

## Climate, Water, Weather

### Digital Services Update: Three Down, Nine to Go!

On December 1, the NWS will reach a historic milestone. We will declare the National Digital Forecast Database (NDFD) an official product. This event is significant to our customers and partners who responded favorably to the Digital services experimental products and who urged us to make these products official.

On that date, three gridded forecast elements for the NDFD will become official products:

- Maximum Temperature
- Minimum Temperature
- Probability of Precipitation (12 hour)

The decision to approve these three elements as official products represents an Initial Operating Capability (IOC) for NDFD. We intend to improve the reliability, accuracy, consistency and timeliness of the grid elements after NDFD IOC. Nine elements remain from the original set:

- Temperature
- Weather
- Dew Point
- Wind Speed
- Wind Direction
- Significant Wave Height
- Sky Cover
- Snow Amount
- Quantitative Precipitation Forecast

These elements will remain experimental during their final evaluation stage. Short term goals for this new and evolving service include, efforts to improve collaboration in large, widespread weather events; development and use of software tools for quality assurance; reduction of

known biases in our forecasts; sharing best practices and implementing consistent methodologies.

We're moving forward to transition these remaining nine products, so check future AWARE issues for updates. More details on the NDFD are available at: [weather.gov/ndfd/](http://weather.gov/ndfd/).

*Gregory A. Mandt  
Director, Office of Climate, Water,  
and Weather Services*

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## Aviation

### Free Aviation Newsletter, The Front, Offers Industry Tips

By Melody Magnus, Editor  
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The Front, a free, online newsletter produced by the NWS Aviation Services Branch, offers weather related tips for the aviation industry. Each edition focuses on one of six NWS regions. The newly released November edition features articles from the Western region's aviation program. Headlines in the most recent edition include:

- National Digital Forecast Database and Aerial Application
- The Future of the Aviation Forecast and Preparation System (AvnFPS)

If you would like an email when the next edition is released, write [Melody.Magnus@noaa.gov](mailto:Melody.Magnus@noaa.gov). To find the latest edition and other recent editions, go to [www.nws.noaa.gov/om/aviation/front.shtml](http://www.nws.noaa.gov/om/aviation/front.shtml). ✱

## Dissemination

### Update on HazCollect System for Non-Weather Emergency Messages

By Herb White, NWS Dissemination Services Manager  
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NWS made significant strides in August and September toward developing and implementing the All-Hazards Emergency Message Collection System, HazCollect. Work was officially assigned for three major development efforts in the HazCollect project.

First, Battelle Institute will develop the HazCollect central server system interface with FEMA's Disaster Management Interoperability Service (DMIS) and NWS's communication infrastructure. Battelle also will verify DMIS meets HazCollect security requirements for user authentication and authorization, and provide program management, operations and maintenance support.

NOAA's Forecast Systems Lab will develop and modify Advanced Weather Interactive Processing System (AWIPS) code to ensure automated dissemination of non-weather emergency messages (NWEM) through the existing NWS communications infrastructure.

Finally, Northrup Grumman Information Technology will develop necessary changes to the AWIPS Network Control Facility system to ensure full system integration with the HazCollect central server and provide integration testing and technical support.

NWS expects to field deploy HazCollect in the fall and winter of 2005-2006. A limited system demonstration is planned for late February 2005 with functional testing to follow in the summer of 2005. Full Operating Capability is scheduled for operational testing and evaluation in August and September 2005.

As described in AWARE's Summer 2004 edition, NWS is carefully planning HazCollect to be a comprehensive solution for the centralized collection and efficient distribution of non-weather emergency messages, known as Civil Emergency Messages, to the NWS dissemination infrastructure, other national systems, and to the Emergency Alert System. NWS received funding for HazCollect in its Fiscal Year 2004 budget earlier this year.

Emergency managers need a fast, reliable way to inject messages into EAS; however, no single technical solution has been federally mandated or locally selected to do this. HazCollect will leverage functionalities of FEMA's DMIS, including user authentication and authorization. Also, emergency managers will use the DMIS desktop client to write NWEMs and send them through DMIS to the HazCollect server for dissemination.

