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

November 2004

SOUTHERN TOPICS

Working Together To Save Lives

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REGIONAL DIRECTOR

With an El Niño pattern in place, persistent heavy rain has been common over much of the Southern Plains and interior Southeast for the past several weeks. In fact, parts of west Texas and southeast New Mexico have had *five to ten times* their normal November rainfall. Flooding is the common companion to heavy rain, and this month has been no exception. Southern Region WFOs have issued more than 450 flash flood warnings so far this month, most of those in Texas. RFCs have issued many river flood warnings as well.

Television coverage of recent flooding in the San Antonio area included an interview with one area resident who specifically cited "those 'Turn Around – Don't Drown' signs" as the reason he was staying well out of harm's way. We can't ask for better feedback than that to tell us our preparedness efforts are paying off! Congratulations again to all in Southern Region who worked so hard to conceive and implement that life-saving program.

BRONZE MEDALS. I'm pleased to note the following Southern Region employees who will be presented next week with Department of Commerce Bronze Medals, recognizing their outstanding contributions to the vital National Weather Service mission. They are:

Individual Award

Reggina Garza, RFC Atlanta, for her role in successfully developing river forecasting capabilities for the Red River in Viet Nam.

Group Awards

Bill Adams (WFO Shreveport), **Thomas Bird** (WFO El Paso), **Richard Davis** (WFO Tampa Bay Area), **Greg Murdoch** and **Seth Nagle** (WFO Midland), **John Wachter** (WFO Albuquerque), and **Paul Witsaman** (SRH/CWWD), along with Jonathan Pelton and Thomas Harris from Eastern

Region, for their accurate on-site weather forecasts and warnings that kept the team involved in recovery after the space shuttle Columbia accident safe, well-informed, and most productive.

David Hotz (WFO Morristown), along with several other team members, for implementing a new set of software forecast tools which allow forecasters to greatly improve NWS aviation forecasts.

Billy Olsen, **William Lawrence**, **James Paul**, **Michael Pierce**, **Jeffery McMurphy**, **Michael Boehmke** and **Isaiah Daniels** (RFC Tulsa), **Judith Bradberry** (RFC Atlanta), **Patrick Sneeringer** (RFC Fort Worth) and **Eric Jones** (RFC Slidell), for designing, developing, and implementing an operational computer backup system for use at NWS River Forecast Centers in the southern United States.

Organization Awards

WFO Miami, for providing exceptionally skillful life-saving warnings to citizens of South Florida during the deadly tornado outbreak on March 27, 2003.

WFOs Birmingham and Huntsville, for providing outstanding warnings and advisories which resulted in saving of lives during the historic Alabama floods in May 2003.

Southeast River Forecast Center, Atlanta, along with several Eastern Region WFOs, the NCEP Hydrometeorological Prediction Center and Ocean Prediction Center, Middle Atlantic RFC, and ER Regional Operations Center, for their outstanding service in providing expertise and leadership to decision makers, before, during, and after hurricane Isabel in 2003.

Please join me in congratulating all the award recipients for their outstanding accomplishments.

NOVEMBER TRAVEL. Recent travel to WFOs Jackson and Key West provided an opportunity to visit with office staff and discuss operations. The importance of mission delivery is high on everyone's mind, and from the feedback I'm receiving from emergency managers and other valued partners, I have no doubt that our offices are delivering on that mission.

Construction is underway at Key West on a new facility that will house the forecast office, ensuring that we will soon be even better prepared to weather the storm – literally – at the location more exposed than any other in the nation to hazardous weather.

CLIMATE, WATER AND WEATHER DIVISION

METEOROLOGICAL SERVICES BRANCH

MARINE

Training for the Coast Guard. Brandon Bolinski, forecaster and marine focal point at WFO Tallahassee, is involved in teaching a series of five two-hour training sessions for members of the Coast Guard Auxiliary from the St. Marks, Florida Flotilla. The sessions include training on basic atmospheric principles, cloud identification, fronts, air masses, severe weather, tropical weather and basic marine weather. The goal is to provide the members of the Auxiliary with basic tools to help them better understand potentially hazardous weather they might encounter while patrolling the coastal waters of the Florida Big Bend.

Tsunami Workshop in San Juan. WFO San Juan senior forecaster Walter Snell participated in a tsunami workshop held at the Carolina City Hall in San Juan where he presented WFO San Juan's role during potential tsunami events. The activity was attended by 25 emergency managers from several coastal municipalities of north and northeast Puerto Rico.

Tsunami Information to be Relayed by San Juan. WFO San Juan was visited by the Puerto Rico Seismic Center Director, Christa Von-Hildebrandt, who conducted a tsunami and earthquake presentation for 12 WFO staff members. The WFO will relay tsunami watches and warnings issued by the seismic network which will activate the Emergency Alert System (EAS). Senior forecaster Walter Snell conducted most of the tsunami SDM review, protocol coordination, and in-house training.

AVIATION

CWSU Meteorologist Attends TAMDAR Meeting. CWSU Memphis meteorologist Bryan Harmon recently attended a training meeting associated with TAMDAR, a multi-state, multi-office initiative to integrate sounding information from commercial aircraft that are equipped with weather sensors. The meeting was attended by over 20 people representing the NWS, FAA, AIRDAT, NASA, FSL, CIMSS, Panthenon, NCAR, MSC, and GTRI.

The TAMDAR project will use commercial aircraft to obtain atmospheric data through the use of instrumentation attached to the plane. Six elements are being recorded: temperature, pressure, wind, humidity, a turbulence indicator, and icing. The data will be processed in bundles of 3,000 feet during the ascent/descent into airports. During ascent, the first 3,000 ft data bundle will be received and processed in about one minute. The remaining bundles will be received and processed in less than 20 seconds thereafter. CWSU Memphis (and perhaps other SR offices) will likely be involved in assessments of these data once they become available.

