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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE
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SOUTHERN TOPICS

Working Together To Save Lives

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REGIONAL DIRECTOR

NHC Director Max Mayfield recently sent the following message to the Southern and Eastern Region RDs, and to the Director of NCEP. As Max says, the Hurricane Liaison Team is a tremendous example of the team effort which is so characteristic of National Weather Service operations. Many others in the region have participated in HLT operations in the past, so it is a pleasure to share Max's message with everyone.

I would like to formally thank all of you for your support to the NWS/FEMA Hurricane Liaison Team (HLT) during Hurricane Isabel. Our Nation's hurricane warning program has always been about team effort, and the HLT is one of the best examples of that effort. Realizing the National Hurricane Center would need help to man the HLT during Isabel, I started calling Walt Zaleski [Southern Region regional coordination meteorologist] and Harvey Thurm [Walt's counterpart at ERH] on Saturday, September 13 to discuss options to augment HLT support from the NWS. It should not be overlooked that the regions provided three of the most knowledgeable people on hurricanes outside of NHC to the HLT in Ken Haydu [WFO Wilmington], Bill Read [MIC WFO Houston] and Jim Lushine [WCM WFO Miami]. I slept well knowing we had well qualified NWS meteorologists physically present at the NHC to augment our staff in supporting emergency management needs at the federal and state levels.



The HLT provided numerous video conference briefings for emergency managers during Isabel. These briefings included FEMA headquarters in Washington D.C., FEMA regions I, II, III and IV headquarters, and the state emergency management offices from South Carolina through New York. The Secretary of the Department of Homeland Security Tom Ridge, FEMA Director Mike Brown and White House staff were also online during briefings in which I participated, and I understand White House staffers were listening in on other briefings as well. The NCEP Hydrometeorological Prediction Center director Jim Hoke did his usual excellent job in giving an overview of the rainfall forecasts associated with Isabel via VTC from HPC. Having Bill Lawrence from the Arkansas-Red Basin River Forecast Center in Tulsa at NHC to assist in coordinating the hydrology input to the HLT was also a tremendous help. Remote briefings from John Feldt at SERFC in Atlanta and from Tom Baumgardner at the MARFC were essential. Ken, Bill and Jim did terrific jobs in providing the meteorological overview to start the HLT briefings when NHC staff were committed elsewhere.

After landfall, during last Friday's HLT VTC briefing on Isabel with FEMA and several state Emergency Operations Centers, Eric Tolbert, director of the FEMA Response Directorate, said something like "I don't know how we (referring to those involved with federal and state preparedness and response) could have done this any better." Director Tolbert then asked everyone at FEMA Headquarters on the VTC to un-mute their mikes and give all the NOAA folks a hand for the great job on forecasting Isabel. Dr. Ken Taylor, the Director of Emergency Management for North Carolina then echoed Eric Tolbert's sentiments.

I can think of no better compliment. Thanks Max, and thanks to all the Southern Region folks for the great work they did.

ISAAC CLINE AWARDS. It is my honor and pleasure to announce the recipients of the 2003 Southern Region [*Isaac Cline Awards*](#). The selection team, involving regional, field, and NWSEO representatives, has done an admirable job in selecting the winners from the numerous excellent nominations. Although these individuals and groups were selected to receive the Southern Region Cline Award, everyone in the Southern Region should be proud of the work that has been accomplished during the year. It is obvious the commitment and professionalism of our people, combined with the outstanding leadership of Southern Region managers, are resulting in many good things being accomplished across the Region. The Cline Awards, both regional and local, are just some of the many examples. We look forward to continued excellence in accomplishing the NWS mission and serving our customers and partners.

NEW MIC. Please join me in congratulating **Cyndie Abelman** on her selection to be the new MIC of the NWS office at the FAA Training Academy in Oklahoma City. Cyndie's varied background, including assignments at WSO Fort Smith, WFO Fort Worth, the Southern Region Headquarters and the West Gulf RFC, will be a tremendous asset as she takes on the leadership of the office which is responsible for training in meteorology and briefing operations for the FAA.

IFPS

IFPS CONFERENCE CALLS. There are IFPS conference calls on the first Tuesday of each month which include all offices, FSL, MDL, NWSTC, the SRH IFPS team and national IFPS team. Minutes of the calls are at:

<http://www.srh.noaa.gov/srh/cwwd/msd/conferencecallminutesmain.html>

IOC. A BIG thank you to all of the Southern Region WFOs for helping the National Weather Service reach IOC (Initial Operating Capability). For several years WFOs have been hard at work getting IFPS fully operational so our customers can receive our gridded forecasts. We appreciate all your hard work and dedication and look forward to improved services through IFPS and your continued focus on producing the best possible gridded forecasts.

WHERE IS 10-506? NWS Instruction 10-506, Public Digital Data Specifications, is slated to be signed sometime in November. It contains the definitions of elements and grids which will be disseminated and describes the National Digital Forecast Database.

CLIMATE, WATER AND WEATHER DIVISION

METEOROLOGICAL SERVICES BRANCH

75TH ANNIVERSARY OF THE 1928 LAKE OKEECHOBEE HURRICANE. Coinciding with the 75th anniversary of this major hurricane, WFO Miami MIC Rusty Pfof published a study in the *Bulletin of the American Meteorological Society* providing a case for an upward adjustment in the death toll from the Great 1928 Lake Okeechobee Hurricane to 2500-plus, which would make that the second greatest death toll from a natural disaster in U.S. history.

WFO Miami WCM Jim Lushine participated at the dedication of a plaque commemorating the burial of 1600 people in a mass grave at the Port Mayaca Cemetery, and at a rededication ceremony at a monument in Belle Glade during which ten survivors told their harrowing stories.

Rusty and Jim attended a luncheon sponsored by the Palm Beach Historical Society. Rusty used the occasion to recognize Palm Beach County as Storm Ready and made the presentation to Karen Marcus, chairperson of the Palm Beach County Board of Commissioners, and William O'Brien, director of the Palm Beach County Office of Emergency Management.

SOUTHERN REGION GARNERS NATIONAL AVIATION TEAM AWARD. CWSU Fort Worth earned the NWSH Aviation Team of the Quarter Award for the April-June period. The team includes MIC Tom Amis and meteorologists James Ott, Charlie Hays, and Doug Reno. Through the Southern Region PACE (Prototype Aviation Collaborative Effort), the CWSU and NOAA's Forecast Systems Lab collaborated on the design, development and testing of the Tactical Convective Hazards Product (TCHP). The TCHP consolidates several thunderstorm products into one easy to understand hazard product displayed in ARTCC/TMU friendly map backgrounds. The successful test demonstrated the utility of NWS products to its air traffic customers and will increase the efficiency and safety of the National Airspace System with its deployment.

SOUTHERN REGION GARNERS NATIONAL AVIATION INDIVIDUAL AWARD. WFO Lubbock aviation program leader Jody James earned the NWSH Aviation Individual of the Quarter Award for the April-June period. His outreach efforts include work as a volunteer aviation safety counselor assisting the Federal Aviation Administration Flight Standards District Office. He also provides outstanding aviation training and pilot counseling. Wade C. Shoop, president of Stratos Aviation, Inc., said “The National Weather Service office in Lubbock, Texas has been extremely supportive of our local flying community. In particular, forecaster Jody James, an active local pilot, has shared his knowledge with other pilots through excellent presentations on severe weather, icing and other aviation related topics.” John H. Boatright, FAA regional safety program manager in Lubbock echoed those comments: “I have had the pleasure of having Mr. Jody James, a senior forecaster for the National Weather Service, working with me as a volunteer aviation safety counselor. In this role, Mr. James, in conjunction with other Weather Service personnel from the Lubbock office, has used his weather knowledge and expertise to do safety presentations for pilots in the local area.”

BUSY FIRE SEASON FOR SOUTHERN REGION IMETS. Southern Region incident meteorologists helped out in Western Region during this summer's extremely active wildfire season. The 2003 fire season was the third busiest ever for IMET disptaches. In August and September, several hundred fires burned in the Pacific Northwest and Northern Rockies. SR IMETS Rick Davis, Mike Edmonston, Brent Wachter, Joe Goudsward, Bryan Henry, and Rick Davis deployed to Montana, Idaho, and Oregon to provide fire weather support. Following are reports filed by two IMETs describing their experiences.

WFO Little Rock IMET Joe Goudsward: In late August, I was deployed to the Wedge Canyon fire, located about 40 miles north of Columbia Falls, Montana and about six miles south of the International border. This 40,000-plus acre fire offered unique forecasting and logistical challenges. The fire was located in both the Flathead National Forest and Glacier National Park so several government agencies were represented and involved. The Canadian authorities were also involved as the fire was so close to the border.

