



NOAA's NATIONAL WEATHER SERVICE Western Region Notes

June 15, 2006

REGIONAL DIRECTOR'S OFFICE



Welcome Claudia Cox to WRH: Please join me in welcoming Claudia Cox to her new position at Western Region Headquarters. Claudia recently joined the staff as Regional Outreach and Planning Scientist. Among her duties, Claudia will be responsible for planning and coordinating region-wide collaboration and awareness programs with regional level partners, including other NOAA offices, as well as stakeholders. She will serve as technical advisor to RD and Deputy RD, coordinating policy and programs across divisions and field offices to improve our communications and promote efficiency. Claudia will serve on the Regional Labor Partnership Council as a management representative.

Claudia began her career as a met intern in Pendleton, OR in 1991. She worked in Redwood City, Sacramento, and then Monterey where she became the first female lead forecaster in Western Region in 1998. In 2000, Claudia and husband, Tracy, moved to WFO Spokane. Tracy, former service hydrologist in Monterey and general forecaster in WFO Spokane, was selected for the hydrologist position at the CBRFC.

Kirby Cook Leaves WRH: Congratulations to Kirby Cook on his new position as SOO at WFO Seattle. Kirby came to WRH as a SCEP student in SSD in April 1998 and was converted to a full time employee in 1999. In SSD, Kirby was involved in a number of projects ranging from subject matter expert for the COMET Numerical Weather Prediction training module development to supporting WR participation in NCEP and satellite evaluations to the GFE to developing a real time model diagnostic system. Kirby also served as a temporary SOO at Las Vegas, was one of the original LIFT participants, a frequent visitor to WR offices, and a mentor to the new students at SSD. Lately, Kirby has been one of the key people leading the WR verification effort. We wish Kirby good luck on his new assignment.

METEOROLOGICAL SERVICES DIVISION

Statement of the Week: A fast moving low pressure system brought a mix of wet and dry thunderstorms as well as brief cooling and higher humidity to southern Utah on June 8. However, a quick return to hot, dry and breezy weather was forecast as another low pressure system developed along the west coast. WFO Salt Lake City issued this Red Flag Warning to alert southern Utah fire agencies to the quick return to critical fire weather conditions. Note that the RFW mentioned that holdover fires could erupt as the wind increased and humidity dropped. Utah fire agencies were very pleased with the "heads up" provided by this RFW. Great job WFO SLC!

RFWSLC

RED FLAG WARNING
NATIONAL WEATHER SERVICE SALT LAKE CITY UT
240 PM MDT THU JUN 8 2006

UTZ434-435-437-439>441-091200-
/O.NEW.KSLC.FW.W.0007.060609T1800Z-060610T0300Z/
WEST CENTRAL DESERTS AND MOUNTAINS-
SOUTHWEST DESERTS AND MOUNTAINS-
SOUTHWEST AND SOUTH CENTRAL MOUNTAINS-UTAH'S DIXIE AND ZION CANYON-
SOUTH CENTRAL UTAH-GLEN CANYON RECREATION AREA/LAKE POWELL-
240 PM MDT THU JUN 8 2006

...RED FLAG WARNING IN EFFECT FROM 12 PM TO 9 PM MDT FRIDAY FOR SOUTHWEST AND WEST CENTRAL UTAH BELOW 7500 FEET FOR GUSTY SOUTH WINDS AND LOW RELATIVE HUMIDITY. THIS WARNING INCLUDES FIRE WEATHER ZONES 434-435 AND 437 AND 439-441...

THE NATIONAL WEATHER SERVICE IN SALT LAKE CITY HAS ISSUED A RED FLAG WARNING...WHICH IS IN EFFECT FROM 12 PM TO 9 PM MDT FRIDAY FOR SOUTHWEST AND WEST CENTRAL UTAH BELOW 7500 FEET.