Reaching Out to Our Aviation Partners. Fall has been a busy time for aviation outreach. The following are some exciting events that have occurred in recent weeks.

El Paso. WFO El Paso participated in the Amigo Airshow during the third weekend of October. An estimated 55,000 people attended the air show, and approximately 800 people visited the NWS booth. Over the span of two days the El Paso booth was staffed by senior forecasters Tom Bird and Dave Hefner, forecasters Mike Langevin and Tony Reynes, intern Mike Hardiman, and WCM John Fausett. The staff handed out brochures, answered weather-related questions, scheduled school talks and office tours, and promoted the new WFO El Paso Spanish All Hazards Radio. This is one of the major annual events in the El Paso area, and the attending public was pleased to learn about the services provided by the NWS.

Huntsville. Matt Zika, senior forecaster and aviation program leader at WFO Huntsville, participated in a "Learn to Fly" workshop sponsored by the FAA and the Huntsville Flight Center. The event was held at the Madison County Executive Airport in Huntsville. Matt provided presentations on topics ranging from VFR flight into instrument meteorological conditions (IMC), TAF/METAR decoding, icing, low clouds, fog, turbulence, and NWS aviation weather information available on the Web. More than 50 pilots and flying enthusiasts attended Matt's presentations, and came away with a greater insight into weather and its impact on aviation.

Corpus Christi. WFO Corpus Christi held an Aviation Workshop on November 17, to enhance the local aviation program and improve outreach efforts with the aviation community. Key speakers included Kari Kennedy, a representative from Southwest Airlines, who explained the impacts NWS TAF forecasts have on their operations. She made it clear Southwest Airlines greatly appreciates the service that all WFOs provide with their TAFs. Mike Bender, an NWS instructor from the FAA Academy, spoke on FAA issues and ideas for improving the TAF product, while Southern Region Aviation Program Leader Paul Witsaman gave insights on the region's aviation efforts.

Armando Garza, WFO Corpus Christi MIC, gave a presentation on the role of the CWSUs and AFSSs, and their utilization of NWS TAFs. Tawnya Evans, aviation focal point for the WFO, discussed ways the local office can improve its aviation program through continuing education and outreach efforts. The WFO plans to use much of the insight gained from the workshop, especially feedback from its customers, to improve the quality of the aviation products issued.

Lake Charles. Forecaster Jennifer McNatt from WFO Lake Charles organized the First Annual Louisiana Aviation Conference, which was held on October 27 in Lafayette. Several speakers from the Louisiana WFOs attended as presenters, including Tim Destri (WFO New Orleans Area), Brad Bryant (WFO Jackson), Mark Murphy (WFO Shreveport), and Lance Escude, Jennifer McNatt and Mark Wiley (WFO Lake Charles). Topics included thunderstorm structure and hazards, radar interpretation, fog and low cloud forecasting, weather sources on the Internet, aircraft hazards, and TAFs and observations. In addition to the WFO speakers, Lt. Col. Rob Fleishauer from Barksdale Air Force gave a presentation on the current Air Force weather structure and available products; Terry Gambill from the Flight Service Station in Deridder, Louisiana, spoke on services provided by the FSS; and Brad Johnson from the NWS Aviation Weather Center spoke about new products being offered by the AWC.

Aviation customers with a wide variety of interests attended the conference, including Air Force personnel, air traffic controllers, dispatchers, and general aviators. All the participants mentioned how they are looking forward to a Second Annual conference. Special thanks to WFO Lake Charles ITO Matthew Duplantis, who ensured a smooth running conference by handling all the various technical aspects. Such outreach events are great opportunities for our offices to "connect" with the local aviation customers they serve. Congratulations to all four Louisiana offices, as well as the NWS/FAA Academy, and AWC for reaching out to our aviation partners!

FIRE WEATHER

Texas Forestry Visits WFO Shreveport. Brad Smith, Fire Risk Assessment Specialist with the Texas Forestry Service, paid a recent visit to WFO Shreveport. Brad visited primarily for the purpose of talking with the WFO staff on relationships between fire risk/danger and forestry and site forecasts. He discussed how the Texas Forestry Service uses the NWS forecasts for planning and operational purposes. Brad then visited with Bill Adams, WFO forestry focal point, to discuss Red Flag Warnings and observe the process by which forestry products are issued by the Shreveport office. Brad's presentation was well-received by the staff, and his visit afforded him the opportunity to learn more about how the NWS produces fire weather products to serve his agency's needs.

SEVERE WEATHER PREPAREDNESS AND PUBLIC/PARTNER OUTREACH

CDC Staff Visits WFO Peachtree City. WFO Atlanta hosted a recent visit from staff at the Centers for Disease Control and Prevention (CDC). Five staff members from the CDC National Center for Environmental Health (NCEH) toured the office and discussed the collection and dissemination of weather-related emergency information by NWS offices. The CDC NCEH monitors environmental health hazards in communities after natural and man-made disasters. They were particularly busy this past summer in the aftermath of the tropical storms and hurricanes that impacted the Southeastern U.S.

The visitors and WFO staff discussed how weather information, particularly that dealing with storm damage and casualties, is collected and disseminated by WFO personnel and by other WFOs and national centers. The CDC visitors explained their need for storm data while they are in the field, and asked for recommendations on how they could obtain real-time and post storm data. They were shown a number of NWS Web pages and were quite impressed by the amount of information that's available and its ease of access. Contact phone numbers were identified so CDC could use them to call the appropriate office covering the area for which they need weather-related information.

