

NOAA's NATIONAL WEATHER SERVICE Western Region Notes

May 3, 2007

REGIONAL DIRECTOR'S OFFICE

Leadership Corner

Leadership and Learning

By John Jannuzzi, MIC, WFO Boise

Good leaders are constantly learning. They have a passion for gaining understanding and acquiring new skills. What they learn affords increased capabilities and new opportunities. They are the people the rest of us follow. Let me illustrate as I share the experience I recently had with two physicians.

In the course of my quest for medical advice and treatment that would relieve ongoing back pain, I was seen and/or treated by a General Practice Physician and an Orthopedic Physician (among others). I saw my General Practice (GP) Physician three times, each at my initiation. Each time he had me try something or referred me to someone else, then sent me on my way. There was no follow-up appointment or phone call to get a status report to see how I was doing. Finally, at my request, he had me get an MRI and referred me to a Neuro-Surgeon (NS). I decided to see an Orthopedic Physician (OP) recommended by a friend, before being seen by the NS.

The OP I went to is part of a group of doctors across the Pacific Northwest that are actively studying the diagnosis and treatment of various back ailments. Before being seen by him, I had to complete a lengthy, detailed on-line survey regarding my condition and what treatments I had tried so far. When I saw him, he had already reviewed my survey answers, asked more questions in the course of the examination, and ordered up lab work to investigate potential underlying causes for my problem. He set a follow-up appointment in two weeks to review my progress on treatments he prescribed and to review the lab test results. Two weeks later, we noted the moderate progress I had made, logging the results in the same database with my survey information. I explained that I had made an appointment with an NS, to see what he recommended. He encouraged me to do so, and asked that I let him know of the surgeon's recommendations, and to keep him updated on my progress. He noted that is how he and the group of doctors he works with will improve treatment for future patients.

Did you notice the difference in care I received from these two professionals? The second doctor was a learner. I have confidence he will be a leader in providing improved medical care for future patients, while I suspect my first doctor will be prescribing the same general treatment for his patients five years from now. Is there any wonder my friend recommended the second doctor to me when I sought medical assistance?

I have found the best weather forecasters to be those who are continually learning. They look back to see how they did on each forecast, utilizing verification as a learning tool. They conduct forecast studies, perform post-mortems, read meteorological journals and attend workshops to learn new techniques. They share what they learn with others, helping others grow as well. They are the leaders.

Whether in the medical profession or the science of weather forecasting, John F. Kennedy's adage holds true – "Leadership and learning are indispensable to each other."

Diversity Corner

Bridging the Age Gap

By Todd Hall, Senior Forecaster, WFO Los Angeles/Oxnard

In a recent study performed on today's generation gaps and the workplace by the Mayo Clinic, fundamental differences were illustrated between the four generations that exist in the workplace, such as Traditionalists, who were born prior to 1945, all the way to Millennials, which were born after 1981. Significant differences exist between people who are two years from retirement and those fresh out of college. These types of differences -- outlook on life, career, and social relationships -- are seen everywhere in the National Weather Service with people from different generations working side by side.

The National Weather Service is made up of a diverse group of people. When people think of Diversity, Equal Employment Opportunity and Affirmative Action are the most common and incorrect references, along with cultural, racial, and gender differences. Age, though, is also a form of Diversity. Diversity affects the daily lives of each person when interacting with others. It represents the who, what, when, where, why, and how questions of one's upbringing, and the political, social, and economic ingredients that make each person the person they are today. With the evolution of the National Weather Service, from site-specific forecasts and products compliant for wireless personal area networks such as Bluetooth, age is often forgotten as a difference. However, the study clarifies the reasons why a senior forecaster from the Baby Boomer generation may view his/her job differently than a "Gen 'X'er" Electronics Technician and vice versa.

Keeping the lines of communication open helps everyone to be more understanding of the differences that exist between us all. Some offices in Western Region have successfully held open forums where people discussed social and economic differences, basically the ingredients that make them the people they are today. Open discussions also included issues such as work ethic, approachability, preferred methods of communication, and dealing with each other. In staff meetings, offices may wish to use proactive approaches to deal with problems before they occur. The best teams that work well together are partly successful due to their communication skills. In knowing how to communicate and work well with each other, meteorological and technological problems will become easier to solve no matter which generation a person belongs to.

If you are interested in reading the article on this study, it can be found on their website at --- <http://www.cnn.com/HEALTH/library/WL/00045.html>.

