



# NOAA's NATIONAL WEATHER SERVICE Western Region Notes

July 28, 2005

## REGIONAL DIRECTOR'S OFFICE



**Leadership and Innovation For Tomorrow:** We are now accepting applications for the next Leadership and Innovation For Tomorrow (LIFT) class. The deadline is approaching fast! Applications must be postmarked by August 1 in order to be considered.

Any Western Region employee is eligible to apply for this program, except MICs, HICs, and Western Region Headquarters Division Chiefs. For more information, the announcement is located at: <http://ww2.wrh.noaa.gov/liftvacancy.htm>.

## AROUND THE REGION



**Photo of the Week:** WFO Boise Lead Forecaster, Ken Parker, sustained multiple broken bones when the ladder he was working on while staining his cabin slipped out from under him. With his left leg and right arm in full casts, he is going to spend the next three months in a wheel chair. In order to be discharged from the hospital, his home had to be made wheel chair accessible. Two wheel chair ramps were needed for his home. WFO Boise Observation Program Leader, Larry Holt, volunteered to make the ramps. Ken Parker exclaimed, "These are the best ramps in the valley. If you are planning to fall and break something, Larry is your ramp guy!"

## METEOROLOGICAL SERVICES DIVISION

**Statement of the Week:** This week's Statement of the Week is a Flash Flood Warning issued by WFO Las Vegas on July 24. This warning was one of several good Flash Flood and Severe Thunderstorm Warnings from the Southwest U.S. and Montana WFOs over the weekend of July 23-24.

The Warning, which was issued for Southeastern San Bernardino County in Southeast California, was preceded by a Flash Flood Watch at 3:12 a.m. PDT, on Sunday, July 24. In the afternoon, thunderstorms began over the area with heavy rain and strong winds. Several hundred people were evacuated from homes and businesses in Twenty Nine Palms, California when a levee broke and a bridge was washed out on Highway 62. The Marine Corps Air Ground Combat Center north of Twenty Nine Palms reported 5.50 inches of rain in approximately 3 hours. The Flash Flood Warning verified with 91 minutes lead time. Good job WFO Las Vegas!!

WGUS55 KVEF 242050  
FFWVEF

CAC071-242245-

BULLETIN - EAS ACTIVATION REQUESTED  
FLASH FLOOD WARNING  
NATIONAL WEATHER SERVICE LAS VEGAS NV  
145 PM PDT SUN JUL 24 2005

THE NATIONAL WEATHER SERVICE IN LAS VEGAS HAS ISSUED A

\* FLASH FLOOD WARNING FOR...  
SOUTHEASTERN SAN BERNARDINO COUNTY IN SOUTHEAST CALIFORNIA

\* UNTIL 345 PM PDT

\* AT 140 PM PDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED  
HEAVY RAIN JUST SOUTH OF STATE ROUTE 62 FROM TWENTY NINE PALMS  
TO STATE ROUTE 177.

EXCESSIVE RUNOFF FROM HEAVY RAINFALL WILL CONTINUE TO CAUSE FLOODING OF  
SMALL CREEKS...STREAMS...AND COUNTY ROADS. THE MAIN HIGHWAY THAT WILL BE  
IMPACTED WILL BE STATE ROUTE 62. RAINFALL AND RAINFALL RATES OF 1 TO 2  
INCHES ARE POSSIBLE WITH THESE STORMS.

DO NOT DRIVE YOUR VEHICLE INTO AREAS WHERE THE WATER COVERS THE  
ROADWAY. THE WATER DEPTH MAY BE TOO GREAT TO ALLOW YOUR CAR TO CROSS  
SAFELY. VEHICLES CAUGHT IN RISING WATER SHOULD BE ABANDONED QUICKLY.  
MOVE TO HIGHER GROUND.

LAT...LON 3452 11640 3448 11461 3410 11456 3404 11651 3427 11640

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**San Francisco Recognized as StormReady:** The City and County of San Francisco was formally recognized as a StormReady community on July 12. Congratulations to WFO San Francisco Bay Area/Monterey for their outstanding work with San Francisco city and county officials!

*Pictured (L to R): Mark Strobin (Lead Forecaster, WFO Monterey), Annemarie Conroy (Executive Director of San Francisco Emergency Services and Homeland Security), David Soroka (WCM, WFO Monterey), Joanne Hayes-White (Chief, San Francisco Fire Department), David Reynolds (MIC, WFO*

Monterey), Captain Steve Thompson (NOAA Corps, San Francisco Bay Project and Navigation Manager), Jim Teet (NOAA/WRH Public Affairs), Rich Shortall (Deputy Director of San Francisco Emergency Services and Homeland Security).



