NOAA's NATIONAL WEATHER SERVICE
Western Region Notes

August 10, 2006

REGIONAL DIRECTOR'S OFFICE

Leadership Corner: Lessons on Leadership
By John Jannuzzi, WFO Boise MIC

Captain James Cook is regarded as one of the great seafarers of all time. One of Cook's many discoveries was that the great Southern Continent did not exist, and that the globe could be circumnavigated at the southernmost latitude. While a great discoverer, Cook was also a great leader, who had genuine interest in the well being of his crew.

Scurvy was a serious health problem for sailors whose diet was largely composed of rancid salt pork and weevilly sea biscuit. Vasco de Gama, the great Portuguese navigator lost 100 of his 170 men crew to scurvy on one long voyage. Cook had heard of the value of fruit in preventing scurvy. He experimented with various fruits, grasses and vegetables as dietary supplements to prevent scurvy. His efforts proved successful. On two long sea voyages, each of two to three years in length, he did not lose a single sailor to scurvy. One of the things he discovered was that sauerkraut would prevent scurvy, and it could be stored for long periods of time. His next leadership challenge was to get his men to eat it. His sailors were quite conservative in their habits and suspicious of new ideas. In his journal, he recorded this great leadership lesson (original spelling and grammar preserved):

"The Sour Krout the Men at first would not eate untill I put in practice a Method I never once knew to fail with seamen, and this was to have some of it dress'd every Day for the Cabbin Table, and permitted all the Officers without exception to make use of it and left it to the option of the Men either to take as much as they pleased or none at all; but this practice was not continued above a week before I found it necessary to put every one on board to an Allowance, for such are the Tempers and disposissions of Seamen in general that whatever you give them out of the Common way, although it be ever so much for their good yet it will not go down with them and you will hear nothing but murmurings gainest the man that first invented it; but the Moment they see their Superiors set a Value upon it, it becomes the finest stuff in the World and the inventor [an] … honest fellow."

This story illustrates three aspects of leadership. 1) Good leaders are not self-serving. Leaders care about the well being of those they lead. 2) Leading change requires a great deal of effort on the part of the leader, and trust of those to whom they lead. 3) Leadership techniques are situational, and must be adapted to the task at hand.

METEOROLOGICAL SERVICES DIVISION

Service of the Week: On Thursday, August 3, WFO Sacramento was unable to transmit to the internet the Emergency Command Center Dispatch Area (ECCDA) forecasts used by California fire dispatchers. These are new products which fire dispatchers use for their twice-daily radio broadcasts to field fire-fighting personnel who have no other means of obtaining forecasts and other information. Web access is the only way for the fire community to access these forecasts. Although the forecasts only became available this summer, they quickly became an important fire resource in California.

Although the source of Sacramento's problem was identified fairly quickly, no one who could fix the problem would be available until Monday. With no way to restore service before the weekend, and realizing that it was critical for these forecasts to be available on time to all customers, Sacramento webmaster Holly Snell developed

a work-around which would provide the forecasts to fire customers in the manner to which they were accustomed. Once a workaround was identified and tested, and continuing until the problem was resolved on Monday, August 7, Ms. Snell manually shepherded each of the forecasts to the Sacramento website twice per day. Her quick and innovative reaction, and her willingness to personally accept responsibility for getting the products posted to the website, meant that forecasts were available in a timely manner during a period of high fire danger. Great job!

San Diego Mesonet Station Dedication: A ribbon-cutting ceremony was held on August 2 to cerebrate the new La Jolla station for the San Diego Mesonet. This was a ONE NOAA activity bringing together two NOAA elements: SW Fisheries Science Center and the San Diego NWS Forecast Office.

The Featured speaker was The Honorable Susan Davis, (U.S. House of Representatives, California 53rd District). She was joined by Marye Anne Fox, Chancellor of the University of California, San Diego, and Charlie Kennel, Director of the Scripps Institute of Oceanography.

(L to R): Norm Bartoo (Deputy Director, NOAA 's SW Fisheries Science Center), U.S. Representative Susan Davis (California's 53rd District), Marye Anne Fox (Chancellor, University of California San Diego), Charlie Kennel (Director, Scripps Institute of Oceanography), Jim Purpura (WFO San Diego MIC)

Kirby Cook, WFO Seattle SOO, assists NOAA Science Camp students.

