



**UNITED STATES DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL WEATHER SERVICE  
Fort Worth, Texas**

**August/September 2006**

# **SOUTHERN TOPICS**

*Working Together To Save Lives*

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## **RECOGNITION**

### **2006 NOAA Administrator's Award**

**Robert J. Ricks, Jr.**

*For accurate forecasting and public warnings issued from WFO Slidell, LA during Hurricane Katrina and for leading local sheltering efforts for NOAA employees trapped by the storm.*

**Bruce Sherbon**

*For significant contributions to the development of the Radiosonde Replacement Systems (RRS) Operators Training Video.*

**Eric T. Jones and Amanda L. Roberts**

*For developing a hydrologic forecast model simulator to enhance operational hydrologic training for National Weather Service forecasters.*

**Michael Bender, John Jarboe, Marco Bohorquez, Robert Prentice, Douglas Streu,  
Karen Lewis, Susan Beckwith, Cynthia Abelman**

*For implementing new, secure, web-based testing for the NWS National Pilot Weather Briefing and Tower Visibility Certification examinations.*

**John (Mike) Coyne, et al.**

*For the successful Polygon Warning Initiative which demonstrated the value of targeting the most specific area possible to receive severe weather warnings, thereby reducing the number of false alarms to the public.*

**Curtis Kockx, Jeffrey D. Williams, Don Pham, Brian Read, Mario Valverde**

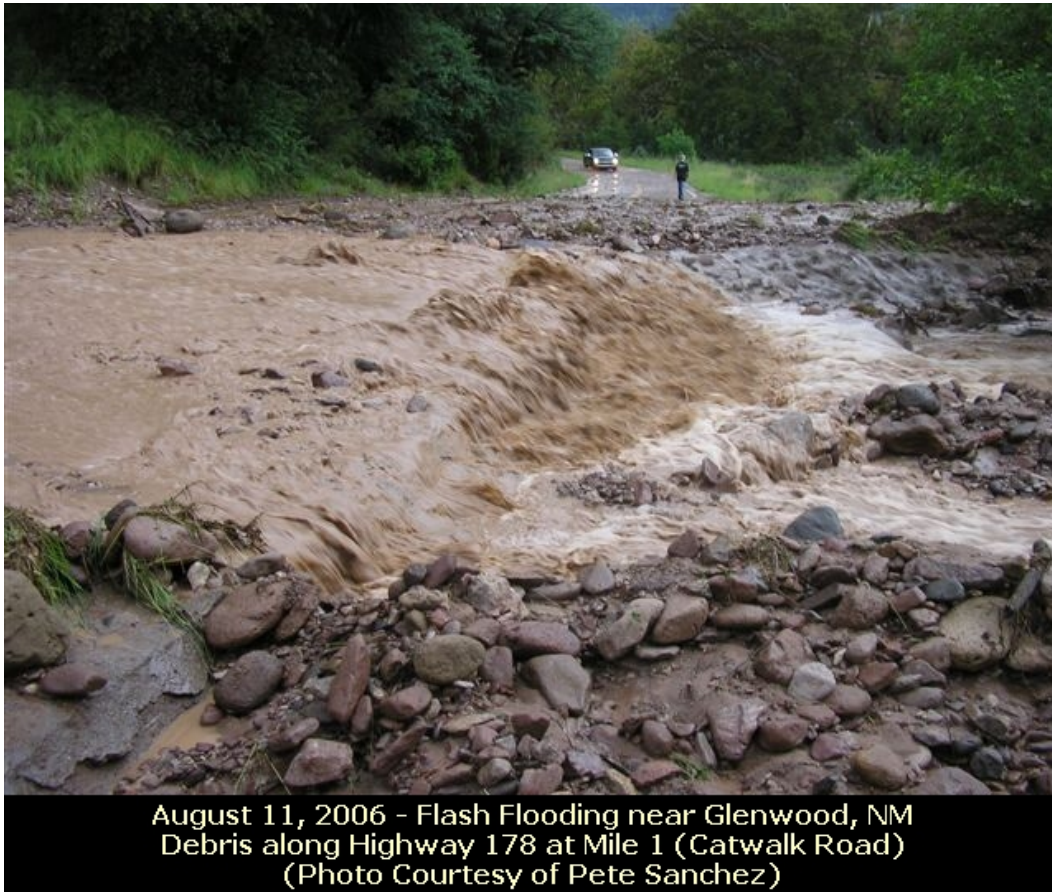
*For implementing an enterprise architecture for information sharing which became the model for the architecture being implemented NWS-wide.*



