



**UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE
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SOUTHERN TOPICS

www.srh.noaa.gov

Working Together To Save Lives

REGIONAL DIRECTOR

Last month I participated in the Texas Emergency Management Conference in San Antonio, which gave me an opportunity to provide emergency managers from across the state with a comprehensive overview of NWS organization and operations. I highlighted the expertise of our WFO and RFC staff members and the importance of our products and services to EM operations. I also illustrated specific Texas weather and flood hazards, and discussed our communication systems. The feedback I received from the participants was enthusiastic and it clearly reflected their appreciation for services we provide to them from the WFOs, RFCs and the Regional Operations Center at SRH. Every one of our employees can take pride in that, because it's through such support of emergency management operations that we are working together to save lives and protect property.

I also participated last month in the annual Arkansas Emergency Management Conference in Little Rock, and again I found enthusiastic support for the services we provide to emergency managers. During the meeting an agreement was signed between WFO Little Rock and the Arkansas DEM regarding the broadcast of Civil Emergency Messages on NOAA Weather Radio and transmission of the messages on AWIPS. The agreement specifies how NWR can be used as an all-hazards communication system to quickly provide the media and public with emergency messages regarding acts of terrorism, incidents at nuclear reactors, releases of hazardous materials, detonation of explosives, or accidental missile launches. This further strengthens our partnership in service of the American public.



SOUTHERN REGION DIRECTOR'S AWARDS. In 1998 we established the annual Southern Region Director's Awards to honor outstanding performance on the part of our employees in the areas of teamwork and service enhancement. The recipients of this year's awards have been announced, and I'm pleased to say that again this year we have been able to recognize the truly exceptional achievements on the part of individuals at each of our offices. The Teamwork Award is presented for meritorious efforts in forwarding the mission of the NWS through teamwork, cooperation and *esprit de corps* among fellow employees at the office. The Service Improvement Award is given to those employees who are the most exceptional in helping the local office maximize service benefits to the public and our other partners. Congratulations to all the award winners. Individual engraved plaques will be presented in the near future.

ISAAC M. CLINE AWARDS. It is also a pleasure to announce recipients of the 2002 Southern Region Isaac M. Cline Awards. The award winners exemplify the commitment and professionalism of all our employees, which combined with the outstanding leadership of Southern Region local managers is resulting in the tremendous achievements we're making across the region. Please join me in congratulating all of the award recipients:

Robert J. Ricks	WFO New Orleans Area	Meteorology
Paul M. Lewis	WFO Houston	Hydrometeorology
C. Thomas Miller	WFO Birmingham	Engineering, Electronics or Facilities
David M. Welch	RFC Slidell	Hydrology
Gregory Machala	WFO Birmingham	Support Services
Christopher Liscinsky	WFO Birmingham	Program Management and Administration Services
Steven G. Cooper	CWWD/SRH	Leadership
Staff	WFO Lake Charles	Upper Air Observation

Next month we will include in *Topics* a list of all the local Cline Award recipients.

IFPS

IFPS Text Formatter Progress. The Southern Region Text Formatter team joined the other regions at a meeting at FSL in early August to discuss the development and implementation of the GFE Text formatters. The goal of the meeting was to discuss how the formatters would be developed and deployed to the field, and the regions did reach consensus on these issues.

The first release of the formatters was distributed as part of RPP18 and only to the formatter team. Thus far, the results have been positive, with minimal tweaking required right out of the box. The full release of the GFE Text formatters will be with RPP19, which is scheduled for the beginning of October. After testing by the RPP sites is completed, Southern Region has volunteered to have all of its offices test the formatters. This is expected to occur by mid-October.

CLIMATE, WATER AND WEATHER DIVISION

METEOROLOGICAL SERVICES BRANCH

AVIATION OUTREACH. As part of the continuing aviation outreach initiative, WFO Little Rock senior forecaster and aviation focal point Newton Skiles, WCM John Robinson and forecaster Brian Smith made familiarization visits to FAA and NWS facilities last month. As the newest forecaster at the WFO, these visits gave Brian the opportunity to meet users in the aviation community and co-workers in other NWS offices. The group toured the FAA Automated Flight Service Station in Jonesboro, Arkansas and had discussions with the flight service specialists and supervisors on duty. As part of the visit, Brian listened in on several telephone pilot weather briefings conducted by the specialists. Discussions about NWS aviation products provided excellent feedback to the group.

The CWSU at the Memphis ARTCC was also visited, and MIC Doug Boyette and CWSU meteorologist Bob Brines gave an overview of the CWSU's duties and responsibilities. Brian listened to radio transmissions between FAA controllers and commercial airliners. The group also had the chance to see the coordination that goes on in the development of the Collaborative Convective Forecast Product that is issued by the Aviation Weather Center in Kansas City. Several center weather advisories for thunderstorms were also issued during their visit.

Finally, MIC Jim Duke and his staff welcomed the group to the Memphis WFO where numerous operational issues were discussed including the recent AWIPS and IFPS upgrades at both offices.

NOAA WEATHER RADIO

NWR Expands Across the Texas Hill Country. NWR broadcast coverage recently expanded between San Antonio and Del Rio with the deployment of dual transmitters at Uvalde, Texas. Station KWN-51 utilized USDA - Rural Utilities grant funds through the application of the Uvalde County Emergency Management Agency. WFO Austin/San Antonio MIC Joe Arellano and WCM Larry Eblen were instrumental in assisting cooperator Diane McHugh during the application process. This site is currently broadcasting in a 30-day operational test mode through September 24.

McCurtain County, Oklahoma Dedication Ceremony. On August 23, an NWR dedication ceremony was held for the new McCurtain County NOAA Weather Radio station located in Broken Bow, Oklahoma. WFO Shreveport MIC Lee Harrison and WCM Bruce Burkman celebrated the event held at the McCurtain County Technical Institute in Idabel, Oklahoma. Persons attending the ribbon cutting ceremony for station WXJ-65 included local city, county and public service officials including a number of school district representatives.