SOUTH WINDS 15-25 MPH WITH GUSTS OF 30-35 MPH WILL DEVELOP FRIDAY OVER SOUTHERN AND WEST CENTRAL UTAH. THESE WINDS WILL COMBINE WITH RELATIVE HUMIDITIES DROPPING BELOW 15 PERCENT DURING THE AFTERNOON AND EARLY EVENING HOURS TO CREATE SEVERE FIRE WEATHER CONDITIONS. IN ADDITION...NUMEROUS LIGHTNING STRIKES OVER THE PAST COUPLE OF DAYS IN THE AREA MAY RESULT IN HOLDOVERS AS THE HUMIDITY DROPS.

A RED FLAG WARNING MEANS THAT SEVERE FIRE WEATHER CONDITIONS ARE EITHER OCCURRING NOW...OR WILL SHORTLY.

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WFO Billings Supports Lewis & Clark Celebration: WFO Billings staff members Dan Borsum, Jim Maczko, and Scott Carpenter coordinated with Northern Ag Network radio weathercaster and Lewis and Clark enthusiast, John Pulasky, to present weather classes during the May 7-12 Lewis & Clark Celebration. "Back to the Future with Lewis and Clark" featured 31 individual 30-minute lessons on Weather and Climate, Flora and Fauna, Blacksmithing, Foods, Mapping and Military Discipline to more than 700 elementary and middle school students from the Billings area. The celebration marked the 200th anniversary of Captain William Clark's trip down the Yellowstone River in the summer of 1806. Each lesson compared current weather to observations and activities performed by the Corps of Discovery during their expedition 200 years ago. Presentations focused on comparisons of the techniques and technology used to observe weather conditions during the expedition compared to those used today by the NWS IMETS when deployed to remote fire locations.

WFO Portland Implements Heat-Health Warning System: WFO Portland began using a new Heat-Health warning system for issuing heat advisories and excessive heat warnings on June 1. The system was developed by Dr. Larry Kalkstein from the University of Delaware and funded by the NWS in response to excessive heat being the number one weather related killer in the U.S., causing more fatalities per year than floods, lightning, and tornadoes based on data from 1994-2003.

The heat-health warning system is customized for a particular urban area which takes into account the unique meteorology, urban structure and demographics of an area. This system is based on weather and health relationships as determined by oppressive air mass types and actual mortality data, which is designed to accurately identify those days most likely to cause heat related health distress. For the Portland area, the oppressive air mass types are moist tropical (MT) and dry tropical (DT). Research data shows Portland gets DT type air masses about 3% of the time and MT air masses about 1% of the time during the summer months.

WFO Portland became the 15th city in the U.S. to begin using this system, which began in Philadelphia, PA in 1995. Portland joins WFOs Seattle and Phoenix in the Western Region for using this system.



WFO Supports Annual Festival of the Winds: WFO San Francisco Met Intern Brooke Bingaman demonstrates the weather wheel of knowledge to a young visitor during the Marina, CA, Annual Festival of the Winds. The festival celebrates "wind" with kite flying, crafts and other outdoor activities. WFO staff members hosted several hundred people over the two-day event, also displaying a real F420 wind sensor and distributing safety information on floods, tsunamis, thunderstorms, hurricanes and information about NOAA Weather Radio All-Hazards.



National CERT Conference Held in Universal City: WCM Eric Boldt (Los Angeles/Oxnard) and WCM Ed Clark (San Diego) teamed up with the California Office of Emergency Services to staff a StormReady booth at the 2006 National Community Emergency Response Team Conference in Los Angeles May 15-17. The three-day conference gathered hundreds of CERT members from 37 states. Eric and Ed handed out brochures on tsunami preparedness, flash floods, marine weather services, and NWS Internet access during the event. One of the CERT workshop sessions, given by an emergency manager from Huntington Beach, included training in tsunami preparedness, education, and the NWS TsunamiReady program. The keynote speaker for the CERT conference was Maria Shriver, California's First Lady, who talked about the important role of volunteers in emergency preparedness and response.



WFO Reno Conducts Open House: More than 100 visitors came through the Reno NWS facilities on May 20. Activities included tours of the operations floor, computer and communications rooms. An upper air balloon release proved to be very popular as over half the WFO staff assisted throughout the day. Forecaster Gina Beninato coordinated the highly successful event.

Forecaster Gina Beninato explains the WFO Reno Operations Center to a group of open house visitors.