The fire was actively burning in very steep and often inaccessible terrain criss-crossed with numerous drainages and canyons that spanned an elevation of 3800 to 7200 feet. For these reasons, this was a very challenging fire with almost all winds being topography driven as high pressure remained parked over the area almost the entire time. The five years I spent in Great Falls, Montana was particularly useful in forecasting for this site. While no extreme weather was noted during this dispatch, the weather across the site was always varied and terrain driven. Of particular interest at this fire was a persistent low-level inversion which often did not break until 4:00 in the afternoon.

Once the inversion did break, fire behavior would increase quickly and significantly so the timing of these inversions was critical. At the time this fire was occurring, numerous other fires were occurring in the area. The Wedge Canyon fire was the furthest north of all these fire with the 40,000 acre Robert fire 35 miles to the south. Every morning, up canyon flow initiated around 9:00 a.m. and all the smoke from the fires to the south would travel up the Flathead Valley. This smoke would overtake the Incident Command Post and the fire. Visibility was often ½ mile or less in dense smoke until the inversion broke.

WFO Jackson IMET Trainee Bryan Henry: Mike Edmonston and I were dispatched to the Slims Complex fire on August 22 to provide fire weather forecast support to two type 1 teams that were fighting five different fires. Among other things, our duties included constructing point forecasts for each location and providing three to six daily briefings. On one occasion, we were tasked with constructing a 30-day outlook to present to regional forest service representatives. The reason for the request was to determine the strategy for fighting the fires over the ensuing weeks. Fortunately, the GFS model data had a good handle on the predicted weather, and we were able to forecast the first snow of the season with six days lead time. Based on the information presented at the forest service representatives, a decision was made to downscale the operations to a type 3 team. Within a week of our departure, the fires were out thanks to a strong and wet cold front that passed through the area.

The fire camp was situated in a high mountain valley (bowl). Cold air pooling at night provided for dramatic 60-plus degree daily temperature curves. The daily weather at the fire camp featured a potpourri of all four seasons. Winter arrived sometime around midnight as temperatures dropped into the mid- to upper 20s. Spring usually arrived around 9 a.m. as temperatures rose into the 50s with the break of the morning inversion. By 2 p.m., summer arrived as temperatures rose into the upper 80s to lower 90s. Like clockwork, fall arrived between 7 and 730 p.m. as temperatures dropped about 15 degrees into the 50s again. There were very few problems encountered on the trip. The only one of significance was the discovery that the nearby RAWS sites were about 5% off (too low) on RH readings. Therefore, our initial forecasts were a few percent too low. The MIC at the Missoula, Montana office, Bruce Bauck, and his staff proved to be an invaluable resource in providing up-to-date information, IMET support and regional insights. Their help is greatly appreciated.

WFO BIRMINGHAM SPONSORS OPEN HOUSE. Last month WFO Birmingham hosted an open house in association with the Wings and Wheels Air and Car Show at the Shelby County Airport. The air and car shows drew around 16,000 and the NWS open house attracted 806 of those to the office over the two-day period. The open house consisted of allowing individuals to view forecast operations through the office library windows. Signs over individual workstations gave visitors a better understanding of forecast operations. A running slide show and posters describing aviation weather hazards and NWS aviation products were also displayed in the library. Two or more of the station's meteorologist staff were in the library to answer weather-related questions. Several handouts and brochures were provided about programs and operations, including a brochure designed for aviation interest by members of the office's aviation team.

Other aspects of the event included a radiosonde launch both days which allowed people to become aware of the upper air observation program. WFO Birmingham provided two weather briefings for pilots both days. Aviation program leader Jason Wright was stationed at the pilots' lounge to provide briefings and answer weather inquiries. A bake sale was also conducted under the direction of SCEP Kristin Hurley, with over two hundred dollars going toward the office's CFC contribution. Other staff members who assisted in making this event a success included: MIC Ken Graham, WCM Brian Peters, senior forecasters Bob Kilduff and Mark Rose, general forecasters Chris Liscinsky, Darone Jones, Faith Borden, Jim Westland, Mark Linhares, Michael Scotten, and HMTs Don Smith and Marshall Baer, DAPM David Wilfing, ESA John Peruzzo, and ASA Laura Sanchez.

WFO MORRISTOWN FORECASTER WORKS ON NATIONAL AVIATION PROJECT. WFO Morristown forecaster Dave Hotz and WFO Pittsburgh IT Joe Palko traveled to NWS Headquarters in September to provide field input and direction for AVNFPS 2.0. AVNFPS 2.0 will offer several new options to the forecaster, including getting information into TAFs from the available grids such as wind and weather, and utilizing conditional climatology in the TAFs, similar to the local application MakeTaf. David and Paul Kirkwood (SRH CWWD) wrote the original AWIPS AVN Workstation. This was David's second trip to NWSH to provide input on the program.

WFO MORRISTOWN HAS A BUSY SEPTEMBER. The bi-monthly local chapter meeting of the Smoky Mountain Chapter of AMS met in Knoxville on the evening of September 15. WFO Morristown WCM Howard Waldron presented a summary of new forecast methods involving the GFE, IFPS and NDFD. Howard illustrated the new formats, digital forecasts and graphics slides and explanations. Members were quite appreciative of the update.

WFO Morristown assistant fire weather FP/forecaster Tim Doyle and MIC Jerry McDuffie attended the annual Tri-State Forestry meeting in Kingsport, Tennessee. States represented were Virginia, Kentucky and Tennessee. Each state gave a summary of their activities, problem areas and budgets. Everyone agreed that rainfall had been plentiful this year. Tim and Jerry provided the long range forecast for the winter, information concerning the first Fire Weather/Fire Safety Awareness Week beginning October 6, a few words about the new forecast procedure and how it will affect the FWF.

MIC Jerry McDuffie attended the quarterly meeting of the Jefferson County Local Emergency Planning Committee, and gave the group the long-range forecast for the winter, along with a summary of the various weather events over the past year. Discussion followed about flooding that occurred in Jefferson County earlier in August.

Jerry and WCM Howard Waldron attended a portion of the Tennessee emergency managers meeting in Pigeon Forge. Summaries and presentations of the significant weather events across the state were given with followup discussions. Of particular interest to Howard and Jerry was the widespread and serious flooding in East Tennessee, especially around Chattanooga. They also presented a summary of the violent tornadoes that occurred in May 2003 at Jackson and across middle Tennessee.

Service hydrologist Brian Boyd has been serving on a WHFS course development team for several months. In mid-September Brian traveled to the NWSTC to participate in the continuing development of the new Advanced WHFS course to be offered there in January 2004. The development team included representatives from each CONUS region, Alaska, and the NWS Office of Hydrology. Brian can build on experience and expertise gained as a WSR-88D instructor and course developer at OSF to provide input into the organization, structure and content of the Advanced WHFS course.

SEVERE WEATHER PREPAREDNESS AND OUTREACH

Teacher Resource Open House. WFO Lake Charles SOO Felix Navejar and service hydrologist Montra Lockwood participated in a science teacher resource open house in Lafayette in early

September. The event was sponsored by the local Natural History Museum to acquaint area K-12 teachers of local science resources available to their school programs.

WFO Corpus Christi Partners with Local Utility Company. WFO Corpus Christi partnered with the local water utility in the distribution of locally developed NWS Hurricane Preparedness brochures to 100,000 homes via Corpus Christi water bills.

WFO Amarillo Staffs Booth at the Sunray Funday. WFO Amarillo staffed a booth for the first time at the Sunray Funday held in Sunray, Texas. Nearly 400 attendees were estimated to have visited the local booth and were provided a plethora of information about NWS products and services. The Sunray Funday, an annual event put on by the Sunray Lions Club, includes a parade, food and entertainment booths, and a city-wide noontime BBQ.

WFO Reaches Out to Seniors. WFO Brownsville WCM Jesus Haro partnered with local ABC affiliate chief forecaster Tim Smith to provide a seminar to the South Texas Center for Creative Retirement. Approximately 75 "active seniors" were in attendance. The seminar was titled "What Weathermen Do." Jesus began the seminar with a one-hour presentation that detailed the role of the National Weather Service in today's national economic infrastructure. Tim concluded with a 45 minute presentation on the specific relationship between his television station and the National Weather Service. The seminar proved quite entertaining as both presenters received kudos and accolades from attentive senior citizens at the workshop.

Kids Get the Real Weather Scoop in Deep South Texas! WFO Brownsville DAPM Jim Campbell and HMT Alfredo Vega provided a comprehensive hurricane presentation to 60 migrant students at Vermillion Elementary School. The hurricane history of the lower coast was emphasized as well as the ongoing hurricane season. One student recounted her great-grandparents memories of hurricanes that hit the Playa de Bagdad region of northeast Mexico in 1867 and 1869. Alfredo's skill of Spanish was of great help to the NWS team as he skillfully answered interesting questions posed by the enthusiastic students.