NWS and the International Association of Emergency Managers (IAEM) formed a working group to provide emergency manager input during the design and development of HazCollect. Last winter, emergency manager comments on HazCollect's operations concept were used as input in the development of operational requirements. NWS HazCollect team members were at the DMIS Planners Course at the IAEM Conference in Dallas on November 6 where they met with emergency managers. ✱

## Aware

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Aware in PDF—[weather.gov/os/aware.PDF](http://weather.gov/os/aware.PDF)  
AwareNow—[weather.gov/os/awarenow.shtml](http://weather.gov/os/awarenow.shtml)

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## EMWIN Transmission Speed to Double with Next Satellite Upgrade

By Rob Wagner, NWS Chief Information Office  
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When the next generation of geostationary operational environmental satellites (GOES-N, O, P) becomes operational, the EMWIN signal will be broadcast in a different form. This modification is due to a frequency change and international agreements reducing the broadcast power level. The present GOES satellite constellation has sufficient fuel, barring premature failure, to continue operating until 2011.

At the April 27 EMWIN User-Vendor Conference, attendees stressed the importance of increasing the EMWIN data rate and keeping the cost of the GOES-N transition as low as possible. Following the conference, there have been significant advances in the EMWIN transition.

After performing tests in June and July, 2004, NESDIS completed a theoretical analysis showing the technical feasibility of doubling the EMWIN data rate from the current 9.6 kbps to 19.2 kbps. The analysis can be found on the EMWIN website at [iwin.nws.noaa.gov/emwin/](http://iwin.nws.noaa.gov/emwin/). NESDIS is developing a prototype system based on the 19.2 kbps data rate and will provide a status report when development is complete.

Currently, NWS is working on a system called HazCollect, which it plans to begin deploying in late 2005. See story Page 3.

In addition to investigating the possible data rate increase, the EMWIN team continues to seek ways to make the GOES-N transition as cost-effective as possible to the EMWIN user community. NWS is looking into available support for governmental emergency managers and working with the vendor community to encourage introduction of competitive workstations.

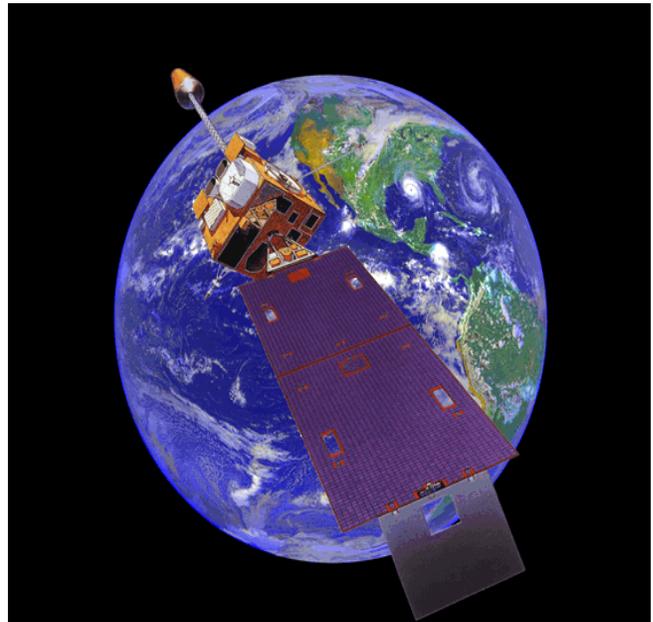
To keep abreast of EMWIN developments, visit: [iwin.nws.noaa.gov/emwin/index.htm](http://iwin.nws.noaa.gov/emwin/index.htm). \*

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## Valid Time Event Code (VTEC) Decision Coming in February

By Art Kraus, Performance and Awareness Branch  
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VTEC is moving toward a planned operational nationwide turnkey in February 2005 for some short-duration watch and warning products. VTEC Directive, NWS Instruction (NWSI) 10-1703, was signed in late May.



As described in the last edition of AWARE, VTEC will explicitly describe the parameters of Watch, Warning and Advisory (W/W/A) events. VTEC also will aid in the automated delivery of W/W/A information to and by our customers and partners. This new code form was requested by NWS partners and customers with whom NWS coordinated development, testing and implementation.

NWS conducted an Initial Operational Test and Evaluation at its Headquarters from late April into May. NWS Headquarters Program leads, and then a group of NWS regional staff, field forecasters and one NWS Partner ran numerous W/W/A scenarios through the product formatters. In addition to the new VTEC coding and quality control software, changes to product headlines were also tested. A number of deficiencies were uncovered in the formatters and were later fixed by software developers.

