



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

December 2003

# SOUTHERN TOPICS

Working Together To Save Lives

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## **REGIONAL DIRECTOR**



The nation continues to demonstrate a great appreciation for the National Weather Service and its Indeed the National Weather Service people. epitomizes the concept that government closest to the people, serves best. At this time of year, we need to all recognize that our agency proudly sets a performance standard of excellence in vital government service. This is made possible only through the tremendous dedication of our fellow employees and the support of their families. On behalf of all of us here in Southern Region Headquarters, I want to wish all of our fellow NOAA and National Weather Service employees, their families, and friends a heartfelt Merry Christmas and Happy Holidays.

Bill Proenza



## <u>IFPS</u>

**DIRECTIVE 10-506.** Thank you to everyone who sent in comments on the "Digital Directive," 10-506. The Directive should be signed this month and will most likely have an effective date in January or February 2004.

## **CLIMATE, WATER AND WEATHER DIVISION**

#### METEOROLOGICAL SERVICES BRANCH

**NATIONAL CLINE AWARD.** We are pleased to note that forecasters **Chris Darden** and **William Schaub** at WFO Huntsville have been recognized with the Isaac M. Cline National Award (Meteorology category) for demonstrating exceptional skill and professionalism during the operationally challenging North Alabama tornado and flash flood event last May. Congratulations, Chris and Bill.

#### **PUBLIC**

CID Transition. The Communication Identifier Transition is still in the works. Although it is a few months behind, the first general PNS (Public Information Statement) about the plan will go out to our customers next month. The first products to be converted will be non-aviation warnings and fire weather products. Examples include CEM, FFA, FFS, TOR, SVR, FWF, RFW, etc. This phase is tentatively planned for January or February. Each phase will include detailed information on the specific products being switched over to their modernized PILs. Also, each phase will have a detailed PNS and SCN (Service Change Notice) with links to appropriate files and Web sites. All products, notices and files will be reviewed before being issued to our customers. Eric Howieson and Melinda Bailey are the SR contacts for this project. If you have questions, please let them know.

Although the Web site for the CID transition is not yet updated, it is located at: http://www.nws.noaa.gov/datamgmt/NWS CID Transition Plan.html

**Directive 10-1805.** The new NWS Instruction 10-1805, "National Service and Technical Change Messages" has been signed and posted to the directives Web page (<a href="http://www.nws.noaa.gov/directives/">http://www.nws.noaa.gov/directives/</a>). It will become effective January 7, 2004. All service and technical changes sent on or after January 7 must comply with 10-1805. We encourage you to read this directive to familiarize yourself with our new customer notification requirements as many previous notices of "60 days" have now been changed to 75 or 120 days. A summary can be found at <a href="http://www.weather.gov/os/notifications/nwsi10-1805summary.pdf">http://www.weather.gov/os/notifications/nwsi10-1805summary.pdf</a> and a PNS to our customers can be found at <a href="http://www.nws.noaa.gov/om/notifications/scn03-72notification.txt">http://www.nws.noaa.gov/om/notifications/scn03-72notification.txt</a>

**DISSEMINATION ENHANCEMENT TEAM (DET).** Last month Paul Kirkwood attended an NWS Web meeting held at Western Region Headquarters. Many items were discussed, including where the NWS is headed in providing the public with Web products, future hardware enhancements, and how a common system architecture should be implemented nationwide. The subsequent MIC/HIC meeting in Ft. Worth provided an opportunity for interactive sessions in which Paul fielded questions from the MICs and HICs about DET activities, and where the DET is headed on several projects.

The DET continues to move forward with the WSR-88D Archive II data project. Bruce Marshak worked with most of the WFOs in the region to upgrade their Wide Area Network (WAN) connectivity as part of this project. SRH received a Juniper router which will be utilized in connecting to Internet 2. The Archive II data will flow from WFOs over the SR WAN to a server cluster at SRH which was installed last month with the assistance of NSSL's Mark Benner and the DET's Susan Beckwith. From SRH, the data will be routed over Internet 2 to NCEP, NCDC, and the research community. Once the data are flowing, the troublesome Archive II jukeboxes will be removed from service throughout the region. It is planned to also utilize the Internet 2 connectivity to deliver experimental data sets to SRH for dissemination to WFOs and RFCs. The first of two new T-3 circuits were received at SRH to bolster the regional WAN connectivity to assist in the delivery of more data to all SR offices.

Bruce Marshak attended a Cisco Firewall school at NWSTC, along with counterparts from all NWS regions, NWS Headquarters, and NCEP. It was very productive and the knowledge gained will be implemented shortly at SRH.

## SEVERE WEATHER PREPAREDNESS AND OUTREACH

WFO Lubbock Staffs Safety Booth. WCM Ed Calianese and ASA Marsha Black staffed a weather safety booth at the annual Kent County Health and Safety Fair. One of the unique aspects of this particular fair was that students from Jayton and Spur, Texas attended during normal school hours so they could benefit from the information distributed from the booths and displays. The NWS display included a number of high quality images depicting recent severe weather events, examples of graphical forecast products, and the variety of tools we utilize in the forecast process. The movie "When Seconds Count" was shown continuously at the booth and was a big hit with visitors.

**WFO Jackson Participates in Safety Expo.** WCM Jim Butch and forecaster John Gagan participated in the second annual Leake County Safety Expo in Carthage, Mississippi. About 300 fifth graders from ten Leake County elementary schools were provided weather safety training.

**NWS Austin/San Antonio Outreach Programs**. WFO Austin/San Antonio staffed an NWS safety booth at the Texas Parks and Wildlife Department (TPWD) Safety Officer Conference at their Austin headquarters. Attending the conference were around 150 TPWD safety officers, game wardens, and coastal and inland fishery officers from east and south Texas. NWS staffers Monte Oaks and Larry Eblen provided presentations and handouts on our fire weather program and the Advanced Hydrologic Prediction Service. Both programs are important to the TPWD personnel who frequently deal with fires and floods.

