



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

June 2006

SOUTHERN TOPICS

Working Together To Save Lives

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The Southern Region Family recently lost three of its active duty employees. Please join us in this remembrance as we extend condolences to the three families.

Gerald L. Birdow

1949-2006

Gerald Birdow, Hydrometeorological Technician at WFO Peachtree City passed away unexpectedly on Sunday, June 11, 2006, during recovery from pancreatic surgery. Gerald had been at WSFO Atlanta/WFO Peachtree City since 1980. Gerald held positions at WSMO Nashville, WSFO Fort Worth, and WSMO Dallas-Fort Worth prior to going to Atlanta in 1980.

Charlie A. Lake

1948-2006

Charlie Lake, Regional Systems Specialist at Southern Region Headquarters passed away on Sunday, June 25, 2006, following a massive stroke he experienced on Saturday, June 24. Charlie came on board with the NWS in 1987 at Flint, MI, following service in U.S. Army. He also worked at Kansas City, Springfield, MO, and Tulsa before coming to his final duty station at SRH.

Johnny S. Wallace

1945-2006

Johnny Wallace, Data Acquisition Program Manager of the Lubbock Weather Forecast Office, passed away on April 5, 2006 after a long battle with cancer. He was born on December 15, 1945 in Fort Worth, TX. Johnny held various positions across the NWS Southern Region, including positions at offices in Waco, San Antonio, Fort Worth, and Columbus, GA.



CLIMATE, WATER AND WEATHER DIVISION

METEOROLOGICAL SERVICES BRANCH

Jacksonville Earns 2006 1st Quarter Southern Region Aviation Award. WFO Jacksonville earned the Southern Region's Aviation Services Excellence (ASE) Award for the 1st quarter of 2006. The JAX Aviation Team, led by Aviation Program Leader Jason Deese, developed GFE smart tools for creating new aviation forecast products for the WFO and the CWSU. In determining which WFO products to create, emphasis was placed on those parameters whose guidance suites have had a history of poor performance. These include:

- Cloud base heights separated into FEW, SCT, BKN, and OVC categories.
- Fog index based on surface moisture, boundary layer winds, inversion strength, and cloud height and coverage.
- Visibility index, based on the Fog index.
- Cross over temperatures and stability index, based on UPS techniques.
- Low level wind shear index, based on boundary layer winds field
- Boston technique, which uses stability and wind speed parameters to calculate wind gust potential for the daytime hours.

Until this past year, CWSU access to WFO products had been limited to those used in the AWIPS system and isolated from the GFE environment. The WFO JAX Aviation Team increased the CWSU exposure to the GFE products by introducing a web based portal for product access. The following products are created within GFE, converted to PNG images using PNGMaker and published to the SR web server for CWSU access through the Internet:

- The Fog Index, Visibility, Ceiling and Low Level Wind Shear graphics described in the TAF section
- Derived convective parameters, including Lifted Index and Thunderstorm Probability
- A nomogram graphic utilizing accepted thickness thresholds for determining precipitation type

Together, these product suites have improved WFO TAF verification statistics and collaboration efforts with the CWSU. The web address for the CWSU graphics is

<http://www.srh.noaa.gov/jax/cwsu/cwsu.htm>

WFO Jacksonville will receive the SR ASE 1st Quarter Trophy and serve as its caretaker for one year.

Mayaguez, Puerto Rico Recognized as TsunamiReady. Mayaguez, Puerto Rico was recently recognized as the first TsunamiReady community in Puerto Rico. Southern Region Director Bill Proenza, WFO San Juan MIC Israel Matos, and SR Public Affairs Officer Ron Trumbla participated in the recognition ceremony, at which time the Mayor and local emergency managers received a recognition letter and framed TsunamiReady and StormReady certificates. The activity was covered by local news media and attended by 50 people from local government and the University of Puerto Rico Tsunami Working Group and Seismic Center staff.



HYDROLOGIC SERVICES BRANCH

Lake Okeechobee Meeting. WFO Miami MIC Rusty Pfof and Ben Weiger, Chief, Hydrologic Services Branch attended a regional summit on the Lake Okeechobee Herbert Hoover Dike in West Palm Beach, Florida, on Wednesday, June 7, 2006. Palm Beach County Emergency Management Director Chuck Tear set up the meeting in response to Governor Jeb Bush's concerns regarding the Herbert Hoover Dike which encircles the lake. The meeting was attended by officials from the Jacksonville District of the Corps of Engineers, South Florida Water Management District (SFWMD), Florida Department of Emergency Management, Florida Emergency Preparedness Association (FEPA), Lee, Broward, Palm Beach, Martin, Okeechobee, Glades, Hendry counties, and many communities including lakeside cities of Clewiston, Moore Haven, Pahokee, Belle Glade, and the town of Okeechobee. The objective of the meeting was to help the state of Florida update its evacuation plan for the dike as directed by the Governor of Florida. The summit included several breakout sessions concerning the evacuation plan.