NOAA Science Camp – 2006: The annual NOAA Science Camp was held during the week of July 10-14 on the NOAA Western Region Center campus in Seattle. Sixty-three middle school students attended the week-long camp, most from the Seattle area.

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

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. With lessons learned during the week, each team of students was challenged to investigate and determine the cause of this "mystery". Five "scenario" teams were composed with subject matter experts from each of the original teams. The NWS collaborated with NOAA Hazmat in assisting the "forecasters" team of experts 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 original 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.

San Diego Hosts Tsunami Workshop: On July 29, WFO San Diego held a Tsunami workshop for the public. Nearly 100 people attended the event. Over the course of the 3 hour workshop, 4 speakers gave information on Tsunamis in general, the threat of Tsunamis in southern California as well as inundation areas and safety

procedures. Speakers included Dr. Mark Legg (Legg Geophysical), Jim Goltz (California State OES), Susan Asturias (San Diego County Emergency Manager), and Jim Purpura (MIC, WFO San Diego).

Mark Jackson (far left), Eric Boldt (far right), and Dessa Emch (second from right) pose with VADM Lautenbacher (right of center) and officials from NOAA's National Marine Fisheries Service in Long Beach.

WFO Oxnard Visits Aquarium of the Pacific: Mark Jackson, Eric Boldt, and Dessa Emch recently traveled to the Aquarium of the Pacific in Long Beach to hear VADM Lautenbacher talk to a public audience on ocean literacy.

The Aquarium of the Pacific is an important partner in NOAA's education and outreach efforts. WFO Los Angeles/Oxnard has collaborated on several projects with the aquarium, as well as on projects with other NOAA organizations in the area. While at the aquarium, they talked to aquarium officials about the reactivation of their observation site and also discussed ideas for development and installation of NOAA kiosks at the aquarium. The kiosk would be similar the one at the Ty Warner Science Center in Santa Barbara (http://channelislands.nos.noaa.gov/focus/kiosk.html), which was a collaborative effort between the NWS and NOAA's Channel Islands National Marine Sanctuary.

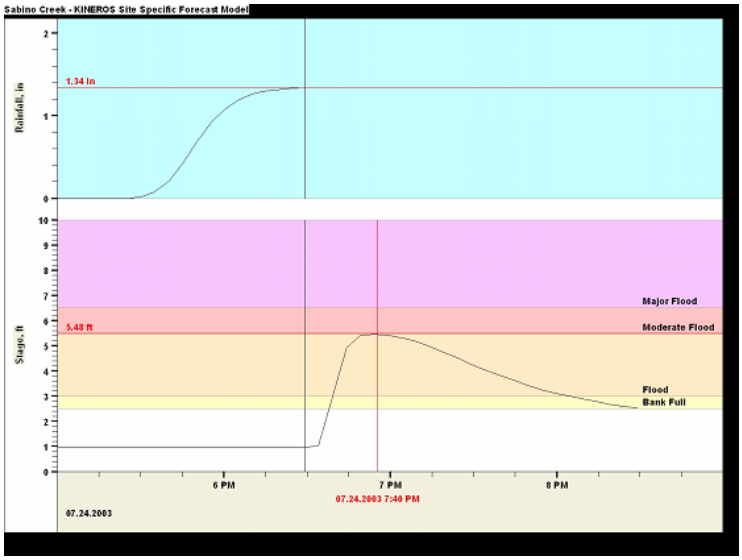
A Tsunami interpretive sign located at Siletz Bay on highway 101 in Lincoln City, OR provides visitors with history of the great Tsunami that struck the Pacific Northwest Coast on January 26, 1700.

WFO Portland Conducts Tsunami Preparedness Workshops: During the week of August 2-4, WFO Portland conducted three Tsunami Preparedness Workshops along the Oregon Coast, which included stops in Astoria, Newport and Waldport, Oregon, with over 165 people in attendance. WFO Portland partnered with Oregon Emergency Management, Oregon Department of Geology and Mineral Industries (DOGAMI) and the Emergency Managers from Clatsop and Lincoln Counties for these workshops. During the 3-day road show, they were accompanied by representatives from the West Coast/Alaska Tsunami Warning Center (WC/ATWC) and U.S. Geological Service (USGS).

The workshops were aimed toward providing public education about tsunamis and how the TsunamiReady program can help local communities prepare for such an event. Guest speakers at the workshops included Brian Atwater from the USGS, Bruce Turner from the WC/ATWC, George Priest of DOGAMI and several local community officials.