The WFO Midland Staff Hits the Science Fair Circuit. Seven staff from WFO Midland participated as judges of a local science fair held at Pease Elementary School in Midland. The science fair for fourth, fifth and sixth graders included projects focused on the life, earth, and physical sciences and inventions. Members of the staff also planned to participate in a district science fair scheduled for early this month. This function is part of several activities that WFO Midland is planning with the Midland Independent School District to increase NWS visibility in the Texas Permian Basin.

WFO El Paso Tour Helps Girl Scouts Take off on Career Choices. Staff members from WFO El Paso and the top Girl Scouts from the El Paso metropolitan area participated in the 2003 Air Fair. The Air Fair provided the young scouts a look at many science-related professions which included aviation, astronomy and meteorology. About 60 Girl Scouts and leaders participated in a tour of the WFO. With the information and experiences these scouts will be able to aim high as they look to their future careers.

**Cub Scouts Visit WFO Corpus Christi**. A group of six Cub Scouts and four sponsors paid a visit to WFO Corpus Christi. The visitors arrived just in time to watch intern Mike Johnson launch the evening upper-air flight. While waiting for the balloon to disappear into the clouds, the visitors were encouraged to ask questions about the upper-air program. A tour of the WFO followed, providing the scouts and sponsors with a first-hand view of the operations area.

**Saturday in the Park.** WFO Lake Charles senior forecaster John Trares and intern Mark Bacon staffed a weather booth at the annual Louisiana Fall Festival last month. About 200 people attended the festival.

**WFO Lubbock Participates in Local Safety Fair.** Forecaster Shawn Ellis, senior forecaster John Holsenbeck, WCM Ed Calianese, and MIC Larry Vannozzi staffed a weather safety booth at the annual Lynn County Hospital District Community Health Fair. This day-long event, that involved more than 40 different organizations, from across the region, attracted almost 600 people from the surrounding counties, including about 270 students from local area schools.

Senior forecaster Jody James also gave presentations to four fifth and sixth grade classes totaling about 120 students at their school's career day. Highlights of Jody's presentation included the NWS mission and tools used to fulfill that mission which included AWIPS, radar, and satellites. Jody also emphasized the WFO Lubbock partnership with local media and emergency management agencies, then discussed the background and educational requirements for NWS meteorologists.

WFO Lubbock Hosts Safety Seminar. ESA Carl Hill recently conducted a Stop Taking Avoidable Risks (STAR) safety seminar for the safety coordinators of all of the West Texas and New Mexico NWS offices. The STAR training is a NOAA-required course that is expected to be completed by all NWS offices by January 1, 2004. The seminar trains safety coordinators so they can in turn train their coworkers. Safety coordinators from WFOs Amarillo, Midland, San Angelo, El Paso and Albuquerque attended the seminar as did a number of people from WFO Lubbock.

WFO Memphis Promotes Safety Awareness at the Good Samaritan Health Fair. **WFO** Memphis WCM Scott Cordero staffed a booth at the annual Good Samaritan Health Fair in Memphis. Over 250 people visited and obtained information at the NWS booth. A continuously running DVD provided information on severe weather hazards. Brochures and pamphlets were also given out. Scott provided presentations in both English and Spanish. Great job, Scott.

WFO Memphis Hosts Weather and Earth Science Workshop. Service hydrologist Buzz Merchlewitz, WCM Scott Cordero, met intern Jonathan Howell, forecaster Dan Valle, and Shelby County pollution meteorologist Michael Goldstein provided an all-day weather and earth science workshop for middle school educators. This met a professional development requirement outlined in the instructional objectives in the Tennessee State Curriculum and Memphis School Curriculum.

#### **EMERGENCY MANAGEMENT COORDINATION**

WFO Jackson Participates in MEMA Briefing. MIC Alan Gerard and SOO Jeff Craven participated in a press briefing at the Mississippi Emergency Management Agency last month. The briefing was centered on MEMA's efforts to educate the public about the frequency of severe weather in the fall and winter months, and the need for Mississippians to be prepared for severe weather and tornadoes. Alan spoke regarding the climatological frequency of severe weather in Mississippi during the fall and winter months, and also briefed the media on the forecast for the upcoming winter.

WFO Lake Charles Storm Surveys F2 Tornado. On November 17, several tornadoes touched down in the WFO Lake Charles CWA. The strongest was an F2, just below Toledo Bend Dam, along the Texas/Louisiana border. WCM Roger Erickson interviewed local residents and survivors of the tornadoes and spearheaded the NWS storm survey. Although the tornado did not produce fatalities, its destructive power could be witnessed at one brick home, where only an interior bathroom remained. Damage photos for the storm are at the following Web site:

http://www.srh.noaa.gov/lch/severe/1117index.htm

WFO Little Rock Visits Pine Bluff Arsenal. WFO Little Rock MIC Renee Fair, WCM John Robinson, and senior forecaster Newton Skiles recently toured a new incinerator facility at the U.S. Army Pine Bluff Arsenal. Construction of the incinerator is part of a demilitarization project to destroy a large stock of nerve agents and mustard gas left over from World War II and the Cold War era. Burning of the agents is scheduled to begin next spring. In the unlikely event of a leak or accident in the incineration process, the WFO would issue Civil Emergency Messages under a Memorandum of Agreement with the state of Arkansas. Early next year, outreach personnel from the arsenal and the Arkansas Department of Emergency Management will present a seminar at the WFO, to familiarize forecasters with the chemical stockpile and evacuation procedures in the areas surrounding the arsenal.

**Texas WCMs Team Up at Flood Plain Conference.** WFO San Angelo WCM Hector Guerrero and WFO Austin/San Antonio WCM Larry Eblen teamed to provide training at the Texas Floodplain Manager's Association (TFMA) Fall Conference in Kerrville, Texas. Larry began the program with a keynote address to the conference on the "Natural Hazards of Texas." These included floods, tropical systems, severe storms, droughts, wildfires, heatwaves, winter storms, earthquakes, volcanoes, landslides, and even tsunamis. The talk was presented to assist floodplain managers with preparation of their state-required hazard mitigation plans. That afternoon, Hector and Larry teamed up to teach three workshops. The first workshop was a Skywarn Basic Spotter Training program, followed by workshops on StormReady and on the NWS "Turn Around - Don't Drown" program.

