

# NOAA's NATIONAL WEATHER SERVICE Western Region Notes

August 25, 2005

## REGIONAL DIRECTOR'S OFFICE

**Kudos to WFO Tucson:** Congratulations to the staff of WFO Tucson for their outstanding performance during the recent prolonged monsoon surge. From July 31 to August 23, WFO Tucson faced perhaps the worst series of flash flood and severe weather events it has experienced in at least ten years. During this period, WFO Tucson issued 62 flash flood and 32 severe thunderstorm warnings. Preliminary flash flood verification was well above performance goals with a Probability of Detection of 0.90, a Critical Success Index of 0.57, and an average lead time of 43 minutes. Numerous follow-up statements, public information statements, local storm reports, and record event reports were also issued in real time to keep the public informed on the danger and magnitude of these events.

This extraordinary performance occurred as the staff worked through two extended radar outages. This required several backup plans to be used and close coordination with surrounding offices, NOAA/NESDIS Satellite Analysis Branch, and the Colorado Basin River Forecast Center. The entire staff worked long hours to make radar repairs, provide critical support to local, state, and federal officials, and ensure IT systems functioned at optimal levels. Both the operational staff and management team conducted innumerable media interviews concerning the extreme weather and the radar outage. The office has since received praise from NWS Headquarters, the local media, and local emergency management officials for the top-notch handling of these extraordinary situations. Great work WFO Tucson!

## METEOROLOGICAL SERVICES DIVISION

**Statement of the Week:** This week's Statement of the Week is the aviation discussion contained in the WFO San Francisco Bay area AFD, written by lead forecaster Duane Dykema. Duane does an excellent job explaining the reasoning behind two major bay area TAFs, since the flow regime resulted in an unusual pattern to the formation and dissipation of low clouds etc. Great work Duane.

.AVIATION...Weak S to N surface gradients up the coast persist and light southerly flow continues at the surface and aloft. This southerly flow is resulting in rapid clearing in the SFO Bay regardless of the deep marine layer... and expect cigs to dissipate at KSFO at 18Z and at KOAK by 19z. Building high pressure aloft will result in a trend toward and shallower marine layer and thus a later intrusion of low cigs this eve. Light southerly flow will prevent cigs from forming at KMRY until 03z this evening.

**San Diego Staff Visit Local EAS Provider Station:** Staff from WFO San Diego, including the MIC, WCM, and 3 forecasters recently paid a visit to KOGO Radio in San Diego to learn more about the Emergency Alert System (EAS) and how it interacts with NOAA Weather Radio.

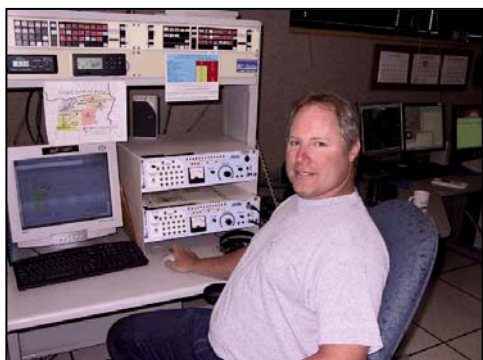
KOGO is the LP-1 ("Local Primary") station for the San Diego County EAS. This visit served to increase the staff's familiarity with EAS equipment used in commercial radio, TV, and cable stations.

Cliff Albert from KOGO radio explained the capabilities and limitations of EAS, particularly with respect to large and diverse geographical areas, such as San Diego County.



**Hesperia, California Recognized as StormReady:** The city of Hesperia, located in the northern portion of WFO San Diego's county warning/forecast area, is California's newest StormReady community. A recognition ceremony was recently held at the Hesperia City Hall.

*(L to R): Phill Dupree (San Bernardino County Fire Weather Support Coordinator), Mark Wells (San Bernardino County Fire Agency Liaison, City of Hesperia), Ed Clark (San Diego WCM), Berta Sabicer (Risk Management Director, City of Hesperia), and Brigit Bennington (Disaster Preparedness, City of Hesperia)*



**Pendleton Names WFO Employee of the Quarter:** WFO Pendleton selected Johnny Blagg, Electronics Technician, as its "Employee of the Quarter" for April - June, 2005. Pendleton's MIC, Mike Vescio, stated "Johnny is an excellent ET, leads by example, and is a strong supporter of operations at PDT. This past quarter Johnny led quite an effort to clean up and organize the ET shop and storeroom. The transformation of the two areas was remarkable. He also chronicled his life story in an excellent slide show for the staff during a recent diversity dinner. Johnny is involved in the local community. He is the Vice Commander of the VFW and soon will become a member of the *Main Street*

*Cowboys*" (a local civic organization dedicated to promoting and publicizing the city of Pendleton and surrounding areas). Congratulations Johnny, on a job well done!

