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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE
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SOUTHERN TOPICS

Working Together To Save Lives

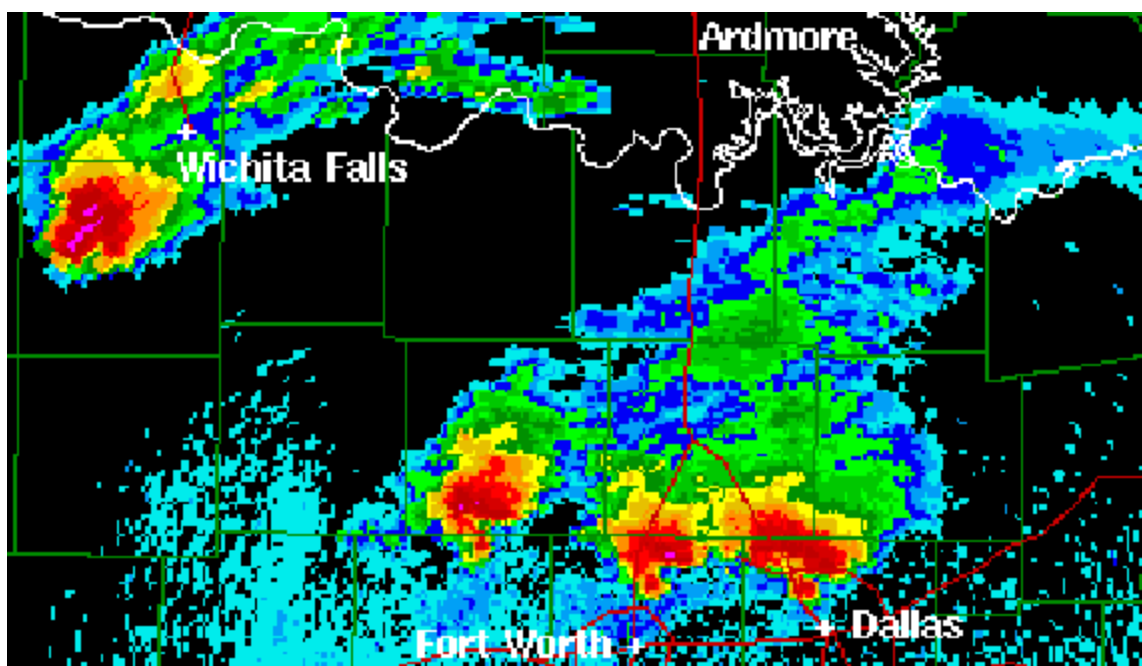
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REGIONAL DIRECTOR

It doesn't get much more challenging for forecasters than when they're faced with a train of supercells, all with prominent hooks and producing hail as large as baseballs, following each other from west-to-east across the Dallas/Fort Worth Metroplex. That's what happened on the evening of Saturday, April 5. A tornado watch was out, as were some of the best-trained storm spotters in the nation, and timely and appropriate warnings from WFO Fort Worth were well publicized by the media. In fact, severe storms were so well anticipated that the Warning Decision Training Branch in Norman dispatched one of their staff to the WFO to record forecast and warning operations in real-time, as part of planned enhancements to their warning decision training materials. The result ... primarily hail, and lots of it. The damage estimates already exceed \$500 *million*, making this the second costliest severe storm event on record.

Not to be overlooked, the storm near Wichita Falls (in WFO Norman's CWA at the time of this image) was also a long-track supercell that produced large hail across numerous counties along the Red River in both Norman and Fort Worth's CWAs.



NOAA Environmental Hero Awards. These annual awards recognize significant contributions on the part of volunteer groups or individuals toward assisting NOAA components to achieve our goals. I am pleased to note again this year that nominations from Southern Region offices garnered a significant number of the awards - four out of the 36 awards presented NOAA-wide. We will be working with the offices to arrange appropriate presentations and publicity. Congratulations to the recipients and all the offices who submitted nominations. The 2003 recipients are:

Patrick Repman, city of Midland Emergency Management, for his assistance and support of NWS efforts to help the citizens of Midland, Texas, better prepare for the onslaught of severe weather through planning, education and awareness. Nominated by WFO Midland.

H. Don McFarland, Alamo Area Council of Governments, for his support of NWS efforts toward public safety in south-central Texas through acquisition of funds for NOAA Weather Radio, expanding Skywarn spotter capabilities, retransmission of EMWIN information, and other contributions. Nominated by WFO Austin/San Antonio.

Ismael Figueroa, Commonwealth of Puerto Rico People with Disabilities Office, for his initiative and creativity in developing means for visually-impaired citizens to interpret NWS graphical products such as hurricane track forecasts. Nominated by WFO San Juan.

Alabama Emergency Response Team (ALERT), for the critically important amateur radio support they provided to forecasters and citizens during the central Alabama tornado outbreak of November 10, 2002. Nominated by WFO Birmingham.

IFPS

OPERATIONAL READINESS DEMONSTRATION. From June 16 to July 15 all NWS CONUS sites will be conducting an Operational Readiness Demonstration (ORD) to demonstrate our ability to move into the era of Interactive Forecast Preparation (IFP). During this one month period, several key criteria relating to the IFP process will be assessed. A successful ORD will ensure that while we have modernized nearly our entire forecast preparation process, there has been no degradation in service to our end users. A successful ORD will open the door to new and exciting ways to prepare forecasts and provide improved service to the public. After the ORD, the plan is for the NWS to make any necessary final adjustments to our IFP operations and then officially begin the IFP era with the Initial Operating Capability (IOC) slated for September 30, 2003.

To provide offices with details on the ORD and IOC, we will be delivering teletraining to all of our sites during the next two months. All offices should arrange to participate in one of these offered sessions.

NEW GRIDS ELEMENTS BY MAY 1 [Note: the date has changed to June 3]. New grid elements are requested by May 1 [June 3], except 20 foot wind direction and speed which has been requested by June 1. You can view these grids at:

<http://www.srh.noaa.gov/msd/html/gridelements.htm>. If you have any questions, please notify the SRH IFPS Team (<http://www.srh.noaa.gov/msd/html/ifps.html>).