#### NWS Bolsters Relationship with EMs at IAEM Conference and Homeland Security Expo.

The 51st Annual International Association of Emergency Managers Conference and Emergency Management and Homeland Security Expo (EMEX 2003) was held last month in Orlando. The NWS provided two presentations. "Use of NWS Technologies During the Columbia Space Shuttle Disaster," by SR director Bill Proenza, and "What's New at the NWS - Update of Products and Services and StormReady," by WFO Seattle WCM Ted Buehner, SPC WCM Dan McCarthy and NWSH WCM Steve Kuhl.

The NWS also hosted an outreach booth at EMEX 2003 which was staffed by Florida WCMs Dennis Decker (Melbourne), Dan Noah (Tampa Bay Area), and Jim Lushine (Miami), with help from their office staff.

Winter Weather Preparedness in North Alabama. WFO Huntsville MIC John Gordon completed a winter weather preparedness training session for Jackson and Dekalb counties on November 19. On November 24 WCM Tim Troutman and lead forecaster Matt Zika also completed two winter weather preparedness training sessions for county officials in Madison County. Among the topics discussed at these two winter weather preparedness training sessions were WFO Huntsville winter weather advisory and warning criteria and communications procedures between the NWS and the EMAs across north Alabama.

WFO Memphis Concludes Beta Test for Software Geared for the Emergency Management Community. ITO Greg Garrett has written a WEB/GIS graphical user interface program called WarnSpot which shows both graphically and textually active warnings and watches on a regional map. This program is highly utilized at the WFO Memphis and other WFOs across the country. Greg has also configured WarnSpot so that our emergency managers can use this application through Internet access. Initial feedback from our EM partners has been very positive, especially with the following features: the ability to set up an alert for a specified region, high resolution county map displaying polygon warning, and speed at which watch/warning information posts through the application. ITO Greg Garrett and WCM Scott Cordero went to individual emergency manager's offices to provide hands-on training to use the WarnSpot software application.

#### MEDIA/PUBLIC EXTERNAL SUPPORT

WFO Tampa Bay Raises \$9,418.50 for the CFC. With the help of ET Dave Chaffin, the WFO recently received the Gold Workplace Excellence Campaign Award for their outstanding contributions to the Sun Coast Combined Federal Campaign. Thirteen individual awards were distributed to the staff, including two Gold Eagles, six Silver Eagles, and five Bronze Eagles. Thanks to WFO staff, many needy people and organizations will be getting a helping hand in 2004.

WFO Tampa Bay Partners With NOAA Fisheries to Promote Marine-Based NWR. The 26th Annual St. Petersburg Fall Boat Show was the biggest boat show on Florida's Gulf Coast and NOAA was there. By sharing resources NWS and NMFS were better able to promote their agencies and the marine-based weather radio. This transmitter site has a special antenna to direct the broadcast 60 miles offshore of Largo, Florida, while program content will include marine forecasts, warnings, fish closures, announcements, and meeting information. Broadcasts of land-based information is limited to warnings for the counties surrounding Tampa Bay.

**WFO El Paso Briefs Highway Agencies from Two States.** WFO El Paso WCM John Fausett, along with the WCM from neighboring WFO Tucson, provided a briefing to 40 key players in the New Mexico/Arizona Departments of Transportation (NMDOT) preseason winter meeting held in Safford, Arizona. The winter outlook was the focus of this interregional presentation, including preparedness for not only heavy snow, but also blowing dust due to dry soil conditions from the ongoing drought. The same presentation was requested by NMDOT and given by John in Deming to 28 additional employees on November 6.

WFO Jackson Partners with Local Television Station. WFO Jackson WCM Jim Butch taught, while CBS affiliate in Jackson (WJTV-TV) hosted, a spotter school for members of the public. Jim appeared on the six o'clock news, along with two of the station meteorologists, to discuss the second anniversary of the Madison County F4 tornado and promote the spotter school. The spotter school drew nearly 175 candidates of which the first 50 people were provided attendance. Both local television meteorologists and Jim promoted weather radio while a local Radio Shack manager described model features and provided options to the audience on the purchase of weather radios. Another spotter school is expected next spring.

What We Do Matters. Following up an early morning tornado warning for Simpson County in Mississippi staff from WFO Jackson converged on the city of Magee where damage had been reported to a school. It was determined the elementary school had been hit by an F1 tornado that ripped off about a 100 foot section of the roof. The principal indicated he heard the tornado warning on his Weather Radio and immediately made a call to teachers in portable buildings on the south side of the school. He then activated the tornado warning alarm for the remainder of the school. By the time the tornado struck, all of the students and teachers had relocated to the interior hallways of the school and no one was injured. Indeed, warnings from the local NWS office make a difference!

WFO Memphis Hosts Winter Weather Media Workshop. WFO Memphis hosted a workshop in which members from the media (television, radio and print) from the mid-South had attended. WCM Scott Cordero and forecasters Dan Valle and Andy Sniezak gave presentations pertaining to National Weather Service winter forecasting, products, and climatology including a review of societal effects of past ice storms across the mid-South. The Red Cross gave a presentation pertaining to community winter safety and preparation. During the workshop, the NWS recognized all attendees for their dedication in providing continuous weather updates, during the busy convection season. The luncheon concluded with a tour of the WFO.

WFO Memphis Hosts 'Partners in Excellence' program. Senior forecaster Mark Frazier continued to lead a 'Partners in Excellence' program. This is a customer feedback group that has paid real dividends in guiding NWS efforts. Mark led the way to organize the program, gather participants and direct the program. Through Mark's effort, WFO Memphis has used customer feedback to improve the Flood Warning program and Winter Weather bulletins. Mark also provided customer group representatives from an array of disciplines including print and TV media, agricultural and educational interests necessary to deliver accurate and powerful feedback needed to guide NDFD products produced at WFO Memphis.