EMERGENCY MANAGEMENT COORDINATION

StormReady

The total number of new StormReady sites in Southern Region increased to 49 for FY03, considerably surpassing the fiscal year goal of 25.

Brownsville WFO Supports its Partners During Tropical Storm Erika. WFO Brownsville provided extensive support to its media and emergency management partners prior to and during the landfall of tropical storm Erika. As expected, the proximity of the system to the Rio Grande Valley drew extensive media coverage, with all of the major media outlets in the area on both sides of the border providing live coverage during the overnight landfall.

The WFO staff provided countless interviews in both English and Spanish, as well as providing Spanish-language tropical updates on NOAA Weather Radio. HMT Alfredo Vega and WCM Jesus Haro also provided numerous live Spanish language interviews for the Univision network in the U.S.

and the Televisa television network in Mexico. Several Rio Grande Valley news sources “camped out” at the WFO during the peak of the storm.

Emergency managers and media in the Rio Grande Valley were kept apprised of the progress of the system through routine local conference calls prior to landfall. The response from our users to these coordination calls has been nothing short of outstanding.

WFO New Orleans Talks Hurricanes at New EM Facility. Staff members from WFO New Orleans including MIC Paul Trotter, WCM Frank Revitte, SOO Mike Koziara, and service hydrologist Pat Brown, visited and provided a comprehensive hurricane presentation to the newly renovated St. Tammany Parish Office of Emergency Preparedness in south Louisiana.

As a follow-up to a prior coordination meeting held with parish officials following Tropical Storm Bill, Frank Revitte provided a 40 minute presentation that elaborated on the local responsibilities of the WFO during tropical events, the new NHC five-day tropical cyclone forecast, and a review of Tropical Storm Bill. Specifics of tropical cyclones such as tropical cyclone forecast track and intensity error, impact from winds, storm surge, rainfall and river flooding were provided to the audience of nearly 40 emergency planners and first responders.

WFO Austin/San Antonio Recognizes StormReady Community. WFO Austin/San Antonio reported the community of Lakeway, Texas has become the first community in South-Central Texas to receive this official recognition. The StormReady recognition ceremony was held at the Lakeway City Council meeting where WFO Austin/San Antonio MIC Joe Arellano presented the StormReady signs to Mayor Astorino and congratulated the city, and especially its emergency manager, John Zuercher, for exemplary efforts in achieving StormReady recognition.

StormReady Making Headway in South Alabama. WFO Mobile MIC Randy McKee presented a plaque to EMA director Susan Carpenter of Covington County, Alabama, to acknowledge their achievement in attaining the StormReady recognition status. Randy also presented the director with a letter stating the accomplishments of Covington County and provided her two StormReady signs for public display. The StormReady Recognition ceremony was conducted at the Board of County Commissioner's meeting in Andalusia, Alabama.

Another County Warning Area (CWA) StormReady! WFO Tampa achieved a significant honor by recently recognizing all of their 15 counties as StormReady. The inland county of Sumter was the most recent to obtain the StormReady recognition. The achievement marked the fifth Weather Forecast Office in Southern Region to have all its counties recognized as StormReady!

Deep South Texas WFO Gets Rave Reviews from its Customers. WFO Brownsville MIC Shawn Bennett and WCM Jesus Haro received kudos from Willacy county judge Simon Salinas and EMC Eddie Chapa regarding the excellent support WFO Brownsville has provided them during this year's hurricane season. The vote of confidence and appreciation from the county officials was received during a coordination meeting designed to improve communications between the WFO and Willacy County. Willacy County is a low-lying coastal county and is very vulnerable not only to the effects of tropical cyclones, but also flooding. WFO Brownsville has provided meteorological support to all of its county emergency managers through the use of three daily conference calls to inform of the potential risks posed by Hurricane Claudette and Tropical Storm Erika.

Weather Forecast Office Supports Inter-Agency Homeland Security Exercise. WCM Jesus Haro represented the NWS in Brownsville during a Weapons of Mass Destruction and Oil Spill table-top exercise organized by the Texas General Land Office Oil Spill Division and The Port of Brownsville. Approximately 30 local, state, and federal agencies participated including the U.S. Coast Guard, FBI, DEA, ATF, Border Patrol, U.S. Customs, Texas Department of Public Safety, Texas Department of Health, the city of Brownsville and the Cameron County judge's office. Numerous private sector companies also participated in the table-top exercise as well. The exercise will be executed in real-time sometime in October.

The purpose of the exercise was to organize a response to a terrorist attack inside the Port of Brownsville. The Port is the conduit through which 75% of the gasoline in the Rio Grande Valley is delivered. The Port is also known as the "NAFTA gateway" and receives many shipments from Mexico.

Jesus briefed the attendees on the role the local WFO (and other NOAA agencies) would play during such an event. Such support would include the use of forecast data in addition to access to NOAA Weather Radio communication channels and the use of Civil Emergency Messages to warn the public. WFO Brownsville will actively participate in the drill when it is executed in October.

MEDIA/PUBLIC EXTERNAL SUPPORT

Meteorologist Gathering in Birmingham. It was a first in the Birmingham market, and according to WCM Brian Peters it may have been a first in the country. On August 14, meteorologists from the NWS and all four of the major television networks in Birmingham appeared together for Storm Spotter/SKYWARN Appreciation Night at the Hoover Metropolitan Stadium. The stadium near Birmingham is the location of the Birmingham Barons AA baseball team who played the Mobile Bay Bears that night.

WFO Birmingham worked in conjunction with the Alabama SKYWARN Foundation, Inc., which sponsored a discount ticket for the event. Over 900 storm spotters from Jefferson County and all surrounding counties were invited along with others interested in storm spotting or severe weather. The WFO set up a booth in the stadium concourse where people could learn about severe weather safety and the National Weather Service and meet all of the local television weather celebrities.

There was plenty to talk about when all four major television network weather celebrities were there from 7 to 8 pm signing autographs, shaking hands, and getting their pictures taken with loads of fans and spotters. Weathercasters from the Birmingham market included Bonnie McLaughlin from CBS 42, David Neal from Fox 6, James Spann of ABC 33/40, and Jerry Tracey from NBC 13.

WFO Tallahassee Participates in - HAM "Super-Tailgate." WFO Tallahassee WCM Bob Goree attended the first annual Super Tailgate in Valdosta, Georgia. Over 300 people attended the event which included a variety of vendors and HAM enthusiasts selling and trading equipment. Bob discussed SKYWARN and StormReady with the participants, as well as current trends and enhancements to the NWS services. Discussions concerning NOAA Weather Radio revealed some concerns about the automated voice quality, but all discussions were generally very positive. One vendor from Tennessee, recounted that NWR had saved his life during a close encounter with a Middle Tennessee tornado.

Huntsville Hamfest a Hit. WFO Huntsville WCM Tim Troutman staffed the NWS Huntsville booth at the annual Huntsville, Alabama Hamfest on August 16. Over 3,000 people attended this large Ham festival and Tim spoke with hundreds of amateur radio operators from across the southeast about NOAA Weather Radio, NWS Huntsville and surrounding WFO forecast and warning operations and answered all kinds of weather questions.

WFO Huntsville Participates in Space Missile Defense Conference. WFO Huntsville staffed a booth in mid-August at this annual NASA conference in Huntsville. The purpose of the conference was to share technology among space and military defense industry, which is a cornerstone of the Huntsville economy. Over 500 businesses from across the country attended. The NWS exhibit emphasized the use of satellites and technology unique to WFO Huntsville as a result of its collocation with NASA researchers. Items discussed with other NASA participants included future projects planned between NASA and WFO Huntsville that are aimed at improving forecast and warning operations in the Tennessee Valley region.

Discovery Channel Gets Briefing from WFO Huntsville. Lars Mortensen, director of scientific documentaries for the Discovery Science Channel, recently visited WFO Huntsville to gather background information for an upcoming documentary on global atmospheric change and its affect on society. Senior forecaster Chris Darden and HMT Lary Burgett provided Lars and his camera crew a tour of the WFO operations area. Brief camera interviews were also conducted on the role of the WFO in the forecast process, including analysis of long-range upper air and moisture patterns, preparedness activities, and day-to-day WFO operations. The current plan is for the documentary to air in the summer of 2004.