Brian Atwater from the USGS discussed his paleo-tsunami field work that led to the discover of the great Tsunami that hit the Pacific Northwest on January 26, 1700 that resulted from a very large earthquake on the Cascadia Subduction Zone, which lies approximately 50 miles off the WA/OR coast. George Priest from DOGAMI discussed the science of tsunamis and how the inundation and evacuation maps for the Oregon Coast were created by his office. Bruce Turner from the WC/ATWC and WFO Portland's WCM Tyree Wilde provided information on the Tsunami Warning Center operations, the methodology for issuing Tsunami warnings and the how local communities receive the warnings. Several local community leaders also discussed preparedness activities in their individual communities, such as the neighbor helping neighbor program.

HYDROLOGY AND CLIMATE SERVICES DIVISION



Site Specific Hydrologic Model: Flash floods are very common this time of year in southern Arizona and pose a significant risk to both life and property. WFO Tucson is nearing the completion of a multi-year COMET partner's grant with the University of Arizona Hydrology Department and the USDA Agricultural Research Services to develop a site specific model. The model is designed to produce a forecast hydrograph for fast reacting basins in the semi-arid west. It ingests, in real-time, the Digital Hybrid Reflectivity (DHR) product. The DHR product provides the finest temporal and spatial scale available of any radar product. Since the model is based on KINEROS (a semi-distributed model), it captures the distribution of both land cover and rainfall at a scale appropriate to semi-arid flash flood hydrology. The model is being tested on several basins at WFO Tucson this monsoon season. The graph shown here depicts rainfall and the associated forecast hydrograph from the model.

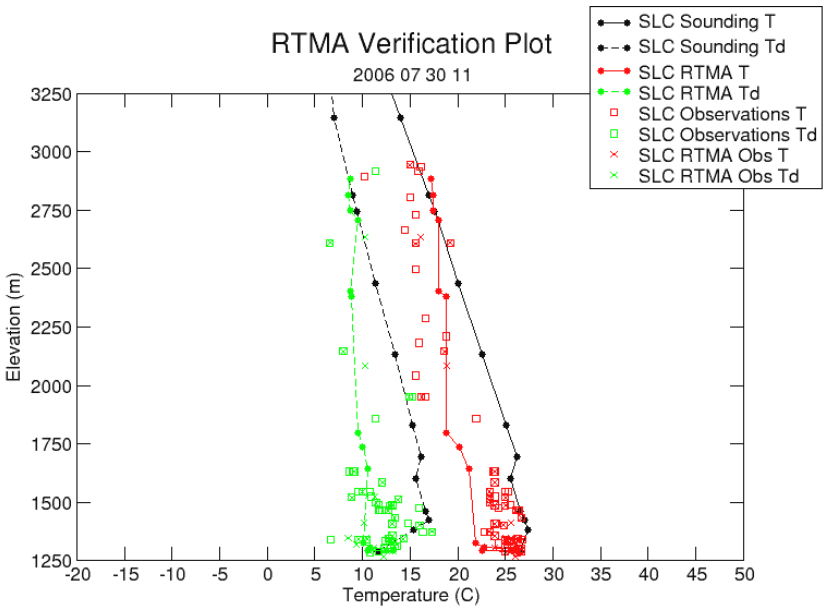
SCIENTIFIC SERVICES DIVISION

WES: Funding has been found to pay for a new WES PC for each WFO (thanks to Mark Mollner (SSD), John Vogel (OS6) and Ed Mahoney and WDTB folks). The RFC WES will be acquired early next year from a second funding source. WDTB is working on installation instructions.