WFO Huntsville Participates in Building Dedication. On September 27, the building that houses WFO Huntsville was dedicated as Robert "Bud" Cramer Research Hall. In addition to Congressman Bud Cramer and U.S. Senator Richard Shelby, the director of the NASA Marshall Space Flight Center and the president of the University of Alabama in Huntsville joined WFO

Huntsville MIC John Gordon in speaking at the ceremony. Afterward, tours of the WFO were provided to approximately 60 people. J.D. Horne, Executive Director of the Sci-Quest Hands On Science Center, remarked:

> Thank you very much for the tour of your National Weather Service facility today. You have been a remarkable resource benefiting the north Alabama area communities, and you provide absolutely essential information for the Valley's families. I personally enjoyed and appreciated your enthusiasm and obvious dedication.

WFO Shreveport Initiates New Science Program. Several forecasters represented WFO Shreveport at Sciport in the city of Shreveport for their new program "Forces of Nature." The program has been in effect since September, and will continue through November. In conjunction with Sciport's weekly "Weather Works" class, WFO Shreveport staffed a booth on September 30 at which various pieces of literature and cloud posters were handed out to school groups. The staff answered several questions about weather and the NWS Web site. Over 300 students were in attendance.

WFO El Paso Visits Lyndon State College of Vermont. WFO El Paso intern Mike Hardiman visited his home state and alma mater on October 12 after attending the AMS 22nd Severe Local Storms Conference in Hyannis, Massachusetts the previous week. Mike provided a slide show on a recent severe weather event in the El Paso area, then talked to approximately 25 students about careers in the National Weather Service. He also familiarized the students with the Web-based job applications and experience questions, and provided advice on how the students might prepare for the application process.

WFO Brownsville Participates in "Community Day," WFO Brownsville WCM Jesus Haro and SOO Kurt Vanspeybroeck staffed an NWS booth for the "Community Day" portion of the Hispanic Engineering Science and Technology Conference (HESTEC) at the University of Texas Pan-American in Edinburg, Texas. This event was heavily publicized, and targeted Hispanic K-12 students and their parents. The NWS joined numerous private and public sector companies in helping to expose students to careers in technology and scientific fields. The booth was visited by approximately 1,500, and many young Hispanic students learned about possible careers in meteorology.

WFO Midland busy at Wal-Mart. West Texas Wal-Mart customers recently got the deal of their lives. Learning how to protect friends and family from the dangers of severe weather was absolutely free of charge, as WFO Midland participated in the recent Wal-Mart Public Awareness Fair held at the Midland Wal-Mart. Five members of the WFO staff manned a weather safety booth and greeted shoppers by handing out weather brochures, cloud charts, and information about the office Web site. Adults and children marveled at the WFO Midland tornado machine during the October weekend event. The tornado machine has been a popular attraction at WFO Midland outreach events for over two years. The NWS was one of several agencies in attendance. Others included the Red Cross, Midland Police Department, Midland Fire Marshal's office, the Texas Constables, and Health South. All joined to take part in this important outreach event geared to

educating the public about the hazards facing the community.

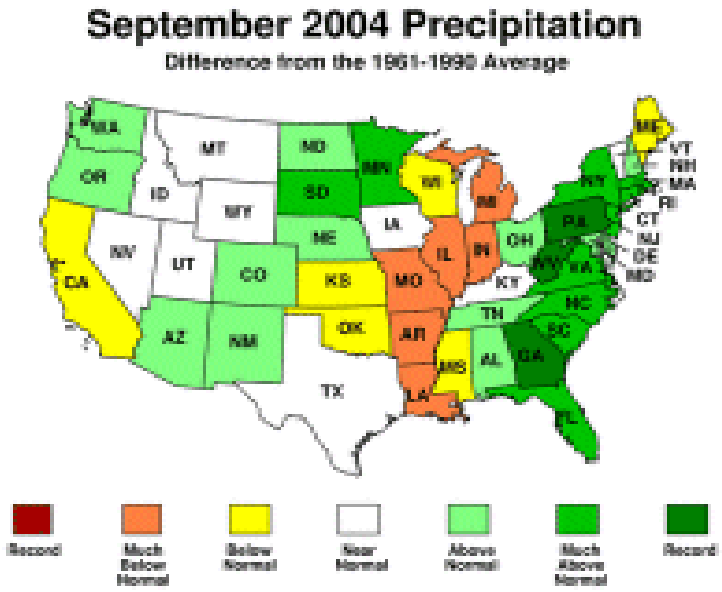
WFO Midland Reaches Out to Judges and Commissioners. Pat Vesper, WFO Midland WCM, recently spoke to a group of 60 elected officials at the annual Far West Texas Judges and Commissioners conference in Lajitas, Texas. Pat's presentation, entitled "What the NWS Can Do For You," touched on the variety of services WFO Midland and other forecast offices provide to their partners and customers. Great job, Pat!

WFO Mobile Hosts Post-Ivan Debrief. WFO Mobile held a post hurricane Ivan debriefing for members of the local media and emergency management community on November 9. Two separate sessions were conducted - one in the morning with EMA members, and (following a lunch of red beans and rice and Conecuh sausage) a second afternoon briefing for the media. The WFO built an hour's worth of overlap into the briefings so the media, EMs and the NWS staff could openly discuss good or bad experiences that occurred during the storm.

Ivan was the worst hurricane to strike southwest Alabama and the extreme northwest Florida Panhandle in over a hundred years. WFO Mobile received kudos from their partners for the timely information provided to them during the storm. The Mobile staff felt the three-way meeting was very informative and productive. As is always the case, they appreciated the opportunity to hear what their partners and customers had to say, especially after an epic event such as Ivan.