A more extensive combined VTEC/Watch by County (WBC) Operational Test and Evaluation (OT&E) was conducted from August to October 15, 2004. Nineteen WFOs and two regional offices took part in the VTEC portion of the test by issuing operational products containing experimental VTEC coding and by running test VTEC scenarios to ensure a sufficient sample size of all the types of products being tested. During the OT&E, all VTEC products were reviewed by Headquarters Program leads and NWS Partners for compliance to VTEC, headline, and other policy standards. During thrice-weekly conference calls between the participating offices and Headquarters staff, problems were addressed and actions taken to begin correcting them.

After the final data from the OT&E was analyzed, it was decided to implement operational VTEC in the following short-duration warning products issued by WFOs: Severe Thunderstorm Warnings (SVR), Tornado Warnings (TOR), Special Marine Warnings (SMW), and

the associated statements which follow-up these warnings: Severe Weather Statements (SVS) and Marine Weather Statements (MWS). Experimental VTEC will continue in the WFO Watch County Notification products. VTEC will also be included in the Watch Outline Update products issued by the Storm Prediction Center. An update to NWSI 10-1703 is also anticipated for late 2004.

Additional rounds of VTEC testing are planned in 2005 for Routine Marine and Tropical Weather products, as well as for those OT&E tested W/W/A program areas which did not make the February VTEC Operational turnkey. For more information on VTEC and the OT&E, go to [weather.gov/os/vtec](http://weather.gov/os/vtec). [weather.gov/os/vtec](http://weather.gov/os/vtec). \*

## Emergency Prep

### Traffic Emergency Warning Tested at Broken Arrow

By Rick Dittmann, WCM, NWS Great Falls, MT  
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"Exercise...Exercise...this is just an exercise..." At 10:44 a.m., September 13, NWS Great Falls, MT, received a message from the Cascade County Sheriff's dispatch center confirming a radiological release east of Great Falls. This message was the culmination of over a year's worth of planning with scores of local, state and federal organizations.

The exercise, named Diligent Warrior '04, involved a mock traffic accident along a busy state highway just outside Great Falls. In the scenario, the accident damages a nuclear facility leading to the possibility of a radiological release. Sheriff's dispatch requests an EAS activation through NWS Great Falls informing local residents of the accident, the threat and what actions to take.

NWS Great Falls used the "in-house practice" mode of the WWA software to generate a test Civil Emergency Message. The in-house practice mode of WWA enables forecasters to test EAS features without sending an actual product out to listeners. Instead, a work file is created which can be called up, printed out and critiqued. A copy of the test message generated for Diligent Warrior '04 is shown below. \*

MTC013-131745-

TEST...BULLETIN - EAS ACTIVATION REQUESTED...TEST  
TEST...CIVIL EMERGENCY MESSAGE...TEST  
CASCADE COUNTY EMERGENCY MANAGEMENT  
RELAYED BY NATIONAL WEATHER SERVICE GREAT FALLS  
MT  
1051 AM MDT MON SEP 13 2004

...TEST CIVIL EMERGENCY MESSAGE IN EFFECT UNTIL  
NOON MDT THIS AFTERNOON...

TEST...THE FOLLOWING TEST MESSAGE IS TRANSMITTED  
AT THE REQUEST OF CASCADE COUNTY EMERGENCY  
MANAGEMENT.

TEST TEST TEST...THIS IS ONLY A TEST.

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### NWS Director Addresses Emergency Management Directors

By Steve Kuhl, National WCM Program Manager  
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In September, General D.L. Johnson, NWS Director, addressed the Emergency Management (EM) Directors at the National Emergency Management Association (NEMA) annual conference in New York City. Other keynote



General D. L. Johnson, NWS Director, (left) presents Dave Liebersbach, NEMA President, with a Certificate of Appreciation for his contributions to the StormReady and TsunamiReady Program.

speakers at the conference were Department of Homeland Security Director Tom Ridge and former New York City Mayor Rudy Guliani.

Johnson's presentation focused on the importance of strengthening the NOAA/NWS partnership with NEMA and the EM community and discussed new and improved services the NWS will be providing.

Johnson said "as Hurricanes Charley, Frances and Ivan have recently shown us, even in a post 9/11 world we can't forget that severe weather remains a real and present danger to America, our citizens and our nation's economy." Johnson added NWS is proud to be part of the team supporting emergency managers and homeland security.

Support for the NWS Outreach Booth was provided by National WCM Program Specialist Donna Franklin and NWS NYC staff Gary Conte, Mike Cox and Mike Wyllie, as well as Eastern Region staff John Guiney and Rick Watling. ❄

## Marine Services

### Rip Current Campaign Features Free Brochures and Artwork for Signs

*By Tim Schott, NWS Rip Current Focal Point  
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A national Rip Current Public Awareness Campaign was launched at Wrightsville Beach, NC, on May 24. The event was led by the Marine and Coastal Weather Services Branch and hosted by the Wrightsville Beach Chamber of Commerce.

