



NOAA's NATIONAL WEATHER SERVICE Western Region Notes

August 24, 2006

REGIONAL DIRECTOR'S OFFICE



Western Region Director Vickie Nadolski briefs the Chinese delegation.

Chinese Delegation Visits Salt Lake City: From August 9-11, Western Region Headquarters hosted 12 Chinese members of the United States – China Atmospheric Protocol Joint Working Group. The Chinese delegation was led by Dr. Qin Dahe, Administrator of the China Meteorological Administration. The delegation also included John Jones NWS Deputy Assistant Administrator for Weather Services, Mara Browne and Joe Mroz of the NWS Office of International Activities, Song Yang of the Climate Prediction Center, and an interpreter.

The first event was a briefing at Western Region Headquarters presented by Regional Director Vickie Nadolski. The Chinese delegation had numerous questions particularly regarding observing systems and fire weather programs. They also attended afternoon briefings at the Salt Lake City Forecast Office and Colorado Basin River Forecast Center given by Randy Graham,

SOO, and Michelle Schmidt, HIC. The Chinese delegation was quite interested in the technology behind the NWS forecasts and how forecasts are disseminated. Their final day started with a briefing by Dr. Tom Potter of the University of Utah and former NWS WR Director on weather support for the 2002 Winter Olympics, which was followed by a tour of the Olympic Park near Park City, UT.

National Hispanic Heritage Month: The Hispanic culture has been an important foundation of American History since the exploration of the “New World” began and Spanish navigators sailed the globe in search of precious natural resources. Everywhere we look, there is evidence of how influential the Hispanic culture has been in shaping our great nation. Even as a team member of the National Weather Service, one may use Spanish-derived words and phrases for weather phenomena such as derecho, tornado, El Niño, and La Niña and not equate their reference to the Hispanic culture.

National Hispanic Heritage Month is a celebration of the Hispanic culture. It offers an opportunity for Latin-Americans or Latinos, Chicanos, and Mestizos to celebrate their Hispanic roots, cuisine, and other cultural practices, while at the same time allowing the nation to reflect on how the culture helped shape the birth and construction of the United States of America. It was not until 1968 when Hispanic heritage was officially recognized. Congress and President Lyndon B. Johnson declared the week including September 15-16 as Hispanic Heritage Week. President Ford stated the importance of Hispanic culture in the United States in his September 1974 proclamation:

When the Pilgrim Fathers landed at Plymouth Rock, Hispanic civilization was already flourishing in what is now Florida and New Mexico... Since then, the Hispanic contribution to America has been a consistent and vital influence in our country's cultural growth.

Calling it honor well-deserved in 1988, President Ronald Reagan signed into law the establishment of National Hispanic Heritage Month, expanding the festivities of Hispanic Heritage Week into a month-long celebration.

This year National Hispanic Heritage month will be celebrated from September 15 -October 15 2006. For an expanded version of this write up and ideas for celebrating Hispanic Heritage month, please see the link on the ww2 Diversity web page: http://ww2.wrh.noaa.gov/diversity/special_emph/Special_emph_index.htm

Leadership Corner: NWS Change

By Andy Bailey, WFO Las Vegas WCM

During my 13 years in the National Weather Service I've seen the following progression of change:

Grease pencils; difax charts; WSR57 and WSR74c manual radar observations; AFOS; manual surface observations; Microswis; MicroArts; MS-DOS; Superwriter and WordPerfect text editors; Windows 3.x to XP; METAR; ASOS; Spin-up offices; WSR-88d; Spin-down offices; Internet; the SAC workstation; GARP; NTRANS; CRS; 2 day, 5 day, then 7 day zone forecasts; AWIPS; D2D; WarnGen; GFE; GFE formatters; Smart Tools; 12Planet; 20 km, 5 km, then 2.5 km gridded forecasts; NDFD; WWA; Graphical forecasts; GHG; Internet briefings; RIDGE Radar; Google Earth

Grease pencils to Google Earth in a little over a decade? You've got to be kidding!

Think we're done changing? I wouldn't bet on it. Try to think of one time in the history of the world when change has ceased to take place. Most experts predict this rapid pace of change, which by the way has been pretty much ubiquitous across organizational boundaries, will continue, if not accelerate in the coming decades.