Kids Had the Questions to Answers in Weather Jeopardy! WFO Jacksonville forecaster Angie Enyedi educated and entertained Mandarin Middle School sixth graders with a game of "Weather Jeopardy!" which she created using Microsoft Power Point. Topics ranged from Clouds and Precipitation, to Hurricanes. Kids were very attentive during the World of Weather presentation that preceded the game, and then the questions to answers flowed from the class during "Weather Jeopardy!" The grand prizes for the winning team members were large cloud posters, but since everyone was weather-wise, each student received a cloud poster. Angie received thank you letters from the class the following week. She was excited to learn that many of her "contestants" hung their cloud posters in their rooms and were already looking forward to another round of "Weather Jeopardy!"' Great way to reach out to our next generation, Angie!

HYDROLOGIC SERVICES BRANCH



Wettest September on Record in Georgia. September 2004 will go down as Georgia's wettest September on record. The statewide average was 12.14 inches, which is 8.12 inches more than the 1895-2004 average. Records were set at several cities, including Macon, Columbus and Athens, and it was the second wettest September on record in Atlanta. The new record rainfall for September in Macon is 12.66 inches, which surpasses the old record of 12.30 inches set in 1924. In Columbus the new record is 9.47 inches, which beats the old record of 6.94 inches set in 1951. In Athens the new record is 11.84 inches, breaking the old record of 10.30 inches set in 1989. The total for Atlanta for September is 13.65 inches, making it Atlanta's second wettest September. The wettest September is 14.26 inches set in 1888.

Most of the rain fell from the remnants of three hurricanes that moved over Georgia after making landfall in Florida and Alabama. The remnants of Frances moved over Georgia on September 6-7, Ivan on September 16-17, and Jeanne on September 27.

WFO Atlanta conducts Hydrology Table Top Exercise. WFO Atlanta taught the annual Georgia Emergency Management Agency (GEMA) Flood Fight Operations Course for emergency managers and officials for the first time. This year's class consisted of over 30 emergency management personnel. Jim Noel and Jeff Dobur conducted the course for GEMA with the addition of a hydrology table top exercise, which consisted of an event from May 2003 that was not known to the class. The exercise involved flash flood, flood and dam failure events. The class participants acted in the role of county emergency management officials and NWS personnel, allowing them to learn

how the communication and warning system works between the NWS and the emergency management community. It was rated as the highlight of the three-day course.

WFO Site Specific Hydrologic Model Success. WFO Atlanta has worked closely with EMAs, customers, and the SERFC to create new river forecast services for small stream locations using the WFO's Site Specific Hydrologic Model. The use of this model has been driven by customer requests for small stream forecasts. The majority of the one dozen plus sites are located in the Atlanta Metropolitan Area. River forecasts are available on WFO Atlanta's AHPS web page for access by the EMAs and the public. The forecast model proved to be very accurate during the major floods in September this year, and that allowed WFO forecasters to provide lead times up to three hours for major floods in the Atlanta area. This lead time allowed staff to work one-on-one with county emergency management officials to ensure evacuations could be carried out and loss of life would be limited. In fact, no loss of life occurred at these model forecast locations.

New Hydrologic Services. WFO Atlanta added seven new forecast points to address a growing demand in Georgia for hydrologic services. The sites added include Dawsonville and Cartersville along the Etowah River, Alpharetta along Big Creek, Suwanee along Suwanee Creek, Atlanta along Nancy Creek and Proctor Creek, and Arcade along the Middle Oconee River. Six of these points are now a part of the WFO Atlanta's Site Specific Hydrologic model. The WFO collaborated with SERFC to provide technical support for the model setup. WFO Atlanta worked closely with SRH on a press release to announce the advancements in hydrologic services in Georgia.

Dambreak Experiences for WFO Jackson. WFO Jackson has experienced an active year in the area of dam safety issues. They had two failures and three potential failures during the year. Information about the failures was relayed by a former NWS employee who now works for an Emergency Management Agency next to the county with the failures. The NWS most likely would not have known about the failures until much later without that contact. One of the failures had the potential to kill many people below the structure.

The events prompted the WFO to approach the Mississippi Civil Defense and Emergency Management Association (MCDEMA) with the idea of providing a conference for its members. The presentation was held on October 13 at the Ranking County Civil Defense Office as a part of the MCDEMA fall meeting. Forty-five people were in attendance, representing 26 counties as well as officials from the Mississippi Emergency Management Agency (MEMA). Rob Millet, Dam Safety Engineer with the Mississippi Department of Environmental Quality, gave a presentation on Dam Inspections and Emergency Action Plans. Marty Pope, WFO Jackson service hydrologist, spoke on the NWS role in informing the public about dam safety issues. Both presentations were well received by the Emergency Managers, and most important, the officials now know the importance of notifying the NWS about any dam safety issues. Rob Millet also said he would make it a requirement to add the National Weather Service to all future Emergency Actions Plans in Mississippi.

WFO Jackson Participates in "Make a Splash" Day. The WFO participated in "Make a Splash" Day events at the Mississippi Museum of Natural Science on September 24. "Make a Splash" is an

annual event held in cooperation with "Project Wet," a non-profit water education program for educators and students in elementary, middle and high school. The program promotes awareness, appreciation, knowledge, and stewardship of water resources. WFO Jackson set up a booth with several hydrology and weather demonstrations for students. They also presented a flood video and spoke to various classes about flooding and the power of water, in particular the "Turn Around Don't Drown" campaign. More than 500 hundred students were involved, most of whom were from educationally underserved areas in the Yazoo Delta region of the state. "Project Wet" provided funding to allow those schools to travel to the event.