Two Western Region WFOs receive NOAA 200th Anniversary Grant: When the outreach team at WFO Oxnard heard grant money was available from NOAA, they saw an opportunity to improve NWS

presence at public events. Four members of the team, WCM Eric Boldt, Lead Forecaster Ben Moyer, OPL Dessa Emch and MET Intern Jamie Smith joined forces to submit an exhibit proposal. Their efforts resulted in one of 22 proposals approved for funding through the NOAA 200th Anniversary grants. The display board will include a mural image of NOAA-NWS and partner agencies in Southern California, including NOAA's National Marine Sanctuaries, National Fisheries Services and USGS. The display will include space to attach theme-based pictures, charts, and other images, depending on the type of outreach event. A portion of the grant will be used for handouts showing NOAA's 200 years of science, service and stewardship. With forecast and warning responsibilities for over 11 million residents in a four-county area, WFO Oxnard expects plenty of exhibit exposure at outreach events.

Pendleton, OR, also submitted and received grant funding to build a traveling interactive weather exhibit for children's museums and discovery centers located within their forecast area. The modular exhibit will include a talking weather station, tornado model, and safety information. Congratulations to both these enterprising staffs!



Forecast Staff Assists With Local Incident Response Training: On May 15-17, paid and volunteer fire fighters from municipalities and unincorporated areas of San Diego County, the California Division of Forestry, Department of Parks and Recreation, California Highway Patrol, San Diego County Sheriffs, American Red Cross, medical and other emergency responders in San Diego County attended local annual wildland fire training. IMET Rob Balfour provided spot forecasts to crews, simulating an actual wildfire. Assisted by student volunteer Tom Stipanov, Balfour taught a course in using weather forecasts in Incident Action Plans. Tom and Rob also attended training sessions conducted by other fire responders, including how to use special-purpose radios.

Student volunteer Tom Stipanov (left) and WFO San Diego IMET Rob Balfour show off the Advanced Meteorological Response System they set up to support the San Diego County Wildland Fire Refresher Training Exercise.



Arlena Moses (WFO Las Vegas) enjoys a familiarization boat ride on Lake Mead (Hoover Dam in the background)

WFO Las Vegas Outreach to Boaters: MET Intern Arlena Moses and WCM Andy Bailey staffed a booth at Lake Mead's Hemingway Launch for the National Park Service's annual pre-Memorial Day boater education event. The two emphasized the importance of checking the local forecast prior to heading out on the lake. They also highlighted the relatively new WFO Lake Wind Advisories and NOAA Weather Radio. Later that day both were able to take a familiarization float on National Park Service patrol boats to see firsthand how gusty south winds caused large waves that could swamp or capsize shallow-hulled boats. As many as six people a year have drowned as a result of adverse weather conditions on Lake Mead and the WFO efforts are designed to better warn and educate the public.

SCIENTIFIC SERVICES DIVISION

AWOC Winter Weather Training (AWWT): The AWOC Winter Training Module must be completed by **November 30, 2006**. Per the November 28, 2005 training memorandum, completion of the AWWT is required by all WFO staff who issue warnings and forecasts. This does not include CWSUs and RFCs, although they are encouraged to take the training as part of career development or personal interest. No local fall WES case studies or TA-Lite are required, since WES cases are part of the AWWT.

The AWWT contains approximately 20 hours of instructional courses (lessons) on the latest science, technology, and human factors associated with decision making in the winter weather warning process. The authors of the lessons are subject matter experts in the field of winter weather all across the United States, several from Western Region. This is the first comprehensive distance learning course on winter weather forecasting and warning. The AWWT consists of 32 on-line training (OLT) courses and is accessible through the NOAA e-learning Learning Management System (LMS)

Your office designated facilitator received the AWOC Winter Weather orientation briefing, student guides and training DVDs last week. These DVDs included backup copies of the on-line presentations, performance job sheets, job sheet case data, and software applications referenced in the course.

For questions about this course please contact WDTB at (405) 573-3321. Please see <http://www.wdtb.noaa.gov/courses/winterawoc/index.html> for more details on the AWWT.