## HYDROLOGY AND CLIMATE SERVICES DIVISION

**USGS-NWS Debris Flow Project:** The joint USGS - NWS debris flow warning prototype project is finalizing communications and dissemination procedures. Software and procedures at WFOs San Diego and Oxnard have been modified and adapted to receive both debris flow advisory statements and rainfall threshold values directly from the USGS. Testing of the communications between the two agencies has been successful. Training for WFO meteorologists at both WFOs is scheduled for the week of September 26.

When operational this fall, the USGS will feed rainfall threshold values to the WFOs for use in FFMP over recently burned areas. When rainfall is expected to exceed these thresholds, the WFO will issue a flash flood warning that will include specific mention of debris flow and reference the USGS input.

## 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>.

**FY06 Training Nominations and Schedule:** Your office nominations for FY06 NWSTC and COMET residence courses are due to SSD (Mark Mollner) by August 30. Due the significant budget cuts to the training program, it is important that WR fill and use all available training slots.

**Bi-weekly WR SOO/DOH Operational Calls have resumed:** The Bi-weekly SOO/DOH operational calls have resumed. Gene Petrescu (Missoula) and Eric Pytlak (Tucson) led the first two conference calls. The calls are held every 2 weeks with the option to hold the second call during periods of active weather. The goal of the conference calls is to promote better situational awareness of upcoming weather changes and promote scientific sharing among the offices. These calls are not intended to replace daily forecaster collaborations or small group blast-up calls. Any questions should be directed to Andy Edman (SSD).

**Recent Scientific Publications:**

TM- 273: Climate of Flagstaff, Arizona

Revised by: Mike Staudenmaier, Jr., Reginald Preston, Paul Sorenson, August 2005.

The TM can be accessed at: <http://www.wrh.noaa.gov/wrh/techMemos/273.pdf>

As a reminder, all WR Technical Attachments (TA), TA-Lites, and Technical Memorandums (TM) can be found at <http://www.wrh.noaa.gov/wrh/pubs.php>

**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:

<http://www.wrh.noaa.gov/hydroscience>. Please contact Kevin Werner (WR/SSD) with any questions

**Ninth Annual Great Divide Weather Workshop:** The 2005 Great Divide Workshop will be held at the Hampton Inn in Great Falls on October 25-27. The focus of the workshop will be on the forecast challenges faced in the Intermountain West and the Western High Plains.

The key note speaker for the banquet will be David C. Whiteman from the University of Utah. Dave will present a pictorial look at unique weather phenomena. Other speakers include representatives from Environment Canada, University of Montana, and the National Drought Mitigation Center. Please register for the workshop by accessing the local news section at either the Missoula or Great Falls home pages ([weather.gov/missoula](http://weather.gov/missoula) or [weather.gov/greatfalls](http://weather.gov/greatfalls)).

Abstracts must be sent by September 15 to the email address below to ensure inclusion in the workshop preprint. Hotel reservations must be made by September 20.

Workshop contacts are Gene Petrescu, Michelle Mead, and Mike. W. Johnson  
voice: 406-329-4715  
fax: 406-329-4842

e-mail: wr.great.divide.workshop@noaa.gov

**Twelfth Annual Workshop on Weather Prediction in the Intermountain West:** The Twelfth Annual Workshop on Weather Prediction in the Intermountain West will be held on November 3, 2005 at the Desert Research Institute (DRI) in Reno, Nevada. The objectives of these annual workshops are to discuss major issues related to operational meteorology over the western United States and to foster interaction between applied meteorologists, research scientists and others who rely on operational weather forecasts or data. The workshop is being hosted by the DRI / NOAA Cooperative Institute for Atmospheric Sciences and Terrestrial Applications (CIASTA).

This year's workshop agenda has two primary focus areas: Transportation Weather and Air Quality Forecasting and Impacts, with emphasis on the operational prediction methods, monitoring networks and management challenges specific to the Intermountain West. Abstracts can be submitted for either poster or oral presentations.

The deadline for registration is October 1. Abstract submittal is not required for participation. For a more complete workshop description and registration instructions, please visit the workshop web page at: <http://conferences.dri.edu/WxPrediction/>

**Weather Research and Forecasting (WRF) Model Winter Forecast Experiment Released:** The WRF is the next generation mesoscale model that will replace the NCEP Eta model over the next 18 months. In preparation, OAR and NCEP conducted a Developmental Testbed Center (DTC) Winter Forecast Experiment (DWFE) using two experimental versions of the WRF model. The project objectives were to generate experimental forecasts without use of cumulus parameterization on a 5-km grid and to determine the value of such high-resolution WRF models for winter weather forecasting with lead times out to 48h. Two dynamic cores were run the NCEP WRF-Nonhydrostatic Mesoscale Model (NMM) and the OAR Advanced Research WRF (ARW). The report summarizes the results of both objective statistical and subjective evaluations of the two WRF model configurations and their usefulness for forecasting mesoscale weather in winter storms. There is a short (2-page) executive summary for those not interested in greater detail about what was accomplished and learned from this experiment. The report was sent to each WR SOO/DOH.