## CLIMATE, WATER AND WEATHER DIVISION

### METEOROLOGICAL SERVICES BRANCH

**Monsoon Rains Hit El Paso and Albuquerque Hard.** The summer monsoon season has been a particularly active one for much of New Mexico and far west Texas. Since late June, parts of the Albuquerque metro area have received anywhere from 250% to nearly 400% of their normal rainfall, and the Albuquerque Airport recorded its wettest July ever. Many other locations in New Mexico measured over 250% of normal precipitation during the month of July, with more coming during the first half of August. El Paso has contended with rains of a comparable magnitude since late June. EPZ Climate Focal Point Dave Novlan reportedly measured 10.15 inches from 2 storms (7/31 and 8/1), and the El Paso Airport has received over 500% of their normal monthly rainfall so far during the month of August.



The persistent thunderstorms have produced numerous episodes of flash flooding across parts of New Mexico and west Texas this summer. For the period 1 July through 20 August, WFO El Paso issued 91 Flash Flood Warnings for their CWA. To put this level of activity in perspective, El Paso had issued only 66 FFWs throughout the entire 6 ½ year period from January 1<sup>st</sup>, 2000 through June 30<sup>th</sup>, 2006! WFOs Albuquerque and Midland were also extremely busy during July and August this summer, issuing 49 and 50 FFWs, respectively.



WFO Albuquerque has put together a couple of very nice pages on their website providing an overview of New Mexico's summer precipitation, as well as a summary of a flooding event that occurred on August 13<sup>th</sup>:

<http://www.srh.noaa.gov/abq/quickfeatures/Aug2006/WetAugustContinuesThru16Aug.htm>

<http://www.srh.noaa.gov/abq/quickfeatures/Aug2006/Flooding13Aug2006.htm>

In addition, the West Gulf River Forecast Center has used their new Graphical Hydro-Met Discussion to provide both graphical and text-based information concerning the persistent monsoon pattern over the area. This new discussion page can be found at:

<http://www.srh.noaa.gov/wgrfc/HMDmain.php>

**Albuquerque Offices Team Up for Aviation Safety.** Members of CWSU Albuquerque and WFO Albuquerque presented aviation weather hazard information to approximately 75 pilots at safety meetings in Albuquerque and Farmington during July. The Albuquerque Flight Standards District Office (FSDO) is promoting the presentation that ZAB CWSU and WFO ABQ have jointly developed. The briefing explains and provides local examples of smoke and haze obscurations, strong wind events, low level wind shear, thunderstorms, microbursts, the dry line, mountain wave turbulence and icing. It also explains the process of creating, monitoring and updating Center Weather Advisories, the Collaborative Convective Forecast Product, Terminal Aerodrome Forecasts and Transcribed Weather Broadcasts. The ZAB/ABQ presenters conclude with a trip to the Internet, where pilots learn about new features like RIDGE-radar overlays, the Hourly Weather Graph, and graphical forecasts from the National Digital Forecast Database.

Aside from helping aviators meet safety training requirements, the presentation teaches aircrews to interpret weather forecasts more effectively, and introduces them to products that may make flight planning easier. Pilots found the conversation engaging and contributed some of their own cockpit experiences with hazardous weather as examples. The interactions continued beyond the briefings, as forecasters toured the Farmington airport and the Eclipse Aviation flightline in Albuquerque. Since April, the powerful multimedia weather hazards presentation has been in high demand, and the FSDO has committed to hosting ZAB CWSU and WFO ABQ forecasters at safety meetings across the state.