*Medford Senior Forecaster Jim Reynolds reads from a script during the live NOAA Weather Radio forum.*

### **WFO Medford Hosts Live NOAA Weather Radio**

**Forum:** On July 12, Medford Senior Forecaster Jim Reynolds hosted a 30-minute live NOAA Weather Radio forum on all six of Medford's NWR transmitters. During this forum, Jim answered weather-related questions that had been submitted to the office through an advertisement on the office's web page. Questions were solicited during the month of June, and a script was developed. The forum also provided an opportunity to provide information on the local spotter program and to discuss the roll that SAME technology plays in NOAA Weather Radio broadcasts. The full-length transcript for the live forum is available on WFO Medford's web page at <http://www.wrh.noaa.gov/mfr/>.



*Jim Prange is interviewed by KPLU Radio (NPR) reporter Kirsten Kendrick.*

**Seattle Conducts Fire Weather Media Tour:** On June 30, WFO Seattle conducted its annual fire weather media tour. Fire Weather Program Manager Jim Prange was joined by WCM Ted Buehner, Hydrologic Program Manager Brent Bower, and PIO Josie Williams of Eastside Fire and Rescue. The tour's purpose was to address the weather outlook for the 4th of July weekend, the wildfire season outlook, the latest on the drought and water supply outlook, wildfire safety measures for residents, and resource and contact information.

The team visited all five Seattle area news TV stations, NW Cable News, four news radio stations (including two NPR stations), and the Seattle Times and Seattle P-I newspapers. In all, the group talked with 35 journalists, including several news directors, assignment desk managers, assignment desk staff, reporters and on-air TV weather talent. The feedback was quite positive, and the group felt the area's key media was ready for the upcoming fire season.



**Seattle Supports Boeing Health and Safety Fair:** WFO Seattle participated in a Boeing Company Health and Safety Fair event at their Kent, Washington campus on June 28.

WCM Ted Buehner staffed a booth focusing on NWS products and services, National Digital Forecast Database, and all-hazards NOAA Weather Radio (NWR). About 400 people attended.

**Seattle WCM Speaks to Fire Chiefs Association:** WFO Seattle WCM Ted Buehner addressed the Washington State Association of Fire Chiefs at their annual conference in Wenatchee on June 29. He discussed NWS all-hazards weather support from all four WFOs serving the state, particularly for hazmat response, search and rescue, and use of the spot forecast program. Incident Meteorologist Jim Prange and WFO Spokane WCM Ken Holmes were also in attendance to help address questions. Of the 160 people registered for the conference, most were not aware of these NWS resources for their first responders.

**Great Falls IMET Supports Biological Exercise Utilizing AMRS Equipment:** From June 20-24, "Operation Last Chance" was held in Helena, Montana. This simulation included a biological release onboard an airliner, which overcame passengers and crew and caused the plane to crash in Montana's Capital. Disaster and Emergency Services of Montana worked with dozens of other agencies to test each partner's response capability and ensure the safety of all participants. Bob Hoenisch, Incident Meteorologist at WFO Great Falls played a significant role.

Bob set up his NOAA All-Hazards Meteorological Response System (AMRS) prior to the start of the exercise. His participation in the exercise was two-fold; he provided support for exercise participants testing their response to chemical releases, and he also provided real-time weather support to the exercise planning team to ensure overall participant safety. On the second day of the exercise, Bob entered these comments into his Incident Daily Weather Log:

*"Several requests for wind information were made by the exercise players today. Mainly from the EOC (Emergency Operations Center) as they were simulating the setup of a medicine cache, which they wanted placed upwind from the city of Helena."*

The weather was tricky on that second day, as evident in this entry:

*"A cold front and weak shortwave approached the area by late afternoon and convection developed over the Elkhorn mtns by 2pm. Around 3pm an initially weak cell moved into the valley and intensified as it moved over the incident location around 315 pm. All operations were over and the team was conducting the hotwash meeting in the ICP building as the storm moved overhead, producing wind gusts to 30 mph, frequent lightning, hail to 1/2" and .27" of rain in about 15 minutes. During the storm the Satellite signal was lost for about 20 minutes and intermittently for about an hour in showers due to rain on the dish and a large Cb in the dish's line of view."*

The planning team was well informed of the impending weather and was able to complete all aspects of the exercise before the storm moved in. The exercise was a success and Bob's efforts were appreciated. This marked the second time the AMRS was deployed for HAZMAT support. In 2003, Great Falls IMET Bernie Meier deployed the AMRS for a HAZMAT exercise near the Sweetgrass, Montana U.S.-Canada border crossing.