At a news conference, officials from NWS and the National Sea Grant College Program joined a family that has been devastated by a rip current-related death.

As part of the safety program, NWS worked with the United States Lifesaving Association (USLA) to produce a national rip current brochure and national sign. The USLA is the nation's largest association of surf lifeguards.

Rip currents are the leading safety hazard for beachgoers—upwards of 100 persons lose their lives each year, according to statistics maintained by the USLA. Rip currents flow seaward from surf beaches. Under certain wave, tide and beach conditions, rip currents can quickly become dangerous to anyone entering the surf.

The NOAA-USLA team brought together different, yet complimentary, perspectives on this surf zone hazard. Many NWS Forecast Offices provide Surf Zone Forecasts containing qualitative, three-tiered Rip Current Outlooks detailing a Low, Moderate or High risk of rip currents. Sea Grant scientists provided the team with sound, scientific information on nearshore dynamics and coastal processes. The USLA lifeguards are on the front lines, providing rescue services on beaches at which 80 percent of their rescues are attributed to rip currents.

The June press conference was carried by Cable News Network (CNN) and Fox Network, with coverage provided by the Associated Press and USA Today.



*Rip Current in Florida after Hurricane Jeanne. Courtesy of Dennis Decker, WCM, NWS Melbourne, FL*

The "Break the Grip of the Rip" education campaign represents the first national effort to educate the public about rip currents through standardized terminology and graphics. Templates for the NOAA brochure and beachfront sign are available at: [www.ripcurrents.noaa.gov](http://www.ripcurrents.noaa.gov).

Signs already have been posted at beachfronts in Michigan and Florida where lives were lost to rip currents in 2003. In Walton County, FL, alone, local governments have printed more than 30,000 NOAA brochures.

As we move ahead, NWS is working closely with the Sea Grant Coastal Hazards Theme Team to ensure Sea Grant rip current research is linked to NWS forecasting and operational requirements. ❄

## NOAA Weather Radio

### DHS Alerts on NWR and EAS Codes Defined!

*By Gary Timm, Broadcast Engineer,  
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On June 17, the U.S. Department of Homeland Security (DHS) signed an agreement with the NWS addressing transmission of DHS-originated emergency messages over All-Hazards NOAA Weather Radio (NWR).

If DHS becomes aware of a threat in a particular area of the country, after coordination with state authorities, DHS will issue an alert for broadcast on NWR to areas affected by the threat.

The message will be broadcast on NWR with the requested Emergency Alert System (EAS) Event Code. Currently, the alert will not be relayed by NWS in any text form (e.g., alert will not be on NOAA Weather Wire Service (NWWS), Emergency Managers Weather Information Network (EMWIN), etc.).

Although many broadcasters have upgraded their EAS Units to the new Event Codes released in 2002, EAS Units now must be programmed to react to the new codes. If broadcasters want to relay these DHS alerts, they must program the Originator Code and Event Codes into their EAS Unit filters.

In reviewing NWS official directives (NWSI 10-1710 & NWSI 10-518), and information provided by Herb White, NWS Dissemination Services Manager, we are making the following recommendations:

- The Originator Code on all DHS alerts will be **CIV**, Civil Authorities. Even though the alerts are first broadcast on NWR, they are originated by Civil Authorities and thus will not carry the WXR, NWS Originator Code. These non-weather alerts will use the CIV Originator Code.
- One of three Event Codes will normally be used. Alerts will be activated with either Civil Emergency Message (CEM) or Civil Danger Warning (CDW). Alerts will be terminated with Administrative Message (ADR).



To be on the safe side, Herb advises programming the following additional codes for possible DHS use:

- **EVI**: Evacuation Immediate
- **HMW**: Hazardous Materials Warning
- **RHW**: Radiological Hazard Warning
- **SPW**: Shelter in Place Warning
- **FRW**: Fire Warning
- **LAE**: Local Area Emergency
- **NUW**: Nuclear Power Plant Warning

At the present time, NOAA has requested that DHS use only the CEM code until we can get the word out into the broadcast community to add these other codes into our EAS Unit programming.

Broadcasters should program these new codes into their EAS Unit filters as soon as possible, and all stations are encouraged to share this information with other broadcasters in their area.