During the public alert and notification breakout session, Rusty gave a short presentation on HazCollect. He stated that HazCollect will be valuable dissemination tool for emergency managers to notify the public about evacuation orders in a Lake Okeechobee hurricane event. Ben stated that it is critical for the NWS to be included in the Lake Okeechobee Emergency Action Plan notification list so the NWS can issue Flash Flood Watches/Warnings for potential/imminent dike failures as part of its agency mission. As a result of the deliberations during this breakout session, an action was taken to update the Lake Okeechobee Emergency Action Plan notification list to include all cooperating agencies, including the NWS.

Chuck Tear informed us that Palm Beach County has committed to buying a new transmitter for the Clewiston NOAA Weather Radio site (one of the oldest in WFO Miami's service area and a very low power site) and donating it to the NWS.

The part of the dike that is in most danger of breach from hurricane storm surge on the lake is from Port Mayaca south to Belle Glade and South Bay and then west to Clewiston and Moore Haven (all WFO Miami area). The COE is now working to reinforce the dike between Port Mayaca and Canal Point in extreme northwest Palm Beach County – however, this is about a 20 to 25 year project.

Following two seasons of heavy rainfall and multiple hurricanes in Florida, and the levee failures in New Orleans associated with Hurricane Katrina, the SFWMD commissioned an independent, expert review panel to evaluate all U.S. Corps of Engineers documents concerning the structural integrity of the Herbert Hoover Dike (built back in the 1930s) surrounding Lake Okeechobee. As a result of the final report from the review panel, Governor Jeb Bush tasked his state emergency management team to update evacuation plans for a Herbert Hoover Dike failure and sent a letter to the COE asking them to implement the recommendations included in the expert panel report.

SCIENTIFIC SERVICES DIVISION

Release of the Workstation WRF. The Weather Research and Forecasting (WRF) Environmental Modeling System (EMS), or less formally, the "Workstation WRF" was officially released on 23 May 2006. A portion of the announcement information from the SOO Science and Training Resource Center follows:



The SOO/STRC WRF EMS is a complete, full-physics, numerical weather prediction (NWP) package that incorporates dynamical cores from both the National Center for Atmospheric Research (NCAR) Advanced Research WRF (ARW) and the National Center for Environmental Predictions' (NCEP) Non-hydrostatic Mesoscale Model (NMM-WRF) releases into a single end-to-end forecasting system. Nearly all the capabilities of the individual NCEP and NCAR packages are retained within the STRC EMS; however, installation, configuration, and running of the NCEP and NCAR versions has been greatly simplified to encourage its use by NWS forecast offices and the University community. No compilers are necessary as statically-linked x32 and x64 binaries are provided for both distributed and shared memory Linux systems. The SOO/STRC WRF EMS is easy to run on most Linux workstations; it should be possible for those with limited modeling experience to have the system installed and running in less than 1 hour.

The NWS SOO Science and Training Resource Center version of the WRF modeling package was developed to promote the local use of numerical weather prediction models in the Weather Forecast Offices (WFOs) and to achieve the following goals set by the SOO Science and Training Resource Coordinator (SOO STRC):

1. To improve the knowledge and use of NWP forecast models and issues at the local level
2. To advance the forecasting process through an improved understanding of mesoscale atmospheric processes and the use of non-traditional diagnostic tools
3. To increase participation among the WFOs and other agencies in developing and executing NWP studies to examine local forecast problems

Thanks to Robert Rozumalski for his fine work in providing this resource to the SOOs and the scientific user community.

July VISIT Teletraining Calendar. The Virtual Institute for Satellite Integration Training (VISIT) calendar for July is available. A one-page printable planning version of the calendar is available at: <http://rammb.cira.colostate.edu/visit/planning.html?6> The teletraining calendar is available at: <http://rammb.cira.colostate.edu/visit/ecal.asp>

Offices can register for the teletraining sessions by sending email to: visit@comet.ucar.edu

The sessions planned for July are:

- * Forecasting Convective Downburst Potential Using GOES Sounder Derived Products (Basic, July 19)
- * Use of GOES/RSO imagery with other Remote Sensor Data for Diagnosing Severe Weather across CONUS (Intermediate, Part I July 12, Part II July 13)
- * The Enhanced-V: A Satellite Severe Storm Signature (Basic, July 14)
- * Mesoscale Analysis of Convective Weather using GOES/RSO Imagery (Basic, July 11)
- * GOES Sounder Data and Products (Basic, July 17)
- * GOES High Density Winds (Basic, July 27)