**Slidell Hurricane Preparedness Forum.** WFO New Orleans SOO Mike Koziara represented the NWS at a City of Slidell Hurricane Preparedness Public Form on July 18, 2006. Other attendees included the mayor, police chief, St Tammany Parish emergency management, sheriff, fire departments and the local power company. About 30 people attended, including two local newspaper reporters. The police chief complimented the National Weather Service for its Hurricane Katrina forecast and briefing assistance. Mike advised the audience there was still a great deal of debris lying about that could become air borne missiles should we have another tropical cyclone threat. Many people are currently living in mobile homes or FEMA trailers while they repair their flood and wind damaged residences. These temporary structures can not handle high winds very well. Mike urged residents to follow local officials' advice to seek more substantial shelter elsewhere should a tropical storm or hurricane threaten the area. Some of the small streams and bayous are blocked by fallen trees which could easily overflow and flood the city should the area receive heavy rainfall from a slow moving tropical cyclone. While the 2006 hurricane season outlook calls for above normal tropical cyclone activity, Mike reminded everyone that it only takes one direct strike from a hurricane to have a busy tropical season, and only one direct strike from a major hurricane to have a really bad season, which is exactly what happened in 2005.



**WFO New Orleans/Baton Rouge, LA Participates in Hurricane Summit II.** On July 21, 2006, Senior Service Hydrologist Patricia Brown and Hydrometeorological Technician Francida Moore attended the New Orleans Regional Planning Commission's (RPC) *Hurricane Summit II* at the Jefferson Parish East Bank Library in Metairie, Louisiana. The summit was co-sponsored by the Regional Planning Commission, the United States Department of Homeland Security, the World Trade Center, the New Orleans Chamber of Commerce, the Jefferson Parish Chamber of Commerce, the St. Tammany Parish Chamber of Commerce, the River Region Chamber of Commerce, the Slidell Chamber of Commerce, the St. Bernard Chamber of Commerce, the Hispanic Chamber of Commerce of Louisiana, the Asian-Pacific American Society, and the Harvey Canal Industrial Association.

The conference concentrated upon the readiness of the greater New Orleans metropolitan area and the parishes south of New Orleans for the 2006 hurricane season and any subsequent evacuations that might be initiated. The panel of speakers included representatives from the government, the recovery organizations, the academia, the law enforcement, and the planning communities. These seminars were geared toward the local businesses, as well as residents of the New Orleans Metropolitan Area. The topics discussed included re-entry policies and procedures after a mandatory evacuation, continuity of operations for businesses, how to develop family emergency plans, Red Cross policies, shelters, and assistance procedures, and other information about tropical weather, emergency planning, and personal safety. In light of last year's tragic events, audience participation contributed to spirited and informative exchanges of information.

**Great Miami Hurricane Press Conference.** WFO Miami reports they had a good turnout for the Great Miami Hurricane of 1926 Remembrance Day Press Conference held on Monday, Sept. 18. The event was well covered by local radio and television station. The Sun-Sentinel newspaper did feature length articles with pictures and interviews of survivors over the weekend and on Monday itself (The writer for the Sun-Sentinel, Josh Frank, called me several times for material over the week prior). The actual program started with a welcome by MIC Rusty Pfof and a very brief overview of South Florida in the 1920s, followed by WFO Miami WCM Rob Molleda who did a great job with the main part of the remembrance with a chronology of the event including pictures and a "what-if-it-happened-today" scenario.

But the best part of the entire thing was the interviews with 1926 hurricane survivors Carolyn and John (aka Jack) Junkin of Coral Gables. Carolyn was 7 at the time of the hurricane and Jack was 11. Carolyn remembered an intact roof flying down the street during the storm, to the enraptured ears of the media. Jack gave an account of returning to South Florida on the night the storm approached the coast, and having his father drive their 1920s vehicle into an arcade in Sebring because the weather was so dangerous. They finally reached Miami the next evening after the storm, but had to stop the car frequently to measure the depth of standing water on the roadways with a branch for fear of getting stalled. Their accounts really put the event into perspective with a human touch. WLRN stayed until about 3:15 PM doing a longer feature interview that perhaps we can look forward to on National Public Radio some day.



## HYDROLOGIC SERVICES BRANCH

**Florida Constituent Outreach Workshop.** On July 19-20 2006, WFO Tallahassee in collaboration with the SERFC, WFO Jacksonville, and SR HSB, conducted constituent outreach workshops for NWS partners and customers in the Florida Panhandle and Suwannee River basins in North Florida. The focus of the workshops was to update partners and customers with the latest information about AHPS-related hydrologic products and services and other activities in the NWS, as well as to obtain feedback about products and services from prior flood events.