In addition to the DHS alerts, a separate agreement between NOAA and the Federal Emergency Management

Administration's National Warning Center (NWC) exists for NWR to transmit warnings of nuclear attack or other non-weather alerts. Nuclear attacks would use code CDW, and the other non-weather alerts could use any of the additional codes referred to above. Using the guidelines above regarding programming for DHS alerts should cover you for NWC alerts as well. The NWC alerts are separate from any Emergency Action Notification messages issued by the White House.

### Local Alerting

NWS is taking the new All-Hazards Radio name to heart and recently has made changes to make NWR more available to local civil authorities. As of June 30, 2004, all the new EAS Event Codes were approved for use on NWR. On September 8, NWS offices began using the new EAS-equivalent Product Codes in text messaging as well via NWWS, EMWIN, etc.

NWS has also published a very helpful document, NWS Instruction 10-518, which aids local authorities in establishing a relationship with their local NWS Office for the purpose of sending local emergency alerts. Section 5 of the document, non-weather related emergency messages, addresses local alerting and deals with developing procedures, issuance criteria and sample scripts.

Appendix C of this document is a landmark because it defines the new specific EAS Event Codes. The definitions in Appendix C will be used as guidance for federal authorities in issuing alerts. They can be useful to local authorities as well. State and local EAS plans should be updated at this time to include the relay of DHS alerts, and to incorporate these new EAS Event Code definitions.

The link to this instruction is: [www.nws.noaa.gov/directives/010/pd01005018c.pdf](http://www.nws.noaa.gov/directives/010/pd01005018c.pdf)

For questions about DHS alerts on NWR, contact: [herbert.white@noaa.gov](mailto:herbert.white@noaa.gov). Herb is Dissemination Services Manager at NWS Headquarters. ✱

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## Legislature Gives NOAA Weather Radio Grant

*Dave Nicosia, WCM, NWS Binghamton  
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Environmental Emergency Services, Inc. (EES) of Chemung and Steuben Counties, NY, is working hard to ensure that all-hazard warnings are disseminated widely throughout its two-county area. EES recently received a New York State Legislative Grant, awarded by New York State Senator John Randy Kuhl, to purchase NWRs.

The grant provides funds to purchase NWRs for at-risk locations, such as hospitals, nursing homes, schools, daycare facilities, group homes and senior centers. The grant is estimated to provide funding for several hundred NWRs. This grant is a follow-up to a local partnership with WFO Binghamton enabling the installation of two new NWR transmitters in Steuben County. ✱

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## Homeland Security Tie-In Helps Promote Weather Radio

By Ted Buehner, WCM, NWS Seattle, WA  
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Washington state's Weather Radio Awareness Month, in partnership with Washington State Emergency Management, aims to make weather radios as common as smoke detectors in homes, businesses, schools and other key sites. The campaign slogan is "Weather Radio



WFO Seattle WCM Ted Buehner is interviewed during KXRO Radio's "The Morning Show" talk show on September 20.

is your personal homeland security warning system." The campaign had a number of activities including:

- Governor's proclamation
- Ten NWR manufacturers and vendors offering consumer incentives via the campaign website, articles in websites and newsletters such as the Washington Association of Broadcasters report
- American Red Cross chapter websites
- City of Redmond's (home of Microsoft) Community Magazine

- Guest editorials in daily and weekly newspapers
- Media interviews and radio talk shows
- Public Service Announcements sent to broadcasters
- Booth at the September 18 DeafNation 2004
- Inclusion in EAS Required Monthly Test throughout the state

### Tsunami Warning Communications Test

NWS offices serving Seattle and Spokane, WA, as well as Portland and Pendleton, OR, also posted the state emergency management campaign host website on their NWS websites and aired a campaign announcement on their NWR stations.

Washington State Emergency Management provided campaign materials to schools, media and the emergency management community throughout the state.

To view the campaign website, go to the following link and click on Preparedness on the right side of the front page. You'll find the NWR link at: [emd.wa.gov](http://emd.wa.gov). ✱

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## Outreach/Education

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### NWS Graded on Customer Service at Partners Meeting

By Ron Gird, Outreach Program Manager  
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The most recent NWS partners meeting featured several firsts. Representatives from private companies, local television and other government agencies were given the opportunity to "grade" the NWS performance in areas of major concern. Partners who stepped up to the microphone were Ken Reeves, Accu Weather; Bob Ryan WRC-TV, Washington; Jim Block, Meteorologix; and Larry Denton, The Weather Channel.

In another first, General D.L. Johnson, NWS Director, provided opening remarks and led the listening session. Johnson offered his strategic vision for the NWS.