IFPS MONTHLY CONFERENCE CALLS. The IFPS monthly conference calls are held normally the first Tuesday of each month. These informative calls provide an avenue and resource for everyone to join and ask questions, voice concerns, provide feedback and get answers. Please join us for our next call on May 6 at 10 a.m. CDT.

IFPS METHODOLOGY TRAINING WORKSHOPS. The third of four planned IFPS Methodology workshops was held at the NWSTC the last week of March. The final workshop, to be attended by nearly half the Southern Region offices, will be held the week of April 21 at FSL in Boulder. The workshops have been well-received by the attendees. While much of the content is repeated from workshop to workshop, the changing diverse audience prompts differing discussions and adds regional perspectives. About 40 percent of the workshop is left in the hands of the office representatives to present and discuss IFPS methodologies at their office. Attendees have been able to utilize much of what they learned at these workshops in their office operations, as we move deeper into the IFPS era and toward Initial Operating Capability.

Related to the methodology workshops, a [technical attachment](#) this month from Jeff Medlin, SOO WFO Mobile, describes how his office is working to preserve meteorological consistency in their gridded forecasts. This attachment portrays the kind of techniques that office representatives are sharing, discussing, and in some cases refining after being exposed to similar techniques shared by other methodology workshop attendees. One example of many methodologies often debated at these workshops is, should one derive their PoP grid from the weather grid, or vice versa? It is likely there is no single best practice, but thanks to the workshops and the online reference material being collected by the workshop planners, we now have a wealth of material available to all via the workshop Web site <http://www.srh.noaa.gov/msd/html/ndfd/training/ifpsmethinfo.htm> and the IFPS training team's Web site http://www.nwstc.noaa.gov/nwstrn/ifps_met.htm. Kudos and thanks to the IFPS Training Team members - Sam Beckman, Bob Hamilton, Brian Motta and Shannon White - for their hard work to make the workshops as successful as possible.

CLIMATE, WATER AND WEATHER DIVISION

METEOROLOGICAL SERVICES BRANCH

EXCELLENT TORNADO WARNINGS IN SOUTH FLORIDA. WFO Miami MIC Rusty Pfost provided the following summary of the F2 tornado which struck Miami on Thursday, March 27. It was immediately obvious the WFO performed in an excellent manner, handling what for them is a relatively rare event. A tornado hit the Miami suburb of Brownsville/Liberty City and one person was killed by flying debris. Several others were injured. Significantly, this was the first tornado death in South Florida since April 5, 1925, when 5 were killed in an F3 tornado in north Dade County.

A tornado warning was issued at 455 p.m. with about 50 minutes of lead time (death occurred approx 546 p.m.), and the latest SVS specifically detailing the threat for Brownsville/Liberty City was issued with about 10 minutes of lead time (535 p.m.). There had been earlier tornado warnings for Miami-Dade County on Thursday afternoon and a Tornado Watch was also in effect. The South Florida HAMNet with WX4MIA HAM radio station was activated and a Miami-Dade Skywarn volunteer was manning the station from about 3 p.m. on. WCM Jim Lushine and SOO Pablo Santos were in the operations area as severe weather coordinators. Rob Handel, a newly arrived forecaster from Greenville-Spartanburg, and Barry Baxter, another newly arrived forecaster from Cleveland, handled the excellent warnings. The Miami forecasts had been calling for severe weather for the previous two days as well.

A day after the event the WFO had a Web page up with graphics and other information (<http://www.srh.noaa.gov/mia/libertytornado/libertytornado.html>). There were five tornadoes in Miami's CWA that day, and every one of the tornadoes was warned for (POD = 100%). Average lead time was 24 minutes. Only four of their fourteen tornado warnings failed to verify with a tornado (FAR = 29%), and all four of those warnings were for areas over the Everglades where it's not likely we could expect event confirmation. It seems very unlikely from radar indications compared with those for the verifying storm warnings, that tornadoes failed to occur in any of the areas warned. All-in-all, a great job! Congratulations to the Miami staff on the excellent achievement.

NICE WORK, LAKE CHARLES! The commanding officer of the NOAA Ship Whiting presented a plaque to WFO Lake Charles for outstanding assistance during the 2002 hurricane season. Specifically, the office staff provided specialized support to the Whiting and two other NOAA ships which sought shelter in Lake Charles during hurricane Lili. Expert interpretations and localization of NHC products by the WFO staff enabled the NOAA officers to make appropriate decisions to protect their ships and crew from the possible hurricane conditions.

SMG BRIEFS COLUMBIA ACCIDENT INVESTIGATION BOARD. The NWS Spaceflight Meteorology Group continues to provide expert assistance to NASA following the loss of the crew and Columbia space shuttle. SMG is coordinating a multi-agency effort to reconstruct the atmospheric conditions that Columbia flew through on its ill-fated descent. On March 28 they briefed the accident investigation board with details on WSR-88D radar data over Texas and Louisiana at the time of the accident. The radar data analyzed immediately after the incident by the Radar Operations Center in Norman, NSSL and the SMG provided an initial view of potential debris locations to NASA investigation teams. The data gathering effort by Southern Region Headquarters and WFOs nationwide resulted in a detailed analysis being in the hands of the debris collection team leaders within a week of the accident. With the shuttle fleet now grounded, SMG's top priority will continue to assist NASA and the accident investigation board in reviewing and understanding meteorological data associated with the loss of Columbia and her crew. The SMG will also be an active participant in the spacecraft "return to flight" evaluations of weather flight rules and other factors.

COLUMBIA RECOVERY EFFORT AIDED BY SR FIRE WEATHER TEAM. Southern Region IMETs and fire weather program leaders (FWPL) have provided on-site weather support for the Shuttle Columbia recovery effort in East Texas. WFO Shreveport FWPL Bill Adams, WFO El Paso IMET Tom Bird, WFO Midland IMETs Greg Murdoch and Seth Nagle, WFO Fort Worth FWPL Joe Harris, and SR Fire Weather program manager Paul Witsaman have assisted in this important mission. On any given day, over 5,500 wildland firefighters and specialists, and almost 50 other federal, state and local agencies, all working under the direction of four Incident Management Teams, have received outstanding weather support from our SR team of fire weather experts. Counting crew rotation, over 11,000 searchers have benefitted from this strong SR team. It is anticipated the on-site incident support will continue through April.

