision making techniques were described including using our “Weather.Gov” web page; the EWARN - Email transmission program, the Idaho Law Enforcement Telecommunications System and the Emergency Alert System. The final part of the presentation is a scenario developed by NOAA COMET, CIRES & Fort Collins, CO Emergency Management. The scenario demonstrated that each time the 911 Dispatch personnel reported severe weather information to the NWS and severe weather statements were forwarded to the media, the 911 center phone call inquiries went down. Showing that collaboration between 911 Dispatch Centers and the NWS can keep our public informed in real-time disaster situations.

Dispatch centers were very willing to participate, and feedback has been tremendous. We have noticed a marked increase in the number of calls from our dispatch centers while working weather events.

“This is a great way to enhance the Storm Ready program for our community and county applications,” said Vernon Preston, NWS Pocatello WCM.

“During disasters, 911 Dispatch Centers play a vital role in obtaining real-time weather reports and now their staff are aware of the need to send them to the NWS,” said Mike Cantin, NWS Pocatello Forecaster. “Meeting the 911 staff before an event helps them understand our shared roles in assisting our community during disasters.”

Library Weather Day Outreach: NWS Pocatello Forecaster Mike Cantin developed a technique to pass along weather information at local libraries. This type of outreach event involves area families in safety and science training sessions held at local libraries. A typical event lasts from 1 to 3 hours and includes several “cool” science experiments to wow the audience, a safety presentation, severe weather videos, and the reading of weather related children’s books. A safety brochure display is placed near the entrance of the library for the general public to peruse, and area TV meteorologists are invited to participate. When TV meteorologists participated, they shared experiences from the television business, and helped to answer many questions.

Setting up the visit was accomplished by contacting area libraries via the phone and emails, then setting up a common date to hold the event. Contact information was gathered using the internet, and simple search engines. Area libraries responded to the offer quickly and emphatically. One library even sponsored a newspaper article highlighting the upcoming event.

"What a fun way to pass along weather safety information and meet community members," said Mike Cantin, NWS Pocatello Forecaster. "The library serves a valuable resource to community and periodic weather safety seminars at this locale are a great opportunity to visit with the public."



Testing Local Community Response to Major Winter Storm:

NOAA NWS Pocatello Warning Coordination Meteorologist, Vernon Preston developed and presented to the Madison County Local Emergency Planning Committee a location specific Winter Weather Table Top exercise. An excellent discussion was held during the four hour event. The NWS Webpage, NOAA Weather Radio - All Hazards and EWARN were presented as methods for various first responders to use before, during and after a storm event. Some key players to attend included county commissioners, city mayors, county and city emergency coordinators, fire and EMS, law

enforcement, hospital CEO and staff, care centers management, school districts safety teams, BYU-Idaho University vice president and safety team, road and bridge, coroner, Idaho State Patrol, Idaho Bureau of Homeland Security, the American Red Cross, power companies, media, private industry and other LEPC members.

The scenario begins as follows: A typical winter storm has just ended, then a new winter storm watch is issued. The city is planning for a big sports tournament with an influx of people. The watch is upgraded to a heavy snow warning. Later in the exercise the cold front strengthens and the NWS upgrades to a blizzard warning. Finally, the event ends with extremely cold temperatures. During the various weather situations, the EOC is activated and the community is faced with a variety of challenges from power outages to medical emergencies; sheltering travelers and local residents; train derailment and spill; crime; transportation concerns and a variety of other problems. The exercise used a PowerPoint presentation with additional materials handed to players at specified times. This event was so well received they have asked the WFO to develop a spring flood table top exercise.

Flood Expo 2006: NWS Employees from WFO Reno and the CNRFC in Sacramento combined efforts during the recent "Flood Expo 2006" in Reno by manning a booth and providing a 45-minute presentation. The flood expo was a cooperative effort between the Truckee River Flood Project,

Washoe County and the City of Reno Water Resources, the Red Cross, FEMA, and Washoe County Emergency Management.

Shown from left to right are: Rhett Milne (WCM, WFO Reno), "Seymore the Sandbag", Gary Barbato (SSH, WFO Reno) and Scott Staggs CNRFC, Sacramento).





SFSU Students Visit WFO Monterey: A group of San Francisco State University meteorology students visited WFO Monterey on November 10. At the request of the professor teaching the senior-level course in weather analysis and forecasting, Monterey SOO Warren Blier (at left) spent several hours reviewing NWS operations.



