U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL WEATHER SERVICE
1325 East-West Highway
Silver Spring, Maryland 20910-3283

NOV 18 2013

Marlene H. Dortch, Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street SW
TW-A325
Washington, DC 20554

Re: In the Matter of Review of the Emergency Alert System
EB Docket No. 04-296

Dear Ms. Dortch:

The National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) welcomes the opportunity to provide inputs to EB Docket No. 04-296 concerning Part 11 Emergency Alert System (EAS) Rules, as detailed in Sections 1, 2, and 3 below.

1. Change in Part 11 rules, Subpart B. Section 11.31(f), Offshore (Marine Areas)

Offshore marine areas are denoted by endpoints along the coast. The National Hurricane Operations Plan changed one endpoint from Bonita Beach, FL to Ocean Reef, FL in the title of the marine area for the West North Atlantic and Gulf of Mexico. Corresponding titles (or Area descriptions) in Part 11 rules, Subpart B, Section 11.31(f), Offshore (Marine Areas), should be changed to be consistent with those in use by the NWS. Specifically, the NWS requests the old end point, Bonita Beach, FL, be changed to the new end point, Ocean Reef, FL so the titles appear as:

FIPS# 75: Western North Atlantic Ocean, and along U.S. East Coast, south of Currituck Beach Light, NC, following the coastline to Ocean Reef, FL, including the Caribbean

FIPS # 77: Gulf of Mexico, and along the U.S. Gulf Coast from the Mexican border to Ocean Reef, FL

2. Add a new Event Code for the Extreme Wind Warning

The NWS requests the addition of a new "State and Local" Event Code to the presently authorized code listing in Part II EAS rules, Subpart 8, Section 11.31(e), Event Codes. The NWS recommended nature of activation is Extreme Wind Warning (EWW).

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The NWS recommended Event Code is EWW. NWS forecasters issue short duration EWW products to provide the public with advance notice of the onset of extreme sustained surface winds (greater than or equal to 115 miles per hour) of a major landfalling hurricane (category 3 or higher on the Saffir-Simpson Hurricane Wind Scale), usually associated with the eyewall of a hurricane. Extreme Wind Warnings inform the public of the need to take immediate shelter in an interior portion of a well-built structure due to the onset of extremely strong winds.

The NWS requests the above changes be made as soon as possible but not later than February 1, 2014, to allow time to prepare for the 2014 Atlantic hurricane season beginning June 1, 2014, in the Atlantic, Caribbean Sea and Gulf of Mexico. Preparations include adding the new Event Code to the NWS warning message Common Alerting Protocol (CAP) and NOAA Weather Radio (NWR) audio message production; training and outreach to community decision makers, emergency managers, and broadcasters; and implementation of the Event Code change by broadcasters.

Additional details on the EWW are provided in the attachment.

3. Add New Event Codes for the Storm Surge Watch and Storm Surge Warning

The NWS requests the authorization of new "State and Local" Event Codes to be added to Part 11 rules, Subpart B, Section 11.31(e), Event Codes. The nature of the activation is titled Storm Surge Watch/Warning; the NWS recommended Event Codes are, respectively, SSA and SSW.

The NWS issues weather watches/warnings for numerous threats to life and property. It does not, however, issue warnings for storm surge. Storm surge losses in the hundreds or thousands of lives have occurred in every coastal state from Texas to South Carolina, and in some states north of there. Most of the 8,000 – 12,000 deaths from the Galveston, Texas, hurricane of 1900 resulted from a storm surge. In recent years, Hurricane Katrina (2005), Hurricane Ike (2008), Hurricane Isaac (2012), and Hurricane Sandy (2012) further demonstrate the impacts to property and lives from storm surge and the need for a new NWS watch/warning.

The Storm Surge Watch/Warning issuance is a new NWS watch/warning scheduled for dissemination beginning in the 2015 hurricane season. EAS activation will be triggered by a product issued by NWS Weather Forecast Offices (WFO).

Extensive preparations include adding the new Event Code to the NWS warning message CAP and NOAA Weather Radio (NWR) audio message production; training and outreach to community decision makers, emergency managers, and broadcasters; and implementation of the Event Code change by broadcasters.