NOAA Weather Radio Forum Held at Cumby, Texas. The formal dedication of the Cumby, Texas NOAA Weather Radio provided the opportunity for WFO Fort Worth/Dallas to sponsor an information forum for officials and residents in northeast Texas. The forum included emergency management officials from Hunt County, the city of Greenville, Hopkins County and the city of Sulphur Springs. Those in attendance included the Hunt County judge, representatives from the Salvation Army, members of the local amateur radio community, and the Sulphur Springs media. WCM Gary Woodall and MIC Bill Bunting kicked off the ceremony with an overview of weather radio services, a discussion of broadcast and warning procedures, and a look at potential promotions of weather radios all hazards capability. The forum concluded with a special test of the station KWN-31 weather radio warning alarm feature.

SEVERE WEATHER PREPAREDNESS AND OUTREACH

Congressional and Media Entourage Visit New Southern Region WFO. U.S. House Representative Bud Cramer, his aides and several of the local Huntsville media, including television weathercasters, toured the new Huntsville Weather Forecast Office. MIC John Gordon, WCM Tim Troutman and SOO Tom Bradshaw provided the congressman and media with a status briefing on projected WFO activities this fall through early 2003.

Broadcast Meteorologists Meet at WFO Birmingham. Staffs from WFO Birmingham and Huntsville teamed up to provide presentations on a wide range of NWS products and services to more than 40 broadcast meteorologists from around the nation. The event provides the NWS with an excellent opportunity to increase media outreach, and through collaboration with the university, it also helps the broadcasters in attendance complete a graduation requirement for the Mississippi State University Broadcast/ Meteorologist degree program.

Student Employee Shows Scouts Honor. WFO Corpus Christi SCEP and Eagle Scout Eric Avila, conducted a Boy Scout Weather Merit Badge class for 15 Boy Scouts of Troop 878 from Spring, Texas. Eric provided the scouts with a presentation that included weather basics, severe weather phenomena, and weather safety preparedness. The course instruction also included viewing the videos “Killer Twisters,” and “Hurricanes: Prepare for Nature’s Fury,” observing an upper air balloon launch and touring the weather office.

Student Employee Goes Graphic. WFO Huntsville SCEP Brian Carcione impressed the staff with his skill and graphical talent in developing and printing a tri-fold brochure called “Storm Shelters.” Based on FEMA building guidelines, Brian’s brochure highlights the whys, whats, wheres and hows of the storm shelters available to the public in tornado-prone areas.

NWS Represented at Health and Safety Day. WFO Lubbock forecasters Jody James and Anthony Cavallucci, and SCEP Jason James represented the NWS with a booth display at the annual Lubbock Health and Safety Day in the Texas Panhandle. The trio handed out severe weather safety brochures and responded to weather related questions of the nearly 1,000 attendees who stopped by the NWS booth.

Puerto Rico Governor's Daughter Tours WFO. WFO San Juan MIC Israel Matos provided an informative tour of the office to the governor's daughter, Ms. Sila Marie Calderon. Israel explained WFO operations and highlighted the importance of intra-government briefings during tropical cyclones that affect the island U.S. commonwealth.

Inter-Agencies Promote Hurricane and Flood Safety. WFO San Juan WCM Rafael Mojica participated in the Aguadilla Mall Safe Home and Hurricane Expo, sponsored by Congressman Jose Rivera. Several local and federal agencies teamed up to promote hurricane and flash flood awareness and preparedness in the hurricane exit point of northwest Puerto Rico. Over 500 people visited the expo to view hurricane videos and to obtain hurricane tracking charts and brochures.

EMERGENCY MANAGEMENT COORDINATION

Eight New StormReady Sites. The StormReady program added to the FY02 total in Southern Region last month. WFO Norman recognized four Oklahoma cities; Atoka, Cordell, Elk City and Seminole, and one Texas county, Wichita, as StormReady. WFO Nashville added Putnam and Lincoln counties to the list. Meanwhile, WFO Memphis added to this year's regional tally by recognizing Senatobia, Mississippi as a StormReady community.

There are now 45 new StormReady sites in Southern Region in FY02.

Local and Federal Officials Work Together to Improve Hurricane Preparedness in Key West. WFO Key West WCM Jon Rizzo helped coordinate, plan and develop updated hurricane operation plans between the city of Key West and the local NWS office. Communications testing, local hurricane notification and briefing procedures and utility support was established for the mutual benefit of the city of Key West and the WFO.

Texas WFOs Coordinate with Texas Division of Emergency Management. WFO Houston/Galveston WCM Gene Hafele and WFO Brownsville WCM Jesus Haro represented the NWS at the Texas Coastal Advisory Team held in San Antonio during the Texas 2002 Emergency Management Conference. The advisory team consists of emergency management coordinators and NWS representatives from the coastal region of Texas. Each year the group collaborates to make recommendations to the state of Texas on the Texas Hurricane Program. This year the group was tasked to help plan and organize the 2003 Texas Hurricane Conference.

MEDIA/PUBLIC/EXTERNAL CUSTOMER SUPPORT

Huntsville Hamfest a Hit! WFO Huntsville WCM Tim Troutman and SOO Tom Bradshaw participated and staffed an NWS booth that highlighted NOAA Weather Radio, severe weather videos and provided numerous severe weather brochures at the annual Hamfest in Huntsville. Nearly 5,000 people attended the Hamfest with several hundred of those visiting the NWS booth. Tim also provided a Skywarn training session and status of the new Huntsville WFO to a large contingency of HAM radio operators.

Presentation to a Distinguished Audience. WFO Birmingham forecaster Darone Jones spoke to the Alabama Council Association of Executives at the Montgomery Country Club. The presentation provided the audience a comprehensive overview which highlighted products, services and communication of weather information by the NWS.

Key West Management Duo Talk Weather on the Air. WFO Key West MIC Matt Strahan and WCM Jon Rizzo were guests on the "Cruisin' with Grusin" Sunday morning radio program for WCNK 98.7 FM, live from the Pier House Resort in Key West. Matt and Jon participated in an hour-long discussion on topics that included local hurricane history, hurricane preparedness, the planned new WFO facility, and the meteorological requirements to staff an NWS weather forecast office.

Deep South Texas Gets First Class Hurricane Workshop. NWS Southern Region Headquarters assistant SSD chief Bernard Meisner teamed up with staff from WFOs Corpus Christi and Brownsville to provide a well-rounded hurricane workshop to over 25 television, emergency management, Skywarn, police and fire-fighter attendees from Deep South Texas. Bernard provided an in-depth presentation on tropical cyclone forecast models, Corpus Christi SOO Andy Patrick provided training on Hurrevac software, Brownsville forecaster Carl McElroy focused on Deep South Texas tropical cyclone hits and near-misses, while Brownsville DAPM Jim Campbell briefed the group on the current tropical cyclone forecast for 2002. The international and bi-lingual hurricane workshop was organized by WFO Brownville WCM Jesse Haro and SOO Shawn Bennett.