### **IMETs Help in Siting Automated Weather Equipment:**

Incident Meteorologists (IMETs) assist in the placement of portable remote automatic weather stations, known as Fire RAWS, at large and complex wildfires. These weather stations can record temperature, dew point, relative humidity, wind speed and direction, solar radiation, precipitation, fuel temperature, and fuel moisture.

IMETs Steve Reedy (pictured) and Rob Balfour, assigned to the “Florida” wildfire in the Santa Rita mountains between Tucson and Nogales, Arizona, assisted in placing these fire RAWS around the fire. They were highly effective for the fire fighters monitoring conditions during a burn out operation on July 18, and were used later that day by the IMETs and forecasters at the Weather Forecast Office in Tucson to issue weather updates and warnings of flash flooding.



*Art Horton (Aviation Focal Point and Journeyman Forecaster), Phil Gonsalves (Met Intern), and Joe Dandrea (Hydro Focal Point and Journeyman Forecaster)*

**San Diego Staff Tours Lindbergh Field:** On July 7, Thomas Horton, Acting Director of Airside Operations, provided WFO San Diego staff with a tour of Lindbergh Field. The day began with an overview of the meteorological conditions that can impact Lindbergh Field and was followed by a tour of the FAA's Air Traffic Control Tower. The forecasters were able to provide feedback on the usefulness of the pilot reports received from the tower, especially cloud top reports, and how they help with terminal forecasts for the airport. After the visit to the tower, the forecasters toured around the airport, including stops at the Automated Surface Observing System (ASOS) site and the Airport's Fire/Rescue building. The Fire/Rescue building houses 3 large tanker trucks. The equipment is owned by the Airport Authority, but they contract with the City of San Diego for the crew to operate the equipment.



*Seattle MIC Chris Hill (center) and conducts an experiment with science camp students.*

**WFO Seattle Supports NOAA Science Camp:** The 3rd annual NOAA Science Camp was held during the week of July 11-15 on the NOAA Western Region Center campus in Seattle. Fifty Seattle area middle school students attended the week-long camp.

During the first three days, groups of students rotated through educational and fun hands-on science experiments and activities conducted by the National Weather Service Forecast Office, Alaska Fisheries Science Center, the Pacific Marine Environmental Lab, NOS Charting and Hazmat, and the NOAA Dive Shop. The students also competed in several games, including one based on a popular television game show, which

reinforced lessons they had learned throughout the week. In addition, the campers participated in field trips that included launching weather balloons, water sampling, and charting using GPS.



*Seattle Forecaster Andy Haner demonstrates a balloon release to camp participants.*

The key event for the camper's week was to solve a "mystery". They were introduced to a potential marine disaster early in the week, involving discovery of a fish kill in Puget Sound. Each team of ten students was challenged to investigate and determine the cause of this "mystery". The NWS collaborated with NOAA Hazmat in assisting the "forecasters" in their investigation of poor weather surrounding the event. The weather data was input by each team member into a Hazmat dispersion model of the event in a computer lab. The teams then reformed to share their subject area findings and collectively attempt to solve the mystery. The campers did a great job of working together in developing their mystery conclusions. The scenario

offered an opportunity to demonstrate how the various NOAA agencies work together in responding to events such as this one.

## SCIENTIFIC SERVICES DIVISION

**Advanced Warning Operations Course (AWOC):** It is important that offices keep up with the AWOC training schedule. Completion will be tracked by LMS and reported in the WR Professional Development and Training plan.

**August 31, 2005:** Complete Severe Weather Track (WFOs and highly recommended for CWSUs)

For more info on AWOC and LMS go to: <http://wdtb.noaa.gov/courses/awoc/index.html>.

**Analysis of Record (AOR) Update:** AOR is the Analysis of Record. This is the gridded "state of the atmosphere" project, which provides the "ground truth" to begin gridded verification and feedback to the offices. It can also be used to start providing to our customers a gridded form of "current weather" which integrates data from a "number of disparate observations platforms into a single set of sensible weather fields".

This is the next step beyond providing data in a data base and is the "digital future" we are pushing toward. Users can then use the OAR for a variety of reasons, such as better TV graphics (media) of current weather or emergency managers can better visualize what is happening between data observing sites. Ultimately, this is how most users will want the data.