WFO Memphis Promotes Safety Awareness. WCM Scott Cordero gave a presentation to a group of franchise owners from Mirabile Investment Corporation who manage area Popeye's and Burger King chains across the mid- South. The presentation was aimed at employee and customer hazardous weather safety and action plans. Scott provided information about safety and preparation for tornadoes, flooding/flash flooding, thunderstorms and lightning, and NOAA Weather Radio. As a result, each franchise owner was instructed by Mirabile management to provide preparation instructions and drills to their staffs in an event of severe weather and to obtain a NOAA Weather Radio for each of their franchises. Also, the NWS will work with Mirabile management to develop placement mats made for food trays to ring in the Spring Severe Weather Awareness Week detailing hazardous information and preparation for customers who visit the restaurants.

**South Texas HAMFEST.** WFO Corpus Christi participated in the 5<sup>th</sup> Annual Coastal Bend HAMFEST in which 150 amateur radio operators from across South Texas came together to swap equipment, discuss radio and learn about new technology. The WFO set up a display showing a NOAA Hurricane Hunter dropsonde, gave a NOAA Weather Radio demonstration, distributed brochures, and talked with dozens of HAM's about SKYWARN, past severe weather events and radio equipment.

WFO Amarillo Partners with Amarillo College to Host Winter Weather Workshop. WFO Amarillo and Amarillo College teamed up to host a Winter Weather Workshop for Decision Makers. The workshop was geared to those who have to make critical decisions when winter weather threatens. Those attending the event included DOT officials, school administrators, emergency mangers, law enforcement, city and county officials, and other users of NWS products and services. The workshop showcasing all of the WFO Amarillo products and services that relate to winter weather, as well as how to access, use, and interpret the information, was attended by nearly 70. Suggestions for additional products and services were also discussed. Amarillo College provided the state-of-the-art auditorium, technical support, and continuing education credits to those who attended.

#### **CLIMATE SERVICES**

**RECORD RAINFALL IN PUERTO RICO AND THE US VIRGIN ISLANDS.** The month of November saw record monthly rainfall totals across portions of Puerto Rico and the U.S. Virgin Islands. Charlotte Amalie, St. Thomas, USVI received 15.51" in November, breaking an all-time record for the month. Cyril King Airport in St. Croix, USVI reported 17.66" in November, also breaking an all-time record for the month.

As part of this historical research into this event, WFO San Juan was able to extend their local historical daily and monthly record database for St. Thomas back to 1950 and for St. Croix back to 1938. Previously, it extended back only to 1970.

Portions of Puerto Rico were also deluged during the month, with Naguabo receiving over 43 inches. The bulk of the rainfall fell between November 10-14, with widespread flooding and millions of dollars in damage being reported. More information on each event is at:

http://www.srh.noaa.gov/data/jsj/pnssju.0312010530 and http://www.srh.noaa.gov/data/jsj/pnssju.0312011426

#### WFO JACKSON ADDING VALUE TO CPC NATIONAL EXTENDED FORECASTS.

Through the use of locally developed software, WFO Jackson is now displaying the CPC generated 8-14 day forecast, 30 day outlook, and 90 day outlook in a format which is tailored to meet the needs of customers and decision makers within their CWA, and with more local specificity than the CPC generated national map. The product can be viewed at:

http://www.srh.noaa.gov/jan/climate/longterm.html

**NEW LOCAL CLIMATE PRODUCTS FOR ADDITIONAL SITES.** Starting the first week of November, Daily Climate Messages (CLI), Monthly Climate Messages (CLM), and Record Report (RER) products were initiated for sixteen new sites in Southern Region. This involved each WFO locally updating the daily and monthly climate records for each site for the historical period of record. In addition, a Public Information Statement advertising the new products and new WMO headers was issued in coordination with the NWSH Data Review Group and SRH.

This increase in the availability of local climate products improves the delivery of climate products for specific locations, and allows the delivery of specific climate information for certain sites to be targeted for selected NOAA Weather Radio transmitters. The sites for which the new products are prepared include:

In Arkansas - Texarkana, DeQueen, El Dorado
In Georgia - Brunswick, Alma
In Louisiana - Monroe
In New Mexico - Clayton, Roswell
In Tennessee - Clarksville, Crossville
In Texas - Childress, McAllen, Harlingen, Tyler, Longview, Lufkin

## HYDROLOGIC SERVICES BRANCH

**AHPS BASIC SERVICE SUPPORT**. The Arkansas-Red Basin RFC (ABRFC) provided AHPS basic service support for five river locations in southeast Colorado. ABRFC generated a suite of probabilistic hydrologic forecasts for river forecast points located in the Purgatory River Basin. These probabilistic forecasts are available on the WFO Pueblo AHPS Web page.

Southern Region RFCs will provide AHPS basic service support for a total of 175 river forecast point locations in FY04. HSB, in collaboration with the RFCs and affected WFOs, plans to conduct AHPS educational outreach workshops in FY04 to provide WFO staff with background information about the AHPS program and probabilistic hydrologic forecasts generated from the RFC Ensemble Streamflow Prediction model. In FY04, these workshops will be held at WFOs Atlanta, Norman, Tulsa, Huntsville, Morristown, Nashville, Fort Worth, Tallahassee and Houston.

NWS/TVA MEETING. The annual NWS/TVA meeting was held at TVA Headquarters in Knoxville last month. NWS representatives included LMRFC HIC Dave Reed and senior HAS forecaster Jeff Graschel, WFO Morristown MIC Jerry Mcduffie, senior service hydrologist Brian Boyd, and WCM Howard Waldron, ER hydrologic services division George Mckillop, and chief of HSB Ben Weiger. Topics included, but were not limited to, the WFO AHPS Web page implementation status, Lower Mississippi RFC AHPS implementation activities in FY04, new regional/SR RFC Web pages providing precipitation/flash flood guidance information and a status of hydrologic conditions, the NWS transition to modernized product identifiers, criteria used by TVA to notify NWS field offices about changing reservoir conditions, and TVA rain gauge modernization and high date rate DCP installations.