The equipment will arrive at the offices as two separate shippings

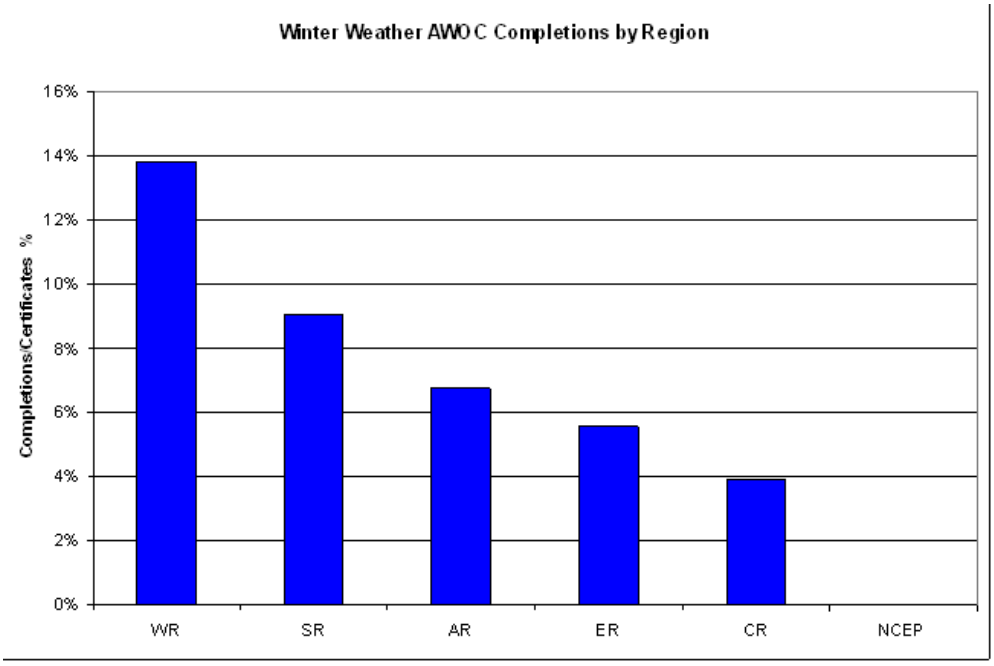
- This week – graphics card for the WES
- Approx 3-5 weeks – PC shipped directly from HP to each office

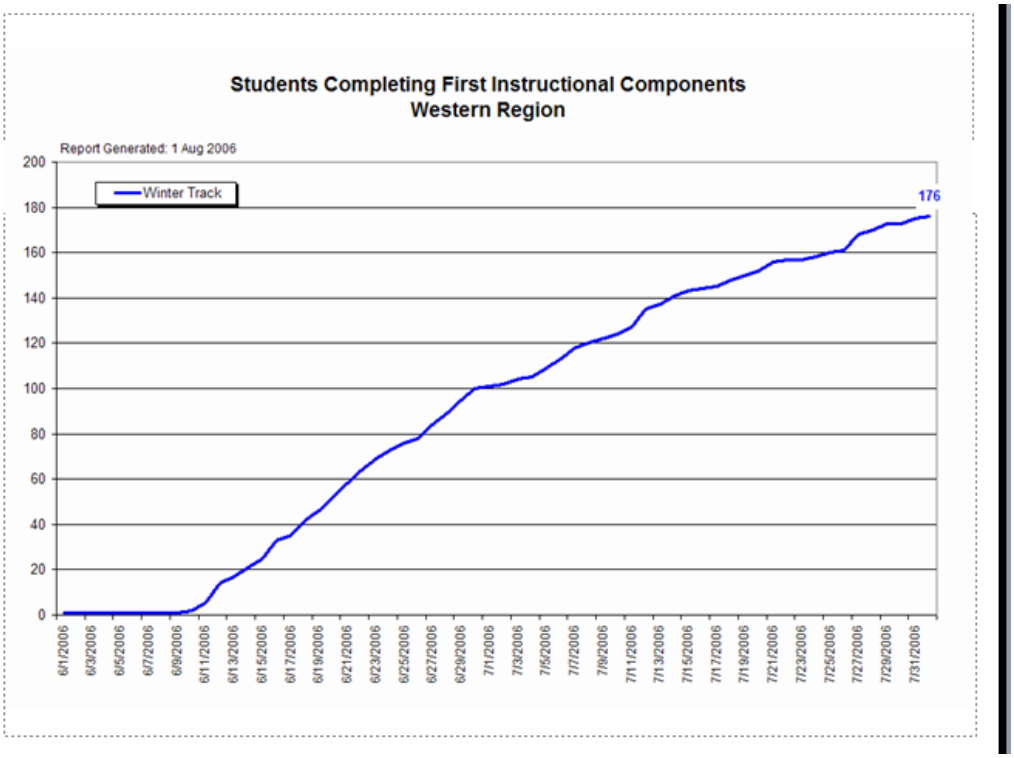
RTMA Evaluation: Chad Kahler (SSD STEP) has developed a real time RTMA web page. It can be viewed at: http://www.wrh.noaa.gov/wrh/rtma/



Hydro Verification Project: UC-Davis (Bisher and Holly Hartman) provided a verification project briefing at the CBRFC on Wednesday, August 9. DOHs from across the nation, NWSHQ and others attended the briefing via GOTO meeting. Kevin Werner organized the briefing.