NEW GUIDE FOR WIND DAMAGE ASSESSMENT. Based on a recommendation from the service assessment of the April 28, 2002, LaPlata, Maryland, tornado outbreak, WSH (OCWWS) has developed a standardized damage assessment guide for use by field offices. The new 101 page, full color, training guide is titled "A Guide to F-scale Damage Assessment," and is available on-line at the training Web site: <http://meted.ucar.edu/resource/wcm>

National WCM program manager Steve Kuhl in OCWWS coordinated development of the guide, which also benefitted from input from Chuck Doswell (primary author), Greg Forbes, Tim Marshall, Don Burgess, Bill Bunting and Brian Smith. Neal Rasmussen, Jim Williams and Joe Golden also provided photographs for the guide, and Harold Brooks provided data for some of the figures. All of these individuals are well-known in the area of storm assessment and impacts. We encourage all offices to place copies of the guide in their "Storm-Survey Kits," and ensure that all staff members review the training guide prior to the convective season.

MARINE

SR Marine Workshop. The SR Marine Forecaster Workshop was held last month in Jacksonville. Attendees included a representative from every SR coastal WFO, the Miami PMO, and other WFO Jacksonville staff members. There were numerous presentations on topics including GFE marine forecasting, policy issues, the graphical hurricane local statement, local modeling, scatterometry, verifying marine warnings, and buoys. We appreciate the assistance provided by Andrew Shashy (WFO Jacksonville marine focal point) to the SR marine program manager in organizing this workshop.

Coastal Flood Workshop. WFO Corpus Christi hosted a Coastal Flood Workshop on Jan 30. Participants from WFOs Austin/San Antonio, Brownsville and Houston attended, as well as representatives from the Corpus Christi EMC, Texas Department of Transportation, and the Conrad Blucher Institute for Surveying and Science. Corpus Christi WCM John Metz provided an overview of coastal flood climatology along the Texas coast, presented a few case studies, and described some valuable forecasting techniques. SOO Andy Patrick gave an overview of tropical storm Fay coastal flooding along the Texas coast and discussed sister office backup operations. The Corpus Christi EMC Juan Ortiz explained how important our coastal flood forecasts are to city operations. Texas DOT discussed how the raising of the JFK Causeway was progressing so Padre Island residents would not be cut off in advance of a land-falling hurricane. The Conrad Blucher Institute demonstrated their neural network model which provides impressive water level forecasts out to 24 hours. The following link has more information.

<http://tcoon.cbi.tamucc.edu/wiki/Forecasts/HomePage>

PUBLIC

Seven-Day CCFs. All offices have been provided with directions for expanding their Coded City Forecasts to 7-day versions by May 1. If you have any questions, please contact Melinda Bailey in CWWD.

Point Forecast Matrix. The Point Forecast Matrix (PFM), previously a form of the RDF, may be issued as soon as the office is ready. NWSH has requested we post this product to the Web experimentally for our customers. If you have any questions about format or product information, please contact Melinda Bailey.

NOAA WEATHER RADIO

Media Attention for 25th Anniversary of Lubbock's NWR. WFO Lubbock enjoyed significant attention from local media on March 13 as they marked the 25th anniversary of their NWR station WXX-79. WCM Ed Calianese and senior forecaster Ron McQueen were interviewed on the local ABC and CBS television stations where they discussed the importance of NWR and its capabilities, as well as the NWS mission. Forecaster Anthony Cavallucci was interviewed live on the local NBC noon news and covered similar topics. The anniversary and NWS mission were also documented in a story in the *Lubbock Avalanche-Journal* newspaper, Lubbock on-line news site on the Web, WFO Lubbock's spring newsletter, and Web site and, of course, on WXX-79.

The All Hazards NOAA Weather Radio Workshop. Hector Guerrero, WCM for WFO San Angelo, and Steve Vaughn, the new assistant coordinator for the Texas Division of Emergency Management, facilitated the All Hazards Weather Radio and AMBER Alerts workshop at the Texas Division of Emergency Management Conference in Austin on February 26. Mike Mach, NWR program manager, and Chuck Wolfe, media consultant and chairman of the Local Emergency Communications Committee for the Houston area were invited guests. Mike discussed NOAA Weather Radio expansion and Chuck Wolfe talked about how the city of Houston media broadcast the AMBER alert. Steve Vaughn discussed how the state handles AMBER alerts, and Hector presented information on the All Hazards Weather Radio and facilitated a discussion on the marketing of NOAA Weather Radio as an All Hazards Weather Radio.

NOAA Weather Transmitter Appreciation Day. Seminole, Texas located northwest of Midland, held a Weather Radio ribbon cutting ceremony to celebrate the broadcast of WNG-562. WFO Midland WCM Pat Vesper described the scissors that officially proclaimed March 6 as "NOAA Weather Transmitter Appreciation Day" as the largest pair he'd ever seen! The official proclamation presented by Gaines County emergency manager Robert Barrett and the county judge is being framed for display at the Midland office.

NWR Saves Lives in Camilla, Georgia Disaster. Gary Rice, a field coordinator with the Georgia Emergency Management Agency recently said of NWR, "There could have been more injuries on Thursday [March 20] if not for the forecaster's warning issued on weather radios." The National Weather Service in Tallahassee "did a good job for us in getting that [warning] out." Although six people died and over 200 were injured during the severe weather events that struck the town of Camilla, Georgia, it was clear many other lives were saved as word of the tornado reached those residents in time who were listening to the weather radio broadcast.

WFO New Orleans/Baton Rouge Champions Prize NWR at Bogalusa, Louisiana. Two years ago, WFO New Orleans/Baton Rouge staffed an information booth at the Washington Parish Fair in southeast Louisiana. A great deal of enthusiasm was sparked among the many residents who lived in an area outside the umbrella of NWR coverage. Today, WNG-521 serves Washington Parish, four nearby Louisiana parishes, and four adjoining Mississippi counties. To commemorate this accomplishment, the WFO produced a tailored poster and brochure that was distributed at a recent dedication ceremony to unveil the NOAA Weather Radio transmitter at Bogalusa.