There was significant interest expressed by the TVA about the transition to modernized product identifiers, the WFO AHPS Web page implementation, and LMRFC AHPS implementation activities. Several actions were taken by both agencies. These actions addressed data exchange issues supporting daily hydrologic operations and the WFO AHPS Web page, updating TVA criteria for notifying NWS field offices about rapidly changing hydrologic conditions (e.g., reservoir releases), and notifying TVA about the implementation dates for changing the existing hydrologic product identifiers to the modernized product identifiers. Given the number of NWS activities that will affect TVA operations during the next year, the parties agreed to meet again in the winter and summer of 2004.

## **SCIENTIFIC SERVICES DIVISION**

**HEAD OF THE CLASS.** In an article so-named, Bill Frederick (MIC, WSO/CoE Vicksburg) is featured in the latest issue of the semimonthly *Washington Technology*, which is billed as the only national newspaper for government IT systems integrators and resellers. The article begins:

When Bill Frederick got access to training through GoLearn, the federal government's enterprise-wide learning portal, the first course he took was time management. The National Weather Service meteorologist figured it would help him make time to take other courses -- and he was right. Since he began a little more than a year ago, Frederick has taken about 30 courses. He's applied what he has learned to everything from giving speeches to software programming to writing a paper that will soon be published in the journal, "Weather and Forecasting."

E-learning "was a way I could advance my skills to become more productive for my organization and for the future," Frederick said. He's the only weather service employee in Vicksburg, Miss., so he can't travel to take training courses like other employees. "To ask for a week or two weeks off means there will be no one in my seat. Distance learning is the only way," he said.

The article (<a href="http://www.washingtontechnology.com/news/18\_18/cover-stories/22329-1.html">http://www.washingtontechnology.com/news/18\_18/cover-stories/22329-1.html</a>) goes on to emphasize the increasing use of and successful application of on-line learning. Congratulations Bill. In terms of courses completed you're certainly "head of the class" in SR, and no doubt the rest of NWS.

**NEW COMET MESOSCALE METEOROLOGY PRIMER.** The COMET Program announces the release of "*Principles of Convection III: Shear and Convective Storms*," the latest Foundation Module in the Mesoscale Meteorology Primer series. *Shear and Convective Storms* discusses the role of wind shear in the structure and evolution of convective storms. Using the concept of horizontal vorticity, the module demonstrates how shear enhances uplift, leading to longer-lived supercell and multi-cell storms. The module also explores the role of shear in the development of mesoscale convective systems including bow echoes and squall lines. Most of the material in this module previously appeared in the COMET modules developed with Dr. Morris Weisman. This version includes a concise summary for quick reference and a final exam to test your knowledge. Like previous modules in the Mesoscale Meteorology Primer, this module comes with audio narration, rich graphics, and a companion print version.

The module may be found at http://meted.ucar.edu/mesoprim/shear and is about one hour in length.

The module requires the Macromedia Flash 6.0 player to provide the audio and accompanying animation sequences. The most recent versions of both Internet Explorer and Netscape will have the Flash 6.0 player plug-in installed. However, if you do need to install the Flash 6.0 player, follow the directions in the Tech Notes.

COMET welcomes any comments you may have regarding the content, instructional approach, or use of these modules.

CHANGES TO GFS MODEL OUTPUT STATISTICS GUIDANCE. Effective with the 1200 UTC forecast cycle on December 16, 2003, the Meteorological Development Laboratory (MDL) will be making a series of changes to MOS products based on NCEP's Global Forecast System (GFS) model. These changes include unifying the AVN and MRF MOS into one GFS MOS system, changing the stations for which guidance is available, adding snowfall amount guidance to the text products, implementing new prediction equations for several elements, and changing the experimental ensemble MOS. All of these changes are outlined at the following page: <a href="http://www.nws.noaa.gov/mdl/synop/changes/dec16gfs.htm">http://www.nws.noaa.gov/mdl/synop/changes/dec16gfs.htm</a>.

**ETA PRECIPITATION TYPE FORECASTS.** With precipitation type forecasting issues affecting more of the country with each passing week, now is a good time to remind forecasters of the Eta model precipitation type meteorogram site:

http://wwwt.emc.ncep.noaa.gov/mmb/precip\_type/

This Web site displays a mini-ensemble of precipitation type forecasts for over 1000 stations within the Eta domain. Output is available hourly from 0 to 60 hours. For those who have difficulty clicking on the stars, a bypass option is available in the upper right corner of the main page. This site is updated after each 0000 and 1200 UTC model run with output generally available by 0500 and 1700 UTC, respectively.

Each meteorogram contains the results of four precipitation type algorithms, plus related information from the operational Eta. Note this ensemble of precipitation type forecasts is not constructed from multiple model runs. Rather, it displays the results from various post processing algorithms using the output from a single model run. These include the operational (Baldwin) NCEP algorithm; a revised NCEP algorithm intended to forecast more snow than the operational algorithm (which intentionally under predicts snow in order to predict more freezing rain and sleet); the Ramer algorithm; and the explicit percentage of frozen precipitation from the model microphysics. A complete explanation of the content can be found at:

http://wwwt.emc.ncep.noaa.gov/mmb/precip\_type/explain.html

In addition, animated two-dimensional plots of the output from the operational (Baldwin) NCEP algorithm are available at: <a href="http://strc.comet.ucar.edu/realtime/ptype/index.htm">http://strc.comet.ucar.edu/realtime/ptype/index.htm</a>

**NEW WINTER CASES FOR THE WEATHER EVENT SIMULATOR.** Six new winter weather simulations for the Weather Event Simulator (WES) are available. The are presented in two new case modules available from the National Case Study Library, part of the SOO Science and Training Resource Center (STRC) at: <a href="http://strc.comet.ucar.edu">http://strc.comet.ucar.edu</a>. Case Module #9 (ILX localization) and Case Module #10 (LOT localization) were derived from the 9-11 December 2000 winter weather event and represent. Companion simulation guides are also available from the SOO/STRC.