First Marine Based Weather Radio. The WFO Tampa Bay partnered with NOAA's National Marine Fisheries Service to develop the first marine-based weather radio. Marine-based weather radios could spread up and down the Gulf of Mexico and Atlantic coasts as the success of this project spreads. The NMFS gifted the equipment to the NWS and the transmitter has a special directional antenna to spread the signal over the water and not the land. WFO Tampa will broadcast marine forecasts, warnings, and land-based warnings for the Tampa Bay area and coastal waters out to 60 nautical miles. The NMFS will add products of interest to the marine community such as announcements, meetings, fish closures, and safety. NOAA's National Ocean Service has expressed interest in joining the partnership to broadcast sanctuary information.

WFO Amarillo Hosts Spotter and Coop Observer Appreciation Picnic. WFO Amarillo held its 3rd annual Spotter and Cooperative Observer Appreciation Picnic in August. A total of 87 people attended this year's event, which included spotters, observers, emergency managers, and other valued customers, as well as several of the Amarillo NWS staff and their families. Wal-Mart and United Supermarkets of Amarillo donated the fried chicken, chips, cookies, watermelon and soft drinks. The appreciation picnic is just one way WFO Amarillo wishes to show their gratitude for all their volunteers and valued partners and customers. It is also a great way for the volunteers to learn more about NWS operations, meet the NWS staff and each other.

WFO Amarillo Staffs Booth at Agricultural Expo. WFO Amarillo staffed a booth at the first ever regional Agricultural Expo held in Dumas, Texas. Approximately 150 people visited the booth which promoted severe weather safety and preparedness. Participation at the Expo proved to be an excellent opportunity to reach many rural customers.

WFO Tampa Bay Connects with Area NOAA Agencies Aboard NOAA Vessel. NOAA's *Ronald H. Brown* docked in St Petersburg, Florida on September 8 and staff from WFO Tampa Bay were there to greet it. The ship is the largest in the NOAA fleet and travels worldwide supporting scientific studies to increase our understanding of the world's oceans and climate. The tour of the ship allowed five of the WFO Tampa staff to create relationships with employees of other NOAA Agencies in the Tampa Bay area, including the National Marine Fisheries Service, the National Ocean Service, and the Aircraft Operations Center.



WFO Tampa Staff Visit the NOAA Ship *Ronald H. Brown*: from left: DAPM Colleen Rhea, lead forecaster Barry Goldsmith, WCM Daniel Noah, SOO Charlie Paxton, lead forecaster Paul Close.

MARINE

Marine Supplements Online. Three Marine Supplements are now online. SMW/MWS, Fam Floats, and a CWF SR Supplement can all be found under the 10-3 Series on this NDS Web site: <http://www.nws.noaa.gov/directives/010/010.htm>

Marine HAZMAT Support. A 700 ft cargo vessel filled with 52,000 tons of petroleum coke ran aground off Sabine Pass, Texas, in early September. WFO Lake Charles forecaster Joe Rua and service hydrologist Montra Lockwood responded to requests from NOAA/HAZMAT for weather and tidal information. The forecasts verified, the environment cooperated and no leakage occurred.

San Juan HAZMAT Support. WFOs have been helping provide meteorological support to numerous HAZMAT incidences over the past few months. Recently, NOAA HAZMAT worked on a salvage and cargo operation in the mouth of San Juan harbor. The vessel *Kent Reliant* ran aground on a relic reef some 800 yards west of the entrance to San Juan Harbor Puerto Rico. The goal of the salvage operation (a 24-hour effort) was to complete cargo operations and begin final preparations to remove the vessel on high tide a few days later. WFO San Juan provided marine forecasts to the project managers of this salvage operation throughout the event.

PUBLIC

Modernized PILS Transition. The Communication Identifier End State Transition (CID Transition), i.e., the "Transition to Modernized PILs," plan is back on and the first set of products will be transitioned this winter. The process will take about 18 months to complete. Our customers (especially national), have been requesting we transition our products to the promised modernized PILs as in our definition of "end state." We want to thank everyone ahead of time for your help during this important project. If you have any questions, please contact Melinda Bailey or Eric Howieson at SRH.

NWS Headquarters has put much of the documentation online already. You can view the plan, schedule, and appendices at: http://www.nws.noaa.gov/datamgmt/NWS_CID_Transition_Plan.html

NOAA WEATHER RADIO

WFO San Angelo Goes to the Fair. Thanks to the dedication of WFO San Angelo staff and the generosity of area partners, WFO San Angelo participated in the annual West Texas Fair and Radio in Abilene, Texas last month. The Abilene Local Emergency Planning Committee (LEPC) sponsored the booth and a phone line for WFO San Angelo. Camalott Communications of Abilene sponsored the internet connection, while the Midland Corporation sponsored two NOAA Weather Radio giveaways. The LEPC Chair, said "we appreciate what WFO San Angelo has done for the city of Abilene."

The staff at WFO San Angelo met many customers from the Big Country and surrounding areas. Over a thousand customers stopped by to sign up to win a NOAA Weather Radio. The two biggest hits this year were CWA stickers designed for remote controls and the Owlie SKYWARN booklet. The kids loved this booklet. Throughout the week of the fair, a local radio station in Abilene, KWKC, talked about WFO San Angelo's public service participation.

Weather Radio Expansion. Southern Region was at various stages of NOAA Weather Radio installations last month. A 1000 watt dual transmitter was brought on-air at Woodward, Oklahoma. This site was made possible through the gracious gift of the Pioneer Telephone Company with broadcast audio originating from WFO Norman. The NWR station will serve that part of northwest Oklahoma east of the Oklahoma panhandle. The addition of these two sites brings to 26 the number of NWR stations that have been brought on-air in Southern Region.

HYDROLOGIC SERVICES BRANCH

WFO ALBUQUERQUE GIVES CLIMATE/DROUGHT PRESENTATION. Interest in drought and climate issues continues to increase in New Mexico. On September 10, WFO Albuquerque SOO Deirdre Kann participated in a forum on climate change held by the University of New Mexico Water Resources and Law schools. Deirdre was one of three presenters at the forum, which was followed by a question and answer session involving the audience. Diedre also gave a presentation at the University of New Mexico on September 12. Her presentation focused on climate variability in New Mexico during the 20th century.

WFO ALBUQUERQUE PARTICIPATES IN THE NEW MEXICO DROUGHT SUMMIT.

Last month, WFO Albuquerque MIC Charlie Liles spoke to 400 people attending the 2003 New Mexico Drought Summit on "Defining and Assessing Drought - A Moving Target." Charlie was joined by Don Wilhite, director of the National Drought Mitigation Center, and a number of other speakers from around the country. The summit was developed by Governor Richardson's office.

WFO ATLANTA DEVELOPS HYDROMETEOROLOGY COMMUNICATOR.

WFO Atlanta senior service hydrologist Jim Noel has created a hydrometeorology communicator to foster communication of weather events dealing with hydrology over the long haul. The communicator provides an email forum for several local, government, and interagency organizations. Potential topics include rainfall information, historical data analysis, and potential forecasts.

WFO TALLAHASSEE MEETS WITH FLORIDA AREA ONE COORDINATOR.

Emergency management representatives from Bay, Holmes, Washington, and Walton counties met with the Florida area one coordinator Jimmie Helms and the senior service hydrologist from WFO Tallahassee to discuss various concerns about the Choctawhatchee River Basin.

Jimmie Helms is coordinating with the affected counties to develop an official request for the establishment of a new River Forecast Point at Bruce-Ebro, Florida. The emergency managers also expressed a strong interest in having a day devoted to NWS product training and basic hydrology at the next Florida hurricane conference. They would like to better understand how to use our products (meteorological and hydrologic).

LMRFC AND WFO BATON ROUGE/NEW ORLEANS HOSTS JAPANESE VISITORS.

On September 14, LMRFC and WFO Baton Rouge/New Orleans staff provided a tour and briefing to the Nippon Network Akiko Fujikawa Japanese Study Group. The group, composed of 18 people including an interpreter, was in New Orleans for the American Society for Industry Security International and National Cargo Security Council Conference.

LMRFC SUPPORTS NOAA HAZMAT IN BURNING BARGE INCIDENT.

On the morning of September 8, a tugboat with 60,000 gallons of diesel fuel caught fire on the Mississippi River near Helena, Arkansas. The tugboat was pushing 24 barges and the barge nearest the tugboat was filled with 360,000 gallons of 1,1,1-trichloroethane, a toxic liquid. On-site emergency personnel decided to let the tugboat "burn out" but had concerns about the toxic liquid in the adjacent barge. Due to initial fire fighting efforts, over 300 gallons of fire fighting foam, which is also toxic, were used. NOAA's Hazardous Material Assessment Team (HAZMAT) was called to assess the environmental impact of the firefighting foam and the toxic liquid in the barge nearest the tugboat should it be released. In support of NOAA HAZMAT efforts, the Lower Mississippi RFC provided observed and forecasted stages, discharges, and flow velocities at the water surface and mid-depth. LMRFC coordinated with the Memphis Corps of Engineers in obtaining these data. LMRFC provided this information for the two days it took for the fire to burn itself out.