Recorded VISIT sessions are available through the NWS Learning Management System catalog at: <http://e-learning.doc.gov/coursecatalog/index.cfm> (Select National Weather Service Courses, then search for the term VISIT.) All previous teletraining sessions, including those with recorded instructor audio and annotations, are available at: <http://rammb.cira.colostate.edu/visit/ts.html>

NAM Model Upgrade. In mid June, the National Centers for Environmental Prediction (NCEP) switched from the North American Mesoscale Eta (NAM-Eta) model to the Non-hydrostatic Mesoscale Model (NAM-NMM) coded to the Weather Research and Forecasting (WRF) model standard. (The NAM is simply the modeling slot where these models run and the WRF is a modeling framework.) The new NMM will run at the same horizontal resolution (12 Km) and across the same domain as the Eta, physics should be similar to the Eta, and AWIPS output grids from the new NMM will simply replace the output grids for the Eta. The differences will be mostly in the initial conditions, vertical resolution and coordinate system, numerics, and dynamics.

No Model Output Statistics (MOS) guidance will be available for the new NAM-NMM, but National Weather Service Office of Science and Technology and the various NWS regions will use this new model to start working on a long term plan for future post-processing guidance to replace MOS. NCEP will continue to run a 32 Km version of the Eta model for the sole purpose of providing interim Eta-based MOS and GFS MOS will continue to be provided. A Technical Information Note (TIN) should be disseminated before June 13th detailing these issues.

ADMINISTRATIVE MANAGEMENT DIVISION

SOUTHERN REGION WORKFORCE TRANSACTIONS <u>Actions through June 1 – 15, 2006</u>			
<u>Southern Region Losses</u>			
<u>Name</u>	<u>From (Office)</u>	<u>Action/Transfer</u>	<u>From Title/Grade</u>
Eric Christensen	WFO MFL	Transfer to TPC	Lead Forecaster, GS-13

<u>Southern Region Gains</u>			
<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Kirk J. Caceres	WFO MOB	Reassigned	Met Intern, GS-5
Robert Fogarty	WFO EWX	Reassigned	Met Intern, GS-9
Kyle Lerman	WFO BRO	New Hire	Met Intern, GS-7
Manuel B. Vilar	RFC TUA	New Hire	Hydrologist, GS-12

<u>Within Region Transfers/Actions</u>			
<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Jessica S. Smith	WFO LIX	Promotion	Forecaster, GS-12
Paula C. Bolline	WFO HUN	Reassign	ASA, GS-7



Joshua M. Palmer	RFC ALR	Reassign	HAS, GS-9
Dan Gregoria	WFO MFL	Promotion on station	Lead Forecaster, GS-13
Guy Rader	WFO MFL	Promotion on station	Lead Forecaster, GS-13
Tim Oram	SMG	Reassign on station	Lead Forecaster, GS-13

OUTREACH ACTIVITIES

New Orleans Coordinates with First Responders in Advance of Next Hurricane. WFO New Orleans SOO Mike Koziara represented the NWS at the Southeast Louisiana Hurricane Task Force meeting, which was attended by parish emergency management directors, the New Orleans Corps of Engineers, and the Louisiana Department of Homeland Security. Substantial discussion centered on hurricane evacuation plans in the southeast Louisiana parishes. In the “post-Hurricane Katrina” world, several of these hard hit parishes, including Orleans, St Bernard and Plaquemines, may be subject to mandatory evacuation prior to a Category 1 hurricane. This departs from the criteria used by the LA Department of Homeland Security and the State Police in the implementation of their contraflow traffic plans.

Mike briefed the audience on the outlook for the Atlantic Basin hurricane season, and reminded everyone that it only takes one direct strike from a hurricane to have a busy season. He also emphasized that it only takes one *direct strike from a major hurricane to have a real bad season*. While Hurricane Katrina was a well forecast event, Mike reminded everyone that forecast errors for future tropical cyclones could be larger.

New Orleans SLOSH Briefings. Mike Koziara, the Science Operations Officer from WFO New Orleans, briefed visitors from the National Oceanographic Research Institute, Ministry of Maritime Affairs, Republic of Korea, on the use of the SLOSH (Sea, Lake, and Overland Surges from Hurricanes) model during Hurricane Katrina. The visitors were particularly interested in the Maximum Envelope of Water, or MEOW-run approach using SLOSH.