And The Nominees Are. Concerned that several counties in the western portion of South Texas were not covered by NOAA Weather Radio, Medina Electric Cooperative in Hondo, Texas took advantage of USDA rural electric grants to alleviate the problem. Early in 2002, Medina Electric began discussions with leaders of cities and counties across their 17 county service area to develop interest in the NWR program and to secure funding and cooperative efforts that could result in the establishment of several NWR sites. As a result of Medina Electric direct efforts, USDA grant funds were secured and assisted in bringing the following four NWR sites on-air: Uvalde, D'Hanis, Dilley and Rio Grande City, Texas. Medina Electric Cooperative is this year's WFO Austin/San Antonio's nominee for the Mark Trail Award.

Weather Radio Expansion Continues. Southern Region was at various stages of NOAA Weather Radio installations last month. Three dual Crown 300 watt transmitters were installed and became operational. Broadcast audio for these new sites will originate from the following offices: Dilley, Texas from WFO Austin/San Antonio; Greenville, Alabama from WFO Mobile; and Oneonta, Alabama from WFO Birmingham. The addition of these new transmitters brings to 12 the number of NWR stations brought on-line in Southern Region this year.

HYDROLOGIC SERVICES BRANCH

MPE TELETRAINING. The Multisensor Precipitation Estimator team conducted a pilot training session with staff from WFOs Tulsa, Fort Worth, New Orleans and Atlanta. Others participating included OCWWS HSD, the NWSTC and SRH. The participants provided constructive feedback on the teletraining material and presentation, and the MPE team is currently integrating changes to their material. They plan to use the on-line registration process provided by NWSTC for the WFOs to sign up for the teletraining sessions. The team plans to begin the MPE teletraining sessions in May. SR HSB will notify the WFOs about the teletraining session dates and registration soon.

CORPS OF ENGINEERS MEETING WITH NWS. An NWS/COE interagency meeting was held at WFO Little Rock last month. The origin of this meeting was directly related to a flood event last year in the Black River Basin and the Clearwater Lake watershed in southeast Missouri. During this heavy precipitation, the Corps had problems finding COOP rainfall data. The event caused the Corps to review the reimbursable FC-16 Cooperative Weather Observer program. The Little Rock COE District area of responsibility overlaps three WFOs in Central Region and four WFOs in Southern Region. The FC-16 program totals over \$40,000 and provides operations and maintenance support for 71 COOP locations in SR and CR.

Those in attendance included NWSH cooperative program manager Andy Horvitz, Central Region CPM Bob Bonack, Southern Region HSB chief Ben Weiger, and SR CPM Mike Asmus. The NWS field offices involved were WFOs Little Rock, Springfield and Tulsa, and the Arkansas-Red Basin RFC, and Lower Mississippi RFC. Representatives from the Little Rock Corps District were chief of the Operations Division Mike Miller, chief of the Reservoir Control Branch Jan Jones, hydraulic engineer Mike Black and engineering technician Ken Rollins. The meeting was very informative and all left with a better understanding of each others' responsibilities and a renewed appreciation of each others' missions. Andy Horvitz gave an overview of the COOP modernization program. All agreed that this type of meeting should occur on a routine basis.

Several action items came out of the meeting. These actions items included request for changes to location identifiers for some of the reimbursable COOP locations, comparing receipt of COOP FC-16 network rainfall reports at LMRFC, ABRFC, and the COE Little Rock District, reviewing costs associated with the reimbursable FC-16 COOP network, and setting up a larger scale meeting between the NWS and COE offices within the COE's Southwest Division.

PC-BASED RFC COMPUTATIONAL BACKUP SYSTEM. We recently received approval to purchase the hardware/software necessary to support an RFC LINUX PC-based computational backup system. The RFCs operated the first computers ever deployed to NWS field offices. Although it was occasionally possible to carry the very large data storage discs used back then to a sister RFC for emergency backup operations, there has never been a viable RFC computational backup capability. This system was developed and designed by staff at the ABRFC with input provided by other representatives on the SR RFC backup system team.

This PC-based system will serve as a backup to AWIPS and is independent of AWIPS. Each SR RFC will get the system which provides for RFC data ingest, weather monitoring, running of river models, and dissemination of products. The system also has the flexibility to serve as backup during the total loss of an NWS facility. It will provide the WFOs with their most basic needs for accurate river forecasts, hydrologic coordination messages, and flash flood guidance during a serious outage situations. ABRFC will build the systems for each SR RFC and also provide the RFCs with training. Congratulations to everyone on the RFC backup team for this outstanding achievement!

RFC WEB TEAM EXPERIMENTAL PRODUCT IMPLEMENTATION. The SR RFC Web team is posting a consistent look and feel suite of experimental precipitation and flash flood guidance graphics on-line. This implementation will provide partners and customers with a consistent suite of hydrologic information that can be accessed quickly without having to visit several Web sites. Customers will also be able to choose the flash flood guidance and precipitation information they want to view interactively. These information graphics are accessible from the SR home page by clicking on "Experimental Products" in the left column of the home page.

This suite of experimental products includes graphics for all of the Southern Region, each RFC area of responsibility, and each SR state. In the latter case, graphics are available for north, south and west Texas.

For each of those geographical areas, the following graphics are created:

- 1) 1-hour FFG
- 2) 3-hour FFG
- 3) 6-hour FFG
- 4) 12-hour FFG (where generated)
- 5) 24-hour FFG (where generated)
- 6) Rainfall the previous 24 hours ending at 1200UTC
- 7) Rainfall the last 7 days
- 8) Rainfall the last 14 days
- 9) Rainfall month-to-date
- 10) Rainfall year-to-date
- 11) Normal rainfall for these periods
- 12) Percent of normal rainfall for these periods
- 13) Departure from normal for these periods

Consistent with new NWS Instructions 10-102, the Web pages will include a product description definition and a survey for customer feedback. We encourage everyone to provide feedback on these experimental products. Further detailed information about this implementation will be forthcoming from Dave Reed, LMRFC HIC and the RFC Web team leader. Congratulations to everyone on the team for this outstanding achievement.