Assuming the experts are correct, what do you suppose the National Weather Service will look like in 2019? A more important question is, "How will you react to the coming changes?" As Charles Darwin noted, "It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change."

Unfortunately, we humans work hard to avoid change. We revel in the comfort of the routine. Our resistance to change usually comes from a fear of the unknown or an expectation of loss. In fact when it comes to change, we seem to have two natural reactions: to fear change for ourselves yet want it for others. Since each of us is ultimately responsible for our attitudes and actions, it doesn't have to be that way.

While many of us are busy trying to maintain the status quo, the people who are truly successful are those who have learned to see change for what it is, an opportunity for something better. These people know that growth implies change, and is possible when we have the courage to take smart risks, push ourselves outside of our comfort zone, and break through what was once thought to be a barrier.

Author Stuart Wilde said, "If you don't change, reality in the end forces that change upon you." Does this mean if you disagree with the change that you should just roll over, accept it, and make the best of a potentially bad situation? Probably not. But we usually shouldn't fight to stop the change either. History has shown us that change is inevitable. The choice to influence that change is yours.

Consider the case of WWA. The NWS needed software to allow forecasters to write things like winter storm warnings, which would interface with our new gridded forecast database. WWA was the initial solution to facilitate the change. Unfortunately, it was riddled with bugs and had a confusing interface. Other options were proposed until seemingly out of nowhere, the GHG program emerged from a few field employees. These individuals embraced the need for change but not the initial solution. They worked to positively influence the change and ultimately make it a success.

Are today's gridded forecasts tomorrow's grease pencil? Who knows? Regardless of what the future holds, wouldn't you rather be the one pushing the envelope to expand our capabilities into new frontiers than someone bitterly hanging on to the past and its outmoded ideas as change rushes by? Become a change agent; focus on the possibilities; and help produce something great!

METEOROLOGICAL SERVICES DIVISION

Service of the Week: On July 30, record rainfall across northeast Arizona caused significant flooding over the Navajo Indian Reservation and surrounding areas. This area had experienced considerable rainfall late in the month and was particularly vulnerable at this time. Mr. Homero Vela, of the Navajo County Flood Control office, called the NWS Flagstaff office on the morning of July 31 with concerns about high water flows on the Little Colorado River.

Great service was provided by forecaster Dan LeBlanc, who received the call from Mr. Vela and took him to the CBRFC site. Once there, they compared his observations with the forecast data. Dan also demonstrated several other features of the CBRFC web site to Mr. Vela at this time, and activated the tabular forecast data and discussed their observations...which resulted in contacting the CBRFC and requesting another forecast run.

For the rest of the morning, Dan diligently stayed in contact with the CBRFC and Mr. Vela, discussing new model runs and the potential for additional flooding. The CBRFC crew was at their usual excellent level of support in responding to the requests of the NWS Flagstaff.

The value of the service provided by Dan was expressed well in a letter recently received from Mr. Vela:

“The National Weather Service team in Flagstaff did a great job for us during the July 31st rain event here at Navajo County. Dan LeBlanc from the Flagstaff office stayed in continuous contact with us during the event. We compared real time observation of the river, compared these results to the model, and requested that USGS calibrate the gage. Working with Dan and the USGS we monitored the rise of the Little Colorado River at Woodruff culminating in the issuance of a Flood Warning in the middle of the day. Learned a lot this past Monday but one of the important lessons learned is that I can count on your team for information and for consultation on weather events. Please thank Dan and the rest of the team for me.”



The image shows the logo for WAS*IS (Weather and Society * Integrated Studies). The logo consists of a red box with 'WAS*IS' in white and 'CULTURE CHANGE' in blue. Below this is a blue box with 'weather & society * integrated studies' in white. Underneath is a white box with the website 'www.sip.ucar.edu/wasis/' and the NCAR logo. At the bottom is a red box with the text 'Changing from what WAS to what IS the future of integrated weather studies' in white.

