



CITY OF HOUSTON

Mayor's Office of Public Safety
& Homeland Security

Sylvester Turner

Mayor

12 January 2016

Federal Communications Commission
Via Electronic Means

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Re: Improving Wireless Emergency Alerts and Community-Initiated Alerting PS Docket 15-91

Commissioners:

As the City of Houston continues our diligent work to see our residents better prepared for disasters, we are also enhancing our capacity to provide timely, actionable emergency information to our residents when it matters most.

We have welcomed the introduction of the Integrated Public Alert & Warning System (IPAWS) and have taken steps to ensure that the over 2 million residents of the City have access to life-saving information from our first response agencies when it matters most. Advances in the technology and policy associated with IPAWS, and specifically WEA – are of key interest to how we augment our existing capacity to meet the ever-changing challenges our residents face.

Harris County, Texas, in which a majority of our residents reside, has received more federal disaster declarations than any other county in the United States, and continues to be threatened by a unique and complex combination of manmade, natural and technological hazards. In addition to being high-risk due to our geographic location and the weather-related challenges that poses, the City of Houston is also uniquely diverse, both as it relates the number of languages spoken by our residents, and the breakdown of socioeconomic conditions. Being home to the world's largest medical center (the Texas Medical Center), the second-largest port by volume (the Port of Houston), and one of the largest petrochemical complexes in the world (The Houston Ship Channel), we are also uniquely at risk to intentional or technological threats.

As our Office of Emergency Management (OEM) is the emergency warning and public information coordinating agency for the Nation's fourth-largest City, it is in our best interest to voice our opinion on the proposed rules and expansion of the Integrated Public Alert & Warning System (IPAWS). As it relates to the proposed changes to the existing structure, function and operation of IPAWS, the City of Houston respectfully offers the attached comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis Storemski".

Dennis J. Storemski
Director
Mayor's Office of Public Safety & Homeland Security,
City of Houston

III (A) (1) – INCREASING MAXIMUM WEA CHARACTER LENGTH

- (9) The City supports the expansion of the WEA message length, as it will open up the ability for additional critical information, such as immediate protective actions to be included with WEA messages. Any delay in transmitting detailed protective actions may cause a loss of life in a catastrophic incident. The current 90-character limit severely limits the amount of information that can be transmitted to a user in WEA. Many protective actions, especially those related to public health and hazardous materials threats can be complicated, and the more information that can be provided directly to a user would limit the amount of time they would need to seek and confirm protective action information before they comply.
- (10) In addition, expansion of the WEA message reduces the complexity inherent in seeking expanded protective action information from other sources, which is far more difficult for people with communication barriers, or other functional or access needs.
- (11) 360 characters adds additional space for information, and as technology advances, mobile devices become clearer and accommodate more information; the space is readily available, and should be utilized.
- (13) While the need to produce an additional 90 character text-based product for legacy WEA systems is inconvenient, it should not, on the whole, rule out an expansion of this important, life-saving information. It is important, however to create a phased requirement to move all WEA platforms to the 360 character message, and phase out legacy WEA systems with 90 character requirements.