Disaster Destination - Tampa! WFO Tampa Bay Area SOO Charlie Paxton taped a segment for The Travel Channel series titled "Disaster Destinations." This series of TV shows features weather related stories that describe the hazards of nature. Charlie's segment featured a construction worker who was struck and permanently injured by lightning while working on the "Pier," an inverted pyramid shaped tourist attraction, along the waterfront in St. Petersburg, Florida.

Power Squadron Gets a Course in Weather. WFO Melbourne forecaster Bob Wimmer provided a weather course for fifteen mariners of the Banana River Power Squadron in Cocoa Beach, Florida. Bob, a former navy salt, instructed the group on basic meteorology with emphasis on pulse type thunderstorms and finished with a tour of the Melbourne WFO.

Spotter/Observer Appreciation Picnic in Amarillo. WFO Amarillo staff held their second annual “Spotter and Cooperative Observer Appreciation Picnic” for their volunteer partners in the Texas Panhandle. According to WCM Steve Drillette, the picnic was just one small way to show appreciation to the dedicated volunteer storm spotters and cooperative observers who donate their time and talents in assisting the NWS in its mission of saving lives and property in the Texas and Oklahoma panhandles.

DISSEMINATION ENHANCEMENT TEAM. The Southern Region Web ranch grew rapidly this year. In the spring we added “Bess” and “Julia” to our family for a total of six servers (previous servers are “Martha,” “Jackie,” “Ladybyrd,” and “Eleanor”). Shortly after the flooding began in south Texas during August, we added “Lucretia” and last week we added “Rosalynn” to help offset increased traffic due to tropical activity. The increased traffic is reflected below:

<u>Month</u>	<u>Kilobytes Transferred</u>	<u>Hits</u>
March	621,837,761	83,025,124
April	871,085,417	109,176,576
May	1,033,126,029	131,594,568
June	1,315,287,339	153,073,651
July	1,793,735,490	207,065,792
August	1,571,246,934	195,588,890
Sept 1-8	507,663,511	54,207,267

Not surprisingly, the recent one-two punch from tropical storms Edouard and Fay resulted in a near record number of “hits” on the NWS SRH Web servers. On September 6 the servers successfully handled a total of 9,740,508 hits making it the second most active day this year (July 2 was the most active with 9,947,471 hits due to the Texas Hill Country floods). The September hits also resulted in the transfer of 96.5 terabytes of data. If that amount of data were stored on CD-ROMs, it would require 150,830 of them. Laid end-to-end, the disks would cover the length of 193 football fields.

To further enhance utility and reliability of the system, we currently have ten new servers on order which will be brought on-line as Apache Web servers instead of the NT IIS we currently have.

IMPROVED AWIPS WORKSTATION. A request came in to Southern Region Headquarters from WFO Norman to design a more ergonomic way to issue warnings during severe weather. The result was an Advanced AWIPS Linux-Based workstation, which reduced forecaster fatigue and improved lead time. For more information see the technical attachment “Design and Evaluation of an Advanced Linux-Based AWIPS Workstation” attached to this month’s *Topics*.

www.srh.noaa.gov/topics/attach/pdf/ssd02-29.pdf

HYDROLOGIC SERVICES BRANCH

SECOND FEDERAL INTERAGENCY HYDROLOGIC MODELING CONFERENCE. Reggina Garza, Judi Bradberry (SERFC) and Joel Lanier (WFO Tallahassee), Mike Shultz (WGRFC), Greg Stanley and John Schmidt (ABRFC) recently attended the Second Federal Interagency Hydrologic Modeling Conference at the end of July. The conference consisted of private, government and university hydrologic modelers from around the country. A major theme promoted by Gary Carter (NWSH/OSD) was the need for more sharing and collaboration among all modelers. The conference covered a broad range of topics including water quality, flood inundation mapping, warning services, future NWS hydrologic modeling plans and Multi-Sensor Precipitation Estimation. Joel Lanier gave a brief presentation on FSU professor Henry Fuelberg's Historical Precipitation Database project funded by the state of Florida, and developed in collaboration with the Florida NWS offices and the NWSH Hydrology Lab. Mike Schultz gave a presentation on using GIS tools in conjunction with the FLDWAV hydraulic model to map flood inundations areas. He showed examples of flood inundation maps based on the record flood event along the Guadalupe River in 1998.

HYDROLOGY PROGRAM MANAGERS CONFERENCE WEB PAGE. NWSH has established a Web site for the upcoming National Hydrology Program Managers Conference scheduled for the first week in December in New Orleans. The Web page address is: http://www.nws.noaa.gov/om/flashflood/hpm_conference/index.shtml. The Web site contains the agenda, logistics, and information about the trainers providing the leadership, customer service, and team building training. Additional questions about the conference should be directed to Kandis Boyd (SRH/HSB).

SOUTHERN REGION DATA ACQUISITION CONFERENCE. Ben Weiger, chief of HSB, and SERFC DOH Brad Gimmestad gave presentations about data quality control tools and information available in AWIPS and from the RFCs at the SR Data Acquisition Conference held in Melbourne. Brad's presentation focused on an RFC AWIPS text product that contains observations deemed questionable based on RFC review of the data. Ben provided handout materials on the data quality control and alarm/alert threshold functions available in WHFS and other data QC related information, including local AWIPS applications available to assist with data QC duties at the WFO.

SCIENTIFIC SERVICES DIVISION

FY2003 IN-RESIDENCE TRAINING ASSIGNMENTS. After coordinating with all offices we have filled Southern Region seats in the in-residence training courses scheduled for the coming fiscal year. A list of courses, classes and students has been sent to all offices. No doubt changes will be required as the year progresses, and we will coordinate those as the need arises, but the intent is to provide all employees with as much lead time as possible regarding training assignments. The training centers (NWSTC, WDTB and COMET) should provide students with detailed logistical information regarding the classes at least a month in advance of the class dates.