SCIENTIFIC SERVICES DIVISION

INTERNATIONAL MODELING OUTREACH. From March 5-12 Shawn Bennett, MIC at WFO Brownsville, visited the Instituto Meteorológico Nacional (IMN) in San Jose, Costa Rica, to install and provide training on the use of the NCEP Workstation Eta model. Shawn (formerly the Brownsville SOO) was accompanied by one of the WFO forecasters, Carl McElroy. The working visit by Shawn and Carl resulted from previous NWSH and Southern Region visits to Costa Rica and interactions which led to an agreement to share our operational expertise with local models. Shawn and the staff have made great use of the WsEta at Brownsville, where the coast on one side and the Mexican Plateau on the other strongly influence weather on the local scale. That, plus the fact Shawn and Carl are fluent in Spanish made them ideal ambassadors for this mission.

Shawn installed and configured the models on a dedicated workstation IMN had purchased with WMO support, then he and Carl provided training seminars for two days for the entire operational staff at San Jose. In his trip report Shawn noted, "That afternoon IMN meteorologists exhibited real joy when they saw model output that depicted mesoscale circulations and precipitation fields for the first time ever." Costa Rica has a dual sea breeze and convoluted mountain-valley circulations, and it was even more impressive to see the model verify well with GOES imagery. The WsEta immediately became part of the IMN operations. Shawn termed this international modeling project an unparalleled success. As follow-up, IMN has asked if two of their meteorologists could visit WFO Brownsville for two weeks for additional training and experience.

SSD EXTENDED “FIELD TRIP.” Bernard Meisner (SSD) went on the road in March a spent four weeks visiting roughly half our field offices from Texas to Florida. At each office he presented seminars on the new NWS Learning Management System which will become operational later this year. The feedback he received was valuable and will result in some changes to the system. For example, we’ll plan to expand the capability of the LMS to allow DAPMs and ESAs (in addition to MICs and HICs) to track the training of the individuals they supervise. Bernard also upgraded the WES with v. 1.1 software and a new operating system at the offices he visited, and installed new hardware to make the WES even more useful. Heavy rains and some severe weather seemed to follow him from office to office, but he was also able to spend productive hours with the WFO and RFC staffs observing how they issue their forecasts and warnings. Bernard also met with members of the office staffs to discuss the various operational and research projects in which they were involved, reviewed SOO activities, and generally provided the kind of one-on-one assistance the MICs and HICs have told us they appreciate.

NEW NCDC CLIMATE ATLAS OF THE U.S. At a recent meeting of the regional climate services program managers at NWSH, the attendees were given copies (CDs) of the latest *NCDC Climate Atlas of the U.S* (v. 2.0). Victor Murphy (SR’s program leader in CWWD) passed the CD on to SSD. We have NCDC’s permission to duplicate the CD, and we will do so and distribute copies to all SR offices as soon as possible. Note that the copies are for internal NWS use only, and may not be duplicated for external use. Any requests for copies of the CD from outside NOAA should be directed to Sam McCown (NCDC) at sam.mccown@noaa.gov. The cost for the data set is about \$100.

GIS AND INTERNET MAPPING SERVICE. Internet Mapping Service, or IMS, can integrate GIS technology, NWS gridded forecast fields, and the Internet to provide exciting possibilities for our customers to interactively create more useful products to satisfy their needs. Last year the NWS formed an IMS integrated work team to explore a path toward that end. On March 27, at a meeting of the NWS corporate board subcommittee on Science and Technology, team members Ken Waters (PRH, formerly SRH/SSD) and Jack Settelmaier (SSD) briefed the subcommittee members on the team’s recommendations regarding how the NWS should pursue IMS and GIS implementation. The subcommittee fully endorsed the team’s recommendation and pledged the necessary support to move forward quickly.

The team proposes development of a prototype which will feature an ArcIMS Internet site, developed primarily for emergency managers, to disseminate NWS information they require when their areas are under threat of a land-falling tropical cyclone. This site will deliver the information in a common geographic information system (GIS) format for easier integration into the EM decision-making process. (Many EMs are already well-versed in GIS/IMS technology.) The goal is to have the prototype in place and functional during the coming hurricane season. While it would be focused on EM support, it is envisioned the server would be the beginning of an interface that will one day provide a portal to *all* NWS data available in GIS formats. Integral to the prototype development is extensive interaction with local EMs during the coming months to gather their requirements for the interface and needed data. The team envisions not only improving (with the

prototype) the service we can provide to EMs, and thus furthering the NWS mission of preserving life and property, but also providing access to all NWS data in formats that are geo-referenced and thus allow easier interrogation and utility by all of our customers.

EXTENDED ETA MODEL GUIDANCE ON AWIPS. Although the 0000 UTC and 1200 UTC Eta model runs extend to 84 hours (and the 0600 and 1800 UTC runs will soon be extended to 84 hours) only Eta model guidance out to 60 hours is broadcast on AWIPS Satellite Broadcast Network. Eric Howieson (SR AWIPS program manager, SOD) and Bernard Meisner have adapted the procedures and instructions originally developed by Josh Watson (ER SSD) and Chick McGill (ITO at WFO Burlington, Vermont) to download the 66, 72, 78 and 84 hour model guidance files to a regional server and then distribute them using the Local Data Manager software to the AWIPS Local Data Acquisition and Dissemination systems for processing and display on AWIPS. Eric has distributed the instructions for adding these extended grids to the AWIPS focal points at our local offices.

NEW PARTNERS PROJECTS APPROVED. COMET has approved a new Partners project between Florida State University and Southern Region offices. Titled, "A Web-based Tutorial in the Use of Quasi-Geostrophic Diagnostics in Conjunction with NWP Model Output for Improvement of NWS Forecasts," will involve FSU's Prof. T.N. Krisnamurti and Dr. Bob Ross in the development of Web-based and WES training material. It will also allow us to capitalize on a unique opportunity to tap the skills and educational experience of Dr. Ross' many years as a meteorology professor at Millersville University.

Also recently approved by COMET is a Partners Project between Dr. Paul Croft at the University of Louisiana at Monroe and several SR offices. Paul is well known from past collaborative activities while at Jackson State but this is an initial sponsored project with ULM. The project title is "Preliminary Investigation of Observed Microburst Characteristics and Forecast Methods."