NWS Women List-Server: A new list-server “*NWS Women*” is available to National Weather Service employees. While the topics will usually focus on women, the list-server is open to anyone. It will cover work-life issues that are relevant to both men and women, but also provide a forum for women who are looking to network with one another. It will also be used to lend support and information amongst women in our challenging career field. The list-server was the idea of several female forecasters and has my support. To sign up for the list-server, you can go to: <http://infolist.nws.noaa.gov/read/login/>, and then select the "All Forums" tab. A list of all the available forums will be displayed, and then "NWS_Women" should be selected. If you do not have an account already on the NWS listserv site, one can be set up from the above link.

METEOROLOGICAL SERVICES DIVISION

Elko Local Emergency Planning Committee: Staff members from WFO Elko have become more active in Local Emergency Planning Committee (LEPC) groups over the past year. WFO Elko staff (including the WCM, 3 Senior Forecasters, a General Forecast/IMET trainee and the Administrative Support Assistant) were part of an Elko County LEPC sub-group that developed a hazmat tabletop drill that took place on April 10, 2007. The scenario involved a tanker that crashed on I-80 resulting in a toxic plume that threatened populated areas as well as motorists. About 25 participants took place in the half-day exercise, including representatives from law enforcement, emergency management, and health services.

Although the population of WFO Elko’s county warning area is relatively low, there is a significant amount of hazardous material transported across the region via interstate and railway. WFO Elko also used this opportunity to test its operational response to the hazmat scenario, including a test run of the NCEP Hysplit model.

Day at the Docks: NWS WFO San Diego and the NOAA Marine Fisheries La Jolla, shared a booth at a San Diego boating event, Day at the Docks on Earth day, April 22 on San Diego Bay. This event was attended by several thousand fisherman and boating enthusiast. Scores of questions were answered by both the NWS and Fisheries. In the 1st picture, (567), pictured is from left, NWS WCM San Diego, Ed Clark; and with Marine Fisheries, Siri Hakala, Policy and Communications Specialist, La Jolla; and Martin Golden, Pacific Coast Recreational Fisheries Coordinator, Long Beach.



Fort Peck Tribes Earth Day: NWS Glasgow participated for the second year in a row in the Fort Peck Tribes Earth Day Celebration. This year's theme was focused on health, and HMT and ventriloquist Jim Branda and his partner (puppet) Timothy were a big splash with the 660 students who attended the two day event. Lead Forecaster Ted Jamba and WCM Tanja Fransen assisted in the event with showing weather safety related videos, and discussing different topics including lightning, flash flood, hail, tornado and damaging wind safety. Other topics included Air Quality and the UV index.



Mike Vescio - MIC, WFO Pendleton, OR, Debbie Payton - NOAA Hazmat, NOS Office of Response and Restoration, Seattle, WA, Ted Buehner - WCM, WFO Seattle, WA, Mary Evans - NOAA Hazmat, NOS Office of Response and Restoration, Seattle, WA, Kerry Jones - WCM, WFO Spokane, WA, Tyree Wilde - WCM, WFO Portland, OR

Partners in Emergency Preparedness Conference:

On April 10-11, 2007 The Partners in Emergency Preparedness Conference was held in Tacoma, Washington. The Partners in Emergency Preparedness Conference is the largest regional emergency preparedness conference in the Pacific Northwest. This year over 650 people representing business, schools, government, the nonprofit sector, emergency management professionals, and volunteer organizations attended the event. The four Pacific Northwest NWS Weather Forecast Offices (Seattle, Portland, Spokane and Pendleton) staffed the booth along with personnel from the NOS Office of Response and Restoration. OAR's Pacific Marine Environmental Laboratory (PMEL) provided tsunami model output and handout materials.

HYDROLOGY AND CLIMATE SERVICES DIVISION

20 Year Coop Award: Mr. Moss Sumida of Perry, Box Elder County, Utah has contributed to NOAA's National Weather Service Cooperative Weather Observations program for 20 years. His unselfish and unrelenting service in weather observing and weather record keeping for the community of Perry and the National Weather Service provides valuable climatic information to the state and the nation. Mr. Sumida received his certificate and lapel pin to commemorate the occasion on March 30th.