WSR-88D DLOC COURSE. All interns, new forecasters and hydrologists who require the Distance Learning Operations Course should have registered with the Warning Decision Training Branch last month. The DLOC will begin this month with several offerings of a one-hour orientation teletraining session for students and the WFO/RFC training leaders in mid-September. Select the one most convenient. Remaining teletraining portions of the DLOC will then be offered in six different sections ... students should select the section most convenient, each of which can contain a maximum of 17 students. The teletraining will be followed by a three-day residence session in Boulder, which will be repeated four times to accommodate all DLOC students. Full instructions regarding registration and course details were provided last month to the training leaders. This will be the only offering of the DLOC until next year.

INCORPORATING LIGHTNING CLIMATOLOGY INTO IFPS. Collaborative research efforts on several fronts over the past year or two are merging into enhanced forecast operations in Florida. WFO Tallahassee and the Atlanta RFC have been working with the Florida Department of Environmental Protection (FDEP), Prof. Henry Fuelberg at FSU's Department of Meteorology, the NWS Headquarters Hydrology Laboratory, and the U.S. Geological Survey in Florida. Dr. Fuelberg and his students developed an historical radar data base for the FDEP, using WSR-88D data and software developed by NWS Hydrology Laboratory, along with rain gauge data for the state of Florida and southern Georgia. From this data base, and in conjunction with other Florida WFOs, detailed sea breeze climatologies for Florida are being developed. Combining that with other work on stratifying flow regimes and the climatology of lightning, developed by Todd Lericos (now a full-time NWS employee, when he was an FSU graduate student working at the Tallahassee WFO), the 24-hour patterns of summertime convection in Florida are being described in detail. Some of the results of all this can be found at: <http://bertha.met.fsu.edu/~bamrocz/gradresearch.html>

All of the partners in this collaboration are benefitting. For the NWS the results are expected to contribute significantly to improved forecasts when the unique data sets are integrated into operations using the Graphical Forecast Editor in IFPS. Detailed local and regional climatological information can be incorporated with smart tools into analysis of other real-time weather data. A technical attachment <http://www.srh.noaa.gov/topics/attach/pdf/ssd02-27.pdf> this month by Charlie Paxton, the WFO Tampa Bay SOO, summarizes his work in this area utilizing GFE. Results of all this should also pave way to similar developments in other areas such as coastal and mountainous regions where topography plays a major role in controlling the local weather.

NWS SUPPORTS AMS IN SAN ANTONIO. Southern Region employees combined efforts for a significant presence at the American Meteorological Society conferences that were held in San Antonio August 11-16. The Severe Local Storms, Weather Analysis and Forecasting, and Numerical Weather Prediction conferences drew many papers and posters from SR forecasters (see the list of presentations attached to the July *Southern Topics*). In addition, staff at WFO Austin/San Antonio - in particular service hydrologist Nezette Rydell, ITO Mark Oliver, and SOO Jon Zeitler - took the lead in conducting daily weather briefings for attendees, as well as erecting and manning the NWS booth in the exhibits area. Both of those efforts received many kudos; the AMS Meetings Coordinator said, "This is the smoothest the weather briefing and booth setup have ever gone." Others from NWS who were involved included:

Weather Briefings:	Robert Beasley	WFO Atlanta
	Dan Darbe	WFO Mobile
	Chad Entremont	WFO Jackson
	Jim LaDue	WDTB, NWSH
	Robert Blaha	WFO Austin/San Antonio
	Bernard Meisner	SSD, SRH
NWS Booth:	Joe Arellano	WFO Austin/San Antonio
	Vianney Lopez	WFO Austin/San Antonio (SCEP student)
	Rich Okulski	OCWWS, NWSH
	Ken Widelski	WFO Austin/San Antonio

Also providing support for the booth arrangements were Ron Gird, Outreach Manager (OCWWS/NWSH), Norma Jones, ASA, WFO Austin/San Antonio, and Walt Zaleski, Regional WCM, SRH.

GPS WATER VAPOR SOUNDINGS. High resolution realtime estimates of Integrated Precipitable Water (IPW) are now available for several sites in Florida, and many more will be coming soon, thanks to collaborative efforts on the part of the Florida WFOs, SERFC, other NOAA agencies, and the Florida Department of Transportation. This is a real success story which shows the results of collaboration at its best - all the participants benefit, we gain a valuable analysis and forecast tool at virtually no cost. Attached to this month's *Topics* is a technical attachment <http://www.srh.noaa.gov/topics/attach/pdf/ssd02-28.pdf> which provides more information and describes how all this came about.

To summarize, the Florida DOT will be installing 50 GPS sites around the state to improve precision of their geophysical observations for mapping and other purposes. GPS signals are affected by atmospheric water vapor, and the NOAA Forecast Systems Lab has developed a technique to derive IPW estimates from GPS data wherever they can obtain the observations. DOT will be providing the data to FSL, in return for the IPW estimates, which can help make the GPS data more accurate as a result of applying moisture corrections. The derived precipitable water estimates, which verify closely with RAOB observations, can be obtained as frequently as every half-hour. The GPS

soundings show additional structure (long suspected by forecasters) as precipitable water varies significantly during the course of the day. The density of GPS locations is greater than upper-air sites, so the data are also revealing spatial variations that are not detected by RAOBs. More information and the actual IPW derivations are on the FSL Web site at <http://www.gpsmet.noaa.gov/jsp/displays/display.jsp>.

PLANNED IMPROVEMENT TO NCEP'S GLOBAL FORECAST SYSTEM. An increase in the resolution of the Global Forecast System (GFS) -- formerly known as the AVN/MRF -- for the first 84 hours of the forecast period from T170L42 to T254L64 is tentatively scheduled for October 29, 2002, pending final integration testing. The improvements will also include new background error covariances to account for the new vertical resolution, the use of additional satellite data, and some bug fixes. There will be no change to the resolution of the model output delivered via the AWIPS Satellite Broadcast Network (SBN).

The T254L64 GFS requires approximately 20 additional minutes of wall-clock time than the current T170 version. All GFS-related products, in addition to Wave Model, GFDL Hurricane Model, AVN MOS, and global ensembles will be delayed by 20 minutes after the resolution increase. NCEP will be continuing to optimize the code, but it is not expected they will be able to significantly reduce the 20 minutes. Since the processors at the SBN uplink site were recently upgraded, the GFS output is currently being received by the AWIPS field sites much sooner than it was a few months ago. While the October change to the GFS will somewhat delay the delivery time, offices should still receive the model output sooner than they did earlier this year.