WRF replaces ETA, New WRF Training and MOS Contingency Plan: The latest evolving information:

During the June 1, 2006 conference call, the following agreements was ratified by senior NWS management, (NCEP- Louis Uccellini, OCWWS- Dennis McCarthy, and OST-Greg Mandt) and vetted a second time through a national conference call on June 7, 2006.

Note: New Training - COMET has released a shorter WRF training module targeted for the forecasters. It is available at: http://www.meted.ucar.edu/nwp/NAMWRF_short/. This training module is a shorter version of the training module sent to all SOO/DOHs about a month ago.

- 1) NCEP will implement NAM-WRF on June 20, 2006 as scheduled. On AWIPS, the NAM-WRF literally replaces the NAM-Eta fields. Note: 1 week delay due to critical weather day(s) declared for Tropical Storm Alberto
- 2) There will be no "NAM-WRF-MOS" guidance produced as of this date and there is no plan for a NAM-WRF-MOS development at this time.
- 3) NCEP will run an interim 32 km Eta run over the NAM domain at 00Z and 12Z to drive and disseminate NAM-Eta-MOS for up to 6 months starting on the date of WRF implementation (June 13, 2006). NCEP will make every effort to ensure no June 13 disruption in NAM-Eta-MOS guidance service.
- 4) No direct interim NAM-Eta output will be disseminated or otherwise made available.

- 5) OST will develop a TIN describing this MOS guidance change prior to June 13, 2006.
- 6) OST will develop and shepherd a proposal to terminate the NAM-Eta-MOS by the end of December 2006 according to NWS Instruction 1-1002.
- 7) OST will work with the Field to help with any transition issues arising from the loss of NAM-Eta-MOS.
- 8) OST will begin the Operations and Services Improvement Process (OSIP) to consider requirements and long term solutions for model post-processing guidance.

GOES-11 moving to GOES-West Position: GOES-11 will replace the GOES-10 as the GOES-WEST operational satellite on June 27. No change will be required on AWIPS. This change is part of the normal, planned replacement of geostationary satellites as they age and run low on fuel. GOES-10 will drift eastward to 60 degree west and serve as an imager for South America as long as the fuel remains.

NEW Intern Development Plan and Reporting Form: NWSTC has released a new Forecaster Development Program (FDP) Checklist which should be used in the future as the WR Intern Progress Report form. Interns nearing completion of the current program/checklist may finish using the older guidance. Recently hired interns should follow the new FDP. The WR FDP supplement will be updated to contain this new NWSTC FDP checklist at its anniversary date this winter. The checklist was distributed to the SOOs/DOHs last week.

Hydrologic Verification Team: The Office of Hydrology has sponsored a team to draft the “NWS Hydrologic Verification Plan.” A draft is expected to be released for comment by mid June.

USGS MMS/PRMS Modeling Effort: The workshop has been targeted for August 28-30 to provide a opportunity for selected WR service hydrologist to become more familiar with the USGS hydro modeling system. For more information, contact Kevin Werner.

NSTEP: The annual training for the FY07 training plan and budget is nearly complete. Mark Mollner has lead this effort and will seek final consensus on balanced FY07 training budget this week. Mark will share the plan with the SOOs/DOHs by the end of the month

HMT Update: The OAR Hydromet Test-bed (HMT) is currently planning for next season’s activities. There will be a planning meeting on June 22 in Sacramento. The Sacramento RFC, Sacramento WFO and Reno WFO are the primary WR offices participating in the HMT. For more information and data: <http://www.etl.noaa.gov/programs/2006/hmt/>

Gridded MOS Evaluation: Four Western Region offices (Medford, Monterey, Missoula, and recently Boise) have been participating in an evaluation of the new and evolving gridded MOS under development by MDL. The offices will be providing written feedback this week as part of a formal evaluation of the data set.

Water Supply Forecast Comparison Project: The NWS RFCs and the NRCS have made forecasts for seasonal run off volumes in the western US for snow melt basins for several decades. More recently, a research group at the University of Washington has been doing the same. To date, no systematic comparison has been undertaken between these forecast systems. SSD will be conducting a verification

project to examine the performance of the water supply forecast made by the three groups. Technical advisors from each group will provide oversight. The target for the initial results is the August 31.