HURRICANE LIAISON TEAM ACTIVATION. Arkansas-Red Basin RFC DOH Bill Lawrence provided hydrometeorological support for the Tropical Prediction Center as part of the Hurricane Liaison Team activation during Hurricane Isabel. Bill performed his duties September 18-19. Bill's main job was to coordinate with the impacted RFCs to ensure that the briefings for FEMA went smoothly. This included consolidating the RFC graphics for the national FEMA briefings and ensuring the graphical information provided met the needs for the FEMA briefings. Bill also answered incoming phone calls for information about the storm and provided audio hydrometeorological updates to the Real Media section of the FEMA Web page.

AHPS EDUCATIONAL OUTREACH WORKSHOP. SR HSB, in collaboration with folks from the ABRFC and CR, conducted an AHPS educational outreach workshop for the staff at WFO Albuquerque in preparation for AHPS basic service implementation at eight river forecast point locations. People attending included HSB chief Ben Weiger, ABRFC senior hydrologic forecaster John Schmidt, ABRFC hydrologic forecaster Janet McCormick, and Jayant Deo from Central Region. Ben gave an overview presentation on the NWS AHPS program; Jayant gave a presentation about the importance of educating ourselves and our customers about the new probabilistic hydrologic information on the AHPS Web page and providing clear descriptions and definitions about the information online; and John and Janet provided background information about the Ensemble Streamflow Prediction model used to generate probabilistic hydrologic forecast information. WFO Albuquerque MIC Charlie Liles and his staff were outstanding hosts for this workshop. ABRFC and WFO Albuquerque agreed to collaborate on an AHPS customer service workshop in Albuquerque in FY04.

AHPS MEETING. WFO Paducah hosted an inter-regional AHPS meeting September 2-4. The meeting focused on providing WFO Paducah with consistent RFC probabilistic hydrologic forecast information for their AHPS Web page to satisfy their customer base. WFO Paducah is supported by multiple RFCs from three NWS regions. There was also significant discussion about the Ensemble Streamflow Prediction Model Analysis and Display Program outputs and AHPS Web pages. Attending from Southern Region were HSB chief Ben Weiger, SERFC senior hydrologic forecaster Todd Hamill, and LMRFC HIC Dave Reed.

ACTIVE WEEK AT SERFC. During the week of September 15, SERFC staff were busy with multiple activities concurrent with flood forecast operations associated with Hurricane Isabel. They hosted a FLDWAV modeling workshop for their partners, including representatives from the NOAA Coastal Services Center and the University of Florida. They also continued to train two scientists from Vietnam on the NWS River Forecast System.

PROLONGED RIVER FLOODING IN TAMPA BAY AREA HSA. From June 1-August 31 (which is climatologically defined as Florida's rainy season), eight precipitation observing locations recorded between 40-50 inches of rain in the Tampa Bay Area HSA according to WFO Tallahassee service hydrologist Eric Oglesby. This includes 41.31 inches recorded at the airport in Brooksville, Florida. Due to this heavy rainfall, and additional rainfall in September, river flooding has persisted at some river forecast points for weeks to several months.

SCIENTIFIC SERVICES DIVISION

HURRICANE! A book by this title - edited by Robert Simpson and subtitled *Coping with Disaster* - has been provided to all offices with coastal responsibilities. The book was published this year by the American Geophysical Union and is a compendium based on presentations at a historical symposium on hurricanes convened by the AGU in December 2000. As noted by Dr. Simpson in his Preface, the volume is intended not so much as a "historical treatise on 20th century progress [which it certainly is] ... but rather, in the spirit of the symposium, as an analysis of factors which stimulate, or at times inhibited, a century of progress." The list of contributing authors is a who's-who of individuals most knowledgeable on scientific and sociological factors associated with tropical cyclones. The book should provide a significant reference source for office libraries. SSD will provide copies to the remaining offices this month.

HURRICANE RE-ANALYSIS PROJECT CITED. WFO Jacksonville WCM Al Sandrik and Chris Landsea, from the NOAA/AOML Hurricane Research Division, were interviewed recently by *New Scientist* magazine regarding their North Atlantic hurricane re-analysis project. Their work has uncovered many historical storms not previously included in hurricane records, and allowed reinterpretations of storm frequencies and cycles. Results are highlighted on the *New Scientist* Web site at <http://www.newscientist.com/news/print.jsp?id=ns99994197>. Congratulations on this recognition, Al and Chris ... the magazine bills theirs as "The World's No.1 Science & Technology Website."

CWSU AND SMG VISIT. In mid-September WFO Austin/San Antonio forecaster James Ellis visited CWSU Houston and the Spaceflight Meteorology Group at NASA's Johnson Space Center in Houston. CWSU MIC Vince Carreras provided him with an overview of operations, and forecasters Scott Jackson and Leslie Peterson briefed Jim on specific products issued by the CWSU. Discussions about how TAFS are produced by the WFO forecasters, and how they are incorporated into CWSU operations and products were especially beneficial to both Jim and the CWSU staff. Visiting the SMG the next day Jim was provided with a brief overview of the SMG by MIC Frank Brody. Karl Silverman gave him a behind the scenes tour of the JSC's Mission Control Center, and Tim Garner briefed him on SMG operations. Doris Rotzoll and Richard Lafosse demonstrated the use of MIDDs, AWIPS and the WSR-88D in preparing the specialized forecast products they use to support NASA operations. Such inter-office visits are very beneficial to the NWS, since they allow WFO meteorologists to see how their products are used by other NWS staff who are working directly to support other agencies - in this case the FAA and NASA.

PAPERS OF INTEREST. The following papers deal with events or aspects of events which should be of particular interest to SR forecasters. All appeared in recent issues of *Monthly Weather Review*.

"Cloud-to-Ground Lightning and Surface Rainfall during the Great Flood of 1993," by **Nicole Kempf** (WFO Tulsa) and E. Philip Krider (University of Arizona). June 2003. The authors detected a regular, reproducible relation between daily rain volumes and CG lightning strikes, suggesting CG lightning frequency may be useful for estimating areas of heavy rain and associated flooding in long-lived MCSs.

“Summer Weather Simulation for the Semiarid Lower Colorado River Basin: Case Tests,” by J. Li, X. Gao, Bob Maddox, S. Sorooshian, and K. Hsu (University of Arizona). March 2003. Case studies with a high-resolution (RAMS) model nested inside the operational Eta demonstrate improved forecasting for localized convection, in this case flood producing rains over Las Vegas. The model also provides useful insights into meteorological characteristics of this climatologically dry region.

“Variations in Cloud-to-Ground Lightning Characteristics among Three Adjacent Tornadoic Supercell Storms over the Tennessee Valley Region,” by Kevin Knupp and Simon Paech (University of Alabama in Huntsville), and Steve Goodman (NASA Marshall Space Flight Center). January 2003. The researchers note in these storms that there was an inverse relation between CG activity and area of most intense radar echoes (inferred hail), and they relate this and other observed features to interactions among the storms.

And in recent issues of *Weather and Forecasting*:

“An Unexpectedly Heavy and Complex Snowfall Event across the Southern Appalachian Region,” by **David Gaffin** and **Stephen Parker** (WFO Morristown), and **Paul Kirkwood** (SRH/Dissemination Enhancement Team). April 2003. The authors analyze the effects of induced mesoscale mountain waves on snowfall location and enhancement.

“Assessing the Skill of Operational Atlantic Seasonal Tropical Cyclone Forecasts,” by Brian Owens (University of Miami) and Christopher Landsea (NOAA/AOML/Hurricane Research Division). February 2003. The analysis shows that over the past 18 years seasonal forecasts produced by Dr. William Gray demonstrated some skill over climatology and persistence.

MOS THUNDERSTORM FORECASTS. Recently, discussions related to PoP forecasts led to a question regarding how MOS PoP and MOS AVN thunderstorm forecast guidance might be related. Kathryn Hughes at the NWSH Meteorological Development Lab provided the following explanation:

I developed the most recent suite of MOS thunderstorm guidance. The thunderstorm guidance was developed independently from the PoPs. The current Eta/GFS (both AVN and MRF packages) thunderstorm guidance was developed using cloud-to-ground lightning to define the occurrence of a thunderstorm, so the guidance indicates the likelihood of a CG lightning strike in a 48-km grid box. (We analyze it to a 40-km AWIPs grid for the graphics and GRIB products.) Precipitation was not used as a predictant in the MOS thunderstorm development. The older 6- and 12-h NGM thunderstorm product did use a combination of radar data and "T" observations since it was developed before the NLDN data were available.