Details of this change to the GFS can be found at:
<http://sgi62.ncep.noaa.gov:8080/tpb97/TPB02/html/v1.html>

A list of the major model implementations planned for the remainder of 2002 can be found at:
<http://www.nco.ncep.noaa.gov/pmb/changes>

As additional information about each implementation becomes available, links will be added on the change summary page.

The GFS naming convention has created a degree of confusion over the last few weeks. The GFS is not a new model, it is new terminology for the suite of applications (data collection, analysis, model, etc.) currently identified as the Aviation (AVN) Model run. Plans are being developed to replace the AVN acronym on the WEB and in the ftp server file structures. Those changes, however, will occur slowly over a lengthy period of time, with ample notification and overlapping to provide sufficient time for the transition.

WEATHER EVENT SIMULATOR UPGRADES. All Southern Region WFOs and RFCs, plus the SMG and FAA Academy have received a 73 Gbyte Ultra 160 SCSI hard drive and a combination CD/DVD reader as upgrades for their Weather Event Simulators. These were purchased using funds approved by the Corporate Board. The hard drive is an addition to the existing hard drive, while the CD/DVD reader will replace the current CD reader. With these enhancements to the WES hardware, and the new AWIPS archive box, offices should be able to better incorporate the WES in their local training plans.

Version 1.1 of the Weather Event Simulator software will be released later this year. Improvements included in that version are:

Software enhancements:

- The WES software will be compatible with Red Hat 7.2 LINUX. However, the upgrade to the operating system will not be included with this version of the WES software.
- The WES software will include Build 5.2.1 of the AWIPS software.
- Simulation settings can be saved and retrieved from a file.
- A popup box will appear during simulation pause and resume to remind the user to clear any images loaded while the simulation was paused in order to allow images to update once the simulation is resumed.

Bug fixes:

- Simulations will no longer crash after ~ 200 minutes due to too many open files.
- The D2D startup script (awips5x) will work while more than one localization exists in the case localizationDataSets subdirectory.
- Up to 99 versions of text products can be stored in the Informix database instead of just two.
- The annoying ETN banner message will no longer appear when the user generates a warning.
- Point data templates will be copied into the correct locations if they don't already exist to prevent the notification server from crashing ~ 20 minutes into a simulation.

WINTER WEATHER SIMULATIONS. The COMET Training Branch has released two winter weather cases for playback using the Weather Event Simulator. Note that Simulation Guides have not been developed for these cases. In support of the Winter Weather Simulation Guide which will be developed by Warning Decision Training Branch in FY03, COMET will distribute the associated case study data.

24 January 2000, East Coast Explosive Cyclogenesis. This case follows the formation and rapid intensification of a cyclone off of the southeastern U.S. The storm moved almost due north, affecting much of the eastern seaboard. In retrospect, the intensity and position of this storm were not represented well by numerical models, and posed a forecasting challenge for the affected offices. This case localization is Raleigh, North Carolina.

09 November 1998, Winter Severe Weather. This case covers the development of a strong extratropical cyclone over the Great Plains and Midwest. Severe weather that accompanied the case included blizzard conditions in the Upper Midwest and severe thunderstorms over the Mississippi Valley. The case localization is Sioux Falls, South Dakota.

GUIDE FOR CONDUCTING WINDSTORM SURVEYS. At the request of NWS Headquarters and other regions, we've posted two older technical memoranda to the Southern Region Web site. These were developed originally to assist in training for those involved in making windstorm damage assessments. They are:

NWS SR 146 - *A Guide for Conducting Convective Windstorm Surveys*, by Bill Bunting (now MIC at WFO Fort Worth), and Brian Smith (WFO Omaha), and

NWS SR 147 - *The Tornado: An Engineering-Oriented Perspective* (reprint of NOAA tech memo ERL NSSL 82), by J. Minor, J. McDonald and K. Mehta.

They can be found (in pdf format) on the SR Web site www.srh.noaa.gov (search under "Scientific Services Division" and then "Technical Memoranda"), or at the following:

<http://www.srh.noaa.gov/ssd/techmemo/sr146.pdf>

<http://www.srh.noaa.gov/ssd/techmemo/sr147.pdf>

STUDYING WET MICROBURSTS IN THE SOUTHEAST. This summer WFOs Mobile, Birmingham and Jackson teamed with Jackson State University and the NCEP Storm Prediction Center to improve understanding and forecasting of wet microbursts associated with pulse-severe thunderstorms which form in weakly-sheared, high CAPE environments. Forecasters at the WFOs had been investigating this problem for several years, and undertaking a collaborative effort gave them an opportunity to pool resources. During June and July pre-storm environmental and radar data were collected at each WFO. Emphasis was placed on using surface mesonet observations, WSR-88D products and ground truth reports to verify the maximum observed wind gusts associated within individual thunderstorms.

Three JSU students spent their summers at WFOs Mobile and Birmingham and at SPC in order to assist with data collection, analysis and verification. One goal of the project is to improve communication among the WFOs and SPC when assessing the potential need for severe thunderstorm watch boxes for some of the more widespread pulse-severe thunderstorms. Project leaders included Dr. Paul Croft (formerly at JSU, now at the University of Louisiana in Monroe), Alan Gerard and Chad Entremont (WFO Jackson), Jeffrey Medlin (WFO Mobile), Kevin Pence (WFO Birmingham), and Russell Schneider (SPC). Over the coming months results will be compiled and preliminary conclusions drawn so that operational efforts can be streamlined for the 2003 wet microburst season. Findings will also be shared among the SOOs to improve forecasts at all offices.

WATERSPOUT SEMINAR. Last month Dr. Joe Golden, from NOAA's Forecast Systems Lab in Boulder, chaired a seminar on waterspouts at the Houston/Galveston WFO. The primary focus was the environment and evolution of waterspouts, and the presentation was based primarily on training materials Joe developed for use in COMET's COMAP course this year. In addition to five forecasters and the ITO from the Houston office, Corpus Christi MIC Jim Purpura and three forecasters from the Spaceflight Meteorology Group also participated in the seminar. A follow up session was conducted during the afternoon during which Joe updated the attendees on current FSL activities. (The PowerPoint file Joe used for the 2002 COMAP course is available for local training. Please contact SSD if you would like to obtain a copy.)