Mr. Moss Sumida, left, and Gary Wiklund, OPL, WFO Pocatello, ID

SCIENTIFIC SERVICES DIVISION

Upcoming Science Workshops

- **May 22 -- Southwest Weather Workshop:** Phoenix, Arizona. For more information, please contact Doug Green.
- **June 24-29 -- AMS Conference:** The AMS on Weather Analysis and Forecasting/18th Conference on Numerical Weather Prediction, will be held 24-29 June 2007 at The Yarrow Resort Hotel & Conference Center (Hotel) in Park City, Utah. The WAF conference is focused on the "Analysis and Prediction of High-Impact Weather".
- **September 20-21 -- The Fourth Symposium on Southwest Hydrometeorology:** The Fourth Symposium on Southwest Hydrometeorology will be held Thursday and Friday, September 20-21, 2007, at the Tucson Hilton East Hotel. The symposium will provide a forum to discuss and present research issues associated with mid-latitude, subtropical, and tropical weather systems that affect the Southwest United States, and discuss the resulting impact on hydrologic systems. Abstracts should be submitted electronically no later than 15 July 2007. If you will attend, please provide your information using the form at: <http://www.atmo.arizona.edu/swhs/SWHSFormSub.html>.
- **October 2-4 -- Great Divide Weather Workshop:** The Great Falls and Missoula offices are sponsoring the Eleventh Annual Great Divide Weather Workshop, October 2-4, 2007, in Great Falls, Montana. The theme of this year's workshop is on Climate Change, with an emphasis on the science and potential impacts in the region. The deadline for Abstracts is September 1st, 2007. For contact information, information on submitting abstracts, as well as registering for the workshop go to the following website: <http://www.wrh.noaa.gov/tfx/greatdivide.php>

General

WR SOO/DOH Workshop: WR/SSD hosted a regional SOO/DOH workshop on April 17-19 in Salt Lake City. The topics for the workshop were:

- **Improving Services** – evolving services to remain relevant to our user community
- **Science, Technology and Training Update** - Science trends that are emerging and update on current
 - **AWIPS-2**
 - **Upcoming radar/warning program changes plus “Warn of Forecast”**
- **Focus on improving our gridded Forecast Program** -- proposal for next phase of WR efforts to use verification to provide feedback to the forecasters on high impact events
- **Best Practices/Projects Sharing** - each office shared one of their best practices

In addition to the SOO/DOHs who attended the workshop, the Southern Region SSD Chief, Pacific Region MSD/SSD Chief, OCWSS Warning Program Leader, OCWSS Service Improvement Program Leader, Boise MIC, CBRFC HIC and the Southern Region SOO attended. A copy of the workshop presentations were sent to each SOO/DOH. John Jannuzzi sent a workshop summary to each MIC/HIC.

GFS Model Upgrade May 1: An upgrade to the Global Forecast System was implemented Tuesday, 1 May 2007. Information about the change and access to retrospective test runs are available at: <http://wwwt.emc.ncep.noaa.gov/gmb/para/paralog.qsihybrid.html>

A quick summary of the changes:

- Analysis changes
 - Replace Spectral Statistical Interpolation (SSI) analysis system with Gridpoint
- Statistical Interpolation (GSI) analysis system. Use of increased observations including:
 - Full resolution AIRS (every field of view form of AIRS rather than only center spot AIRS (used in operational GFS))
- Modify sigma coordinate system to a hybrid sigma-pressure coordinate system
 - Updated GFS radiation module
 - Overall restructuring of radiation related programs to help future development and upgrade
 - In RRTM1-LW, minor upgrade of emissivity coefficient. Rare gas absorption effect turned on
 - In aerosol calculation, vertical sigma based structure changed to pressure based structure
 - Minor bug correction in cloud related calculation
 - Performance of new radiation very close to operational model
 - Product changes
 - Add 30 records to surface flux fields
 - Change output of GDAS from 3-hourly to hourly
 - Model to native output file will change from a spectral binary file to a hybrid spectral binary file

Problems with the WRF: The WRF performance degraded last summer, due in part, to problems with model struggling to properly handle dewpoints in areas of complex terrain. The problem caused the mixed layer of the model atmosphere to become more unstable, which produced some undesirable side effects, such as increased convective precipitation amounts, higher afternoon winds and unreasonable movement of shallow features, such as the erroneous eastward movement of the marine layer along the coast. The SOOs have been capturing cases from last summer and sending them to NCEP. NCEP has developed some software fixes that they believe will help correct this problem. Unfortunately, due to higher priorities, these fixes will not be implemented until this fall. I want to give credit to Eugene Petrescu (SOO- Missoula) for noticing this problem again during the first warm ridge event this spring.

With the drought re-establishing itself over the west, it is very likely WR will experience another active fire weather season this summer. Our fire weather forecast will be critical. Given the delay to the WRF fixes, the forecasters need to be aware of this model performance issue. An email was sent to the SOO and MICs highlighting this issue.

Teletraining Sessions for June: The teletraining calendar is now at: <http://rammb.cira.colostate.edu/visit/ecal.asp> Offices can register for the teletraining sessions by sending email to: visit@comet.ucar.edu.