CLIMATE SERVICES BRANCH

XM-ACIS Climate Database Training Underway. Early this month the new XM-ACIS climate database and search engine were made available to each WFO to assist them with their climate research and climate public service, and SRH CWWD held the first training session with field offices. Thirteen different WFOs, RFCs and CWSUs participated. Sessions will be conducted weekly until all offices have had an opportunity to participate. During the training session an overview was given of the entire system, as well as a review of the method for performing climate database queries.

A November to Remember. The first 20 days of November have brought record rainfall to much of West Texas. Nearly the entire state west of a line from Del Rio to Childress had over *five times* their normal November rainfall during this period. A few locations, such as Midland and Lubbock, received 1000% (ten times!) their normal rainfall.

By November 19 the following Texas locations had already established records for the wettest November in history with one-third of the month still remaining:

	Rainfall	Pct. of normal
Lubbock	5.80"	1234%
Midland	4.70"	1119%
Childress	5.82"	831%
Wink	4.08"	785%
Del Rio	4.66"	717%
Abilene	4.46"	506%

Much of Texas is on track for one of the Top 5 or Top 10 wettest *years* on record when 2004 comes to an end. An illustration of the above normal rainfall which has affected the Lone Star State is at: http://www.srh.noaa.gov/rfcshare/precip_analysis.php?duration=month&location=TX&archive=no&zoom_map=state&product=pct

DISSEMINATION ENHANCEMENT TEAM

WSR-88D Archive II Project. October was a busy month for the DET. Working with ESAs, ITOs and WSR-88D electronics technicians from the WFOs, we now have WSR-88D Archive II data flowing in near real time from most Southern Region WFO WSR-88Ds, and the first few DoD-owned WSR-88Ds, to NCDC, NCEP and our external partners. The goal for this project is to provide the data with a reliability rate of 95%. Data delivery is occurring in less than one minute from generation to end-user. Our transport medium for this data stream is through a connection to Internet2 via the North Texas GigaPOP. The exception is WFO San Juan, where the radar is owned and maintained by the FAA. A request for change has been submitted to include this data stream and the process is moving forward. In the near future, we will add the remaining DoD WSR-88D sites to the Archive II project.

Bruce Marshak is the Southern Region representative for our North Texas GigaPOP activities. He meets with the Management Council on a monthly basis, and with the Operations Committee (technical group) when they meet.

Network Notes:

Internet 1 - We are awaiting delivery of additional bandwidth to improve our Internet 1 (or commodity Internet) service. SBC (formerly Southwestern Bell Telephone Company) is in the process of adding additional access communications capacity and that project is not complete. Once it is we expect our additional bandwidth will follow shortly.

DNS – Offices should ensure that any changes made that require DNS registration changes are communicated to the DET. Susan Beckwith and Bruce Marshak are contacts for this purpose.

Web Services - We are in the process of enhancing our web presence and several projects are underway to improve our users' experiences on the Web. Lessons learned during the past two years from supporting severe weather outbreaks and hurricane seasons are being used to implement changes. Our intent is to make changes dynamically in response to evolving weather situations. One change includes global load-balancing of the NWS Web presence. If additional capacity is needed during severe weather events, users can be transparently redirected to a different server farm that can respond faster. At SRH we have just completed the first phase of changes designed to improve Web services. Several more changes are planned to enhance the region's ability to serve our customers with the products and services they want.

SCIENTIFIC SERVICES DIVISION

BOGM. The Council of the American Meteorological Society has elected Reggina Garza, SERFC in Atlanta, chairperson of its Board for Operational Government Meteorologists (BOGM), effective with the upcoming AMS Annual Meeting in January. The BOGM mission statement says:

> To serve operational meteorologists working at all levels of government, including federal, military, state, and local levels. To stimulate communication, education, and other activities promoting operations in meteorology, hydrology, and other environmental sciences consistent with the Society's objectives. To evaluate and recommend candidates for the Society's F.W. Reichelderfer Award. To promote and keep abreast in meteorological, hydrological, and environmental advancements and techniques in order to support services provided by operational meteorologists.

Also serving on the BOGM is WFO Tallahassee MIC Paul Duval.

NEW PRECIPITATION FREQUENCY MAPS. Senior meteorology major John Sullivan, working with Prof. Henry Fuelberg at Florida State University, has completed revisions of the precipitation frequency calculations developed last year as part of a COMET Partners project. The results are maps showing frequencies for Southern Region stations for 3-, 6-, 12-, and 24-hour periods, by months. The maps are available at http://bertha.met.fsu.edu/research/cometPrecipFreqs. The maps have a new look and replace the previous versions which contained incorrect data that resulted from some gauges reporting with resolution of tenths of inches rather than hundredths. The Web site contains a description section which includes a key to the stations and explains all of the procedures used in the calculations.

The original intent of the COMET project was to update precipitation frequency analyses using the past 30-years of data, and also to develop frequencies for 3-hour periods. The results should find use as climatological guidance for PoP forecasting, especially for shorter time periods such as 3- or 6-hour periods. For example, an examination of the frequencies indicates that precipitation in subsequent 3-hourly periods can be much more independent in the summer than in the winter. While that is not particularly surprising, the derived frequencies can be used to quantify the degree of dependence site-by-site and month-by-month, and thus provide a basis for development of smart tools for incorporation into IFPS procedures for PoP forecasting. Offices are encouraged to examine the results and explore such applications. SSD will be working with John and Henry to develop additional data formats, including perhaps gridded fields.