The materials for the simulations were based on the laboratory exercises the WDTB presented to participants from nearly 100 forecast offices at the four WDTB Winter Weather Warning Decision Making (WDM) Workshops conducted from 2001 to 2003. A key goal for these simulations is to enable those forecasters the opportunity to apply and share many of the training materials presented in the Winter Weather WDM presentations. You can download these presentations from: <a href="http://wdtb.noaa.gov/workshop/WinterWxIV/index.html">http://wdtb.noaa.gov/workshop/WinterWxIV/index.html</a>.

These simulations include several firsts for a WDTB simulation, such as:

- The simulations take place over multiple days.
- You can run the simulation for multiple CWAs.
- Implementation of the WES scripting language (WESSL) allows the inclusions of data that are not typically available from AWIPS (*e.g.*, spotter reports).
- The trainee has the opportunity to make use of ensembles with climatic anomalies.
- The simulations include hourly Workstation Eta model output with 15 km native grids.
- The simulations also include BUFKIT model output soundings (the Case Modules include the latest version of the BUFKIT software.).

To make full use of these simulations your WES workstation must be running Build 1.3 of the WES software (released last month).

**SURVEY ON SATELLITE PRECIP ESTIMATES.** The NESDIS Satellite Analysis Branch has requested feedback on their text product (SPENES) and automated precipitation estimates which have been available on AWIPS since last February. The feedback will help the NESDIS meteorologists determine what changes, if any, are needed to better serve NWS forecasters. SAB provided a short questionnaire which SSD forwarded to all MICs/HICs and SOOs/DOHs. There have been several changes in SAB support since a similar survey was taken a couple of years ago: the auto-estimator has become operational, format of SPENES messages was changed (incorporating previous suggestions), and the messages now include discussion of more data such as GOES satellite winds and additional microwave data.

We encourage SOOs and DOHs to email a consolidated survey response from their offices directly to the NWSH satellite program leader Jim Heil (<u>James.heil@noaa.gov</u>) by January 15. Please cc: Bernard Meisner.

**LONG-TERM FREEZING RAIN DATA SETS.** In conjunction with NCDC the Midwestern Regional Climate Center at the Illinois State Water Survey has provided us with copies of a CD-ROM containing historical data sets on freezing rain occurrences and ice storm losses. The CDs include:

- Frequencies of days per month, and hours per month, with freezing rain at over 235 first order stations.
- Frequency of days per month with freezing rain at over 740 cooperative observer (and some airport) stations.
- Ice-storm loss data for 1949-2000 based on property insurance data.

The CDs will be distributed to WFO climate focal points. In addition, similar CDs containing hail-day frequencies and thunderstorm day counts will distributed soon. These data sets should be useful for building local climatology data bases, as well as providing climatological services from the WFOs. Please reference any use of these data (on Web sites, for example) to the MRCC as the source, and refer requests for copies of the CDs to the MRCC (Jon Burroughs, service climatologist, 217 244-8226).

More information the CDs is at: http://mrcc.sws.uiuc.edu/html/prodserv CD.htm.

SMG PROVIDES TRAINING ON WEATHER SUPPORT TO NASA. The Spaceflight Meteorology Group conducted an all-day weather training seminar for 30 NASA space shuttle support personnel on November 12 at the Johnson Space Center. Such weather seminars are typically conducted every two years, or more often if requested. The seminar, *Weather Support for Manned Spaceflight Operations*, covered SMG operations and related weather topics designed to provide insight into the role of weather in the manned spaceflight program, including basic weather, satellite and radar meteorology, weather instruments and charts, numerical model, and weather flight rules. Participants included NASA flight controllers, mission support personnel and training specialists who direct mission simulations. Most have engineering backgrounds. Most SMG staff members participated as instructors, using MS PowerPoint slide presentations. The seminar concluded with a one-hour live demonstration in the SMG operations area, which included a simulated shuttle mission weather forecast and briefing using real-time weather. SMG's ASA Monica Sowell prepared binders for all attendees containing copies of the presentations. Post-seminar responses were positive, ranging from "terrific" to "awesome."

## **SYSTEMS OPERATIONS DIVISION**

## **ENVIRONMENTAL COMPLIANCE AND SAFETY**

NINE SOUTHERN REGION OFFICES REQUIRE NEW SPILL PLANS. Some SR offices will\_require new Spill Prevention Control and Countermeasures Plans in FY04. The EPA recently increased the duration of the existing plans effectiveness from three to five years, but nine of our offices are beyond this five-year period and require an on-site visit from a professional engineer before their plans can be revised. In the past, personnel from TetraTech Environmental Management have traveled to SR sites for these surveys. MASC/WASC are currently seeking bids from environmental contractors to perform this service nationwide in FY04.

**STATION MANAGER ENVIRONMENTAL RESPONSIBILITIES.** In a manner similar to the previously distributed summary of the station manager responsibilities from the NWS Safety Manual, the new Environmental Management Manual provisions were recently summarized and emailed to all MICs with copies to all ECS focal points.

**INDOOR AIR QUALITY PROBLEMS AT KEY WEST.** An outdoor air intake near the diesel generator at WFO Key West is allowing exhaust products into the building when the generator runs. A similar problem is experienced when jets are parked near the building with the engines running, allowing jet fumes to enter the building. The airport manager is investigating actions to solve the problem.

SR UPPER-AIR PCB MATERIALS BEING REMOVED. With the exception of WFO San Juan, the environmental contractor TetraTech and their subcontractors have picked up the UA transformers and ranging equipment containing polychlorinated biphenyls at sixteen sites. The San Juan PCBs should be picked up by the contractor the first of this month.

**STAR TRAINING IN SOUTHERN REGION.** NOAA safety training titled *Stop Taking Avoidable Risks (STAR)* was held at SRH and WFO New Orleans for 12 safety focal points. These four-hour training sessions will also be given at WFOs Lubbock, Nashville and Tampa Bay, with the objective of providing a minimum of one person per office with the information provided in two videos and 58 slides to stimulate safety discussions and review at the local level.