This is only the first baby step that leverages existing projects. This first step will have a number of problems, but at least it is some progress after trying for 4 years. A more complete and advanced AOR has been submitted to HQ via OSIP and PPBES.

The Powerpoint presentation can download from the OS&T:  
[http://www.nws.noaa.gov/ost/ifps\\_sst/macinfo.html](http://www.nws.noaa.gov/ost/ifps_sst/macinfo.html)

**WR Web Policy Updated:** Two documents were sent out last week

**Content Guidelines for Office Web Sites:** These guidelines provide a bullet summary of key aspects of DOC, NOAA, and NWS web policy. If offices follow these guidelines (checklist), their web pages will conform with polices as they are now written. This guideline updates the previous version modified May 12, 2002.

**Introduction to WR Standard Web Page and Server Access:** This is a short primer for new webmasters accessing the web farm.

**WR GFE App Server Set-up Coming:** Aaron Sutula (WR/SSD) has completed testing of the kick-start auto set-up for the GFE Applications (App) Server at Salt Lake City and Eureka. The App Server is the foundation for the standardization of WR GFE application installation, upgrade, and support process. The App Server is one of several steps WR is taking to help better support the office IFPS focal points. The App Server will also keep WR GFE applications off of AWIPS to reduce the impact to AWIPS performance. The App-Server modnote will be released to the WR offices this week.

**IFPS Technical Support:** As a part of the new regional technical support role for IFPS, Kirby Cook (SSD) and Aaron Sutula (SSD) visited the Eureka office (this is the third off-site IFPS visit this summer). Of primary focus were the tools and methodologies used for the marine program in addition to the public and fire weather elements. While there, they were able to spend three days with the IFPS focal points, SOO, and forecasters editing the grids. As with previous office visits, some of our most productive time was spent working with the forecasters on the grids. In addition to focusing on local tools and methodologies, Kirby, Aaron, and Dave Nordello (EKA/ITO) we were also able to test the installation of the new WR application server.

**Annual AMS Meeting in Atlanta:** The 86th Annual Meeting of the American Meteorological Society will be held January 29 - February 2, 2006 in Atlanta. Abstracts must be submitted online by August 1 before midnight EDT (or 0400 UTC on August 2). To submit your abstract, go to:  
<http://ams.confex.com/ams/Annual2006/oasys.epl>

**Hydrologic Research to Operations Meeting:** WR is organizing a hydrology research to operations meeting October 4-6. The purpose of the meeting is to build relationships between the research and NWS operations communities to apply current and future research to solve problems in hydrology operations at the RFCs and WFOs. The website for the meeting is: [www.wr.noaa.gov/hydroscience](http://www.wr.noaa.gov/hydroscience)  
Please contact Kevin Werner (WR/SSD) with any questions.

**Great Divide Workshop:** The 2005 Great Divide Weather Workshop will be held in Great Falls, Montana, on October 25-27. The focus of the workshop will be on forecast challenges faced in the Intermountain West and the Western High Plains. Information on the workshop, as well as registration, can be found at: <http://www.wr.noaa.gov/tfx/php/register.php?wfo=tfx>.

**WSR-88D DLOC Enrollment Open now:** Enrollment is now open for the WSR-88D Distance Learning Operations Course (DLOC). The WSR-88D DLOC is available to meteorologists and

hydrologists, including interns, who have not previously completed DLOC or the residence version of the WSR-88D Operations Course. This does not include HMTs, term, or student employees.

The WSR-88D DLOC is taught via a combination of teletraining, web-based instruction, and on-station training. Students will also attend a three and a half day DLOC Workshop offered at the Warning Decision Training Branch in Norman, Oklahoma in January and February of 2006.

The WSR-88D DLOC requires a significant time commitment from each student. We estimate this course will take approximately 116 hours to complete (88 on-station hours, 28 workshop hours). Hydrologist may elect to take a shortened version of the course (58 hours) that does not include System Operations and Control, Convective Systems, or the DLOC Workshop.

To enroll a student or students in the FY05 WSR-88D DLOC, Send an e-mail to [Linda.J.Curtis@noaa.gov](mailto:Linda.J.Curtis@noaa.gov) with the following information:

- Three-letter Office ID
- Training Officer (SOO, DOH, Focal Point) Name
- Student(s) Name(s) and e-mail address(es)  
(Please specify if the student is taking the shortened version of the course for hydrologist)

*Enrollment closes Thursday, August 4.*

**New NWS Training Center Director Selected:** Donna Layton has been selected as the Director, NOAA's National Weather Service Training Center (NWSTC), Kansas City, MO.