SYSTEMS OPERATIONS DIVISION

SYSTEMS INTEGRATION BRANCH

ASOS. Area RMS Jim McDaniel along with WFO Fort Worth ETs Joe Irlas and William Hill installed the new ice-free wind sensor at Meacham Airport in Fort Worth last month. The site is waiting for the latest ASOS software build to complete the install and start beta testing of the equipment. We will be very interested in how the system performs this winter.

NWR. The Uvalde, Texas NWR site was installed and started broadcasting on August 26. It is currently under the 30-day acceptance test. The site was configured with dual Crown 1000 watt transmitters.

IT. We have compiled the names of individuals in each office who must complete the NOAA-mandated SANS security training course. We should be able to enroll up to two people from each office in the coming months and we will be forwarding the list of names to the office of the NWS Chief Information Officer.

TELECOMMUNICATIONS. The new WFO Huntsville telecommunications installation was set back about one week, but is progressing despite the delay. The wiring to the telco room was to be installed last month. In addition the local telephone service provider brought in the phone lines. The installation of the regional WAN and AWIPS circuits are being installed and tested by MCI. All telephone lines and circuits should be installed by mid-September, and will be followed by testing of the regional WAN and AWIPS circuits, once the router, CSU/DSU, and other hardware are installed.

We participated in the video teleconference on August 16 with MCI WorldCom, NWS Headquarters, and the other regions to discuss the updates and progress of credits issued to the NWS for over-billing of dedicated services by MCI. According to reports of billing credits, Southern Region will be credited with over \$500K for billing errors. These credits should have been posted by the end of last month. Along with these credits, MCI will issue year-end credits equaling 25% of net revenue for all FTS2001 services. This is part of the FTS2001 contract requirements.

As a result of MCI erroneously billing our analog voice-grade (NWR) circuits as 9.6K data circuits, the circuit identifiers for these circuits will have to be changed. Southern Region has approximately 80 circuits which were billed this way. Over the next few weeks, we will be identifying these circuits with the old and new circuit IDs and providing that information to each of the affected offices.

OBSERVATIONS AND FACILITIES BRANCH

HOUSTON/GALVESTON PROJECT. For the last four months Galveston County has been in the process of acquiring property adjacent to the existing Office of Emergency Management building. Plans to award a construction contract for the Galveston County Emergency Management and Communication Center (EMCC) are now expected by late February 2003. The new facility is expected to open in May 2004. The county would be solely responsible for all the construction costs associated with the new EMCC. NWS Southern Region will fund the move cost. The NWS has agreed to provide the existing Houston WFO building to Galveston County under a lease-free agreement. This agreement requires Congressional language introduced as part of an appropriation bill. Approval is expected for the FY03 bill.

TULSA ELECTRICAL POWER. Over the last three months the equipment failures experienced at WFO Tulsa were dramatically reduced by improving the grounding deficiencies associated with the raised computer floor and electrical distribution systems. We are continuing efforts to closely monitor and improve the wiring and grounding in the WFO.

DATA ACQUISITION CONFERENCE. A conference focusing on data acquisition activities was held last month. Representatives from 29 of the 32 Southern Region WFOs attended the meeting, along with a number of NWS Headquarters program managers who provided excellent briefings on the status of new programs. The discussions were primarily related to the modernization of the various programs.

COOPERATIVE OBSERVER PROGRAM. Most of the SR offices have done an excellent job managing the Cooperative Program within their CWA. Thus far for FY02, 10 of the 31 offices have reported zero missing data. The regional average for missing Climatological Data is 0.66% with a performance standard established at less than 2%. The regional average for missing Hourly Precipitation Data is 1.45% with a performance standard established at less than 3%. Station visitation rate for the region currently stands at 109% with a total of 28,516 person hours dedicated to the program and 337,437 miles on the road.

ASOS AUGMENTATION/BACKUP DUTY RESPONSIBILITY TRANSFER. SRH continues to work with local WFOs and the FAA regions to implement the October 1, 2002 transfer of ASOS augmentation/backup duties at six service level C airports that have co-located WFOs. SR has received numerous requests for new aviation surface observing certificates or changes this summer.

SURFACE OBSERVATION PROGRAM. Southern Region received 65 requests from the aviation community for new certificates, cancellation or changes in type of surface certificates during August. The increase for new certificate requests in August is due to the scheduled transfer of augmentation of service level C ASOS sites to the FAA on October 1.

UPPER-AIR OBSERVATION PROGRAM. Southern Region upper air sites continue to do an excellent job. Seventeen of the 23 upper air performance scores in SR were above the national average of 283.59. WFO Brownsville has shown a steady improvement over the past several months resulting in the highest performance score in July with 299.00. A score of 300 is perfect. Close behind Brownsville was WFO Fort Worth with an excellent score of 298.19, followed by WFO Key West with 297.55 and WFO Atlanta with 295.35.

It should be noted that WFO Atlanta, just a few months back, was in last place in the nation and region with a score of 224.57. They were experiencing chronic problems with their upper air tracking system and SPU-11 board. Southern Region RMS Charlie Lake along with WFO electronics staff did a complete review of their ART 2 system. After finding and correcting several problems in the upper air tracking system, WFO Atlanta now has the best improvement in performance scores in the region over the past three months.

Other offices showing a steady improvement over the past three months were Fort Worth, Key West, Little Rock, Miami and Albuquerque, all with excellent scores of 294.21 and above.

Until the problems with the base station data display unit are corrected, the delay to deliver the Radiosonde Surface Observing Instrumentation System (RSOIS) continues nationwide. Phase II sites were requested to move forward with the installation of their cement pads with conduit and towers for their new system. During August, Lake Charles, Corpus Christi and Amarillo installed their towers and are ready for the delivery of RSOIS.

WFO Miami also received their new RSOIS tower, but coordination with NHC is necessary before it will be installed. WFO Miami was a test site for RSOIS but the current tower is too close to the building and does not meet the meteorological siting requirements. NWS Headquarters and WFO Miami have identified a potential new location to meet the meteorological siting requirements for RSOIS between the inflation building and the WFO.