Weather and Society * Integrated Studies...The Summer

WAS*IS Experience: In July, 31 participants met at the Summer WAS*IS workshop in Boulder, Colorado. This was the third in a series of workshops aimed at integrating weather and social science. It brought together a diverse group of people—including representatives from the public, private, and academic sectors—with backgrounds in meteorology, geography, anthropology, journalism, economics, hydrology, sociology, environmental studies, and more. Six people from the NWS were selected as Summer WAS*IS participants, including Kevin Barjenbruch, WFO Salt Lake City, UT; Brenton MacAloney,

OCWWS Performance Branch; Ernie Ostuno, WFO Grand Rapids, MI; Michael Stavish, WFO Medford, OR; Britt Westergard, WFO Jackson, KY; and Ray Wolf, WFO Davenport, IA.

WAS*IS is a grassroots movement to build an interdisciplinary community of researchers, practitioners, and stakeholders who realize the value of an integrated weather and social science enterprise and who are dedicated to making social science an integral part of meteorological research and applications throughout their careers. WAS*IS is working to change from what WAS to what IS the future of integrated weather studies.

The workshops are devoted to (a) helping participants address challenges and develop new ideas and methodologies for effective socio-economic applications, (b) teaching necessary knowledge, skills, and tools with an emphasis on communication strategies and evaluation techniques, and (c) building strong, productive collaborations among the group.

The Summer WAS*IS participants are already working to change the culture through several collaborative projects and ideas developed during the workshop. The group particularly focused on ideas related to warnings, including assessing the public's sources and perceptions of and responses to warnings, exploring opportunities for improving warning services (e.g., through probabilistic gridded warnings), and investigating alternative perspectives of warning verification. Other ideas from the workshop include evaluating impacts of weather events, gauging understanding and use of weather forecast uncertainty information, and improving communication among all sectors of the weather enterprise but particularly between the government and private sector.

It is hoped that WAS*IS will continue to develop and flourish as additional workshops continue growth of the WAS*IS cadre and further opportunities to effect change in the weather enterprise. Another workshop already is planned for Mount Macedon, Victoria, Australia in early 2007, and there is a strong chance that there will be another Summer WAS*IS in Boulder in 2007.

For more information on the workshops, including what other "WAS*ISers" are working on, check out the WAS*IS webpage at <http://www.sip.ucar.edu/wasis/>.



Participants in the "Clark on the Yellowstone" event visit the NWS booth.

"Clark on the Yellowstone" Event: WFO Billings staffed a booth at the "Clark on the Yellowstone" National Signature Event from July 22-25 at Pompey's Pillar National Monument, 30 miles northeast of Billings. The event marked the 200th year anniversary of Captain William Clark's expedition along the Yellowstone River. Approximately 40,000 people attended the 4 day event. The booth, staffed by WCM Tom Frieders, showed the "then and now" of weather observations. An All-Hazards Meteorological Response System (AMRS) was also set up at the booth to demonstrate the type of weather support that could have been provided on the expedition had it occurred today. The NWS booth was popular with the Incident Commander who obtained the latest weather information throughout the event for crowd safety. On one afternoon, service went above and beyond outreach activities as scattered thunderstorms developed across the region producing numerous strong outflow boundaries. Using

the AMRS equipment on site and coordinating with personnel back at the National Weather Service Office, the Incident Commander was given over an hour lead time for approaching strong winds. This allowed for early notifications and preparations to be made well before the winds and associated dust storm hit the event.



IMET Ryan Walbrun takes real-time observations in support on SafeSeas2006.

WFO Monterey Supports "SafeSeas" Exercise: WFO Monterey recently participated in SafeSeas2006. The exercise was lead by NOAA, in collaboration with the U.S. Coast Guard, California Office of Spill Prevention and Response, Harley Marine Services, and the Department of Interior. More than 250 people participated. Vessels and aircraft from NOAA, the U.S. Coast Guard, U.S. Air Force Reserve, Marine Spill Response Corporation, Alameda County Sheriff's Department, and Bodega Marine Laboratory participated in the exercise. Additionally, the Central and Northern California Ocean Observing System activated the new surface current mapping radar in support of exercise data requirements.