Changes coming to LMS: The Department of Commerce has re-negotiated its e-learning courseware provider agreement with OPM. The new agreement provides all Commerce employees access to over 2,000 SkillSoft classes. These classes cover a range of topics from Microsoft Office applications to project management. Some courses qualify for continuing education credit and support educational requirements for Information Technology and business certifications. Additional information about these certificate programs can be found on the SkillSoft web site http://www.skillsoft.com/about/credit_programs.

This new agreement does not include NetG or Karta courseware. Employees will have until June 30, 2006 to complete any NetG or Karta classes for which they have registered. If not completed by this date, these courses will no longer be accessible via the LMS. At this time, we suspect that no record of NetG and Karta courses will be carried over in the LMS reports or course list sections. So to be safe, you may want to print off completion certificates for these courses.

Verification Project: SSD recently conducted four training sessions for the WR offices. The next steps are:

- **June 12 Conference Call:** To facilitate learning how to use the verification software, each office will examine how well office's TD/RH forecasts performed for some period (day, week or the month) for June, July and August.
- **Optional June 28 Conference Call:** The offices are currently voting on whether to have an additional conference call focused on an issue of their choosing.
- **Verification Training:** There are a number of training modules available to the offices, and SSD continues to add to the list. The three most recent training modules are:
 - ***QC Tool - How to use the application:*** The first link is the training developed by Tiffani Brown (Portland WFO):
http://ww2.wrh.noaa.gov/ssd/digital_services/training/ObsQc2/ObsQc2-index.html
 - ***Basic Quality Control principles to apply when using the QC Application:*** This training module was developed by David Myrick (SSD)
http://ww2.wrh.noaa.gov/ssd/digital_services/training/Obs_QC_basics/
 - ***Understanding Representatives Errors:*** This training module was developed by David Myrick (SSD)
http://ww2.wrh.noaa.gov/ssd/digital_services/training/Rep_Error_basics_final/#

Upcoming Science Workshops:

NAME Workshop – August 17-18: Last year, NAME successfully conducted a field study to gather more information about how the monsoon affected the southwestern U.S. A workshop will be held August 17 and 18 in Tucson to share results to date. A few of the goals for the workshop are:

1. Synthesize scientific findings from recent and ongoing NAME research
2. Identify and prioritize NAME modeling issues to improve NAM forecasting from diurnal to seasonal time scales;

3. Outline content for a North American Monsoon COMET module.

More information can be found at: http://www.joss.ucar.edu/joss_psg/meetings/name_swg8/

Great Divide Workshop – Oct 3-5: The Tenth Annual Great Divide Weather Workshop will be held at the Sheraton Hotel in Billings, Montana on October 3-5, 2006. NOAA's National Weather Service Offices in Billings and Glasgow are sponsoring this workshop focusing on the exchange of weather and hydrologic forecasting information unique to the Northern Rockies and High Plains. A call for papers and registration information will be made available during the spring of 2006. More information can be obtained by contacting NOAA's National Weather Service Forecast Office in Billings, Montana at 406-652-0851, or in Glasgow, Montana at 406-228-4042. You can also email any questions to wr.great.divide.workshop@noaa.gov.

Training Update:

COMET: New WRF Training Modules: A new shorter version of the WRF training module targeted for the forecasters is available at http://www.meted.ucar.edu/nwp/NAMWRF_short/. A longer version targeted for the SOO and model focal points is available at: <http://www.meted.ucar.edu/nwp/NAMWRF/>.

Warning Decision Branch – AWOC: AWOC Winter Weather training is now available through the LMS. Please see <http://www.wdtb.noaa.gov/courses/winterawoc/index.html> for more details on the AWWT.

Teletraining Sessions for July: The Virtual Institute for Satellite Integration Training (VISIT) calendar for July 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 July are:

- GOES Sounder Data and Products (Basic, July 17)
- Forecasting Convective Downburst Potential Using GOES Sounder Derived Products (Basic, July 19)
- Mesoscale Analysis of Convective Weather Using GOES RSO Imagery (Basic, July 11)
- Use of GOES/RSO imagery with other Remote Sensor Data for Diagnosing Severe Weather across CONUS (RSO 3) (Intermediate, July 12,13)
- The Enhanced-V: A Satellite Severe Storm Signature (Basic, July 14)
- GOES High Density Winds (Basic, July 27)

Several recorded VISIT sessions 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

Safety: June is National Safety Month and the NOAA Safety Seagull is in full flight. You have received safety tips via e-mail from the NOAA Safety Seagull. In recognition of National Safety Month, here is a safety tip that we all can use this summer!