LOCAL CLUSTER MODELING WORKING TEAM. The Southern Region Cluster Modeling Working Team held its first meeting at WFO Jacksonville in mid-February, with attendees from the SRH SSD, SOD and CWWD's Dissemination Enhancement Team, the NWSH Office of Science and Technology, NOAA's Forecast Systems Lab, Florida State University, WFO Huntsville, and the SOOs from all the Florida offices. As part of the NOAA Coastal Storms Initiative WFO Jacksonville has begun running the Weather Research and Forecast (WRF) model on a computer cluster. The model is initialized with the LAPS software developed by FSL. OS&T, FSL, FSU, WFO Jacksonville, and several other NOAA agencies are collaborating in the Coastal Storms Initiative. In partnership with SRH, WFO Melbourne will soon be running the Advanced Research Prediction System (ARPS) forecast model on a computer cluster. That model will be initialized with the ARPS real-time Assimilation and Data Analysis System (ADAS). The WFO has been running the ADAS on a single processor computer for some time with the output displayed on AWIPS and the office Web site.

The goals of Local Cluster Working Team meeting are to ensure a smooth implementation of the numerical weather prediction systems on the computer clusters at WFOs Jacksonville and Melbourne, to identify sources of local data which could be used to initialize the forecast models, and to promote the efficient and effective exchange of information and model guidance products among the Florida offices. Since the meeting we've secured permission for WFO Jacksonville to export the base data from their WSR-88D to the computer cluster for use in their LAPS, and secured permission for WFO Melbourne to add the base data from the Tampa Bay Area WSR-88D to that of their local WSR-88D as input to their ADAS. We're also working to increase the bandwidth and improve the throughput on WFO Melbourne's connection to our regional Frame Relay Network so they can ingest the model guidance fields needed for the ADAS, and also to facilitate the distribution of their ADAS output to neighboring offices. Another outcome of the meeting was a follow-up meeting among OS&T, FSL and FSU in Tallahassee to discuss the verification process for the NOAA Coastal Storms Initiative.

CHANGE OF WATCH. At 1814 UTC on April 1, the GOES-East mission was successfully transferred from GOES-8 to GOES-12. GOES-12 will continue to drift at an eastward rate of approximately a third of a degree per day toward 75 W, where a stop maneuver will be performed on about April 22. The transition (see previous issues of *Topics*) was exceedingly smooth, and now GOES-8 gracefully enters retirement after almost nine years of providing outstanding support to the nation's weather services.

Also of note, in mid-May **GOES-9** will be returned to on-orbit mode, to replace the Japanese GMS-5 satellite. GOES-9 has been drifting westward to a new location of 155E. In order to support the operation of GOES-9 at its new location, a command and control ground station was built at Fairbanks, Alaska.

COMET COLLABORATION TRAVEL. WFO Melbourne MIC Bart Hagemeyer and senior forecaster Scott Spratt traveled to St. Louis University last month to continue collaboration with Dr. G.V. Rao at the SLU meteorology department. The visit was supported by a COMET Partners project which is aimed at improving the forecasting of tornadoes associated with tropical cyclone rain bands. This project began during 2002 when the WFO staff and SLU researchers documented radar characteristics of mesocyclones associated with several recent tropical cyclones. The study is being expanded this year to incorporate MM5 model simulations to distinguish between mesocyclones which did and did not produce tornadoes during tropical storm Gabrielle in 2001. The M55 will be initialized with high density east-central Florida mesonet observations and WSR-88D radial velocity and reflectivity data archived at WFO Melbourne.

While at the university Bart also addressed the St. Louis AMS Chapter with a presentation highlighting the differences between tropical, sub-tropical, hybrid, and low latitude extratropical lows. Scott presented a summary to the AMS Student Chapter describing WFO Melbourne's use of the ARPS Data Analysis System (ADAS) and ARPS simulations associated with Gabrielle's rainbands (see a summary at http://www.srh.noaa.gov/MLB/gabby_runs/comparisons.htm).

BAMEX WORKSHOP. WFO Little Rock SOO Chris Buonanno provided the following information regarding preparations for BAMEX (the Bow Echo and MCV Experiment), a collaborative study using highly mobile platforms to examine the life cycles of mesoscale convective systems. This field program will take place during the spring and early summer of 2003. It represents a combination of two related programs to investigate (a) bow echoes, principally those which produce damaging surface winds and last at least four hours, and (b) larger convective systems which produce long-lived mesoscale convective vortices (MCVs). BAMEX will involve NCAR, university researchers, NSSL, the NCEP Storm Prediction Center, and forecasters from several WFOs. A two-day planning meeting and workshop for BAMEX forecasters was held in mid-March in Fairview Heights Illinois. The workshop introduced the participants to forecasting aspects that will be required to support field operations.

The goal of BAMEX is to study bow echoes and mesoscale convective vortices (MCVs) during their entire evolution, using an extensive and mobile observing network. In addition to conventional data the network will include mobile mesonets, mobile profilers, and aircraft-based radar. This experiment will take place across much of the central United States next summer. Chris and the other participating forecasters will be detailed for short periods to the BAMEX operations center to provide support. More information about the project can be found at <http://www.crh.noaa.gov/lrx/science/bamex.htm>.

TECHNICAL ATTACHMENTS. This month's technical attachments include:

[*Implementation of a River-Level Forecast Site in the Suwannee River Basin, Florida*](#) (Reggina Garza, WFO Atlanta and Tom Mirti, Suwannee River Water Management District)

[*Tips for Preserving Meteorological Consistency in Gridded Forecasts*](#) (Jeffrey M. Medlin, WFO Mobile)

[*NWS Weather Event Simulator, National and Southern Region Plans for the Coming Year*](#) (Scientific Services Division)

SYSTEMS OPERATIONS DIVISION

SYSTEMS INTEGRATION BRANCH

WSR-88D. Last month we participated in the conference call on the beta testing performance of ORPG Build 3.0. Testing was conducted at different sites throughout the country, including WFOs Corpus Christi, Norman and Tulsa. The testing lasted about eight weeks and a unanimous decision by all participating parties was that full scale deployment should proceed. The test director declared RPG Build 3.0 software, load instructions, site specific adaptation data, training material and documentation ready for full system-wide deployment. Items were shipped to each office on March 31.