WFO New Orleans/Baton Rouge LA and LMRFC Participate in Public Service Recognition Weeks Activities. Patricia Brown, Senior Service Hydrologist at NWFO New Orleans/Baton Rouge, LA (LIX) served as the Co-Chairperson for the 2006 Public Service Recognition Week (PSRW) activities for the Greater New Orleans Area Federal Executive Board. Public Service Recognition Week is always the first week of May and it is the time set aside to recognize the contributions and dedication of state, local, county/parish, and federal servants.

The planning for PSRW entailed months of communications and extensive coordination with the other committee members to stage the luncheon and to ensure that pertinent information regarding the activities was disseminated. The impact of this event was area-wide, since the Greater New Orleans Area Federal Executive Board includes the federal organizations from several parishes in southeast Louisiana. This year’s committee included Mary Keiser, who served as the Chairperson for the Publicity Committee, along with Francida Moore, Laurie Hall, and Gina Tillis-Nash. Phil Grisby also provided assistance with our databases.

The culmination of this year’s activities was the publication of a booklet detailing the courageous and



dedicated response of the area's federal workforce to the natural disasters, Hurricanes Katrina and Rita. These unprecedented events became the largest Federal Continuity of Operations in the history of our nation. To recognize the accomplishments and performance of local agencies, the booklet, *Serving Community Before Self – Agency Accomplishments in Review* serves as a testament to the federal employees that worked during and after these events, regardless of personal inconvenience and losses. The week's activities included a Public Service Excellence Luncheon and a Mall Outreach Program.

WFO New Orleans/Baton Rouge participates in the 2006 Ernest F. Hollings Scholarship Program. NWFO New Orleans/Baton Rouge, LA assisted in the review process for the 2006 Ernest F. Hollings Scholarship Program. The office team, lead by Senior Service Hydrologist, Patricia Brown, reviewed a packet of applications submitted by highly qualified students majoring in fields directly related to NOAA's strategic goals, including marine science, environmental science, meteorology, and engineering.

Ms. Brown received a Letter of Appreciation for her participation on the 2006 Review Panel from the National Oceanic and Atmospheric Administration's (NOAA), Office of Education. Pat's experience in environmental sciences, mathematics, engineering, and policy, as well as her understanding of NOAA's strategic goals, proved valuable in evaluating the applications and making recommendations to NOAA on the applications most worthy of receiving scholarships.

WGRFC conducts AHPS outreach meeting. Bob Corby, WGRFC Development and Operations Officer (DOH) and Tracy Howieson (Hydrologist) conducted AHPS educational outreach workshops in conjunction with WFO Lake Charles and WFO Shreveport. Kandis Boyd, the Southern Region Hydrology Program Manager, also participated in the outreach activities. Representatives from the USGS, COE and Emergency Management were present to learn about the new probabilistic forecasts available via the WFO AHPS pages.

New Mexico Monsoon Outreach. On June 16, WFO ABQ MIC Charlie Liles made a presentation to the media affiliates on the "Impact of the North American Monsoon on New Mexico," and included a forecast for the coming summer season. This topic generates a high amount of interest in New Mexico every year, and offers a lot of challenges due to how ill-defined the phenomenon is in the Southwest U.S. Even a wet summer will not end the drought in New Mexico, but could at least mitigate certain aspects of the drought, such as fire danger.

Increasing IEMChat Services at WFO Lubbock. WFO Lubbock WCM Brian LaMarre recently met with local emergency response officials and representatives from the Texas Governor's Division of Emergency Management. The planning meeting, facilitated by the National Emergency Response and Rescue Training Center, was held to outline local and regional responsibilities in response to an upcoming Weapons of Mass Destruction exercise. In response to Brian's promotion of the Lubbock's *IEMChat* Instant Messaging services, the Director of Emergency Management at Texas Tech University signed on as the WFO's newest subscriber. Since implementing IM prior to the 2005 severe weather season, WFO Lubbock has increased participation from 5 media and emergency management officials to over 40. The subscriber list includes media and emergency managers across the Lubbock CWA, as well as media affiliates serving portions of the Lubbock CWA from Midland, Amarillo, San Angelo, Abilene, and Wichita Falls – truly an awesome collaborative effort during high impact events!

Huntsville Weather Safety Training. Members of the WFO Huntsville outreach team participated in three large weather safety outreach events during a recent spring weekend. Several staff members were on hand for the annual Huntsville safety day, which was attended by over 1,000 residents. Later that same day, the outreach team attended the annual Kids Quest event in Albertville, Alabama.



Demonstrations of the WFO's tornado machine were provided, many weather questions were answered, and weather safety was taught to around 500 children.