RSOIS status: The problem with the RSOIS data display has been identified and a fix is underway. There may be as many as six RSOIS units at NLSC that function properly. Within the next few weeks NWSH hopes to ship them out to the field. With cold weather approaching in Alaska, Anchorage and Bethel are the first sites to get these systems. Phase I sites in Southern Region that have not received their RSOIS, WFOs Norman and San Juan are also on the list to get their RSOIS soon.

During the past year, WFO Shreveport intern Bruce Sherbon has been working on an upper air training tape titled, "An Introduction and Practical Guide to Upper Air Duties." After reviewing and correcting some procedure errors, the training tape was completed in time to be given to each upper air site in Southern Region at the Data Acquisition Conference held last month. Bob Thomas, NWSH upper air requirements section, was so impressed with the quality of the training tape that he has arranged to have 400 copies made and sent to all upper air sites in the NWS, as well as to be made available to students at the new NWSTC Data Acquisition course.

REAL-TIME ARCHIVAL OF LEVEL-II DATA USING THE INTERNET. As part of the above NASA-CRYSTAL FACE project, SR worked with NASA to install special local data manager (LDM) computers at each WFO. The LDM is used to route WSR-88D base data in real-time, from the Base Data Distribution System, thru NCDC, on to NASA, via the Internet for the WSR-88Ds located in Miami, Key West and Tampa.

With the approval of the AWIPS program office security focal point, these interfaces will be allowed to stay in place even after the implementation of the ORPG to AWIPS LAN to LAN interface. Funding for the monthly DSL or cable internet connectivity is now being picked up by the NASA Tropical Rainfall Measurement project. A fourth WSR-88D site in Melbourne will be added in mid-September.

This means that real-time WSR-88D base data are available to the NWS, NCDC, NASA and to universities, as well as private interests using the Internet, at no cost to the NWS. WFO Melbourne hopes to ingest these data and use them for initialization of locally derived numerical weather models in support of their forecasts and warnings, with special emphasis on aviation forecasts.

LEASE FOR MIAMI WSR-88D. The existing land use agreement for the site which houses the Miami WSR-88D between the SRH and the U.S. Army for ten acres of land in southwest Miami expires at the end of this year, due to the fact that the Army is abandoning the property. SRH is working with MASC to secure ownership from the GSA at no cost for the same ten acre tract.

KEESLER AFB WSR-88D RELOCATION. A preferred tract of land for relocation of the Keesler AFB WSR-88D has been located in Brandon, Mississippi. MASC has submitted to the Brandon city attorney a written counter proposal for a no-cost 20-year lease for the parcel.

ASOS SENSOR RELOCATIONS. Site surveys have been completed with the FAA and local airport officials for the ASOS Combined Sensor Group relocations at Tallahassee and College Station. The airport has already selected the contractor for the Tallahassee move while FAA Form 7460 approval is pending. A pre-construction meeting was held at College Station this week, with the relocation expected to be complete within two weeks.

WFO HUNTSVILLE RADAR COVERAGE. Narrowband communication lines have been installed at WFO Birmingham and the Columbus, Mississippi WSR-88D RDA shelter. These lines will provide WSR-88D data to WFO Huntsville. The wideband T-1 line interfacing the Hy-Top WSR-88D and WFO Huntsville will be installed in January, prior to the February operational opening of WFO Huntsville. Coincident with this, the ROC will install an ORPG with Build 2.0 at WFO Huntsville in early January.

WEST MEMPHIS, ARKANSAS AIRPORT ASOS INSTALLATION. In response to a new FAA requirement, SRH is working with NWSH, the FAA Southwest Region, and WFO Memphis to site, install and commission a new FAA sponsored ASOS in West Memphis, Arkansas. WFO Memphis would be responsible for site maintenance. The location of the combined sensor group and the acquisition control unit have already been determined and the required airspace clearance forms and leases are pending with the FAA. NWSH is currently working with CASC to procure a contractor for much of the site preparation, trenching, cabling and foundation work.

ASOS COMMUNICATIONS TRANSFER. Various service level A and B airports with the integrated terminal weather system installed are changing their method of longline data dissemination from the NWS AWIPS to the FAA ADAS. This will save the NWS communication costs since a dedicated dial-out phone line will no longer be needed at the ASOS ACU. Atlanta Hartsfield Airport and Oklahoma City Will Rogers Airport have already been transferred seamlessly. Ten additional sites are slated for later in CY2002.

ASOS PROCESSOR UPGRADE AND PLANNED PRODUCT IMPROVEMENT. Several SRH sites continue to participate in the new ASOS processor upgrade. After a brief hiatus due to persistent problems with lockups and warm starts, the new Watchdog Timer software (Version 2.6A-5) has been installed at three sites in Southern Region (ATT, CSM, and Memphis). Lockup problems at CSM forced the removal of this software and reinstallation of the old software.

KEY WEST WFO DESIGN STATUS. The agreed-upon concept for WFO Key West at the 15% design review in mid-July is being modified to bring it into budget after an estimating error was discovered in the construction costs for the reinforced concrete walls. The basic floor plan should not change, but some architectural details may be modified or eliminated. Security requirements for fencing and other details are being reviewed by security specialists at MASC and CASC. A preliminary upper air survey was just completed, but the calculations for upper air transmitter limiting angles and balloon flight obstacle clearances are not complete.

SR WIRE WEIGHT SAFETY SURVEYS. Surveys of wire weight (WW) mounting conditions on bridges and at other locations continue around the region with Al Hong of WFO Tulsa being the first service hydrologist/hydro focal point to complete the inspection and measurement of all the manually operated WW sites in the Tulsa CWA. WFO Amarillo also completed their WW safety surveys this month.

ENVIRONMENTAL COMPLIANCE AND SAFETY ACTIVITIES. Sewage effluent permit renewals were processed for WFOs Shreveport, Lake Charles, New Orleans and Lower Mississippi RFC. Diesel exhaust calculations for a Louisiana air quality permit determination performed by Len Bucklin, New Orleans ECS focal point, found that the limited run-time of the 175KW emergency power generator exempted NWS from this requirement.

A sewage permit application renewal will also be made to Miami-Dade County for WFO Miami and the National Hurricane Center this month. Fuel tanks at all Florida WFOs were never registered with the state as required by state law during the WFO construction and that is in progress now by the ECS focal points. There is no fee for this in Florida, and this will result in an annual fuel tank inspection by the state. WFO Jacksonville has been inspected and found to be in compliance.