General Johnson visits WFO San Diego: General DL Johnson took time from his recent trip to the National Safety Council Meeting in San Diego to visit the local WFO. The General was given a tour of the office, met the staff, and stayed for lunch. In an all-hands meeting after lunch, General Johnson discussed the state of the 2007 budget, future budgets, the future of National Weather Service support to the FAA, and then took questions from the staff.

General Johnson talks with HMT Stan Wasowski, WFO San Diego, on changes coming in the weather

HYDROLOGY AND CLIMATE SERVICES DIVISION

WMO Meeting – Improving Flood Forecasting:

During November 20-23, David Brandon, Chief-Hydrology and Climate Services Division, Western Region participated in a WMO sponsored meeting held in Geneva, Switzerland. The purpose of the meeting was to assemble technical and policy specialists in hydrology and meteorology and to make a final review of a draft document titled, “Proposed Strategy and Action Plan for the Enhancement of Cooperation between National Meteorological and Hydrological Services for Improved Flood Forecasting”. This document will serve as a guide ‘mainly’ for developing countries when building a Flood Forecast Service that includes both National Hydrology and Meteorology Services. Dave was chosen to Chair a breakout session that discussed and proposed changes to the document from the perspective of ‘developed countries’. About 40 people participated in the meeting that represented ‘developed’, ‘developing’ and ‘under-developed’ countries.

SCIENTIFIC SERVICES DIVISION

Professional Development and Training:

- **Winter AWOC Completion Update:** Congratulations to Billings, Boise, Elko, Eureka, Great Falls, Las Vegas, Pendleton, Phoenix. Pocatello and Tucson who have completed the modules!

As a reminder, the AWOC Winter Training Module must be completed by **November 30, 2006**.

WFOs are asked to e-mail Andy Edman and Mark Mollner when all their meteorologists who issue forecasts and warnings have completed the 7 modules and 2 WES simulations.

Below is a WR list of Winter AWOC completion percentages (all 7 ICs combined) as of **November 28, 2006**.

Billings	100%
Boise	100%
Elko	100%
Eureka	100%
Flagstaff	95%
Glasgow	93%
Great Falls	100%
Las Vegas	100%
Los Angeles	99%
Medford	97%
Missoula	99%
Pendleton	100%
Phoenix	100%
Pocatello	100%
Portland	99%
Reno	96%
Sacramento	98%
Salt Lake	96%
San Diego	99%
Monterey	99%
Hanford	92%
Seattle	94%
Spokane	94%
Tucson	100%

- Proposals for COMET Outreach Partners and Coop Projects Now Being Accepted:** Comet has announced that the Outreach Program is currently accepting submissions for Partners Proposals. In addition, the National Weather Service has issued a new Request for Proposals for Cooperative Projects. For more information: <http://www.comet.ucar.edu/outreach/prop.htm>.
- Mandatory No FEAR Act Training – Due Dec 15:** The Department of Commerce is requiring the completion of the Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002 (No FEAR Act). **Completion of the module is due Dec 15.** The training module should be accessed through the LMS system.
- Problems with Learning Management System (LMS):** The LMS system has been having system reliability problems since the “No-Fear” training module was added. The vendor took

the system down for part of the day on Tuesday for a database upgrade. The vendor believes that the LMS system reliability should improve

- **WES Software Delayed:** WDTB has run into license issues with the WES software. The WES software was supposed to be installed on the new WES PC shipped out last October. They expect the software to be shipped by the end of year.

HMT Planning: Planning continues for next winter's Hydro-met Test Bed activities in the Sacramento/Reno area. Reno and Sacramento will be providing a limited set of supplemental soundings to help support the OAR activity. A daily coordination conference call started this week.

Training Update:

COMET: New Training Modules: The COMET Program announces the release of two new hydrologic training modules:

- The "Flash Flood Processes" module offers easy-to-follow explanations about what makes a flash flood, the distinguishing hydrologic influences of flash floods, and the use of flash flood guidance (FFG) products. Through use of rich illustrations, animations, and interactions, this module explains the differences between flash floods and general floods and examines the hydrologic processes that impact flash flood potential. In addition, it provides an introduction to the use of flash flood guidance (FFG) products including derivation from ThreshR and rainfall-runoff curves as well as current strengths and limitations. This module may be found at <http://www.meted.ucar.edu/hydro/basic/FlashFlood/index.htm> and requires approximately one hour to complete.
- The "River Ice Processes" module provides information on flooding associated with river ice jams. In this webcast, Dr. Kate White, a nationally-recognized expert on river ice, explores basic river ice processes including the formation, growth, breakup, and transport of river ice and how it can become jammed, triggering floods. In addition, Dr. White covers the current, state-of-the-art ice jam forecasting, and current ice-modeling research and development being conducted by the U.S. Army Corps of Engineers. This module may be found at <http://www.meted.ucar.edu/hydro/basic/RiverIce/index.htm> and requires approximately one hour to complete..

