

The National Weather Service (NWS) welcomes the opportunity to provide input to EB Docket No. 04-296 concerning Part 11 Emergency Alert System (EAS) Rules.

**Request for new Event Codes for the Storm Surge Watch and Storm Surge Warning in Part 11 rules, Subpart B, Section 11.31(e)**

This is a reiteration of change requests submitted by the NWS in August 2011 and November 2013 for consideration by the FCC.

The NWS requests the addition of a new State and Local Event Code to the presently authorized code listing in Part 11. The NWS recommended nature of activations are Storm Surge Watch and Storm Surge Warning; the NWS recommended Event Codes are SSA and SSW, respectively.

Background: The NWS issues weather watches/warnings for numerous threats to life and property. It does not, however, explicitly issue warnings for storm surge. Storm surge can extend along the coast and well beyond the reach of existing warnings for the strong winds. Storm surge can also inundate areas well inland from the coast and penetrate inland areas surrounding tidally-influenced rivers. With respect to all impacts associated with tropical cyclones (this includes tropical storms and hurricanes), storm surge results in the greatest loss of life. Storm surge resulted in most of the 8,000–12,000 lives lost in the Galveston, TX hurricane of 1900. Since 1900, storm surge losses in thousands of lives have occurred in every coastal state from Texas to Maine. In recent years, Hurricane Katrina (2005), Hurricane Ike (2005), Hurricane Isaac (2012), and Hurricane Sandy (2012) demonstrate the impacts to lives and property from storm surge and the need for a new NWS watch/warning. In the case of Hurricane Ike, significant storm surge inundated the Louisiana coast, while winds along the coast remained well below hurricane force.

An NWS Assessment was conducted on NWS services provided for Hurricane Sandy. An assessment is conducted for extreme weather events with significant losses to life and property. There were numerous recommendations from the emergency management community on the need to implement a storm surge watch and storm surge warning. This is documented on page 41 of the assessment: “Interviews with emergency managers and broadcast media revealed strong support for a separate storm surge warning for coastal areas and tidally-influenced rivers.” For more information, please see pages 41-42 of the Sandy assessment at <http://www.nws.noaa.gov/os/assessments/pdfs/Sandy13.pdf>

Additionally, a recent National Oceanic and Atmospheric Administration (NOAA)-funded survey showed “90 – 95 percent of partners support this proposed new watch/warning...NWS should support the planned implementation of a storm surge warning...” NOAA also identified the need for a storm surge watch/warning in previous service assessments. Concerning Hurricane Sandy, “seventy-nine percent of coastal residents...said the impact of Sandy’s surge in their area was more than they expected.” Furthermore, in the aftermath of Sandy, 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.”

Furthermore, the NWS also 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

Dr. Rick Knabb, the Director of the NHC, states, “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 scope and evacuation actions involving emergency managers and the public.” In addition, Mr. Craig Fugate, the FEMA Director 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.”

Finally, the NWS implementation of a storm surge watch/warning is also supported on an international basis. 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.

Therefore, after many years of careful study and development, issuance of the Storm Surge Watch/Warning, if warranted, is scheduled for NWS dissemination in the 2015 hurricane season. 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.

EAS activation would be triggered by watches/warnings issued by NWS Weather Forecast Offices (WFOs). Extensive preparations underway by the NWS include adding the new watch and warning to the suite of NWS warning messages across all NWS dissemination systems; transmission of the “Storm Surge Watch” and “Storm Surge Warning” on NOAA Weather Radio All Hazards (NWR); education at local, state and national hurricane conferences; training and outreach to community decision makers and emergency managers; and an extensive public information campaign.

The NWS contacted several 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 and legacy equipment which they continue to support, the new codes can usually be added through a firmware or software update, which may involve a nominal cost. The costs and resources for broadcasters to make these changes should be nominal.

Therefore, the NWS respectfully requests the addition of two new event codes:

- (1) “Storm Surge Watch” with an Event Code of SSA
- (2) “Storm Surge Warning” with an Event Code of SSW

The NWS respectfully requests implementation of the above changes by February 1, 2015, to allow time to prepare for the 2015 Atlantic hurricane season beginning June 1, 2015 in the Atlantic, Caribbean Sea and Gulf of Mexico.

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