WFO San Angelo experienced antenna/pedestal problems last month. Due to an antenna slip ring assembly needing to be replaced and a shortage of local electronics staff at the office, SRH

coordinated to have the area RMS and an ET from WFO Austin/San Antonio travel to San Angelo to assist with the replacement of the defective assembly. Once the part was received from NLSC, the new assembly was installed. Due to the collective efforts of all parties involved, the system was brought back on-line and returned to normal operation after minimal downtime.

NETSCAPE MAIL. Mail has been running smoothly this past month. We are very please to see the WSH CIO is putting together a schedule for training on the new 5.x Netscape mail server software. We would like to see more effort to move this project along and get all of the NWS on the new email system.

NWR. Installations continue at a breakneck pace. On March 18, two new sites went on the air in Southern Region, one at Dilley, Texas, and one at Oneonta, Alabama.

On March 3, SRH/SOD regional systems specialist Joe Villescaz traveled with the SRH NOAA Weather Radio program manager Mike Mach (CWWD) to view two new prospective sites. The first site visited was in St Croix, in the U.S Virgin Islands. Our representatives met with the site cooperater and tower/facility owner and discussed the future site. The second site was on Culebra Island, just east of Puerto Rico. Here too, they met with the tower and facility owner and reviewed equipment installation procedures and how the scope of work would proceed.

After returning to the office and discussing the findings with NWSH, it was decided both sites meet the criteria for equipment installations. Both projects are slated to begin later this month or in May. The two projects will help us meet the needs of an under-served area.

TELECOMMUNICATIONS. Focusing on the NWR program this month, we have ordered new circuits and ROAMS lines for Leakesville, Mississippi; Cherokee Village, Arkansas; and Cisco, Texas. As soon as contact information is confirmed for the Seguin, Texas site, we will order lines for that location. Frequency proposals have been submitted for each of these locations also.

Circuits were accepted for Oneonta, Alabama and Dilley, Texas NWR sites. Circuits for Palatka and Largo, Florida should be ready soon for NWS testing and acceptance.

AT&T completed the installation and testing of the Alabama state and regional NAWAS circuits for WFO Huntsville. Both circuits are now operationally ready. This was the final comms issue for the Huntsville office.

The SRH Video Teleconferencing System was upgraded this month. A short training session was completed on the basic functionality of the system and the new upgrades. Also, training documentation was passed out in the divisions to familiarize staff with the system. The system is currently on-line and operational and has been used for several VTCs.

AWIPS. AWIPS OB1 installs got off to a shaky start with a set of bad CDs causing several sites to have to revert back to 5.2.2.2 status and reschedule the completion of their OB1 install. We are hoping that the proper fixes have been applied by NGIT to the CDs and the remainder of the installs will continue more smoothly. Maintenance Release OB1.1 should be available this month with around 16 fixes already slated for the release.

We continue to expand EMDS in the region and now have 11 sites on-line. We hope to have the rest completed by the end of April, pending build installs and upgrades.

OBSERVATIONS AND FACILITIES BRANCH

ACCESS TO 1-MINUTE ASOS DATA BEING EXPLORED. We frequently receive inquiries regarding access to one-minute ASOS data. The questions come from researchers and others interested in acquiring real-time access to the highest possible resolution surface observations for a variety of applications. Each ASOS has dial-out phone lines. NWSH is working on the prototype of having a central server ingest and store one-minute ASOS data. This will require a local Internet connection (ISP) at each ASOS site. There will be an open-ended data stream from the ASOS thru the ISP, and one minute data will then be stored in a central server for user access via Internet. The initial two SR test sites for this will be in Texas, at New Braunfels and a second site still to be determined. We will provide more information as NWSH plans develop further in the coming months.

PRIMARY WIRE WEIGHT RIVER GAUGE ACCESS. Access by NWS employees and volunteers has been restricted at 38 SR wire weight river gauges designated as primary sources of stream flow information. These gauges are typically located on highway bridges that do not have the minimum guardrail height of 39 inches, determined by the Office of General Council as the minimum required by OSHA regulations.

Several actions need to occur to resolve this impasse: agreement is needed from the local government entity responsible for the bridge for the guardrail to be modified, and the design of the modification requires an independent review by an engineering consulting firm to satisfy safety factor concerns for NWS employee use. The latter action should be funded and implemented on a national basis, along with the production of the guardrail mod kits.

NOAA TIER I AND TIER II ASSESSMENTS. Findings from the NOAA Tier I assessment visits to six SR offices last summer remain to be closed. A Tier I assessment is a formal environmental and safety audit conducted biannually by NOAA. Part of the delay has been the WHAM software provided by NOAA which did not function as advertised. Responses have now been requested by NWSH in regular e-mail format, and as of March 2003 slightly over 50% of the total SR findings have been closed. While the Environmental Compliance and Safety findings were originally to be tracked for the use of regional directors, they are now being reported in NOAA quarterly reviews. Less formal Tier II assessment visits by MASC environmental and safety engineers are also planned for up to four Southern Region sites this spring.

WFO SHREVEPORT WASTEWATER PH LEVEL. A meeting with the laboratory contractor at Shreveport was cancelled due to an emergency on the part of the contractor, and it will be rescheduled at no cost to NWS. A recent pH reading of 3.6 was significantly below the allowable minimum of 6.0 and must be resolved and the correction reported to the Louisiana Department of Environmental Quality per the wastewater permit requirements. Cleaning agents have been identified as the suspected source of acidity, however, this has not yet been verified. A follow-up visit is planned for early April.

GALVESTON COUNTY EMERGENCY MANAGEMENT FACILITY. Site preparation for the Galveston County Emergency Management Facility is scheduled to begin in May 2003. Construction of the facility should begin in September 2003 and finish in September 2004. The Houston/Galveston WFO is to be relocated to this new facility.

INTERAGENCY MEETING. Last month, WFO Little Rock hosted an interagency meeting with the Little Rock District Corps of Engineers. The NWS was represented by staff from both SRH and CRH as well as members from several SR and CR WFO data acquisition teams and two RFCs. The meeting focused on NWS data acquisition procedures and methods used to disseminate the data within the agency and to our partners.