UNIVERSITY METEOROLOGY PROGRAMS. SMG MIC Frank Brody passed on this link to the National Weather Association Web site that lists colleges and universities which offer degree programs in meteorology or atmospheric science: http://www.nwas.org/links/universities.html

GIS DAY IN SAN ANTONIO. WFO Austin/San Antonio participated in San Antonio GIS Day at the Alamodome on November 17. Forecaster and digital services focal point Clay Anderson and SOO Jon Zeitler staffed a booth at the event, while MIC Joe Arellano, ITO Mark Oliver, and ESA Brian Read provided set-up and technical support. The event is held each year on the Wednesday of the National Geographic Society's Geography Awareness Week, and celebrates GIS (Geographic Information Systems) technology. The San Antonio GIS Day provided an opportunity for local and

regional organizations to showcase new and groundbreaking ways they are utilizing GIS. NWS capabilities were demonstrated through use of ArcView shapefiles of digital forecasts from the WFO's CWA, various NWS ArcIMS servers, and by demonstrating how to obtain non-GIS format digital forecasts from local, regional and national NWS Web pages. Approximately 500 GIS professionals and students attended the event.

TECHNICAL ATTACHMENTS. NWS Headquarters has established a team to explore a roadmap for possibly issuing public advisories to protect against lightning hazards. The team comprises a cross-section of academia, government researchers, and NWS field personnel, and it has begun to investigate the latest operational applications of lightning data. For sure, their task challenges the state of the science. Building in part upon collaborative applied research already underway at WFOs Huntsville, Tallahassee and Melbourne, the team is highly motivated to explore aspects of lightning prediction and warnings. The team is considering the necessary science and technology requirements to convert their vision into reality. WFO Melbourne SOO Dave Sharp, a member of the team, noted "It used to be our only defense was public education, but advances in technology now allow us to realistically consider operational solutions to the lightning problem. Although there is a tremendous amount of work to do, it's truly exciting!"

Three technical attachments this month represent work in this area by the three SR offices which are contributing members to the national lightning team, and all the papers are to be presented at the AMS Conference on Meteorological Applications of Lightning Data in San Diego in January. They are:

Operational Applications of Lightning Data at WFO Melbourne, FL: A 15-Year Retrospective, by David Sharp (WFO Melbourne). SR/SSD 2004-12.
http://www.srh.noaa.gov/mlb/amu_mlb/AMS05_LTG_Sharp.pdf

The Application of Total Lightning Data in the Warning Decision Making Process, by Priscilla Bridenstine, Chris Darden and Jason Burks (WFO Huntsville), and Steve J. Goodman (NASA Marshall Space Flight Center, Huntsville). SR/SSD 2004-13.
http://www.srh.noaa.gov/topics/attach/pdf/ssd04-13.pdf

The Incorporation of Lightning Climatologies into the Interactive Forecast Preparation System (IFPS), by Andrew I. Watson, T. J. Turnage and P. E. Shafer (WFO Tallahassee), J. R. Stroupe (WFO Birmingham), T. P. Lericos (WFO Spokane), and H. E. Fuelberg (Florida State University). SR/SSD 2004-14.

http://www.srh.noaa.gov/topics/attach/pdf/ssd04-14.pdf

GFE WORKSHOP. Representatives from NWS field offices met with NOAA/Forecast Systems Lab developers for a three-day workshop in November. The goal of the workshop, hosted by the Enhanced Forecasting Tools (EFT) Branch of the FSL Modernization Division, was to brainstorm

enhancements to the Graphical Forecast Editor (GFESuite) Smart Tool and Initialization infrastructure in order to generate initial requirements for an enhanced future GFESuite framework. Each NWS region provided field experts to discuss improvement strategies that would result in optimized field operations for the digital services era. Detailed information about the workshop is at http://www-md.fsl.noaa.gov/eft/workshops/workshopNov04/, including the agenda and list of participants. We are pleased to support these important workshops which focus on ways to improve the software and hardware tools available to forecasters. Enhanced tools are necessary to better support efficient generation of the increasing number of forecast and warning products being generated daily at the WFOs in digital or graphical form.

SYSTEMS OPERATIONS DIVISION

OBSERVATIONS AND FACILITIES BRANCH

WSR-88D Archive Level II. As of the beginning of this month, all WFOs in the Southern Region with the exception of WFO San Juan are now passing their WSR-88D Archive Level II data to NCDC, NCEP, the University of Oklahoma, Purdue University, and the ERC via an LDM feed on the Southern Region portion of NWSNet and Internet 2. Thanks and congratulations to all who have worked to make this milestone possible. Thanks are due also to the Radar Operations Center in Norman for their efforts.

This means that the reliability of receipt of the archive data has increased significantly because we can dispense with the much less reliable, largely mechanical, "juke box" recorders at each radar site. WFO San Juan relies on the FAA WSR-88D, which has not been part of the transition to on-line archiving. We are working to resolve that.

Performance Values for FY04. Southern Region had an excellent year in support of the COOP program. All regional performance goals were met or exceeded. The region's annual station visitation goal is 125% of the required number of visits. All stations are required to be visited at least once each year with Hourly Precipitation Data (HPD) stations visited twice per year. The extra 25% is an estimated value that would cover emergency visits. In FY04 the regional visitation rate was 190.38%.

Missing Climatological Data (CD) is a measure of the monthly forms that are collected, quality controlled, and provided to NCDC in time for publication in the CD. The regional goal for this parameter is less than 2% missing CD. The regional missing data average in FY04 was 0.76%. Twenty-nine out of 33 SR offices met or exceeded the annual goal.