**Update on Workstation Version of WRF:** The following update was received from Bob Rozumalski:

Q: What is the NMM-WRF and how does it differ from the research version of the model?

A: The NMM WRF refers to the Non-hydrostatic Mesoscale Model (NMM) that will replace the NAM/ETA in March 2006. NCEP does all development and support work on the NMM-WRF. The Advanced Research WRF (ARW) is the research version of the model developed by NCAR.

Sometimes these 2 versions are referred to as the NMM and ARW cores of the WRF model. Note that the grand unification vision of "multiple cores - one model" remains a vision. The NMM and ARW versions are 2 (almost) separate models for now.

Q: What is the status of the COMET/NCEP workstation WRF release?

A: The beta release is anticipated for late August. There was a delay in getting the NMM-WRF working on a linux workstation and integrating both sets (ARW and NMM) code into a single infrastructure. The grib 1 forecast files are being created and the BUFR generation code for BUFKIT is also included. Radar reflectivity forecasts are also included.

**Recently Released COMET Modules:**

- Wave Life Cycle I: Generation
- Creating a Local Climate Product Using Composite Analysis



- Introduction to Ensemble Prediction
- Mesoscale Banded Precipitation
- The Impact of Weather on Air Traffic Management

To access, go to: <http://www.meted.ucar.edu/>.

**Teletraining Sessions for August:** The Virtual Institute for Satellite Integration Training (VISIT) calendar for August is now available. Offices can register for the teletraining sessions by sending email to: [visit@comet.ucar.edu](mailto: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 August are:

- Monitoring Gulf Moisture Return with GOES Imagery (Basic, Aug 17)
- Downscaling Technique by Climate Team (Basic, Aug 11, 22, 30)
- CPC Extended Range Forecasts by Climate Team (Basic, Aug 9, 25)
- CPC Long Range Forecasting by Climate Team (Basic, Aug 10, 24)
- CPC Monitoring Products by Climate Team (Basic, Aug 16, 23)

Climate Team sessions are intended for climate focal points and are a prerequisite for additional classroom training.

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>

**Call for Burn Area Hydrology Techniques:** A special issue on the topic of burn hydrology is planned by the Journal of Geomorphology. Bill Reed, Senior Hydrologist at CBRFC, is organizing an effort to write a paper describing the various NWS methods for dealing with hydrology in burned areas. NWS field offices have developed a variety of techniques and procedures for addressing flash flooding and debris flow in burned areas. In general these techniques have been developed ad hoc and in isolation from each other. An overview of current and planned techniques utilized by the NWS could be a valuable resource for sharing ideas both within and outside of the NWS.

To contribute to this effort, please contact Bill Reed by August 15, 2005 with descriptions of current and planned methodologies if possible. Bill's contact information is: [bill.reed@noaa.gov](mailto:bill.reed@noaa.gov) or 801-524-6341 ext. 338. Kevin Werner, Hydrology Science Program Manager at WR/SSD is the WRH contact.

## **SYSTEMS OPERATIONS DIVISION**

**88D Problem Solved:** Son Nguyen (WSR-88D RMS) worked closely with WFO Glasgow Electronics Staff in researching and troubleshooting an intermittent problem that would drop out a portion of the scan. Thanks to the persistence and hard work of the WFO Glasgow ESA, ET staff, Son, and the ROC, the problem was isolated and the Pulse Shaper was replaced.

**Safety:** Back pain and back injuries are common problems in the workplace. **THEY DON'T HAVE TO BE...**Here are a few guidelines that may help:

- Bend at the knees and hips and lift with the legs instead of bending from the waist and using your back muscles. Remember to tighten your abdominal muscles and bring the object close to your body when lifting.
- Post reminders about lifting techniques in strategic locations such as the storeroom or electronics shop.
- Remember to ask for help if you're not convinced you can handle lifting a load safely.
- Remember that pushing is easier than pulling.
- Remember to push or pull with your entire body and not just with your arms.
- Don't be in a rush. Hurrying to move/lift can result in improper lifting techniques.

**As the AWIPS turns...** The DX/NAS hardware upgrade and OB4.2 installs are near completion at all WFOs and RFCs, but the light at the end of the proverbial AWIPS tunnel may be a mirage. OB5 installs are under way and OB6 is poised to be released right on its heels.

**LDAD Firewall and AS Rack:** Also on the horizon are the LDAD Firewall replacement project and the AS Rack Consolidation. We appreciate everyone's hard work, dedication and patience!