2019 Tsunami Wireless Emergency Alerts Project

In 2019 the National Weather Service anticipates that wireless carriers will implement changes to the U.S. national Wireless Emergency Alert System with three major upgrades:

1. require wireless providers to deliver Wireless Emergency Alerts in a more geographically precise manner so that alerts reach affected communities but not those outside of an affected area. This enhanced “geotargeting” requirement — whereby WEA alerts must be delivered no more than a one-tenth of a mile outside of the target area — will go into effect on Nov. 30, 2019.
2. requirement that wireless providers support Spanish-language messages.
3. requirement that wireless providers extend the length of alert messages from 90 to 360 characters. The deadline for those enhancements is May 1, 2019. This may include the ability to include a URL in the message body.

Current State

The NWS has implemented WEA for tsunami warnings (only) in May, 2014. A WEA will go out for the first warning or an upgrade from a Tsunami Watch to a Tsunami Warning. The NWS will not request WEA to go out for these tsunami alert levels: Tsunami Advisory, Tsunami Watch, or Tsunami Information Statement.

The message is limited to 90 characters. The current wording of a tsunami WEA is:

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Tsunami danger on the coast. Go to high ground
or move inland. Listen to local news. -NWS
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While tsunami warnings are issued for NWS zones, NWS zones are not understood by WEA, so tsunami WEA activation will target the FIPS code (i.e., county level) until next generation tsunami alert authoring tools provide the capability for NWS to describe the warning area more precisely. These authoring tools are in development in 2018 and should be deployable by the end of the calendar year.

2019 State

The Tsunami Program at NWS headquarters is part of a NWS Wireless Emergency Alert Policy Group that is organizing a comprehensive and unified WEA Program on behalf of the NWS. WEA applies to several other hazards, including: extreme winds, flash floods, hurricanes, storm surge, (extreme) thunderstorms, and tornadoes.

The NWS WEA Policy Team will be conducting a survey for stakeholders to gauge concerns regarding NWS WEA activities, as well as to obtain feedback on new WEA messages of longer length.

The NWS Tsunami Program is engaging its stakeholders (internal to the NWS, the Tsunami Program Service Team, and National Tsunami Hazard Mitigation Program (NTHMP) partners to craft one sample

360-character message to include in the national WEA survey. The deadline to provide this sample message is the end of June, 2018.

Consider Relevant Social Science

This is not a new issue. Social scientists have been studying public response to emergency and warning messages since the 1940s.

In 1982, a landmark study titled A Review of Public Response to Short Message Alerts under Imminent Threat was published and frames the thinking that went into WEA development.

Subsequently, Dr. Dennis Mileti et al conducted more research on how people perceive, understand, and act (or do not act) on WEA messages. Public behavior directly impacts careful choices of each word that goes into a WEA message.

An updated landmark study prepared by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland was written by Hamilton Bean, Brooke Liu, Stephanie Madden, Dennis Mileti, Jeannette Sutton, and Michele Wood. This study is titled Comprehensive Testing of Imminent Threat Public Messages for Mobile Devices, and it was published by the Department of Homeland Security in October, 2014. This study guided the Federal Communications Commission on developing its Reports and Orders on the U.S. national Wireless Emergency Alert process and content which will be implemented in May 2019.

In January 2018, Dr. Mileti presented a summary of his findings on public perception and response to short warning messages (WEA) in a FEMA Prep Talk titled Modernizing Public Warning Messaging, summarizing that WEA messages need to include all of these elements to be effective with the public:

1. Source
2. Hazard
3. Local Personalization
4. Consequences
5. Protective Action
6. Protective Action Time
7. How Action Reduces Consequences
8. Expiration Time

Which leads us to a discussion – just what should go into a 360-character WEA message for Tsunami Warnings. ⇐= THIS IS A LINK. CLICK IT FOR MORE ON 360-CHARACTER TSUNAMI WEA MESSAGE DEVELOPMENT

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