Warning Decision Branch – Clutter Suppression: The fielding of the ORDA is complete and one of the many ORDA changes is the technique for clutter suppression. WDTB would like to encourage all field forecasters to take the DLOC Clutter Suppression module as a refresher. Clutter suppression has a very significant impact on data quality and clutter management can have a very significant impact on staff time. Understanding the way clutter suppression works

will improve your data quality and reduce staff time with clutter management. There are a number of changes to clutter suppression that will be coming in future radar builds, so its a good time for everyone to revisit this fundamental radar process.

In the LMS, the module is titled "DLOC Topic 3 Lesson 4, Clutter Suppression". Play time for the module is just over 40 minutes and the associated exam has 8 questions.

Teletraining Sessions: The Virtual Institute for Satellite Integration Training (VISIT) calendar for December is now available. Offices can register for the teletraining sessions by sending email to: visit@comet.ucar.edu. The teletraining calendar is now at: <http://rammb.cira.colostate.edu/visit/ecal.asp>

The teletraining planning calendar with other sessions is at: <http://rammb.cira.colostate.edu/visit/planning.html>

The current sessions planned for December are:

- NEW - CRAS Forecast Imagery in AWIPS (Basic, Nov 13, 21, Dec 20)
- MODerate resolution Imaging Spectro-radiometer (MODIS) Products in AWIPS (Basic, Dec 1,14,19)
- Utilizing GOES Imagery within AWIPS to Forecast Winter Storms (Intermediate, Dec 12,13)
- Cyclogenesis: Analysis utilizing Geostationary Satellite Imagery (Basic, Dec 5)
- Water Vapor Channel Satellite Imagery (Basic, Dec 4)
- TROWAL Identification (Basic, Dec 11)
- Forecasting Convective Downburst Potential Using GOES Sounder Derived Products (Basic, Dec 7)

Several recorded VISIT session are available via LMS: <http://e-learning.doc.gov/coursecatalog/index.cfm>. Then, go to National Weather Service Courses and search on VISIT.

All previous sessions including those with recorded instructor audio and annotations are available at: <http://rammb.cira.colostate.edu/visit/ts.html>

SYSTEMS OPERATIONS DIVISION

SOD Program Review: Joe Lachacz and Gerry Deiotte completed an SOD Program Review at WFO Pocatello. Gerry visited the 88d and an ASOS site. The Pocatello Electronics Program is excellent.



WRH Facilities and WFO Reno staff work together to accomplish Weather Service Mission: During the week of November 13th, FET's Lee Jenson and Randy Miller and WFO Reno staff members Duffy Johnson and Rudy Cruz relocated the Truckee CA Fisher Porter Co-Op site (pictured attached). Also while in the area, the WRH facilities team assisted Duffy and Mike Freitas to complete grounding work at the Slide Mountain NOAA Weather Radio site.

Safety - Winter Driving - Prevent Crashes

- Before you drive, clean all snow and ice off your windows, headlights and taillights. Be sure your windshield wipers and defroster are working.
- When driving on snow or ice, start slowly and smoothly. If you start to spin, try clearing a path by driving backwards and forwards a few times. If that does not help, spread some abrasive material like salt, sand or cat litter around your wheels. Your wheels may throw up gravel or ice and cause an injury.
- Try to get the feel for the road. Gently brake while driving to see how slippery the road is and then set your speed for the road conditions.
- Leave a safe distance between you and the vehicle ahead of you.
- If you want to slow down or stop, apply the brakes gently and smoothly. Slamming on your brakes will cause you to skid. On slippery surfaces, pump the brakes by gently pushing down and letting up on them several time. If your vehicle is equipped with anti-lock brakes refer to the owner's manual.
- Beware of bridges and overpasses; they will freeze and become slippery before other parts of the road. Even on clear roads, icy patches may still exist.
- Do not use your four wheel drive on ice! Four wheel drives can easily overturn on ice.
- If you hit an icy patch, take your foot OFF the accelerator. If you feel you must touch your brakes, first shift your car into neutral. This will help you slow or stop more quickly on slick pavement.