Also in attendance were Greg Mandt, Director, Office of Climate, Water and Weather Services, and Dr. Jack Hayes, Director, Office of Science and Technology.

The meeting featured a morning session devoted to the NDFD led by Glenn Austin, Division Chief for Hydrologic Services. There were several panel discussions with emphasis on technology and policy issues. NWS announced the NDFD Initial Operating Capability will start on December 1. (See article Page 1.) The afternoon session consisted of the following updates:

- VTEC: Jason Tuell, Chief of the Development Branch, Systems Engineering Center
- **Watch by County:** Mark Tew, Fire and Public Weather Services Branch
- **UV-Index Alert:** Jim Lee, Public and Fire Weather Services Branch Chief
- **Dissemination:** Herb White, Dissemination Services Manager
- **Satellite capabilities for monitoring precipitation, flash floods and volcanic activity:** Hank Drahos, National Environmental Satellite Data and Information Service.

NWS will hold the next Partners Meeting at the American Meteorological Society annual meeting in San Diego on January 13. For further information and to submit agenda topics in advance, please email Ron.Gird@noaa.gov. ✨

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## One Key to the Future of the NWS

*By John Paul Martin, WCM, NWS Bismarck, ND  
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This past June, I had the pleasure to promote NWS and educate children about weather and safety by teaching the Storm Chasers and Severe Weather Camp at Bismarck State College. This is the 4th year I have taught the week long camp that meets for 20 hours. The class has been



*WCM John Paul Martin watches as Annie, a student in his Storm Chasers and Severe Weather Camp, tries to reach severe thunderstorm wind criteria with a hand held anemometer.*

full each year with 20 students ages 9 to 13.

Each year the kids learn about general weather, forecasting, severe storms and safety. Recently I have added more props like a hand held anemometer, sling psychrometer and radiosonde.

This year we took a stab at learning a few Doppler RADAR principles and made a cloud in a bottle.

A tour of the NWS office in Bismarck brings varied topics together in a hands-on way while a visit with a local TV meteorologist highlights the week.

Over my 14-year NWS career, I have noticed a positive trend—increased knowledge by children on how to protect themselves from hazardous weather. Children are learning correct safety rules at a younger age. We have noticed more children attending SKYWARN sessions and an increased interest by youngsters in HAM radio. Based on my experience I would say that the average 10 year old child today has a better understanding of weather safety than the average 40 or 50 year old. It is important for these children to educate their parents and grandparents about weather safety.

In recent years field offices have been asked what NWS can do to stay vibrant and viable. Outreach is one of the most important keys. ✨

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## WFO Fairbanks Sponsors Nationwide Kid's Radio Day

*By John Dragomir, WCM, NWS Fairbanks, AK  
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Senior Forecaster Tim Shy ran WFO Fairbanks amateur radio station KL7FWX from Alaska during the national Kid's Radio Day event in June. Tim contacted 14 stations in eight states, all operated by kids ranging in age from 5 to 13. The event showcases amateur radio to youngsters and encourages them to get on the air and enjoy a quick sample of the hobby.

Tim explained the role of weather spotters and amateur radio and how amateur radio helps Weather Service forecasters track severe weather. Many youngsters from the lower 48 states had questions about Alaska and were surprised to learn the state's weather can be quite warm in the summer.

A 9-year old girl in Georgia provided the highlight of the day. She was delighted and astonished to discover that the weather in Fairbanks and Atlanta were exactly the same during the conversation: 85 degrees and mostly sunny.

Each kid-operated station contacted was mailed a souvenir KL7FWX card as a memento of the day. The kids could also download a certificate for taking part from the event website. Kid's Day was sponsored by a national ham radio organization, American Radio Relay League and an affiliated amateur radio club in Oregon. ✨

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## Emergency Manager Finds NDFD Enhances School Safety

*By Dave Nicosia, WCM, NWS Binghamton  
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Mike Sprague, Director of the Steuben County Office of Emergency Services, is using NDFD from the NWS Binghamton website to provide detailed weather information to an important customer in his county: school administrators.

From NDFD, Mike has created a customized website offering hourly forecast information covering heat index, wind chill, temperature, wind, thunderstorms, snow, ice and other hazards. These forecasts are specific to each school district in Steuben County, NY, using NWS Binghamton's grid-point based forecasts. These hazards are important for school administrators who make decisions regarding safety.