I am currently updating the guidance to cover 3-h periods, and modifying the development grid to cover 40-km and possibly 20-km grid boxes. MDL is also experimenting with the issue of providing probabilities, and maintaining usefulness as the time periods and/or the grids get smaller, usually resulting in smaller probabilities. As a side note, we have quality control checks built into the MOS guidance. For the probability products (PoPs and TSTMs) we check the consistency of the guidance to make sure the 24-h products are at least as great as either of the two corresponding 12-h periods, and the 12-h periods are checked against the corresponding 6-h periods if available. If there is an inconsistency, the probability of the longer time period is raised to be as great as the largest probability of the smaller time periods.

NWS LEARNING MANAGEMENT SYSTEM. All NWS employees should now be able to access in the Learning Management System (LMS) at <http://e-learning.noaa.gov>. Although the NWS courses will not be added to the site until early next year, all NWS employees can take any of the Free Courses listed in the course catalog, and those individuals for whom subscriptions have been purchased can access the libraries of business and professional courses offered by SkillSoft and NETg and/or the IT security courses offered by Karta.

All employees should ensure they have a secure password for the LMS. First time users will be asked to change their password as they log onto the system. Everyone can change their password at any time by selecting My Courses --> Personal Info from the LMS menus. Please contact Bernard Meisner (SSD) if you don't remember your user name or initial password. Users can also review their library access levels on the Personal Info page. Access levels "ABC" are for the SkillSoft and NETg business and professional libraries; "E" is for the Karta IT security library (listed as "IT SECURITY (Extra Cost)" in the catalog); "L" is for the Free Courses; and "W" is for the yet-to-be-added NWS courses.

To enroll in any course to which you have access, display the course in the catalog, then click on the course title. You will then see a page with a description of the course and a "Register" button (if you have access to that course) or a message informing you that you do not have the appropriate access level for that course.

There has been a change made regarding when the access levels can be changed so a student can register for any of the commercial online course libraries offered by SkillSoft, NETg and Karta. Access to these libraries requires that a fee be paid. The Department of Commerce staff cannot keep up with adding names from all agencies once per month, as is currently being done. They have decided to establish "open seasons" when agencies can request changes to the access levels. The next "open season" for the NWS will be November, for upload to the system December 1. So, any names which are submitted to Bernard Meisner (SSD) from now through mid-November will be added to the LMS on December 1. Names submitted after mid-November will not be added until the next NWS "open season." The cost for access to the libraries has yet to be determined, but will be less than \$100 per person per library.

NOTICE OF CRISIS CHANGE TO 3DVAR ANALYSIS IN ETA/EDAS. For some time the NCEP Mesoscale Modeling Branch (MMB) has been searching for the reason why Eta model forecasts initialized using the Global Forecast System (GFS) analysis are superior to the operational runs initialized with the Eta's three dimensional variational (3DVAR) analysis. There are a rather small number of differences between the Eta and GFS analysis systems since they are both based on the same 3DVAR concepts. These differences include horizontal domain & resolution (global ~55km vs. North America ~12km), vertical domain (model top 0.2 mb vs 25 mb), balance constraints (strong vs. weak), use of digital filter (yes vs no), amount of data (more from late data dump vs less from early data dump) and use of surface data (only surface pressure data over land vs all surface data over land). The MMB has spent a lot of time and effort on the balance issue but, to make a long story short, they have very strong evidence that the GFS vs. Eta differences are due to the use of surface data and, specifically, the use of surface temperature data.

Upon review, the MMB believes that the Eta's 3DVAR is handicapped by being cast in the step-mountain (Eta coordinate) framework. Because this is not terrain following, it is impossible to cleanly limit the vertical influence of surface data as is done in the current GFS analysis, the RUC

3DVAR and was done in the previous Eta Optimum Interpolation analysis. Anisotropic covariances with vertical stability dependence cast in a terrain following coordinate (at least near the surface) has been the MMB's long-term goal, but that implementation is too distant to delay. Hence, the MMB has decided to ignore the surface temperature observations (but not the surface pressure, wind or moisture data) until methods can be found to limit their influence. This change was implemented in early September.

VOLUNTEER EVALUATORS SOUGHT FOR TWO PROJECTS.

GOES/POES Soundings on AWIPS with New Microburst Parameters. The NESDIS is requesting your feedback on the utility of the AWIPS GOES/POES soundings in general and the microburst parameters in particular. For more details on these parameters, please go to: <http://orbit-net.nesdis.noaa.gov/arad/fpdt/mb.html>. Bernard Meisner (SSD) will collect your subjective evaluations and forward them to the appropriate NESDIS folks.

Proposed Upgrade to the GFS. The Environmental Modeling Center (EMC) has proposed upgrading the analysis and forecast components of the Global Forecast System (GFS) in early December 2003. Modifications are planned to assimilate new GOES-12 radiance data to improve the use of IR radiance data. More GFS model data will be incorporated into the analysis to more accurately model sea surface emissivity. Preliminary testing of this component of the implementation has shown a slight improvement in the traditional forecast skill scores.

The GFS forecast will be changed to more accurately simulate air flow in the vicinity of mountainous terrain. The expected impact on the GFS system will be a general improvement in the Northern Hemisphere, a slight reduction in the low bias of geopotential height, and a reduction in the number of very poor ('bust') forecasts.

EMC plans on performing a 30-day retrospective run for January 2003 in addition to approximately 90-days of real-time parallel testing expected to begin in mid-September. Model output from the retrospective runs and the operational runs for January 2003 in the form of image files will be available beginning on NCEP's Web server in early October 2004. Specific information about the retrospective and parallel data availability will be sent to those intending to participate.

Participants will be asked to indicate the overall performance of the new version of the GFS, with any additional comments on specific cases with particularly good or poor performance. Bernard Meisner (SSD) will collect your subjective evaluations and forward them to the appropriate NCEP folks.

NCEP QUARTERLY BACKUP TEST. The NCEP will perform its next quarterly backup test on Thursday, 2 October 2003. This test will exercise their ability to send backup products from the processors at the Telecommunications Operations Center (TOC) to both NOAAPORT and the TOC FTP servers. For this test they will send only the 1400 UTC RUC products generated by FSL in Boulder using the NCEP backup processors. All other products will be disseminated from the NCEP Central Computing System as normal.

DISTANCE LEARNING AVIATION COURSE UPDATE. The COMET has opened the first Distance Learning Aviation Course (DLAC) to aviation focal points and one other person from each office. (They anticipate opening it up to more people in the near future). Each participant must

register using the online form at: <http://meted.ucar.edu/dlac/website/form2.htm>

Each participant must also register for each of three teletraining sessions. The first session is selected on the registration form. Participants can sign up for the second and third sessions using the calendar at: <http://meted.ucar.edu/dlac/website/nws.htm#cal>

Download information for each teletraining presentation is sent to the participants three to five days before each session. The COMET is using the VISITView software for the teletraining, but the materials are being distributed as ZIP files rather than self-extracting executables. Since the presentations are continually being updated, participants should ensure that they have the most recent version (as specified in the e-mail with the download instructions).

NEW PRECIPITATION CLIMATOLOGIES. Matt Sitkowski, an NWS SCEP student and meteorology undergraduate at Florida State University, has undertaken an analysis of precipitation frequencies over the southern United States. Using hourly precipitation data from 1968-97, Matt is calculating monthly precipitation frequencies for 3-, 6-, 12-, and 24-hr periods for over 300 sites in Southern Region. Matt's results will provide forecasters with valuable guidance to assist with PoP forecasts in IFPS as efforts are made to focus on shorter time periods. See the [technical attachment](#) included this month for more information and sample graphics.

AWIPS FLASH FLOOD MONITORING PROGRAM. The staff of the Meteorological Development Laboratory (MDL) note there continue to be some lingering questions about workstation performance of the Flash Flood Monitoring Program (FFMP) in AWIPS, despite the fact that the FFMP displays in D2D were ported to Linux several builds ago. Performance of the FFMP is fast and reliable on the Linux workstations. Feedback this summer from offices using FFMP has been outstanding. We highly encourage offices that may have deferred using FFMP on the HP workstations in the past for flash flood operations to try the application on the Linux workstations. If you need assistance with FFMP set-up please contact Mike Churma or Tom Filiaggi at MDL.

WFO AMARILLO HOSTS MEDIUM RANGE FORECAST SEMINAR. On September 25, WFO Amarillo hosted a one day medium range forecasting seminar. In addition to 13 forecasters from WFO Amarillo, five forecasters made the trip from WFO Lubbock to join in the seminar. Robert Oravec from HPC was the keynote speaker for the seminar. His presentation focused on medium range forecasting methodology and the strengths and limitations of medium range forecasts. Mark Fox (WFO Amarillo) gave a short presentation on WFO Amarillo's extended forecast verification project. The exchange of experiences between the HPC and the field offices is expected to improve the products used by NWS customers. Steve Cobb (WFO Lubbock SOO) summed up his forecasters' view of the seminar as follows: "The seminar by Mr. Oravec provided the Lubbock forecasters with a greater understanding of HPC's overall forecast process in the medium range as well as supplying them with valuable suggestions to help better our own forecasts in this time period. Training opportunities such as this greatly helps minimize the disconnect between the National Centers and the WFO in forecast procedures and operational philosophies."