The simulated exercise focused on a collision of a bulk freight cargo ship ("M/V Blue Harp"), inbound to San Francisco from

Long Beach, with an outbound tug (“Earnest Campbell”), towing the tank barge “Dottie”, en route to Los Angeles. The barge sinks from the collision, with oil spilling from both the barge and damaged cargo ship. As a result of the collision, “Dottie” releases oil and the “Blue Harp” threatens to release its fuel due to sustained damage. The “pollutants” spilled during this exercise were simulated by the release of hundreds of drift cards, which are designed to model floating pollutants at the site of the hypothetical collision and sinking. Using this scenario, the SafeSeas 2006 exercise brought together federal, state, and local responders to increase response readiness to a large oil spill in a National Marine Sanctuary in central California. Many of the drift cards turned up on the shores of Marin, San Francisco, and San Mateo counties. Special messages played over the NOAA All Hazards Weather Radio described the exercise and the purpose of the drift cards, and gave information on the ongoing exercise activity off the coast. A special Quick Response Buoy (QREB) was deployed for the exercise, yielding real time meteorological data.

Two meteorologists from WFO Monterey participated in the exercise. Ryan Walbrun, IMET, took real time observations on a vessel in San Francisco Bay and David Soroka, WCM, gave weather briefings several times a day at the Incident Command Post located at the University of California San Francisco's Mission Bay Conference Center.

Many VIPS and media attended portions of the exercise, including boarding vessels and observing briefings at the Incident Command Post - including NOAA Administrator VADM Conrad C. Lautenbacher.



Sherrie Hebert addresses the Pocatello Chamber of Commerce.

Pocatello Addresses Chamber of Commerce: Sherrie Hebert, Service Hydrologist for WFO Pocatello, introduced the Pocatello Chamber of Commerce to the National Weather Service during their August membership luncheon.

Nearly 100 chamber members received a briefing of what the mission of the NWS is and how the agency proudly carries it out. Sherrie illustrated the forecast process and the importance of an experienced, professional, well-educated workforce that ensures the safety of our nation with respect to weather, water, and climate. The Pocatello Chamber members were also introduced to a number of other NWS programs, such as climate, education, and Skywarn.

HYDROLOGY AND CLIMATE SERVICES DIVISION



(L to R): Jenna Meyers, (NWS-WRH), Ira Graffman (NWS-HQ), Katya Shkolnikova (NWS-HQ), Jayme Laber (WFO-LOX), and Micah Wengren (NOAA)

26th Annual ESRI International User Conference: Jenna Meyers (WRH, Salt Lake City) and Jayme Laber (WFO, Oxnard) attended the 26th Annual ESRI International User Conference in San Diego, CA from August 7-11.

Over 13,500 people from around the world attended this years meeting, making it the world’s largest GIS event. The conference offered close to 400 technical workshops to inform and teach users on the products and technology of GIS. Participants could also attend more than 1,000 paper sessions and explore the Exhibits Hall showcasing over 300 companies and organizations involved with GIS. The “ESRI Showcase” proved to be very beneficial as it provided attendees with direct access to ESRI staff members for development, education, professional services,

software demonstrations, and a technical support center to help answer questions and receive the resources they needed.

NOAA's presence was spotlighted at the conference through a NOAA Exhibit booth, several sessions on hurricane Katrina, and numerous other topics. NOAA also hosted a special interest group (SIG) meeting and a technical session, which was a one-on-one workshop where NOAA employees had specific questions answered by ESRI staff. One item of interest from the SIG meeting was the unveiling of the new NOAA GIS Community website <http://community.csc.noaa.gov>

Over 85 NOAA employees attended the user conference with 10 of those being from the NWS. A session titled "What's up with the National Weather Service" presented several GIS projects ongoing in the NWS today, including Ken Waters' (Pacific Region) verification assessment of polygon warnings. The conference provided an opportunity to connect and share with others and form relationships that will help foster coordination and communication within the GIS community.

SCIENTIFIC SERVICES DIVISION

FY07 Residence Course Student Nominations Due September 6, 2006: Student nominations for FY07 residence courses at the NWSTC and FDTB/COMET are due to SSD on September 6, 2006. An e-mail notification and directions for nominating students were issued on August 17, 2006 to all Western Region Divisions, WFOs, and RFCs. The goal is to have most students chosen for their respective classes by September 15. Mark Mollner is the contact.