The NWS requests the above changes be made as soon as possible but not later than February 1, 2014, to allow time to prepare for the 2015 Atlantic hurricane season beginning June 1, 2015, in the Atlantic, Caribbean Sea and Gulf of Mexico.

Additional details on the Storm Surge Watch/Warning are provided in the attachment.

NWS Point of Contact

Mr. Timothy Schott in the NWS Headquarters Office of Climate, Water and Weather Services is the lead staff member for each of the three requested changes to the Part 11 EAS Rules. He may be reached via e-mail at timothy.schott@noaa.gov or by telephone at (301) 713-0090 x146.

Sincerely,

Christopher S. Strager
Acting Director, Office of Climate, Water, and
Weather Services

Attachments

Attachment A – Extreme Wind Warning (EWW)

Need for a New EAS Event Code

The need for an EWW product emerged in 2004 when Hurricane Charley moved across the Florida peninsula and over the Orlando metropolitan area with sustained wind speeds exceeding 115 miles per hour in some areas. In response to this extremely dangerous storm, local NWS Forecast Offices issued Tornado Warnings and used the accompanying EAS Event Code of TOR, because it carried very high visibility by EAS stations and media. The body of the product carried a message emphasizing extremely destructive winds associated with the core of the hurricane.

However, the issuance of a Tornado Warning for extreme winds associated with a hurricane was confusing to some citizens. The NWS believes EAS implementation of a new EAS Event Code is necessary to reach the public and elicit an immediate public response in advance of the strongest core of sustained winds associated with a category 3 or stronger hurricane. No other existing EAS Event Code is adequate or acceptable to activate EAS for an Extreme Wind Warning.

Benefits and Impact

The dangerous wind conditions for which an Extreme Wind Warning is issued are rare but bring great potential for loss of life. It is estimated 80% of people living along our hurricane-prone coastlines have never experienced the core of a category 3 hurricane. People, particularly those who live inland, do not expect such strong winds and typically do not prepare properly. The EWW EAS Event Code will allow NWS and broadcasters to improve public alerting of these destructive, life-threatening winds.

User Feedback

The concept and usefulness of an Extreme Wind Warning has been validated by NWS users.

WFO New Orleans, LA. We need a short fuse product for this type of event and there is merit in putting out a warning to alert people to stay in their safe rooms/shelters.

WFO Mobile, AL. We are much in favor of some sort of warning for sustained Category3 or higher eyewall winds.

In Osceola County, FL, former Emergency Management Director Cheryl Grabowski said the use of the Tornado Warning for extreme winds from Hurricane Charley was, "fantastic. They *(WFO Melbourne, FL)* gave me almost to the minute locations, and were really helpful."

In Orlando, FL, Dean O'Neal, WPOZ radio, stated, "Stroke of genius for getting into EAS." (Via the existing EAS Event Code)

Glenn Richards, Chief Meteorologist at WOFL, FOX TV 35 in Orlando, stated, "The Eyewall Tornado Warning was awesome. I did a double take for a moment. This told me to treat it differently than other 100 mph wind gusts through the area."

Josh Johnson, meteorologist at WTOK-TV 11 in Meridian, MS, stated, "issuing Extreme Wind Warnings to warn the public about the extremely dangerous winds in the eyewall of major landfalling hurricanes is excellent."

David Hartman, Chief Meteorologist from WAPT-TV 16 in Jackson, MS, stated he understood the Extreme Wind Warnings and thought they worked well.

Tony Mastro, Meteorologist with WJTV-TV 12 in Jackson, MS, said he also understood the warning and thought they were appropriate for the situation. However, he believes that there could be a problem educating the public on these warnings *(NWS recognizes the need for education for any new warning).*

The Homeland Security Department used the warnings to reinforce the idea with the public that it was time to immediately take protective action.

A note on lack of recent user feedback

The Extreme Wind Warning (EWW) became a new operational NWS product for the 2007 hurricane season. However, for the seven hurricane seasons spanning 2007-2013, there were no landfalling hurricanes with winds reaching the issuance criterion for the EWW. Thus, we have no recent feedback.