NATIONAL WEATHER ASSOCIATION ANNUAL MEETING. The National Weather Association will hold its annual meeting in Jacksonville this month. Staff from WFO Jacksonville

are serving on the local arrangements committee and, as always, a large number of personnel from SR field offices will participate. A [*list of presentations*](#) authored or co-authored by NWS Southern Region participants is attached to this issue of Southern Topics.

PACIFIC SST OSCILLATIONS AND U.S. TORNADO FREQUENCIES. Glenn Carrin (WFO Shreveport) has examined the relationship between the Pacific Ocean sea surface temperature oscillations and the spatial distribution of tornadoes across the contiguous states. His [results](#) are attached to this issue.

SYSTEMS OPERATIONS DIVISION

SYSTEMS INTEGRATION BRANCH

AWIPS. WFOs San Juan and Morristown, and the West Gulf RFC have successfully installed the new Linux workstations. Overall the installs went well with a few minor issues that are being addressed. If current deployment dates remain on schedule and the Operational Acceptance Test uncovers no significant problems, national deployment should begin in November.

The recent change to the Satellite Broadcast Network (SBN) had an unintentional effect. As a result of the combining of the two satellite imagery channels on the SBN to one and moving the OCONUS imagery to another channel, our WFOs in Miami and Melbourne lost the OCONUS imagery which is critical for their backup operational support of WFO San Juan. New hardware is required in order to resolve this problem for these sites. Our AWIPS program manager Eric Howieson elevated this issue with the NCF as Hurricane Isabel began to threaten Puerto Rico. Working with the NCF, Eric was able to obtain the necessary hardware for WFO Miami which has primary backup responsibility for Puerto Rico.

CRS/NWR. NOAA Weather Radio deployment continues to grow in the Southern Region with the addition of a new site installation in Woodward, Oklahoma. The Armstrong Transmitter Corporation installed a 1000 watt transmitter which will serve the much needed north central listening area of Oklahoma. The addition of the new site brings to 26, the number of NWR stations brought on-air in Southern Region this fiscal year.

On the immediate horizon are two future sites that Southern Region is very excited about. Within the coming weeks the NWR program will be installing a 1000 watt transmitter at St. Croix located in the U.S. Virgin Islands. Programmed audio will be broadcast from WFO San Juan.

The second installation will be a 1000 watt Spanish transmitter in El Paso. The Spanish transmitter will be the first of its kind in the region. The broadcast audio, which will be in Spanish, will originate from WFO El Paso.

OBSERVATIONS AND FACILITIES BRANCH

MIC/HIC ENVIRONMENTAL DUTIES SUMMARY. The duties required of the station manager by the new Environmental Management Manual 50-5116 and NWS Environmental Policy 50-51 were summarized for dissemination to Southern Region MICs and HICs.

NOAA-REQUIRED DUPONT SAFETY TRAINING. Course registration information for the DuPont safety training for NOAA senior managers was added to the DuPont Web page and provided to Southern Region managers. A bug in the DuPont software slowed registration at first, but it has been fixed. A meeting with the hotel conference staff is planned to finalize equipment and room configuration.

NOAA STAR TRAINING AT SRH. The NOAA course “Stop Taking Avoidable Risks” has been finalized for October 15 at SRH. Three ECS focal points from SR, plus the ECS coordinator from SRH, will attend and later train fellow ECS focal points from adjacent offices. A member of the U.S. Public Health Service assigned to NOAA may also attend at SRH.

WFO FORT WORTH RADAR HVAC MODS. A proof of concept cooling unit was installed at the Fort Worth RDA shelter at Spinks Airport to improve the cooling unit configuration. The placement and age of the two existing units combined to cause periodic failures when winds were from the southwest. Since installation there have been no more cooling alarms.

GALVESTON COUNTY EMERGENCY MANAGEMENT FACILITY. The Galveston County Emergency Management Facility is scheduled to be released for bid on October 9 with construction beginning in December 2003. Completion of the facility is scheduled for February 2005. Relocation of WFO Houston/Galveston to the new facility and operations should commence sometime in March 2005. The total anticipated cost for the facility is \$5,244,000.00.

PCB-CONTAINING UPPER AIR TRANSFORMERS. Most PCB transformers have been collected from Central Region UA sites and Southern Region is next to be visited by the environmental contractor in October. SR has 18 sites with PCB transformers either installed in the ART-2 electronics bay or in storage. All should be collected and removed by the end of October.

FISCHER PORTER UPGRADE. The Operational Readiness Evaluation plan for the Fischer Porter Upgrade (FPU) has been completed. Testing of the FPU will begin early this month and continue for 60 days.

IV-ROCS TRANSITION. The transition from PC-ROSA to the new Interactive Voice - Remote Observation Collection System (IV-ROCS) is progressing smoothly. During the period of Sept 1 - 12, 2003, a total of 5,200 daily weather observations were collected, coded, and transmitted via AWIPS. The new IV-ROCS uses voice technology to assist the volunteer observer in submitting daily observations. Internal quality control of the data, with the observer providing verification, has greatly improved the data used at the WFOs, RFCs and by our customers. Contract negotiations to enhance the system’s performance are currently underway and should be awarded the first quarter of FY2004.

HOLM AND JEFFERSON AWARDS. The Thomas Jefferson and John Campanious Holm awards for the SR volunteer observers have been received. These certificates will be framed before they are forwarded to the local WFOs for presentation later this fall. These are the highest awards the NWS presents to the volunteer observers.

SURFACE OBSERVATION PROGRAM. Southern Region received 61 requests from the aviation community for new certificates, cancellations, and changes in type of surface certificates last month.

UPPER AIR OBSERVATION PROGRAM. Southern Region's upper air station performance scores for August were excellent with four of the five top-rated sites in the nation in Southern Region. Also in August, 16 of the 23 upper air sites in SR had rating scores above the national average of 285.07.

The number one station performance score in the nation in August was achieved by the WFO Atlanta upper air staff. Since their March performance score of 261.75, Atlanta's upper air performance scores have shown a steady improvement in reaching the top spot. In June their rating was 293.90 with a slight dip in July to 287.50 then rebounding to the top spot in the nation in August with an outstanding rating score of 299.12.

We just became aware of a critical part shortage in the upper air program. The upper air reference generators are out of stock, and no systems are available for refurbishment or repair. When we checked with NLSC about this situation, they were aware of it but were unable to tell us when the reference generators would be available again. If an office has an outage of this part the upper air at that site will be down until the part can be refurbished.

RADIOSONDE REPLACEMENT SYSTEM (RRS) A conference call was held last month with 18 of the 23 SR upper air sites participating. The conference call was held to discuss the upcoming RRS deployment in SR. All participants were briefed on the latest RRS deployment information.

Three important action items were generated from the call:

- (1) Need to provide sites with information regarding the RRS modem. The RRS modem is not compatible with Codex modems that have 8.0 firmware installed in AWIPS.
- (2) Check to make sure lift rings are available.
- (3) Set up a disposal plan for both ART I and ART II upper air sites and determine who will dispose of the discarded ART I & ART II equipment.

Southern Region Headquarters received the new RRS workstation in September. Upon arrival, the RRS workstation was installed and checked for any problems. The RRS workstation will be used to review the RRS documentation and assist in training regional and local upper air observers utilizing the simulated live and canned upper air flights.

RADIOSONDE SURFACE OBSERVING INSTRUMENTATION SYSTEM (RSOIS). Phase II Implementation of RSOIS is near completion in Southern Region. Early last month, WFO Lake Charles' electronics staff installed the software needed to display the RSOIS data on an office PC. This software installation completed their RSOIS installation. WFO Little Rock has contracted a company to lay the grounding system for their RSOIS. Once the grounding work is complete, all RSOIS Phase II installations will be completed.

Notification has been sent to local WFO ET staff at each RSOIS site that condensation may be forming inside the RSOIS Remote Processing Unit (RPU) causing corrosion of electrical connectors. This can result in erroneous RSOIS data readings. If condensation is forming inside the RPU, the local staff should install humidity packs in the RPU to help eliminate the condensation. Also, it was recommended that humidity strips, indicating the amount of moisture in the unit, be installed to assist the ET in replacing the humidity packs.