Sun Safety – Preventing Harmful Effects of the Sun

Sunburn, skin cancers, and other sun-related adverse health effects are largely preventable when sun protection is practiced early and consistently. Despite the fact that sun tanning and burning increase skin cancer risks, most Americans do not protect themselves from the sun's damaging rays (CDC, 1998).

Attitudinal barriers to the sun must be addressed and changed before behaviors will change. Attitudinal barriers to sun protection include the beliefs that it is necessary to use sunscreens only while at the beach or pool rather than year round, "a suntanned body is a healthy body," and "you can only get a sun burn in the summer". To overcome these barriers, education must begin early so habits can be developed early and consistently. Still, it is never too late to start sun protective habits.

The best sun protection is provided when all the sun-safe behaviors are practiced together. Sun protection habits include:

- Limit sun exposure during the hours when the sun's rays are the strongest, 10am to 4pm. To the extent possible, people should limit their exposure to the sun during these hours and practice all of the sun protective behaviors. Your shadow is an indicator of the sun's intensity. If your shadow is shorter than you are, the sun is at its highest intensity. The American Academy of Dermatology has established the Shadow Rule: No Shadow-SEEK SHADE.
- Refer to the daily UV index when planning outdoor events. The UV Index is a daily forecast of the intensity of the sun's UV rays. The Index indicates the risk of overexposure to skin-damaging UV radiation and can be used to help plan outdoor activities to minimize overexposure.
- Seek shade whenever possible. Shade structures such as trees and umbrellas provide year round protection. Although trees do not offer complete sun protection, they provide about 60 percent blockage from the sun's rays.
- Wear a wide-brimmed hat, sunglasses, and long-sleeved, tightly woven clothing. Clothing can physically block out the sun's harmful rays and should be one of the first lines of defense against sun exposure. Sunglasses should block out 100 percent of UVA and UVB radiation to protect the eyes from damage. Hats are the best way to minimize UV radiation exposure to the face, head, ears, and neck.

- Use broad-spectrum sunscreens whose active ingredients block UVA and UVB rays. The Sun Protective Factor (SPF) should be a minimum of 15. Sunscreens should be used every day, including cloudy days. They should be applied liberally and evenly before going out into the sun and should be applied frequently, especially after swimming.
- Avoid tanning salons. Artificial UV radiation is just as bad for your skin as sunlight. Most tanning devices use UVA rays which have been shown to go deeper into the skin and contribute to premature wrinkling and skin cancer (AAD, 1994).
- Limit exposure to the reflective surfaces like snow and water. UV rays can be reflected off of sand, tile, water, snow, and buildings. It is important to practice all the sun protective behaviors even when you are in the shade.

Off to Grad School: Florence Evans, Program Support Assistant SOD, will be leaving Western Region to embark on attaining her Masters in Statistics from the University of Utah. Her last day will be June 23. We will miss Florence but wish her the very best. Please join me in saying thank you for being a part of the NWS Western Region, for her dedicated work, and in wishing her well in her pursuit of her Masters in Statistics!

NWR Site Survey: Merri Richmond traveled to Tabby Mountain, UT for a NWR site survey. This location may be the home for a new High Risk NOAA Weather Radio transmitter. The transmitter will be funded by WSH.

AWIPS Firewall: Gar Nelson assisted the Flagstaff WFO with the AWIPS firewall modification.



ASOS Power Outage: Facilities Engineering Technician, Jim MacLellan, responded to a power outage at the Santa Barbara ASOS site. With assistance from the Oxnard Electronics staff, Jim quickly set up temporary power to the sensor array which allowed the site to return to operations. Jim was then able to locate the cable fault, dig down and make repairs. All work was completed quickly and efficiently with minimum impact to NWS operations.