NATIONAL RCPM MEETING. NWSH hosted a regional Cooperative Program Manager meeting last month. The meeting focused on the modernization plans being developed for the program and plans to maintain the legacy equipment and resources.

WXCODER II SUPPORT. The data acquisition staffs at WFOs Melbourne, Houston and San Juan will assist in WxCoder II software testing. WFO San Juan earlier provided Spanish translation of the various scripts. Communications issues are being addressed and the test should be completed by the end of April. Full deployment is planned for May 2003.

PC-ROSA REPLACEMENT PROJECT. Frank Solutions, Inc. continues with the development of the new PCROSA replacement system currently called the Data Acquisition System. Computer hardware was delivered to SRH last month with the complete system scheduled to be installed by the end of this month. Following testing and acceptance, plans are to have this system available for volunteer observer use by the end of May 2003.

SURFACE OBSERVATION PROGRAM. Southern Region received 78 requests from the aviation community for new certificates, cancellations, and changes in type of surface certificates. A review of the list of observers at second-order stations during office reviews has resulted in many changes in the list of observers at each site.

The F-312 gust recorder is now obsolete. In March, National Recondition Center and National Logistic Supply Center completely depleted all of their spares, working units and piece parts. As a result, the F-312 gust recorder is no longer supported. The F-312, charts, pens and any parts related to the F-312 will be purged from inventory and the catalog. Offices still wanting to use the obsolete wind and gust recorder functions will need to look at replacing these systems with some type of data-loggers.

UPPER AIR OBSERVATION PROGRAM. February upper air rankings for Southern Region offices were excellent with 12 offices receiving scores above the national average of 285.03. In February ten SR offices received excellent scores above 290.00 with a perfect score being 300.00. WFO Corpus Christi continued to lead SR's rankings in February with a score of 295.46. Other offices having excellent scores in February were Del Rio (295.30), Albuquerque (294.92), Miami (294.34), Fort Worth (294.16), Brownsville (293.82), Key West (293.33), Little Rock (292.07), Midland (290.87) and El Paso with a score of 290.67. Offices that continue to show steady improvement over the past several months include WFOs Key West, Midland, Brownsville, Miami, Little Rock and Corpus Christi.

Several SR offices continue to have an outstanding 12 month average. For the second time this year WFO Miami's 12-month average score (293.64) leads SR and moved them into 8th place in the nation for February. Little Rock's score of 293.05 was second in the region, just beating out WFO Brownsville with a score of 293.03. Other SR sites finishing the past 12 months with excellent scores were Fort Worth (292.47), Del Rio (291.68), and Corpus Christi with a score of 291.58.

Last month, a complete set of new upper-air examinations was sent to each upper-air site in Southern Region. These exams were written to correct errors found in the Upper-air Exam Series A (VIZ) and B (Vaisala). All copies of Exam Series A and B should be destroyed upon receipt of the new Exam Series C (VIZ) and D (Vaisala). These changes were made with input from the regions and the field sites. NWS Observing Handbook No. 10 along with the MicroART Training Guides are the references used for preparing these exams.

ADMINISTRATIVE MANAGEMENT DIVISION

DIVERSITY/EEO AND COMMUNITY OUTREACH ACTIVITIES

WFO BROWNSVILLE. DAPM Jim Campbell provided a tour of office facilities to 22 "Winter Texans." The Rio Grande Valley usually sees a significant influx of winter visitors from other (colder) parts of the country during the cold season. Jim gave them a tour of the office and a PowerPoint presentation dealing with National Weather Service operations.

WFO SAN JUAN. HMT Jesus Figueroa assisted three high school algebra class students during their visit to the WFO, and was interviewed on the importance of math in meteorology.

WCM Rafael Mojica conducted an office tour for 12 environmental science class students from the Metropolitan University, Science and Technology Program. SOO Rachel Gross conducted an office tour and presentation for seven students taking the introductory meteorology course at the University of Puerto Rico, Mayaguez Campus. Rachel showed them a couple of WES cases, and also went over some basic atmospheric theory.

WFO San Juan staff participated in the first of two CPR courses coordinated by Tony Estrada, office safety focal point. Twelve employees participated in the first session and learned how to recognize life threatening emergencies like heart attack, cardiac arrest, stroke and choking.

ASA Lucy Monet and MIC Israel Matos participated in the closing ceremony of the 2002-2003 Combined Federal Campaign. WFO San Juan was commended and received the Silver Award. All staff members contributed to the CFC, exceeding the previous year's contributions. Kudos to Lucy for her outstanding CFC efforts year after year.

WFO SHREVEPORT. Forecaster Bill Parker gave an office tour to 19 Girl Scouts from Elysian Fields, Texas. Bill explained the operations of the NWS, safety rules, NOAA Weather Radio, severe weather, and how to get weather information using the Internet.

SOUTHERN REGION WORKFORCE TRANSACTIONS			
<u>MARCH 1 - 31, 2003</u>			
<u>Southern Region Losses</u>			
<u>Name</u>	<u>From (Office)</u>	<u>Action/Transfer</u>	<u>From Title/Grade</u>
Dennis Clay Morgan	WFO LZK	Transfer to WR	Senior Forecaster, GS-13
Ryan S. Knutsvig	WFO BRO	Transfer to CR	Forecaster, GS-9
Michael Vescio	WFO FWD	Transfer to WR	SOO, GS-14
Miguel Sierra	WFO SJU	Resignation	Senior Forecaster, GS-13

<u>Southern Region Gains</u>			
<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Jeffrey Fournier	WFO TAE	Transfer from PR	Forecaster, GS-12
Donald W. Byrd	WFO EYW	Transfer from NOAA	El Tech, GS-11
Philip Grigsby	WFO FFC	New Hire	Met Intern, GS-7

John Sirmon	WFO SHV	New Hire	Met Intern, GS-7
Melvin Martin, Jr.	WFO BRO	New Hire	Forecaster, GS-11

Within Region Transfers/Actions			
<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Martin Garcia	SRH SOD	Transfer from AMA	Elec. Program Mgr, GS-13
Andy Roche	WFO SJU	Promotion from SJU	Senior Forecaster, GS-13
Bradley Bryant	WFO JAN	Promotion from JAN	Forecaster, GS-5