AWOC Winter Weather Update: While it is still summer, WR offices have already begin working on the AWOC Winter Weather module. Ed Mahoney provided the following information:





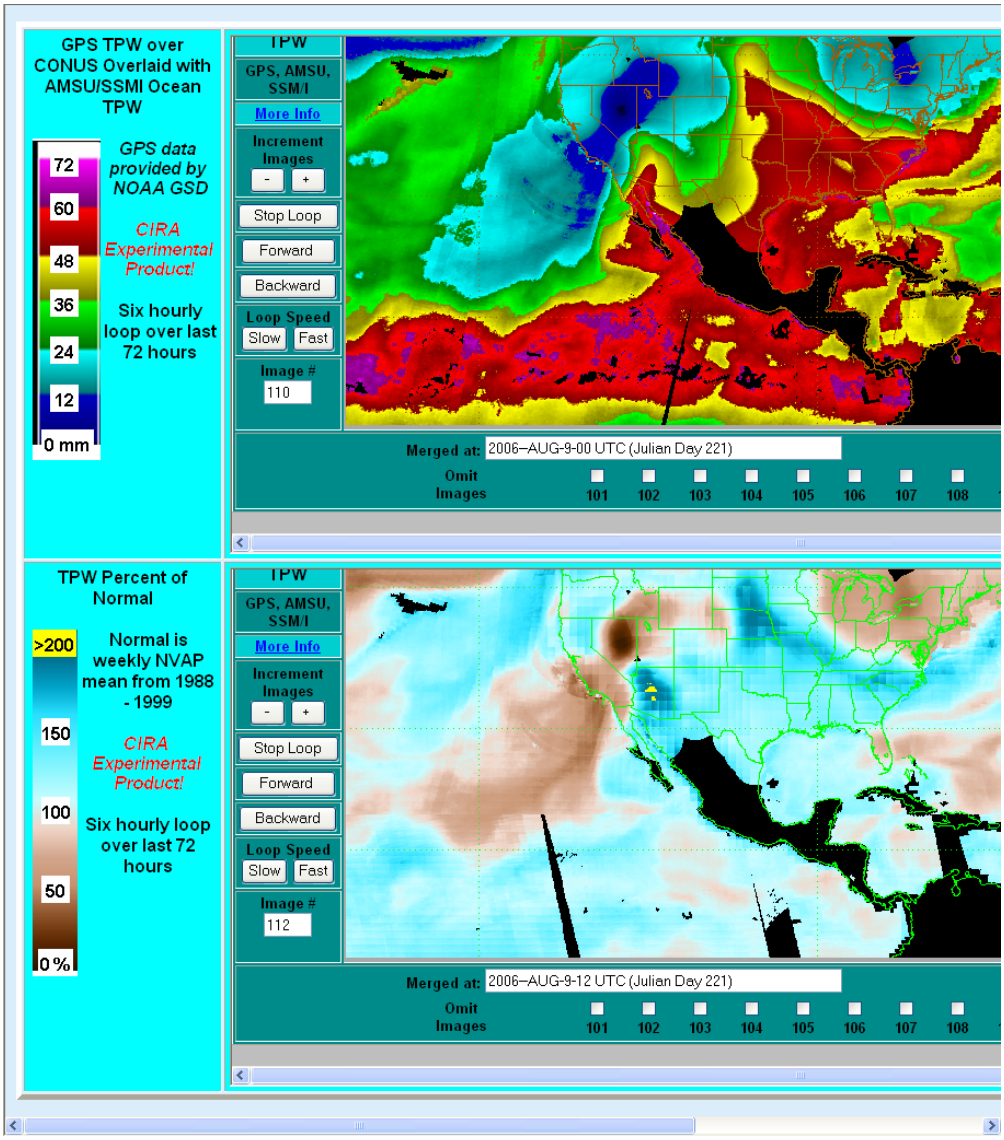
As a reminder, the AWOC Winter Training Module must be completed by **November 30, 2006.** Per the November 28, 2005 training memorandum, completion of the AWWT is required by all WFO staff who issue

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

Verification Project Update:

- SSD briefed CR Verification Team on WR effort on July 24, 2006
- SSD provided briefing for national Verification team and regions on August 10
- Next Assignment due: The next office assignment is due August 10
- Next Verification Call: The next call is scheduled for August 16.