WFO AUSTIN/SAN ANTONIO INDOOR AIR QUALITY SURVEY. A survey of the WFO building interior and exterior by an investigator for the U.S. Public Health Service found no obvious signs of active mold or contamination that would cause serious long-term health problems for employees. However, some recommendations were made for improvements in indoor air quality, such as upgrading the HVAC air filters, modifying the HVAC controls to reduce interior humidity levels and eliminate diesel generator exhaust in the building. An old mold stain on the wall of the ET shop was noted and later removed by office personnel.

WFO MIDLAND/ODESSA REVERSE OSMOSIS WATER PURIFICATION SYSTEM. A 250-gallon per day reverse osmosis system is being installed in the WFO building for drinking water and the three HVAC steam humidifier units, which are adversely affected by the high mineral content in the water. If the system works as expected, other locations in the region with high mineral content and inactive humidifiers will be considered for reverse osmosis water purification systems.

WIRE WEIGHT RIVER GAUGE REPLACEMENTS. Approximately 20 sites with wire weight river gauges, considered primary for stream flow measurements, are being converted to staff gauges due to OSHA safety concerns with observers reading the gauges on bridges with inadequate guardrail systems. Three gauge sites in Georgia will be test cases for conversion by both facilities and local office hydrology personnel.

NEW ORLEANS WATER UTILITY CONVERSION. WFO New Orleans is being converted from a water well and an on-site wastewater treatment system to the city water and sewer service. The well is being retained for lawn irrigation only. State permits for waste disposal and water testing will no longer be needed and the state will be notified of the changes.

ADMINISTRATIVE MANAGEMENT DIVISION

DIVERSITY/EEO AND COMMUNITY OUTREACH ACTIVITIES

WFO SHREVEPORT meteorologist Mary Keiser gave a tour of the office to a group of 38 students from Caddo Middle Career School of Shreveport explaining the functions of the NWS. Mary also gave a talk to 143 seventh grade students at Caddo Middle Career School the next day presenting her virtual tour slide show. Caddo Middle Career School is approximately 95 percent African-American.

WFO ATLANTA STAFF RENDERS AID. One afternoon last month electronics technicians Steve Scott and Tim Bridges were returning to the WFO after working on a LARC gauge south of Atlanta. Suddenly a pickup truck swerved across the highway median into their lane at high speed, striking a vehicle ahead of them, and missing their vehicle by just inches. The truck crashed into a pole behind them. They stopped to aid a woman in the car ahead of them which had been hit by the truck. She appeared to be in shock, but had no apparent injuries. Tim stayed with her while Steve checked on the driver of the truck. Several others had also stopped to render aid. The passenger in the truck was distraught and thought her driver, incapacitated by the accident, was having a heart attack. Steve immediately recognized the driver's symptoms as a possible epileptic seizure. Because of his personal experiences and his CPR and first aid training, Steve was able to position the driver and help ensure his well-being for the remainder of his seizure. Steve and Tim stayed with the drivers until emergency response officials arrived and completed their tasks. The truck driver was taken by ambulance to the hospital. All others involved appeared to be doing well when the officials left the scene.

The selfless and caring actions of Steve Scott and Tim Bridges are yet another example of how NWS employees make a positive difference in this world. They saw people in trouble and thought only of how they could help. Whether as part of our day-to-day operations, or in emergencies such as this, that scenario is played out over and over. This accident did not make the news headlines, but it was no less a harrowing experience for all involved, and no doubt those involved will remember Tim and Scott for their quick and professional action. Congratulations, gentlemen.

WFO BROWNSVILLE. WCM Jesus Haro and the staff of the WFO have been instrumental in helping the local Telemundo affiliate in McAllen, Texas, "spin-up" their weather broadcasts during a newly formed news telecast from the station. The television personality assigned to perform the weather segment of the news had no previous weather knowledge or education. Therefore, Jesus gave the newly-appointed weathercaster a crash course in deep south Texas meteorology.

The weather segment uses properly credited NWS maps exclusively, and Jesus has offered to provide support during significant weather events through Spanish language interviews and preparation prior to the news broadcast. WFO Brownsville was able to provide this assistance to the station thanks to the strong relationship that has been forged between Telemundo and the WFO during the past four years. The Spanish language station serves 50% of the Rio Grande population that speaks Spanish primarily in the home, as well as viewers in northern Tamaulipas state.

Lead forecaster and marine focal point Jeff Philo received thanks on behalf of WFO Brownsville from the captain and cadre of the Texas Treasure Cruises in Port Isabel for outstanding marine forecasting during the first frontal passage this year. The WFO staff was personally thanked by the crew for their fine forecasting and attention to detail. WFO Brownsville's Web page with Doppler radar loop and easy accessible marine observations is a constant companion to the officers on the bridge.

DAPM Jim Campbell and HMT Alfredo Vega gave a hurricane presentation to 60 migrant students in Vermillion Elementary School. The hurricane history of the lower coast was emphasized as well as the ongoing hurricane season. Alfredo was of great help by answering some of the children's questions in Spanish.

WFO EL PASO-UTEP EXPLORES ATMOSPHERIC SCIENCES RELATIONSHIP.

Members of the WFO El Paso area staff met recently with a group from the University of Texas-El Paso (UTEP) Department of Geology to discuss an emerging relationship based on UTEP's expanding emphasis in environmental science. UTEP's interest with the NWS stems from a NOAA grant recently awarded to their Department of Geology, and will necessitate a broad appreciation for, and understanding of, the way weather and climate affect environmental issues. WFO El Paso will serve as a resource in the development of an undergraduate curricula in the fundamentals of weather as it relates both to the non-technical (education majors) and technical (science and engineering majors) students. NWS forecasters also may be called upon to provide facility tours, visiting instruction, and as subject matter experts on specific aspects of meteorology (hazardous weather, environmental response to airborne hazards, pollution, dispersion, etc.). UTEP intends to begin instruction in basic weather and climate during calendar year 2004.

WFO SAN JUAN. WCM Rafael Mojica spoke to 25 members of the Military Officers Association of America, Puerto Rico Chapter at their monthly meeting. Rafael provided an overview of the 2003 hurricane season, basic hurricane preparedness plus an outlook for the remainder of the season. Rafael also conducted a one-hour talk on hurricanes and flash flooding for 30 emergency managers of the Puerto Rico Emergency Management Agency Northeast Region on September 26.

WFO San Juan continues to support the University of Puerto Rico undergraduate program in environmental science. Forecaster Ernesto Morales recently lectured 65 junior students on the NWS mission and services provided by the WFO San Juan during their environmental seminar class.

The San Juan Star, a local newspaper, devoted three pages in the Monday, September 8 edition, to the WFO and its local hurricane preparedness program and day-to-day operations. Pictures of operational staff members and equipment were shown. The article reflected very positively on the National Hurricane Center and WFO SJU interaction during tropical events.

WFO TALLAHASSEE's EEO/outreach program remained active during September. Senior forecaster and EEO focal point Ron Block and MIC Paul Duval met with Steve Ash, director of Science Education for Tallahassee area schools. In addition to touring the office, he was apprised of the office's education programs and discussions centered on developing more active outreach activities. In commemoration of National Hispanic Heritage month, Ron discussed, in Spanish, careers in meteorology at a Quincy, Florida, elementary school where more than half the students speak Spanish as their first language. He also distributed relevant material and staffed a career booth at the Hispanic Day festivities at the International Student Center at Florida State University.

WCM Bob Goree visited the Florida A&M University campus (a minority servicing institution) and appeared as a guest on the WANM radio program "In the Know." The program focused on hurricane preparedness and safety. Bob also delivered 600 Florida Hazardous Weather Awareness guides to be distributed to students and faculty. Forecaster Brandon Bolinski lectured to around 100 fourth graders at Roberts Elementary School in Tallahassee. His talks focused on severe weather and weather safety.

The staff led numerous office tours for various schools and organizations. WFO Tallahassee also hosted several SCEP students who perform a variety of operational and/or research duties.

Additionally, three FSU students served as interns (course credit), and others as volunteers. They shadow the forecasters and HMTs learning about the mission and responsibilities of this agency.

SOUTHERN REGION WORKFORCE TRANSACTIONS <u>SEPTEMBER 1 - 30, 2003</u>

<u>Southern Region Gains</u>			
<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Paul Iniguez	LZK	Transfer from CR	Meteorologist, GS-7
Christopher Carney	FFC	Transfer from NRC	Electronic Technician, GS-11
Jeffrey Cupo	MAF	Transfer from OSF	SOO, GS-13

<u>Within Region Transfers/Actions</u>			
<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Patricia Atwell	FFC	Transfer from BMX	Meteorologist, GS-12
John D. DeBlock	BMX	Promotion from BMX	Meteorologist, GS-13