Missing Hourly Precipitation Data (HPD) is a measure of the data from recording rain gages, mostly F&P gages, which are collected and provided to NCDC in time for publication in the HPD. The regional goal for this parameter is less than 3% missing HPD. In FY04 the regional missing

data average was 0.96%. Again, 29 out of 33 SR offices met or exceeded this annual goal.

SYSTEMS INTEGRATION BRANCH

MS Server 2003 and Active Directory. The Active Directory (AD) deployment is nearing completion. We held the last training class at SRH which was attended by the ESA from WFO Melbourne, Roddey Stevenson, who was unable to attend earlier classes because of the hurricane activity this year, and the new ESA from WFO Norman, Jeff Engel. We also hosted Mike Pereira, ESA WFO Boise, and David Nordello, from Systems Integration Branch, Western Region Headquarters at this training class. WR is thinking about deploying AD and wanted to see how we've gone about making the transition in SR. We have also received an information request from Pacific Region who is considering implementating AD.

National Weather Center. Mario Valverde and Gary Petroski from SOD, along with MIC Mike Foster, SOO David Andra, and ESA Jeff Engel from WFO Norman participated in a NOAA CIO meeting in Norman to discuss the IT infrastructure at the National Weather Center (NWC), which is under construction on the University of Oklahoma campus. The NWC will be the new home for the WFO, SPC, NSSL, WDTB, and parts of the ROC, along with the OU meteorology department. The NWC will be a model for how operations, research and academia can come together to improve the science and quickly integrate new technology and research into improved warning and forecast operations in the future.

Telecommunications. The NWR communications installation for the Sneads, Florida transmitter site is moving forward. The ROAMS lines have been installed and the dedicated circuit is due to be installed shortly. After end-to-end testing this transmitter will be fully operational. The lines for Center and Throckmorton, Texas, and Eldorado, Arkansas, were also installed recently. The circuit installation for Marietta, Texas had to be delayed pending delivery of the building to the location. Also, this month the transmitter for Lecanto, Florida was moved to its new location and a disconnection order has been placed for the old circuit and ROAMS lines.

Frequency 5-year reviews are being submitted via data exchange to update and modify existing authorizations. Our submissions to NWSH are being worked promptly and any issues are being resolved more efficiently. This process has improved with the implementation of the data exchange application. There previously was an issue with Windows XP SP2 whereby data exchange would not run if SP2 was installed. That issue has been resolved and SP2 is now compatible to run with the data exchange application of the Spectrum XXI Frequency program.

The Houston/Galveston office move is progressing. Responsible parties for moving the circuits have been notified and we are coordinating with the telcos to bring in all of the circuits on time.

AWIPS. Release OB4 is now being deployed with 13 of 38 SR offices complete. Maintenance release (MR) OB4.1 will be coming out in November to fix early release issues. In addition, there will be an OB4.AS release that will be performed as part of the new Linux DX install and will

move processes from the Application Servers (AS) to other systems on the AWIPS network.

The new DX has arrived at SRH. Mary Buckingham from NWSH and WFO Jackson ESA Mike Ryan traveled to SRH to assist in the first field install of the new DX servers. The install comprised a hardware installation day and a software installation day. First impressions from the install team are that this is a significant install and will take time. Several new cables will need to be positioned ahead of time as well as existing PX cables will need to be rerouted during the hardware install phase.

WFO Nashville was the first Southern Region office to perform the AWIPS Router Replacement. Impressions of the install and Mod Note were quite favorable.

Deployment of the new routers is being done by network node (RFCs). Therefore, the installs will likely be performed in clusters as each node begins receiving their routers.

NEXRAD. ORPG Build 6 is now in full deployment with several SR sites having already performed the install. As with all ORPG software builds, it is recommended that the software be installed within 60 days of when the software was shipped. This ensures the software is installed in a timely manner and that all necessary support resources are available for the current build.

E-mail. We began the long awaited e-mail migration late this month with the help of Dale Thompson from the Radar Operations Center (ROC), who is very knowledgeable with SUN server software and assisted setting up our servers. The first part of this transition will be to move the Directory Services over to the new servers, which should be completed by mid-November. This will not affect end uses at this time.

WFO Key West Construction. Concrete foundation work continues at the new construction site at White and United Streets in downtown Key West. The construction appears to be several weeks behind, and the contractor has asked for two weeks weather delay but was granted seven days by the Navy. According to the contractor's master schedule the project should have steel columns being erected, which is not yet occurring.

A partnering session with discussions planned for schedule recovery is planned for December 16 in Key West between NWS, the project architect, the Navy, and the contractor. Work on the interior systems furniture layout continues in SRH-OFB, in addition to planning sessions with a display contractor for the lobby/outreach equipment. Monthly project coordination meetings will begin at SRH in January.

Office Furniture Layouts Continue. Significantly detailed designs of the office systems furniture layouts continue for WFOs Houston, Fort Worth and Norman. Minimal design changes by the local staffs following initial layouts will speed this process greatly.

NOAA Requesting NWS Fuel Tank Data. Data on all NWS diesel fuel tanks for emergency

power generators at offices, radars and NWRs is now being collated along with representative photos of the various SR facility configurations. So far, there are over 40 sites identified with ten different generator configurations in our region.

Safety. A serious accident was investigated in early November when an electronics technician working alone in the RDA shelter transmitter cabinet received a high voltage shock, burning the backs of both hands and requiring an overnight hospital stay. An investigation determined the employee had omitted key steps required by the Radar Maintenance Manual – specifically, not shutting down power or having a safety observer present. The employee returned to work the following day with minimal effects otherwise from the shock, but the investigating supervisor and manager agreed a near-tragedy had been narrowly averted. Details of the accident were provided to NWSH, NOAA, and the SR electronics staff throughout the region. CPR training for office staff members in addition to ETs is planned, as well as a re-examination of the requirement for safety observers for high risk operations, as called for in Section 2 of the NWS Safety Manual.