The safety weekend wrapped up with a "Weather Safety Day" at a local minor league baseball game. The outreach team partnered with Midland Weather Radio Company and the Huntsville Stars (Milwaukee Brewers Double-A baseball affiliate) to provide weather safety information to the people in attendance at the game. Weather trivia and safety information was also provided between innings.

Port of Huntsville Security Exercise. WFO Huntsville participated in the 2006 Port of Huntsville Security Exercise on May 23. The exercise, involving state and Federal agencies and companies in the Port of Huntsville, dealt with a security issue at the Huntsville International Airport. The National Weather Service discussed weather information that would be available to the decision makers and first responders in such a scenario. In addition, the participating agencies shared ideas for improving the communication flow in the event of an emergency.

Science and Math NASA Epscott Teachers Tour WFO San Juan. On May 27, WFO San Juan Senior Forecaster Walter Snell and WCM Rafael Mojica conducted an office tour for 27 science and math K-12 teachers participating of a hurricane workshop. The group was accompanied by Dr. Hector Alvarez of the University of Puerto Rico NASA Epscott program, and Ms. Ada Monzon, Meteorologist for Univision. The group was able to see the upper air morning release and the forecast issuance process.

Puerto Rico Hurricane Season Opening Conference. On May 31 WFO SJU MIC Israel Matos participated in the annual meeting with the Governor of Puerto Rico and staff to discuss preparedness measures to be taken by the government agencies at the start of the hurricane season. The meeting was held at the Emergency Management Office and was followed-up by a press conference.

Disaster Preparation in Alabama. WFO Birmingham Forecaster Faith Borden was one of the keynote speakers for the First Annual Alabama VOAD (Voluntary Organizations Active in Disaster) Conference held in Montgomery at the end of May. Over 150 people from dozens of service organizations gathered to share ideas concerning ways of being better prepared when disasters strike. Faith covered several facets of the National Weather Service watch and warning program, provided an overview of Alabama severe weather, and touched on the outlook for the 2006 Hurricane Season.

AHPS Outreach. On May 16, 2006, WFO Lake Charles, in collaboration with the West Gulf River Forecast Center, conducted AHPS outreach for its partners in southeast TX. The meeting was held at the Lower Neches Valley Authority (LNVA) office in Beaumont, TX. County Emergency Managers from extreme southeast Texas and water resource managers from the Galveston District of the Corps of Engineers, United States Geological Survey Science Center in Houston, TX, and the LNVA attended the meeting. NWS attendees included Tracy Howieson and Bob Corby from the WGRFC, Kandis Boyd from SRH, and Steve Rinard and Montra Lockwood from WFO Lake Charles.

Bob Corby presented a technical overview of the graphical probabilistic hydrologic forecasts that will be available on the AHPS web page in mid-June for seven river forecast locations on the lower Neches River and its tributaries. Folks from the WGRFC and WFO Lake Charles also provided a live demonstration of the hydrologic information on the AHPS web page. In addition, the water managers expressed interest in also having forecasts of non-exceedance probabilistic hydrologic information for low water conditions. This information would be used for operational purposes at the Lower Neches River Saltwater Barrier.



Nashville School Outreach Activities. WFO Nashville forecasters Sam Herron and Darrell Massie represented the NWS at the 2006 Science Expo at Volunteer State College in Hendersonville on April 6, 2006 (the day before a powerful tornado ripped into the campus). The Expo, designed for 3rd to 8th grade students and Vol State students, emphasized hands-on experiments for the kids. Sam's and Darrell's experiments focused on the world of "invisible gases" and their input into meteorology. They included the "dancing raisins" experiment (showing how CO₂ attaches to raisins and raises them through carbonated water) and the "cloud in a glass" experiment (which got a lot of "ooohs and ahhs" from the kids), using the old match, warm water and ice trick. A tornado video also occupied the attention of the student visitors. As they watched the videos, few likely imagined that an F3 tornado would rip into the campus almost 24 hours later.

Forecaster Mark A. Rose participated in a two-day Earth Day event in Waverly, TN where he showed off the WFO Nashville Tornado Machine, a weather balloon, and a radiosonde. Mark provided information to 22 groups of 5th graders (about 425 total) from several schools in Stewart, Houston, and Humphreys Counties of middle Tennessee.

WFO Nashville WCM Jerry Orchanian recently gave a talk to 150 4th grade students and teachers at Woodbury, TN. Jerry discussed several aspects of NWS operations, including weather instruments, weather balloons and radiosondes, NOAA Weather Radio, and tornado and lightning safety tips.