Digital Services MOD Notes: Two new mod notes have been implemented across the region related to digital services: Climo PoP grids in the GFE and an updated Obsgrid QC tool (part of the gridded verification project). Aaron Sutula is the contact.

Cell Phone Project: SSD has been developing a situational awareness application for emergency managers that will run on mobile devices (cell phones and PDAs). Andy Edman is the contact.

Fall AGU Meeting: SSD is co-organizing a special session at this fall's AGU Meeting in San Francisco entitled "H26: Applications of Seasonal Climate Predictions in Hydrology, Water Management, and Other End Use Sectors." WR employees having experience in these areas are especially encouraged to submit an abstract on their work. Abstracts for presentations are due September 1. Kevin Werner is the contact. For more information: <http://www.agu.org/meetings/fm06/?content=search&show=detail&sessid=249>.

Smart PRISM Project: The WR/SSD – OSU collaborative project to develop PRISM grids based on storm regime is nearing completion. SSD is scheduling a seminar October 19 (time TBA) at WRH for PI Chris Daly to report on his project. Kevin Werner is the contact.

COMET Climate Variability Course: Kevin Werner was invited to provide a training seminar at COMET 8/31 on climate / hydrology interactions.

RTMA Evaluation: SSD has created a web interface to examine RTMA data in Utah and Washington relative to observations. Chad Kahler is the contact. The website is located at: <http://www.wr.noaa.gov/wrh/rtma>.

Upcoming Science Workshops

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

10th Annual Great Divide Weather Workshop: 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: Billings Crowne Plaza Hotel (formerly the Sheraton) in downtown Billings. Their phone number is 1-800-588-7666 (through August 22nd), 1-877-227-6963 (effective August 23rd). Rooms rates are: \$60.00 per night by mentioning the National Weather Service. Reservations must be made by September 18th to ensure this rate.

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: 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: The COMET Program is pleased to announce the release of a web module entitled Rip Currents: Forecasting. This is the 3rd and final module in the series aimed at training operational weather forecasters to understand the factors that lead to rip current development and to predict the daily risk level of this hazard. This module is available at <http://www.meted.ucar.edu/marine/ripcurrents/forecasting/> and takes approximately 2.5 hours to complete. All NWS employees should access this training module and complete the final quiz through the NOAA LMS at <http://e-learning.doc.gov/noaa/>.

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 September 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 September are:

- The GOES 3.9 mm Channel (Basic, Sep 7,19)
- Cyclogenesis: Analysis utilizing Geostationary Satellite Imagery (Basic, Sep 14,26)
- Use of GOES/RSO imagery with other Remote Sensor Data for Diagnosing Severe Weather across CONUS (RSO 3) (Intermediate, Sep 12,13)
- GOES Sounder Data and Products (Basic, Sep 1,8)

- GOES High Density Winds (Basic, Sep 11)
- The Enhanced-V: A Satellite Severe Storm Signature (Basic, Sep 15)
- Forecasting Convective Downburst Potential Using GOES Sounder Derived Products (Basic, Sep 21)
- Water Vapor Channel Satellite Imagery (Basic, Sep 25)

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

ASOS: Joe Lachacz, Gerry Deiotte, and Al Martinelli quickly filtered two ASOS DCP's and an ACU. The ASOS radio's drifted into the passband of the 406 MHz SARSAT when it was warmer and then drift upwards again as temperatures cooled. Joe, Gerry and Al worked with the FCC and the U.S. Satellite Corp to resolve this issue.

Phone Upgrade: Steve Keene recently completed the WFO Missoula phone and voice mail upgrades and will upgrade WFO Pendleton this week and WFO Great Falls in September.

ITO Workshop: WR SOD hosted the WR ITO Workshop, Aug 22-24, in Salt Lake City. The ITO working groups breakouts, training, WR vision, plans, and direction were some of the topics covered.

ORDA: WFO, Glasgow, Medford, and Missoula completed their Open RDA. The team at WFO Missoula worked with the office, and worked around weather and fireweather concerns, to begin the install on a Sunday and ensure that the office would have the radar when needed. Great work by the ROC, WFO Missoula, and SOD Electronics!