(III) (A) (2) CLASSIFYING EMERGENCY GOVERNMENT INFORMATION

- (18) “Emergency Government Information” should be defined as “Any actionable information that reduces the risk of loss of life or compromised health, and improves the situational awareness of the affected population” This may include information such as boil water orders, evacuation orders, information on evacuation routes, shelters, or recommendations to limit travel in the event of catastrophic weather such as flooding and hurricanes.
- (18) This additional category would serve as a “catch-all” for appropriate, actionable, life-saving information that may not be currently available in WEA. This, in concert with an addition of characters would improve the effectiveness of WEA as a tool for local jurisdictions.
- (19) This category should be able to be used as a stand-alone alert. This should be done to allow for flexibility given the array of threats that local communities suffer. It should be tempered, however, by ensuring that sufficient criteria are established for its use.
- (19) This alert category should be limited to information that is 1) actionable and 2) has the potential to immediately limit the loss of life or property, or compromise health.
- (19) Alerts in general should be restricted to “appropriate agencies”, which should be defined as those who have statutory authority under State law to warn in a specific area. This includes municipal, county, state and federal government agencies. It is important to maintain the integrity of State laws, especially as it applies to municipal and county authority. In home rule, or Dillon’s rule states, municipalities operate independently, and at a peer level of county governments. (See Texas Government Code, Section 418.103 [<http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.418.htm#418.103>]), therefore, they should be able to warn within a specific area without the authorization of, or interference from, another local government (i.e. County). The existing inability to parse WEA messages at a sub-county level creates a significant policy issue for state and local governments. This issue is more fully addressed in Section III (B)(37) below.
- (19) In addition, there is no known policy requirement for States to develop Integrated Public Alert & Warning (IPAWS) implementation plans, as is the case with the Emergency Alert System. The FCC should consider requiring states to establish uniform IPAWS management structures (though not policies) to be implemented statewide, and/or integrate the IPAWS coordination requirements under the current Local Emergency Communications Committees (LECCs), as is required under Part 11 of the FCC Rules and Regulations.
- (19) Addition of this category has the slight potential for alert desensitization. However, as technology has evolved since the first introduction of the IPAWS/WEA concept, most smartphone users are used to receiving multiple messages. If adequate restrictions and guidelines were in place to ensure that only appropriate messages were passed through the system, desensitization would be less of a concern than if the messages were less restricted and used for more routine matters. Additionally, if these messages are associated with a real, present, very visible disaster, residents would not feel this was an abuse, but rather, would likely feel that this is an appropriate and innovative use of the system..
- (21) Having an additional “opt-in” or “opt-out” option may create additional confusion on the part of the consumer as they attempt to understand how WEA works, and how they may limit their alert settings. Currently, alerts are classified as “AMBER Alerts” and “Emergency Alerts”. Adding an opt-out for “Government Emergency Information” would likely cause confusion, as the general public may not be able to adequately distinguish between “Emergency Alerts” and “Government Emergency Information”. Without a requirement to provide an explanation of the difference, this may result in additional confusion and a rise of “opt-outs” from users. Therefore, we would recommend that information provided under “Government Emergency Information” be provided under the existing setting for “Emergency Alerts.”

- (22) WEA may be broken out into additional categories as long as there is adequate distinction between the types. To the general public, there is very little differentiation between “Emergency Alerts” and “Emergency Government Information”. However, if categories such as “Local Alerts, Severe Weather Warnings, AMBER Alerts, etc.” with standardized descriptions of the difference between them included in the notification setting screens of devices, were offered, it would allow the consumer to better understand the types of alerts they would receive. This model is currently in place in local alerting systems and may serve as an example for how the opt-in process may function.

(III) (A) (3) CONTENT IN WEA ALERTS

- (25) Including URLs and phone numbers in WEA messages has the *potential* to advance public safety, however there remain considerations about the ability of cellular telephone networks to handle the increased data capacity as the result of the issuance of an alert.
- (25) The public currently uses a variety of methods to validate information from WEA messages. Social science research indicates that people still primarily search for validating information from mass media. While this continues to be the case, the changing dynamics of emergency communication to include web-based products and social media continues to illustrate the need for URLs in particular, to be added to WEA. In many jurisdictions, including our own, there are dedicated web presences for emergency situations. These have the ability to provide WEA message recipients with longer, more dynamic emergency information content than previously available. This has the potential to increase compliance, and provide better, more actionable information in complex incidents, such as hazardous chemical emergencies.
- (26) While we don’t have specific data on whether or not users sought out information on our web presences following a WEA message, during a period of extensive, citywide flooding and severe weather, (the May 25, 2015 Memorial Day Flood DR-4223), we saw hits to our websites increase by 6-fold in two days. It would appear that people are beginning to use websites to validate their warning information and seek to better understand protective actions. Adding a URL to the WEA message would help link the initial warning message to longer-form, more readily updated information sources from local authorities.
- (27) Allowing URLs in AMBER Alerts would allow for the use of graphics which can aid in the location of abduction victims.
- (29) If URLs were linked to information that was accessible, such as videos of protective actions with ASL interpretation, this could aid in the ability to provide information to people with access and functional needs.
- (30) The addition of images, maps or other multi-media content has the ability to augment existing information *in theory*, but more research is needed to determine the effectiveness of these types of tools, and their impact on the ability of the cell carrier to handle the amount of data that would need to be pushed. In addition, these tools could be useful to assist in low English proficiency populations or those who communicate using American Sign Language (ASL), however content would need to be produced ahead of time by warning originators in order for this to be effective.