The NWS noise survey was completed by the Public Health Service at WFO Fort Worth and sent to Washington for approval prior to release. Preliminary indications are that no hearing conservation program will be required at WFO Fort Worth, which would require audiograms of selected employees and medical records retained for 30 years. The next NWS site planned for this national survey is WFO Albuquerque.

The NOAA self inspection survey was conducted nationwide and Southern Region was 100% on the submissions, with some offices being contacted with follow-up questions regarding mandatory postings of safety notices.

A sample of a distinctive self-illuminated and reflective vest for NWS employees was received and bids are being evaluated prior to placing an order for quantities to be sent to each SR office.

Spill plans were requested from the WASC contractor TetraTech for SR leased offices and also some NWS owned offices that were omitted because their total fuel quantity was less than that specified by EPA requiring such a plan when the office was constructed. The site surveys for these spill plans will be done in September and October.

CPR classes were held for SR employees around the region on a voluntary basis, including SRH. Short-range emergency communications radios were purchased at SRH for the purpose of communicating between the two designated evacuation points from the federal building in downtown Fort Worth. These radios will be operated by designated primary and backup employee volunteers not on the existing Occupant Emergency Plan since they will be expected to exit the building promptly during an emergency.

ADMINISTRATIVE MANAGEMENT DIVISION

DIVERSITY/EEO AND COMMUNITY OUTREACH ACTIVITIES

WFO BIRMINGHAM. WFO Birmingham forecaster Darone Jones created and gave a presentation to the Alabama Council Association of Executives at the Montgomery Country Club. The presentation covered who the National Weather Service is, details about products and services, and how to receive weather information. In attendance were executives from at least 12 different associations and federations around the state. Great job, Darone.

WFO BROWNSVILLE. WCM Jesus Haro and student volunteer Margarita Salcedo gave a presentation to the city of Port Isabel Rotary Club that dealt with tropical cyclone preparedness and the Atlantic Basin forecast for 2002.

DAPM Jim Campbell was the guest speaker at the Brownsville Public Library's "Monthly Lecture Series." Jim reviewed the past three hurricane seasons and their affects on the Lower Rio Grande Valley, as well as hurricane hazards and the forecast for the upcoming hurricane season.

Jesus Haro organized a meeting with members of the Matamoros, Mexico Televisa affiliate. Televisa is the dominant television network in Mexico. The meeting was attended by Jesus, SOO Shawn Bennett and forecaster Mike Castillo, and was conducted completely in Spanish.

Although Televisa is a Mexican network, its shows attract a wide viewership on the American side of the border and their news services focus on events on both sides of the border. As such, they monitor our forecast and warning products in addition to those produced by the Mexican National Weather Service. In this manner, they provide information for Americans on both sides of the border, including the very transient workforce in the Rio Grande Valley. The meeting was very successful and the affiliate pledged its continued support to the WFO.

WFO SAN ANGELO. MIC Buddy McIntyre gave a presentation to the Southwest Rotary Club which focused on who the NWS is, what we do, and a little on weather safety. Buddy met with the president of the club who works for KDCD-FM and MIX 106.1 in San Angelo, and offered an invitation to the office to do future preparedness interviews.

WFO SAN JUAN. WCM Rafael Mojica visited the Maunabo Junior High School Manuel Ortiz to conduct a hurricane talk for 60 ninth graders. The city of Maunabo lies along the southeast coast of Puerto Rico, close to where hurricanes Hugo and Georges made landfall. Rafael also assisted two graduate students from the Inter American University in Ponce with their hurricane preparedness project. The project involved filming a documentary on hurricanes of the past decade, and what preparedness actions must be taken to protect life and property.

A group of 19 fourth through sixth grade special education students from the Society for Education and Rehabilitation of Special Needs Students (SER) of Puerto Rico toured WFO San Juan. SER is a non-profit organization devoted to the rehabilitation and education of special needs students. Ten students toured the facility in wheel chairs. They were very impressed with the technology, CRS, general operations, and NOAA's movie "Realms of a Unique Planet."

SOUTHERN REGION WORKFORCE TRANSACTIONS
AUGUST 1 - 31, 2002

Southern Region Losses

<u>Name</u>	<u>From (Office)</u>	<u>Action/Transfer</u>	<u>From Title/Grade</u>
Bernard Esposito	WFO MFL	Retirement	Senior Forecaster, GS-13
Larry Peabody	WFO EWX	Retirement	Senior Forecaster, GS-13
Janet Spurgeon	RFC ORN	Transfer to CR	Hydrologist, GS-12
Jim Stefkovich	WFO JAN	Transfer to CR	MIC, GS-15
Mickey McGuire	WFO BRO	Transfer to CR	Forecaster, GS-12
Donald Baker	WFO LUB	Transfer to AWC	Senior Forecaster, GS-13

Southern Region Gains

<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Clyde Vines	WFO MOB	Reassignment from CR	El Tech, GS-11
Dennis Feltgen	WFO EYW	Reassignment from WR	Forecaster, GS-12
Priscilla Bridenstine	WFO HUN	Reassignment from CR	Forecaster, GS-9
Timothy Erickson	WFO LIX	Reassignment from CR	Forecaster, GS-12
Jason Dunn	WFO CRP	New Hire	Met Intern, GS-5
William Schaub, Jr.	WFO HUN	Transfer from CR	Senior Forecaster, GS-13
Steven M. Shumway	WFO HUN	Transfer from CR	Senior Forecaster, GS-13
Mark Hunter	SRH AMD	New Hire	Budget Officer, GS-12

Within Region Transfers/Actions

<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Roberto Garcia	WFO MFL	Promotion from MFL	Senior Forecaster, GS-13
Matthew Zika	WFO HUN	Promotion from MEG	Senior Forecaster, GS-13
Robert Boyd	WFO HUN	Reassignment from MAF	Senior Forecaster, GS-13
Jason Elliott	WFO HUN	Reassignment from MEG	Forecaster, GS-12
Eric Howieson	SRH SOD	Promotion from TSA	AWIPS Program Mgr, GS-13
Michael Richter	WFO HUN	Reassignment from HSV	Forecaster, GS-5
Kurt Weber	WFO HUN	Reassignment from HSV	Met Intern, GS-5
Mary E. Carroll	WFO HUN	New Hire	Met Intern, GS-5
Alan Gerard	WFO JAN	Promotion from JAN	MIC, GS-15