The workshop for the Florida Panhandle area was held in Tallahassee on the 19<sup>th</sup> of July. NWS participants included Ben Weiger, HSB Chief from SRH, Joel Lanier, Senior Service Hydrologist from WFO Tallahassee, SERFC HAS Forecaster Jack Bushong, and Senior Hydrologist Jeff Dobur. External partners and customers included the USGS, U.S. Army Corps of Engineers (USACE) Mobile District, Florida Emergency Operations Center, officials from Gulf County Emergency Management and the Red Cross. Presentations included an overview of current and future plans for Advanced Hydrologic Prediction Services, SERFC products and services, information about the WFO AHPS web page, and the various data sources used to deliver weather and water forecast and warning services, USGS services and activities, USACE Mobile services and activities, and a State of Florida hazard awareness presentation.

An afternoon outreach exhibit was setup by Joel, Ben, Jeff, and Jack at Home Depot in Tallahassee. The exhibit included an open NWS display containing information on AHPS, a flood simulation model from the SERFC, NWS outreach pamphlets, hurricane charts, AHPS luggage tags, Red Cross Hazard awareness brochures and a Red Cross Safe House trailer demonstration. The team handed out free water to the Home Depot customers, who welcomed the respite from the sweltering summer heat. The NWS exhibit was well attended by store customers.

The workshop for the Suwannee River basin area was held in Dowling Park on July 20<sup>th</sup>. Representatives from the Town of Bell, Florida, the Suwannee River Water Management District (SRWMD), USGS, Florida Emergency Operations Center, Red Cross, Advent Christian Village, The Friends of the Suwannee, and emergency management officials from Alachua, Bradford, Dixie, Hamilton, Lafayette, Madison, and Suwannee counties attended. NWS participants once again included Jack Bushong, Jeff Dobur, Ben Weiger, and Joel Lanier, as well as Tallahassee Forecaster Mike Jamski and WFO Jacksonville WCM Al Sandrik. Presentations included an overview of current and future plans for AHPS, SERFC products and services, information about the WFO AHPS web page, various data sources used to deliver weather and water forecast and warning services, USGS services and activities, and State of Florida hazard awareness programs. Local Tallahassee TV station WCTV taped portions of the meeting and conducted an interview with several of the participants after the workshop. Advent Christian Village also provided a very nice courtesy buffet lunch which was enjoyed by all of the participants.

As in Tallahassee the day before, an outreach exhibit was setup at a local store in Live Oak that afternoon by Joel, Al, Jeff, Jack, and Mike. WFO Jacksonville had an informative display on hurricanes, and supplied a video of prior Suwannee River floods. In addition to a variety of NWS outreach materials, the team also played a “Turn Around Don’t Drown” Public Service announcement on a laptop. As with the Tallahassee event, the Live Oak NWS exhibit was well attended by store customers. Photos of the two exhibits follow.





**New Forecaster for LMRFC.** Katelyn Schneida has been selected as a Hydrologic Forecaster at LMRFC. She has been a Project/Floodplain Manager at the Corps of Engineers New Orleans District since 2002. Katelyn has a degree in Civil Engineering from the University of New Orleans. In addition to being a Certified Floodplain Manager, Katelyn will be taking the exams later this year to receive her Professional Engineers License. Katelyn will report to LMRFC on September 17.

**MSU Officials Visit LMRFC.** Representatives from Mississippi State University (MSU) visited the LMRFC on August 15 to discuss potential efforts and work at the new Northern Gulf of Mexico Cooperative Institute (NGMCI). Dr. David Shaw, head of the MSU GeoResources Institute, gave a briefing on the history of the NGMCI. The contract has not been awarded, but is expected within the next few weeks. MSU, the University of Southern Mississippi (USM), Louisiana State University (LSU), Florida State University (FSU), and the Dauphin Island Sea Lab collectively comprise the NGMCI. Several investigators are working on problems associated with hydrology and coastal Lou Wasson is working on a watershed model for the Pearl River drainage above Jackson using Stage 3/MPE data from the LMRFC. They are doing distributed modeling using ArcHydro and HSPF. They have been collaborating with LMRFC for over a year and hope to expand that collaboration.