#### **SYSTEMS OPERATIONS**

**STAFF GAUGES INSTALLED.** Three staff gauges were installed in the WFO Shreveport CWA to allow volunteer observers to monitor river stages without using wire weight gauges. The gauges were installed by the Shreveport service hydrologist, an HMT from WFO Norman and assisted by the RCPM from SRH.

**IV-ROCS STATUS.** The Interactive Voice-Remote Observation Collection System collected and distributed nearly 12,000 observations from Southern Region volunteer observers in November.

**SURFACE OBSERVATION PROGRAM.** Southern Region received 144 requests from the aviation community for new certificates, cancellation, and changes in type of surface certificates in November. The sharp increase this month is a direct result of discrepancies found during regional station inspections.

In early November program reviews by the SR data acquisition program manager were completed at WFOs Atlanta and Morristown. The surface, upper-air and the coop programs were all reviewed. Final reports are in progress with both expected to receive acceptable ratings.

**UPPER-AIR OBSERVATION PROGRAM.** In October 2003 the upper-air ranking scores were excellent with 17 of the 23 Southern Region offices receiving scores above the national average. The national average for October was 286.77 with a perfect score being 300.00. The upper-air site with the highest score in the nation for October was WFO El Paso, with 299.47. El Paso's upper-air ranking has steadily improved over the past several months resulting in an excellent 12-month average of 291.47.

Also, it should be noted in October WFOs Jacksonville, Atlanta, Little Rock, Miami and the contract upper-air station at Del Rio, Texas continued to maintain excellent ranking scores well above the regional (289.70) and national (286.77) averages.

WFO Little Rock continues to hold the top 12-month average for Southern Region with a score of 295.06. Also, seven SR offices continue to maintain excellent 12-month (ending October 2003) average. These include: Del Rio (294.47), Corpus Christi (293.65), Amarillo (292.34), Nashville (291.68), El Paso (291.47), New Orleans (291.42) and Jackson (290.97).

**AWIPS.** Operational Build 2 (OB2) has been installed at all Southern Region sites. Due to recent security concerns, Maintenance Releases (MR) OB2.1 and OB2.2 must be installed on all systems by December 4.

OB3 Alpha 2 was successfully installed at Southern Region Headquarters on November 19. Overall the install went smoothly with only a few minor issues.

**LINUX WORKSTATION STATUS.** Fifteen sites have installed the new Linux workstations. Overall the installs have gone smoothly. The most significant area of concern appears to be with local office customization of desktops and other Linux-related issues. For this reason, a Linux online forum has been started at the NWSTC to assist in answering common questions. The address is: <a href="http://www.nwstc.noaa.gov/cgi/dcforum/dcboard.cgi">http://www.nwstc.noaa.gov/cgi/dcforum/dcboard.cgi</a>

**WSR-88D.** Installation of ORPG Build 4 software is almost complete across the region. All Southern Region sites should be complete by the end of December.

**E-MAIL.** The Messaging Operation Center (MOC) continues to migrate to the new version of software. They have recently added a new staff member which should help get back on the original time line. There's been an increase in the amount of spam getting through, and the MOC is looking for a different solution than the one now in use.

The MOC has recently released a version of the Oracle Collaboration Suite thick client for evaluation by the regional offices. We are looking at this product and will provide comments on it. The scheduled date for implementation of the calendering functionality of the suite is for the first part of January 2004.

**NWR** continues its expansion in the Southern Region. A Crown 300-watt transmitter went on the air in Milano, Texas on November 6. The new transmitter which serves Milam and surrounding counties in north-central Texas has its audio originating from WFO Fort Worth. Mineral Wells, Plainview and Summerfield, Texas sites are scheduled to come on-line this month.

GALVESTON COUNTY EMERGENCY MANAGEMENT FACILITY. A contract has been awarded for the construction of the Galveston County Emergency Management Facility. The new building will support joint operations with WFO Houston/Galveston and Galveston County Office of Emergency Management. A ground-breaking ceremony was held November 21 with Bill Proenza representing the NWS. Construction is expected to last 12-13 months with a completion date of January-February 2005. Relocation to the new facility should begin in March 2005.

**FPU ORE.** The Operational Readiness Evaluation (ORE) for the Fischer Porter Upgrade (FPU) began November 1 and will continue for 60 days. This evaluation will determine whether the FPU can perform as an acceptable replacement and provide publishable data to NCDC. If the ORE is successful the remaining FPU units will be deployed early next year.

**PROGRAM SUPPORT.** For FY03 Southern Region WFOs dedicated 35,812 hours (17 work years) in support of the volunteer observer program. This included driving a total of 466,811 miles the equivalent of nearly 19 trips around the world. The missing climatological data rate for the year was less than one percent (0.65%). The missing data rate for hourly precipitation was 1.08%.

**SOUTHERN REGION WAN BANDWIDTH UPGRADE.** The SR WAN was upgraded to provide increased bandwidth to accommodate the increased demands for transmission capability required for the Archive II radar project. The WAN was increased 128 kbps at each WFO.

SAN DIEGO UPPER-AIR OPERATIONAL WITH SOUTHERN REGION HELP. The disastrous Southern California fires last month took out the upper-air system at San Diego. The site is once again operating with the MicroART system and B2 radiosondes, as a result of outstanding support from Charlie Lake from the Southern Region, Mike Terrell from the NRC, and Jim Fitzgibbon from OPS22. The MicroART was operational on Tuesday, December 2. However, the XT computer went down at radiosonde release time, which was 3 p.m. Pacific Time. Mike Terrell, at the NRC managed to check out another XT and get to FedEx in less than an hour, after 5:30 p.m. Central Time. Because of his outstanding effort the replacement part was on site and operational in time for the 3 p.m. flight on Wednesday. The 3 a.m. flight was made using the W-9000 system and the last remaining short rod thermistor, Loran-C radiosonde. Because of the dedication and hard work of everyone involved from the Pacific Region, Southern Region, the NRC and the OPS22 team from the Sterling Test facility, the impact of a potentially disruptive event was minimized, and the potential loss of over five weeks of upper-air data (about 80 upper-air soundings) was reduced to about a dozen lost flights.