Precipitable Water Web Page: http://amsu.cira.colostate.edu/gpstpw/
Stan Kidder (CIRA) and John Forsythe CIRA) have developed an experimental web page to track moisture plumes. The page can be useful to track monsoon surges this summer and eastern Pacific tropical plumes this winter. The page is a combination of blended Total Precipitable Water (TPW) from the SSMI and AMSU sensors over the ocean and GPS sensors over land. The lower image compares the current TPW values with a running weekly average TPW from 1988-1999. Helps quickly identify areas that are abnormally wet or dry.



NSTEP/CONOPS Meeting: MSD/SSD and CONOPS will meet on Monday, August 14 to discuss the CONOPS proposal. The NSTEP meeting will follow on August 15-16 to plan how to evolve training resources to better support CONOPS and Service Evolution.

Cell Phone Project: SSD initiated a joint project with SR to develop warning interface for cell phones. The team is:

- Jason Burks, Huntsville WFO
- Matt Duplantis, Shreveport WFO
- Aaron Sutula, WR/SSD
- Jim Pelton, WR/SOD
- Randy Weatherly, SLC WFO
- Andy Edman, WR/SSD

Interested Contributors

- Don Britton, Great Falls WFO
- Paul Kirkwood, SR/ITB

We are hoping to have an initial prototype working by the end of summer.

Upcoming Science Workshops:

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

10th Annual Great Divide Weather Workshop - October 3-5: The 10th Annual Great Divide Workshop will be held October 3-5, 2006 in Billings, Montana. 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. The workshop will be held at the Sheraton Hotel in Billings. Please submit abstracts or topics to Wr.Great.Divide.Workshop@noaa.gov by August 15. More information can be found on the Internet at weather.gov/Billings or weather.gov/Glasgow or by contacting NOAA's National Weather Service Forecast Offices in Billings , Montana at (406) 652-0851 or Glasgow , MT at (406) 228-4042**.**

Thirteenth Annual Workshop on Weather Prediction in the Intermountain West - November 16: The Thirteenth Annual Workshop on Weather Prediction in the Intermountain West will be held Thursday, November 16 on the University of Utah campus. This Workshop will be hosted by the Mountain Meteorology Group in the Department of Meteorology. This year's workshop is focused on the lessons learned from field programs and operational deployments of surface meteorological equipment in the West. The Workshop is intended to be a forum to discuss the impacts of the practical limitations associated with surface instrumentation in the mountainous West on environmental records, data assimilation systems, and weather forecasts**.** To submit an abstract or register, please access the on-line registration form at: http://www.met.utah.edu/jhorel/workshop2006/workshop_reg.html. The deadline for abstract submission is October 1. The registration deadline is November 1.

Training Update:

COMET: WRF Training Modules: COMET continues to add modules to the marine and hydrology series. The latest hydrology module is titled Runoff Processes and latest marine module is titled the Marine Wave Model Matrix.

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: 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. 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:

- NEW - The GOES 3.9 micron Channel (Basic, Aug 15,18)
- Cyclogenesis: Analysis utilizing Geostationary Satellite Imagery (Basic, Aug 29)
- Use of GOES/RSO imagery with other Remote Sensor Data for Diagnosing Severe Weather across CONUS (RSO 3) (Intermediate, Aug 16,17)
- Enhanced-V: A Satellite Severe Storm Signature (Basic, Aug 4,28)
- GOES Sounder Data and Products (Basic, Aug 11)
- GOES High Density Winds (Basic, Aug 21)
- Mesoscale Convective Vortices (Basic, Aug 22)
- Forecasting Convective Downburst Potential Using GOES Sounder Derived Products (Basic, Aug 22)

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

New SOD Program Support Assistant: Kristina Larson has been hired as the new Program Support Assistant and will report on September 18. She is currently a secretary with the IRS.

NWR: Gerry Deiotte along with Ulysses Davis traveled to Barney Top Mountain to install a NWR All hazards transmitter.

RDA Installations: The Cedar City, Pocatello, and Eureka Open RDA installations were completed last week. No installations were scheduled this week. Glasgow and Medford are scheduled for the week of August 14.

Web Statistics: On August 1, a web statistics server became operational that provides web usage metrics by office. These statistics should help Western Region web masters improve their web services. This was a joint effort between SOD and WFO, San Diego IT staff.