This is just one of several examples of how the grid-point based forecasts are benefiting customers and partners who need enhanced forecast information. To see the Steuben County's School Weather page, go to [steubencony.org/emo/schoolinfopage.html](http://steubencony.org/emo/schoolinfopage.html). ❄

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## Governor Spotlights Hazard Preparedness Importance

*By Jim Kramper, WCM, NWS St. Louis, MO  
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NWS Springfield, MO, WCM Steve Runnels and I took part in ceremonies held at the Missouri State Capitol in September to support National Preparedness Month. The event was sponsored by the Missouri State Emergency Management Agency, the Missouri Department of Homeland Security and the Citizen Corps Council of Missouri. Missouri Governor Bob Holden was the keynote speaker and spoke about the importance of the public/private partnerships needed to make the state secure. The event was held outside on the Capitol grounds and featured displays and demonstrations by various public and volunteer groups.

The Missouri Baptists Response Team provided everyone in attendance with a free lunch to demonstrate its ability to feed a large group of people at a disaster scene. Other agencies and displays on hand included the FEMA tornado safe room, the Red Cross, the Missouri Department of Natural Resources Response Team, the

Community Emergency Response Team of the Columbia Fire Department, the Salvation Army, the Cole County WMD Team and the Missouri Department of Health and Senior Services Mobile Response Team. Steve and I staffed a booth highlighting StormReady and NOAA Weather Radio. ❄

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## Northwest States Use Public Info Statements to Boost Winter Safety

*By Jim Reynolds, WCM, NWS Medford, OR  
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During the week of October 3 through 9, the WFOs from Oregon, Washington and Idaho jointly conducted a Winter Weather Awareness Week. Planning for this event began in August with WCMs from the Pacific Northwest offices choosing various winter weather topics to develop into a daily Public Information Statement (PNS).

Shortened versions of the PNSs were also developed for use on NWR. Once finalized, the PNSs were shared with newspapers along with local TV and radio stations

the week before the awareness week for use in daily editions and broadcasts during the media campaign. The Governors of each state were approached with a proposal to proclaim the first week of October as Winter Weather Awareness Week. Also, with the help of FEMA Region X staff, WCMs taking part recorded sound bites for daily FEMA Radio spots.



Throughout the week, all offices involved issued the daily winter weather PNSs, accessible through each office's website and NWR. The campaign resulted in numerous radio interviews including a few live in-studio interviews. The winter weather information also made it into many television news stories with one interview taped on the set of Northwest Cable News. Governors' proclamations were able to be secured for Washington and Idaho. In the end, the Pacific Northwest's Winter Weather Awareness Week was deemed a great success. ❄

## Publications

### NWS Evaluates Service for Major Events, Recommends Changes

By Wayne Presnell, NWS Performance Branch  
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The Service Assessment Report for Hurricane Isabel was released November 4. According to the report, NWS customers and partners were satisfied with services and products before and during Hurricane Isabel. The report identifies 14 recommendations for improvements within the NWS severe weather warning process. When implemented, these recommendations will allow NWS customers and partners to receive:

- Improved NWR broadcasts during extreme events
- Call to action statements warning of the potential of carbon monoxide poisoning associated with portable generators
- Clearer statements concerning storm surge and storm tide
- More frequent short-term forecasts updating the progress of extreme events.

The Service Assessment Report for the Southern California Wildfires was released in late September. The report states that NWS customers and partners were satisfied with services and products before and during the southern California wildfires. The report identifies 12 recommendations for improvements within the NWS fire weather warning process.

When implemented, the recommendations will allow NWS customers and partners to:

- Understand Red Flag Warning criteria better
- Receive more frequent Fire Weather Forecasts
- Access Spot forecasts in a timelier manner
- Work with the NWS in forming media coordination centers
- Access NWS websites via an easier to remember standard URL address
- Be able to quickly determine the most recent severe weather products on the websites
- Receive critical information during a hazardous weather event more efficiently by using automated sources such as instant messaging.

The Service Assessment Report for the Baltimore Water Taxi Accident, on March 6, 2004, is currently being reviewed.

NWS has formed an assessment team for Hurricane Charley, which affected the southwest Florida coast on August 13, 2004. The team initially met in Miami, FL, on August 24. That team is led by Jim Weyman, MIC of NWS Honolulu, HI. The team is collecting data and information from NWS offices in Tampa, Melbourne, Miami and Key West as well as from the National Hurricane Center. \*

### Owlie SkyWarn Booklet Flies Off Shelves

By Melody Magnus, Aware Editor  
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This summer, the NWS released an updated version of Owlie SkyWarn, a longtime favorite NWS product geared toward Kindergarten to 6<sup>th</sup> grade students. In just two months, ten of thousands of copies were out of stock. In the interim, please feel free to download Owlie from our website and reprint as many as copies as you need: [www.nws.noaa.gov/om/brochures.shtml](http://www.nws.noaa.gov/om/brochures.shtml). You will find an option to download either the entire booklet or just the sections you need. Additional printed copies will be available by spring.