A huge amount of work was required to get the replacement Loran-C system operational, primarily accomplished by Jim Fitzgibbon, Ashby Hawse and Jamie Sexton. The almost total rework of the upper-air facility at WFO San Diego was primarily accomplished by Charlie Lake and Mike Terrell in a remarkably short time. Charlie Lake, Mike Terrell, and Jim Fitzgibbon are especially commended for their hard work and dedication.

## **ADMINISTRATIVE MANAGEMENT DIVISION**

## DIVERSITY/EEO AND COMMUNITY OUTREACH ACTIVITIES

**WFO Shreveport** lead forecaster Mark Murphy gave a 20 minute interview to the *Lufkin Daily News* of Lufkin, Texas, on a cold front that would be passing through the Lufkin area resulting in temperatures dropping 15-20 degrees along with thunderstorms.

WFO San Juan MIC Israel Matos was invited by the Inter-American University San German Campus to participate as one of their guest speakers on success stories in the Upward Bound Talent Search Program activities. Over 70 students from southwestern Puerto Rico high schools attended this event where Israel discussed his experiences as a former Upward Bound Program student, the science of meteorology, and careers and opportunities within NWS and NOAA. Upward Bound is a federal program funded by the U.S. Department of Education to assist Puerto Rican high school students from low-income families, first generation criteria to develop the skills and motivation necessary to ensure high school graduation and future success in college.

WFO San Juan WCM Rafael Mojica participated in a coordination meeting with the San Juan City Emergency Management Agency. The meeting included a presentation and discussion from the NWS on the proper siting of weather stations to support NWS coop observers data network, and how to best use this information in support of potential hazardous material incidents using the Cameo/Aloha software. The San Juan City EMA has decided to install five weather stations across the San Juan Metroplex with the goal of establishing a mesonet and provide this data to NWS.

**WFO San Juan** MIC Israel Matos was the guest speaker at the University of Puerto Rio Cayey Campus celebration of the National Chemistry Week. This year's theme was Earth's Atmosphere and Beyond. Israel's presentation focused on NWS modernization and advances in technology, climate change, greenhouse gases, and job opportunities within NOAA.

**WFO San Juan** forecasters Brian Seeley and Dan Gregoria conducted an office tour for 44 student from Fort Buchanan Antilles Intermediate School.

**WFO San Juan** forecaster Hector Rivera lectured 65 junior students from the University of Puerto Rico environmental science program, on how NWS uses computer prediction models.

WFO Tallahassee EEO/Outreach program remained active during late October into November. Senior forecaster and EEO focal point Ron Block hosted four meteorology classes from Tallahassee Community College. Approximately eighty students and faculty, the majority from underrepresented groups, were introduced to the mission and operations of this office and prospective NWS meteorologists garnered information on the application process. Ron also served as a science fair judge at Raa Middle School. He spoke to a group of international science students at Florida State University International Centers' annual Global Gatherings. The talk focused on comparing American weather forecasters and forecasting techniques with their international counterparts. Ron had previously worked as a meteorologist in the Caribbean, Latin America and Africa. He also dispensed pamphlets and discussed "weather in our lives" at the Tallahassee Democrat Kids Show.

**WFO Tallahassee** SOO Irv Watson gave a presentation last month to a Fire Boss Training Class. He discussed NWS daily fire weather products, as well as Spot Forecast and IMET programs. An introduction to the IFPS/GFE was also provided to the students. Irv reports that the students were very enthusiastic and asked many questions. The WFO received a letter of "thanks" from Wildland Fire Associates for his presentation.

WFO Tallahassee MIC Paul Duval along with NOAA NOS representative Tim Osborn, gave a presentation on November 8 to a group 22 marine community customers, including sports fisherman, charter boat captains, and marina staff members at the Treasure Island Marina in Panama City. Paul discussed the WFO Marine Warning, Forecast and Services programs, as well as the tools used in the marine forecast program. The discussion was lively, and while the audience was concerned about the quality of some marine forecasts, they were friendly and supportive of the WFO's efforts, and came away with a better understanding of the problems and limitations inherent in preparing marine forecasts and warnings. A "thank you" letter was received from the coordinator of the seminar.

**WFO Tallahassee** MIC Paul Duval gave a presentation on November 18 to 31 members of the Quincy, Florida Rotary Club. NWS organization, operations and programs were discussed, with emphasis on WFO Tallahassee's role and responsibilities. Discussions were lively, the food was excellent, and the presentation was very well received.

SOUTHERN REGION WORKFORCE TRANSACTIONS <u>NOVEMBER 1 - 30, 2003</u>						
Southern Region Losses						
<u>Name</u>	From (Office)	Action/Transfer	From Title/Grade			
James D. Lane	WFO CRP	Transfer to EASC	ITO, GS-13			
Nezette Rydell	WFO EWX	Transfer to PR	Service Hydrologist, GS-13			
Robert O. Brines	CWSU MEM	Retirement	Meteorologist, GS-12			
Brian Peters	WFO BMX	Retirement	WCM, GS-14			

Southern Region Gains					
Name	To (Office)	Action/Transfer	To Title/Grade		
Gary D. Skwira	WFO LUB	New Hire	Met Intern, GS-5		
Michael P. Hardiman	WFO EPZ	New Hire	Met Intern, GS-5		
Mark Lenz	WFO EWX	Transfer from WR	Service Hydrologist, GS-13		

Within Region Transfers/Actions					
Name	To (Office)	Action/Transfer	To Title/Grade		
Vilma Castillo-Harmon	CWSU MEM	Transfer from CWSU JAX	Meteorologist, GS-12		
Michael Garrison	WFO BMX	Promote from BMX	Meteorologist, GS-9		
Jason Dunn	WFO CRP	Promote from CRP	Forecaster, GS-7		