- NEW - Use of Ensembles in the Forecast Process (Warm Season Version) (Basic, June 5,6,7,11,13, 4,18,19,22,26,27,28)
- Basic Satellite Principles (June 6)
- Satellite Interpretation of Orographic Clouds / Effects (June 20,27)
- CRAS Forecast Imagery in AWIPS (June 19)
- Water Vapor Channel Satellite Imagery (June 25)
- Forecasting Convective Downburst Potential Using GOES Sounder Derived Products, (June 13)
- Enhanced-V: A Satellite Severe Storm Signature (June 4,15,21)
- MODerate resolution Imaging Spectroradiometer (MODIS) Products in AWIPS (June 15,29)
- Mesoscale Convective Vortices (June 12,28)

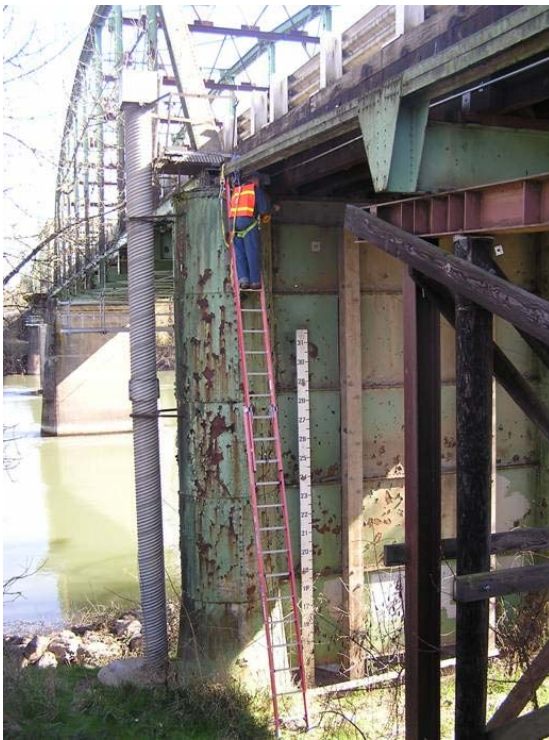
New - Use of Ensembles in the Forecast Process (Warm Season Version) by Bill Bua (UCAR/COMET)

- **Objective:** Help forecasters make use of newly available (in AWIPS) ensemble information from medium- and short-range ensemble forecasts (MREF and SREF, respectively) in the forecast process.
- Topics:
 - Review of science behind ensemble prediction systems (EPS), post-processing of EPS data, and structure of the NCEP SREF and MREF
 - Uses of MREF in the forecast process.
 - Uses of the SREF in the forecast process.

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

Updated Web Services NFS Server: After several weeks of testing and evaluation an updated web services NFS server was taken live on March 8th. No SCSI disk input/output errors have been observed on the new server. This should dramatically improved system uptime. Web server response time has also improved, improving the public's experience on our web site.



Van Buren Street Bridge River Gauge: Facilities Engineering Technicians Dan Cark and Mike Belarde ran conduit to the Van Buren Street Bridge River Gauge. This work was required as the historic bridge will be undergoing renovation.

ASOS Havre: Doug Sherrick (ESA) from Great Falls, WFO, recently assisted Facilities Engineering Technician Jim Chaisson at the Havre, MT. Airport ASOS. Doug and Jim did some spring cleaning of the entire site. The team re-graveled the site, replaced several electrical conduits, and painted the wind tower.



Cisco Router IOS Upgrades: Over 25 Cisco routers in WRHQ and the WR field offices have been upgraded in the last six weeks.

MOUNTAIN BIKE SAFETY TIPS

Gear Up.

Always wear a helmet and other safety equipment appropriate for the riding conditions.

Never Ride Beyond Your Abilities.

There is no shame in walking sections of the trail you don't feel confident enough to ride, and don't let anybody tell you otherwise.

Use Appropriate Equipment for the Terrain.

Some bikes are better for different situations. Just because you can see tire tracks, doesn't mean you can ride it with your bike.

Keep Your Speed In Check.

Always keep your speed at a level that will allow you to adjust to any unforeseen obstacles or changes in trail conditions.

Know The Trail.

Never push the limits on a trail you are not familiar with. You need to get to know the trail you are riding at slower speeds before you can ride it like the trails you're used to.

Slow Down for Blind Corners.

You never know what or who is around a corner when you can't see past it.

Stop and Look.

Stop and look at sections of the trail that may pose a challenge before you ride them.

Plan on the Crash.

Always look at the consequences of crashing in a particular section or on a particular stunt before trying to ride through it. Sometimes an easy-looking section can have deadly consequences if you crash.

Start Small, Go Big.

Work your way up to obstacles and stunts. Find ways to practice moves in less difficult and dangerous situations or at lower speeds before committing yourself to something more dangerous.

Play It Smart.

If you think what you are doing is not the smartest, you are probably right. Think about what you are doing and trust your instincts. Don't make your last words "hey Bubba...watch this!".