The revised Owlie booklet offers clean, crisp graphics, up-to-date statistics and examples, and a new easier-to-use format with five distinct sections:

- Hurricanes
- Lightning
- Tornadoes
- Floods and Flash Floods
- Winter Storms



## Writer's Corner

### E-AWARE: The Time Has Come!

By Donna Ayres, NWS Outreach Program  
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*Aware* will be distributed electronically after the Winter 2004 issue. There will be just one more paper distribution. After that, no more snail mailings! The benefits of e-Aware are many: saving trees, funds and labor, faster delivery and color printing options. As we make the change, we will try to minimize inconvenience to you, our customers.

We will send you an email alert when a new *Aware* is published. If you want a hard copy, you can easily download and print one.

We'll update you on *e-Aware* in the Winter 2004 issue. We intend to give you a dynamic, eye-catching newsletter in a more convenient, timely and flexible format. ✨

### Confusing Compounding

By Donna Ayres, Managing Editor  
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To hyphenate or not to hyphenate? One word or two words? Compound words trip up most of us at one point or another. They trip up some of us all the time.

One way to limit the confusion is to first figure out what function the compound word is serving. Does it modify? Is it a noun? Is it part of a prepositional phrase? Once you're able to make this decision, there are rules you can follow to reduce mistakes. Here are examples of common compound words:

**Back-up** (as a compound adjective modifying a noun)  
The officer announced his **back-up** plan for emergencies.

**Back up** (as a verbal phrase). The analyst failed to **back up** the data before it was lost.

**Backup** (as a noun): Only in an emergency will you need to function as my **backup**.

**Off site** (as a prepositional phrase): The meeting will be held **off site**.

**Off-site** (as an adjective): The meeting will be held at an **off-site** location.

Does it make more sense now? The general rules can be stated this way:

- If the compound modifies a noun, hyphenate it.
- If the compound acts as a verb, an act of doing, it's two words.
- If the compound acts as a noun, it's one word.
- If the compound acts as a prepositional phrase, it's two words.

These rules are general; unfortunately (or maybe not) usage and rules change. That's one of the trickiest aspects of our language and culture. If you want to delve deeper into the compounding world, check out the 9th edition of *The Gregg Reference Manual*. Gregg includes dozens of pages on this grammatical challenge. ✨

## Climate, Water and Weather Links

MIC/WCM/SOO/DOH List:	<a href="http://weather.gov/os/wcm-soo.pdf">weather.gov/os/wcm-soo.pdf</a>
NWS Publications List:	<a href="http://weather.gov/os/publist.htm">weather.gov/os/publist.htm</a>
NOAA Weather Radio Information:	<a href="http://weather.gov/nwr/">weather.gov/nwr/</a>
Winter Safety:	<a href="http://weather.gov/os/winter/index.shtml">weather.gov/os/winter/index.shtml</a>
Aviation Weather:	<a href="http://aviationweather.noaa.gov/">aviationweather.noaa.gov/</a>
Education/Outreach:	<a href="http://weather.gov/os/edures.htm">weather.gov/os/edures.htm</a>
Flooding/Water:	<a href="http://weather.gov/os/water/index.shtml">weather.gov/os/water/index.shtml</a>
Lightning Safety:	<a href="http://lightningsafety.noaa.gov/">lightningsafety.noaa.gov/</a>
Marine Weather:	<a href="http://weather.gov/os/marine/home.htm">weather.gov/os/marine/home.htm</a>
Natural Hazards Statistics:	<a href="http://weather.gov/os/hazstats.shtml">weather.gov/os/hazstats.shtml</a>
Past Weather/Climate:	<a href="http://lwf.ncdc.noaa.gov/oa/ncdc.html">lwf.ncdc.noaa.gov/oa/ncdc.html</a>
StormReady Home Page:	<a href="http://stormready.noaa.gov/">stormready.noaa.gov/</a>
Severe Weather Safety:	<a href="http://weather.gov/os/severeweather/index.shtml">weather.gov/os/severeweather/index.shtml</a>
Current Weather, NWS Home Page:	<a href="http://weather.gov">weather.gov</a>