**AWIPS Postgres Training Materials:** Postgres will replace Informix in AWIPS OB6 this autumn. In preparation for this change the National Weather Service Training Center has been developing Postgres database training materials over the past several months. These materials are:

1. Postgres Documentation/Reference Manuals. All WFOs and RFCs should receive these by the middle of August 2005.
2. A Postgres training CD that acts as a Postgres emulator. This will allow local offices to work with Postgres commands. Available by the end of August 2005.
3. An Introduction to Postgres on-line course. This will be available from the NWSTC in September 2005.
4. An Integrating Postgres into AWIPS on-line course is expected in October 2005.
5. A Postgres server with an AWIPS database at the NWSTC. Accessing this server will allow offices to run and test their Postgres scripts with AWIPS data. This server has been purchased by the NWSTC and is being ramped up. No date for field access is available at this time, but the goal is for sometime in late September or early October 2005.

National deployment of AWIPS OB6 is currently scheduled to begin on October 17, 2005. Hence, all WR offices should factor in Postgres training and changeover time for their appropriate AWIPS managers over the next few months.

**WR GFE App Server Set-up:** WR Mod-Note WR05-005, which details the setup and installation of the WR IFPS application server. The IFPS application server is a Dell Precision 470 workstation delivered to each WFO during the Fall of 2004, and is intended as a baseline server for IFPS applications and development specific to Western Region. This is a mandatory mod-note and action for all WR offices. Offices that have already configured their application server will still need to carry out the instructions and actions included in the mod-note. **Completion of the mod note is September 1, 2005. Please note the completion in EMRS.**

The intent behind the GFE Application Server (App Server) is to provide a standardized AWIPS platform for WR applications to run on and improve regional support. The App Server is part of the new WR IFPS management process. Rational for these changes are:

1. Application Configuration management – As the list of WR GFE applications grows, it becomes more important that all offices use the same configuration. The App Server will become the primary home for critical WR applications. This includes GFE applications such as MatchObsAll, MatchGuidance, and the IFPSVerify (or any derivative thereof) software. SSD will use Mod Notes and Kick Start CDs to supply installation instructions and load modules that will be based on the App Server hardware configuration. These changes should make it easier for IFPS focal points to install software. Support and trouble shooting also becomes much easier. If problems arise, SSD or a neighboring site can assist in troubleshooting or recovery. With the turnover in IFPS focal points, the MICs have requested additional assistance in this area. This is a logical way to proceed and build expertise across the region.
2. AWIPS performance – AWIPS performance is an issue and will continue to be an issue for several years. AWIPS performance is now routinely tracked at the national and regional levels. WR just completed an effort to identify problem applications and work with each office to mitigate their impact on operations. To avoid future problems, WR applications should be run on the WR application PC when ever possible.

**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 September:** The Virtual Institute for Satellite Integration Training (VISIT) calendar for September 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 September are:

- Downscaling Technique by Climate Team  
(Basic, Sep 16,21)
- CPC Long Range Forecasting by Climate Team  
(Basic, Sep 7, 28)
- CPC Monitoring Products by Climate Team  
(Basic, Sep 8,20)
- Use of GOES/RSO imagery with other Remote Sensor Data for Diagnosing Severe Weather across CONUS (RSO 3)  
(Intermediate, Sep 13, 14)

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>. 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



**Quillayute Upper Air Facility:** WR Facilities Technicians Dan Clark and Mike Belarde recently installed these mammoth overhead doors at the Quillayute Upper Air Facility. The result was a top notch installation at a significant cost savings.

**Mount Ashland Radar:** Joe Lachacz (EPM) attended a meeting with the FBI, DOJ, and the Oregon State Police mapping out changes to the Mount Ashland Radar Facility necessary to accommodate the current and future needs of all agencies

**NWR Coverage:** Merri Richmond and Jim Beavers (LKN) installed the Owyhee, NV (WNG-731) All- hazards radio transmitter on August 23. This transmitter is providing NWR coverage to the North Eastern part of Nevada in Elko County.

**Promontory Point Radar:** Son Nguyen is assisting the Salt Lake City WFO in troubleshooting an on-going problem with the Promontory Point radar in Utah. Son is working with SLC Technicians Al Martinelli and Donna Simmons.

**Radar Outage:** A special thanks to Mike Schumaker, electronics technician from the Phoenix, AZ WFO. Mike assisted the Tucson Office on a troublesome radar outage with only short notice, Mike

traveled to the site with spare parts in hand. Mike and the Tucson ET's troubleshoot and fixed the radar as weather moved in.