Another employee strained his neck while moving office equipment on a dolly to a storage room. The storage room had an 8-inch rise without a ramp, and the load shifted, causing the employee to strain his neck while preventing the load from falling. The storage room will be examined by the designated Facility Engineering Technician and a ramp will be added if appropriate.

ADMINISTRATIVE MANAGEMENT DIVISION

DIVERSITY/EEO AND COMMUNITY OUTREACH ACTIVITIES

WFO BROWNSVILLE.

Forecaster on the Radio with "Talkin' with Tim." Forecaster Mike Castillo was a guest on the "Talkin' with Tim" morning radio show. The popular program is hosted by local weathercaster Tim Smith and is conducted on KVNS 1700 AM in Edinburg, Texas. The interview allowed Mike to share experiences regarding his recent trip to WFO Miami and National Hurricane Center to assist in providing support with Spanish media requests during Hurricane Frances.

Hispanic Engineering Science and Technology Conference (HESTEC). WCM Jesus Haro and SOO Kurt Vanspeybroeck manned an NWS booth for the Community Day portion of the HESTEC at the University of Texas Pan-American in Edinburg, Texas. The event was highly-publicized and targeted Hispanic K-12 students and their parents. The NWS joined numerous private and public sector companies at the event in trying to expose students to careers in technology and science fields. The booth was visited by approximately 1500 people and many young Hispanic students were tuned in to possible careers in meteorology.

Presentations. Senior forecaster Matt Lorentson represented the NWS in late September at El Jardin Middle School career day speaking to approximately 300 students about the NWS mission as

well as possible career and educational opportunities. In mid-October, Matt gave a presentation on hurricanes to the Weslaco Rotary Club where approximately 45 people were in attendance. The presentation primarily focused on tropical weather history in the Rio Grande Valley and forecasting storms in general. There was much attention given to the recent tropical activity in Florida.

WFO SAN JUAN.

NWS on TV. MIC Israel Matos participated on October 7 in a live TV show with Univision meteorologist Ada Monzon and discussed the 2004 hurricane season, tropical storm Jeanne and WFO short-term and future challenges.

School Outreach. WFO personnel visited several school campuses from the end of September through the beginning of November participating in career days. In the majority of the schools careers with the NWS were presented and discussed.

WFO SHREVEPORT.

Office Tours and School Visits. During September meteorologist Bill Murrell, WCM Mark Frazier, meteorologist Glen Carrin and HMT Christian Stapleton all participated in several office tours. Turner Middle School, several home schooled children and a family from Shelby County toured the office during the month of October and were able to see a balloon launch and the daily activities performed in the WFO. During the month, WCM Mark Frazier gave a presentation for Turner Elementary School 4th and 5th grade classes, including a variety of weather topics and preparedness. In October, meteorologist Bill Parker and WCM Mark Frazier participated in Career Night at Bossier City Community College. Bill and Mark talked to approximately 400 students about careers in meteorology and schools that offer meteorology programs.

Forces of Nature. In conjunction with the opening of the *Forces of Nature* IMAX film on October 16, WFO Shreveport manned a booth to distribute literature to the public. Several hundred people came by the booth to visit. On October 30 WCM Mark Frazier gave two presentations about NWS operations, the science of meteorology, and severe weather preparedness.

WFO TALLAHASSEE.

WFO Still Going Strong. MIC Paul Duval gave a presentation on October 22 to the Exchange Club of Tallahassee. Paul outlined the NWS and its mission, the structure, organization and responsibilities of the WFO Tallahassee, and the recent series of tropical cyclones that affected the area. The presentation concluded with a brief discussion of the ENSO cycle and its effects on weather along the northern Gulf coast, followed by a lively question and answer session.

Office Tours. The WFO hosted an office tour on October 29, with 15 parents and members of a local Girl Scout Troop. Following the tour MIC Paul Duval led a discussion about weather safety,

including thunderstorms and lightning, floods, tornadoes and hurricane preparedness. Forecaster Ron Block hosted two office tours on October 30 for students enrolled in meteorology at the local community college. Sixty-five students participated in the tours. In addition to the tour of the office, Ron talked with the students about the mission of the NWS and the WFO, as well as career opportunities in the NWS and what life is really like as an operational forecaster.

SOUTHERN REGION WORKFORCE TRANSACTIONS
OCTOBER 1 - 31, 2004

Southern Region Losses

Name	From (Office)	Action/Transfer	From Title/Grade
Von S. Woods	WFO FFC	Retirement	Lead Forecaster, GS-13
Patrick Welsh	WFO JAX	Retirement	SOO, GS-14

Southern Region Gains

Name	To (Office)	Action/Transfer	To Title/Grade
Nicholas M. Petro	WFO TBW	Transfer from Eastern Region	Lead Forecaster, GS-13
Peter P. Childs	WFO FFC	New Hire	Met Intern, GS-7
Orlando R. Bermudez	WFO SJU	New Hire	Met Intern, GS-9
Andrew S. Levine	WFO SJU	New Hire	Meteorologist, GS-9
Karen L. Lewis	FAA OK	New Hire	ASA, GS-7
Jeffery S. Engel	WFO OUN	New Hire	ESA, GS-13

Within Region Transfers/Actions

Name	To (Office)	Action/Transfer	To Title/Grade
Ed Calianese	WFO TSA	Promotion	WCM, GS-14
Steven E. Nelson	WFO FFC	Reassign	Lead Forecaster, GS-13
Michael D. Wrinkle	WFO MAF	Promotion on Station	Forecaster, GS-12