Val Anantharaj is modeling the land-atmosphere interface. He is working to make soil moisture information available and has a pilot project to forecast soil moisture in the Mississippi Delta. Both he and Louis Wasson have an interest in water quality modeling. Some of his work is to improve the soil moisture classification and make it finer in spatial resolution based on remotely sensed data. Val is also interested in information technology and is working on some service oriented architecture developments.

Dr. Pat Fitzpatrick is interested in modeling and is running the MM5 and COAMPS model both in a research mode and in an operational mode. He studied Hurricane Lili to determine why it weakened so much just prior to landfall in southern Louisiana. He is collaborating with NCASR on a radar assimilation study. He has extensive expertise in the ADCIRC model. He is studying sea breezes using the archived WSR-88D data.

Dave Reed provided them a short briefing on the Community Hydrologic Prediction System, the XML Consortium, work planned for the Hurricane Katrina supplemental bill, the Water Resources Initiative, and plans for making water quality forecasts.

**Enhanced SERFC/USGS Coordination During the Tropical Season.** The USGS District Office located in Atlanta covers an area that is fairly similar to that of the Southeast RFC. John Feldt, HIC at SERFC, has had discussions with the USGS District Office's Deputy Director, Marge Davenport, about furthering their relationship during the tropical season. The USGS district office typically participates in SERFC's hydrometeorological briefings and finds them extremely helpful.

As a result of these discussions, SERFC is now part of the "USGS' Storm Team" which is activated during an inland-moving tropical system. Up to 80 federal agencies and other partners are part of this team. SERFC will provide a hydrometeorological overview for their storm team calls.

**AHPS Training and Outreach in Tennessee.** On July 25, 2006, The Lower Mississippi RFC, in collaboration with SR HSB, provided AHPS training to the staff at WFO Memphis. Ben Weiger, Chief of the HSB, provided an overview of the AHPS program. Dave Reed, HIC of the LMRFC, provided a technical briefing about the Ensemble Streamflow Prediction Model and how it creates probabilistic hydrologic forecast information. Dave also displayed various probabilistic hydrologic forecast



information graphics that can be generated using the ESP model. Gina Tillis-Nash presented some basic AHPS statistics and had the staff work through an example of computing peak flow statistics from the historical streamflow traces.

On July 26<sup>th</sup>, WFO Memphis, in collaboration with the LMRFC, conducted AHPS outreach for its partners and customers in Western Tennessee. The meeting was held at the Agricenter International adjacent to the WFO facility. NWS attendees included MIC Jim Belles, WCM Rich Okulski and Service Hydrologist Buzz Merchlewitz from WFO Memphis, HIC Dave Reed and hydrologic forecaster Gina Tillis-Nash from LMRFC, Steve Bays, Service Hydrologist from WFO Little Rock, and Ben Weiger, chief of HSB.

Ben and Buzz provided an overview of the AHPS program and the web page, while Dave Reed illustrated the use of the baseline probabilistic hydrologic information for customers. Gina showed an example of how the Ensemble Streamflow Prediction model computes statistics for the probabilistic hydrologic forecast information displayed on the AHPS web page.

### **DISSEMINATION ENHANCEMENT TEAM**

**Update on Point Forecast Web Page Generation.** On August 3, SRH began creating the Point Forecast Web Pages directly from the gridded NetCDF files, thereby eliminating the need for intensive back end preprocessing. Complete replicas of Spanish scripts were also created to work directly off the NetCDF files. This now opens the door for Web Consolidation, where the NetCDF files can be shared among the active NWS web farms. This will, in turn, allow both the English and Spanish scripts to be run on each of the farms.

### **SCIENTIFIC SERVICES DIVISION**

**Reorganization of Scientific Services Division.** The Scientific Services Division and the Southern Region Dissemination Enhancement Team have merged into a new group called Science and Technology Services (STS). The purpose of this reorganization is to better align our technological developmental resources with our science infusion program. This reorganization will better allow Southern Region to continue development of important regional and national applications such as the RIDGE Radar Project and delivery of NWS data in GIS formats.

**Southern Region NSTEP Leadership.** Southern Region's Science and Technology Services group has been asked by the Training Division at National Weather Service Headquarters to lead the National Strategic Training and Education Plan (NSTEP) for Fiscal Year 07. Mark Fox, Southern Region Training Officer, will be the lead for this important task. The work includes overseeing the development of the FY08 NSTEP implementation plan.