Improved Services to the Nation

Advances in science and observational tools, including Doppler radar, now afford NWS meteorologists the ability to accurately issue these types of warnings. The NWS believes the new Extreme Wind Warning, supplementing existing NWS hurricane warnings, will save lives by warning citizens to take immediate protective actions, just prior to the onset of destructive winds of 115 miles per hour or greater.

<u>Example: Extreme Wind Warning (EWW)</u>

WFUS52 KTBW 131938
EWWTBW
FLCOI5-071-132100-
/0.NEW.KTBW.EW.W.OOI3.040813TI938Z-040813T2100Z/

BULLETIN - EAS ACTIVATION REQUESTED
EXTREME WIND WARNING
NATIONAL WEATHER SERVICE TAMPA BAY- RUSKIN FL
338 PM EDT FRI AUG 13 2004

THE NATIONAL WEATHER SERVICE IN RUSKIN HAS ISSUED AN

* EXTREME WIND WARNING FOR THE ONSET OF SUSTAINED WINDS OF 115 MPH OR GREATER FOR...
CHARLOTTE COUNTY IN SOUTHWEST FLORIDA
LEE COUNTY IN SOUTHWEST FLORIDA

* UNTIL 500 PM EDT

*AT 335 PM EDT...SURFACE OBSERVATIONS AND NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED EXTREME WINDS...ASSOCIATED WITH THE EYEWALL OF HURRICANE CHARLEY...WERE MOVING ONSHORE NEAR NORTH CAPTIVA ISLAND. SUSTAINED WINDS IN EXCESS OF 140 MPH...CAPABLE OF
PRODUCING WIDESPREAD DESTRUCTION...CAN BE EXPECTED AS THE EYEWALL PASSES OVERHEAD. MOVEMENT WAS NORTH NORTHEAST AT 20 MPH.

*THESE EXTREME WINDS WILL AFFECT...
ST. JAMES CITY BY 345 PM
BOKEELIA BY 350 PM PUNTA
GORDA BY 400 PM

THIS IS A DANGEROUS STORM! MOVE INTO AN INTERIOR ROOM AWAY FROM WINDOWS AND OUTER WALLS. COVER YOUR HEAD AND BODY WITH PILLOWS OR BLANKETS.

LAT...LON 2672 8226 2644 8213 2702 8174 2702 8207
TIME...MOT...LOC 1935 200DEG 17KT2665 8210

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Coordination with EAS equipment manufacturers

The NWS contacted three manufacturers of EAS encoders and decoders. They indicate the new Event Code can easily be added to most current platforms through a simple software update. For older platforms/legacy equipment which they continue to support, the new code can usually be added through a firmware and/or software update, which may involve a nominal cost.

Attachment B – Storm Surge Watch/Storm Surge Warning (SSA/SSW)

Current Hurricane Watches and Warnings mainly reflect the wind threat. While the threatening winds of a hurricane are important, most deaths from tropical cyclones result from storm surge. Storm surge can extend along the coast and well beyond the reach of existing warnings for the strong winds.

The National Hurricane Center (NHC) has vigorously advocated for a storm surge watch and storm surge warning for a number of years. "Storm surge is, among all weather-related hazards, the one with the greatest potential to cause the most fatalities in a single day. The new storm surge warning is long overdue and will be one of the most significant enhancements to the nation's hurricane warning program in decades. Every mechanism available to clearly and widely communicate the warning, including via the critical Emergency Alert System using a new and unique Event Code, will be vital to its success in saving lives, since the storm surge hazard is unique in terms of the scope and type of action involving evacuation that can be required by the public," states Dr. Rick Knabb, Director of the NHC.

The issuance criterion for the new Storm Surge Watch/Warning has yet to be determined, but will be finalized no later than late 2014, after careful coordination with the emergency management community. A Storm Surge Watch/Warning will be issued when there is a significant risk of life-threatening inundation from rising water moving inland from the ocean. The warning (watch) will be issued 36 hours (48 hours) in advance of the event taking place.

Benefits and Impact

The NWS vision for a Weather Ready Nation is a society prepared for and responding to weather-dependent events. The current Hurricane Watch/Warning does not provide clear or sufficient information to allow citizens to determine if they are threatened by wind or storm surge or both. Targeting the wind and storm surge areas with specific warnings will help the public and emergency officials better respond to local threat(s).

User Feedback

The implementation of a storm surge warning is formally supported by Federal Emergency Management Agency (FEMA) Administrator Craig Fugate, who states, "I have witnessed the devastating impacts storm surge can have on life and property. NWS storm surge warnings will prepare citizens to take action as life-threatening severe coastal storms track toward their communities."

The government meteorological services of other nations, such as Environment Canada, issue storm surge warnings. The World Meteorological Organization has advocated the use of storm surge warnings for member nations.

Furthermore, the NWS has conducted extensive social science research with different user groups; all results document strong support for a storm surge warning:

- 92% of the public in a survey agreed the NWS should issue a separate storm surge warning for hurricanes or severe coastal flooding events
- 75% of emergency managers in a survey agreed the NWS should issue a separate storm surge warning
- 95% of broadcast meteorologists in a survey agreed the NWS should issue a separate storm surge warning

The New Orleans Times-Picayune editorial of December 16, 2012, stated, "The majority of New Yorkers who died in Hurricane Sandy drowned, many in their homes…(the deaths) point to the need for warnings about storm surge that are understandable and convey the danger that floodwaters pose, even in a storm without fierce winds."

Improved Services to the Nation

Advances in science and observational tools now afford NWS meteorologists the ability to accurately issue these types of warnings. Thus we believe the new Storm Surge Watch/Warning, supplementing our existing hurricane products, will present a full spectrum of warnings for hurricane landfalls and save lives.

Example (initial, draft example, subject to change but will be finalized by late 2014)

BULLETIN – EAS ACTIVATION REQUESTED
HURRICANE XENA LOCAL WATCH/WARNING VTEC STATEMENT
NATIONAL WEATHER SERVICE CHARLESTON SC AL012000
530 PM EDT SUN AUG 27 2000

SCZ050-272115-
/O.CON.KCHS.HU.W.1001.000000T0000Z-000000T0000Z/
/O.CON.KCHS.SS.W.1001.000000T0000Z-000000T0000Z/
/O.CON.KCHS.FF.A.0010.000000T0000Z-083100T0000Z/
CHARLESTON-
530 PM EDT SUN AUG 27 2000

...HURRICANE WARNING IN EFFECT...
...STORM SURGE WARNING IN EFFECT...
...FLOOD WATCH IN EFFECT...

.WINDS...
TUESDAY...E 20 TO 30 MPH WITH GUSTS TO 35 MPH...INCREASING TO 40 TO 50 MPH WITH GUSTS TO 75 MPH DURING THE AFTERNOON
TUESDAY NIGHT...E 60 TO 80 MPH WITH GUSTS TO 110 MPH...BECOMING S AND DECREASING TO 40 TO 60 MPH WITH GUSTS TO 80 MPH AFTER MIDNIGHT
WEDNESDAY...SW 25 TO 35 MPH WITH GUSTS TO 50 MPH...BECOMING NW 15 TO 25 MPH WITH GUSTS TO 35 MPH BY LATE MORNING

.STORM SURGE...
PEAK STORM INUNDATION...8 TO 15 FEET

.RAINFALL...
TUESDAY...2 TO 4 INCHES
TUESDAY NIGHT...4 TO 8 INCHES
WEDNESDAY...UP TO 1 INCH

.TORNADOES…
TUESDAY...ISOLATED
TUESDAY NIGHT...WIDELY SCATTERED
WEDNESDAY...NONE

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Coordination with EAS equipment manufacturers

The NWS contacted three manufacturers of EAS encoders and decoders. They indicate the new Event Codes can easily be added to most current platforms through a simple software update. For older platforms/legacy equipment which they continue to support, the new codes can usually be added through a firmware and/or software update, which may involve a nominal cost.