III (A) (4) PROVIDING MULTILINGUAL WEA MESSAGES

- (30) Multi-lingual WEA information would be helpful in theory. The capacity for local jurisdictions to supply specific, actionable warnings in multiple languages is unknown. This may create an expectation of service that cannot be met by most, if not all, jurisdictions using the system.

III (B) WEA GEO-TARGETING

- (37) This is a long-overdue requirement. County-level WEA warning is not only inconvenient, but can be dangerous, as protective actions may vary depending on the proximity to the hazard. The current scheme, which requires the entire county to be notified, may result in the decision to not use WEA to limit the amount of undue concern across an entire area. In areas such as Houston, where there is a large petrochemical complex, it may be necessary to issue protective action recommendations that vary based on wind direction, speed and impacted critical infrastructure.
- (41) The FCC should require carriers to use integrated the Global Positioning System (GPS) capability in most new phones to allow for a greater pin-pointing of geo-targeted warnings. The nature of cell broadcast allows for a great amount of over-warning, however if warnings could be tailored so that a device is able to choose to display a warning, or not do so, based on the combination of the warning polygon and the devices GPS coordinates, it may allow for more targeted warning. In situations such as hazardous chemical releases, where protective actions are differentiated based on proximity and direction of the hazard, this could ensure that the right message reaches the right person, at the right time.

III (C) WEA TESTING AND PROFICIENCY TRAINING

III (C) (1) PROMOTING STATE AND LOCAL TESTING AND PROFICIENCY TRAINING

- (45) Adding the ability for state and local governments to issue WEA tests would enhance the ability for these entities to effectively use the tool in a response. It would also provide a mechanism to verify the effectiveness, and promote an awareness of the tool.
- (45) Care should be taken, however, to ensure that there are limits on the number of tests a COG can issue in a specific period of time. For some jurisdictions, residents may be used to a weekly or monthly test of emergency alert systems (i.e. Sirens, etc.); however, in many jurisdictions, a weekly or monthly test may become a burden to the user, and may result in an opt-out of WEA messages. This would work against the goals of both the system and the test. Therefore, it is recommended that strict parameters either be put in place by the FCC, or be included as a requirement of State plans for implementation of WEA.

III (C) (2) REQUIRING ALERT LOGGING AND TEST REPORTING

- (56) Adding a reporting feature to the existing WEA requirements would help to inform local originators about the efficacy of the system on a variety of levels. Having access to this information would help identify gaps in information delivery and message effectiveness. As we review our alert and warning capabilities, we continue to look for information that will help us better craft our message. Reporting would allow alert originators to better understand the reach of WEA.
- (56) This data should be provided to alert originators who have a signed MOA with FEMA for use of IPAWS, and we encourage the FCC to require alert origination software companies to be able to capture the data from FEMA and deliver it to the originating COG, and to the State(s) under which that COG operates.

III (D) PARTICIPATING CMS PROVIDERS AND SUBSCRIBERS

- (61) Currently, there is only a total opt-out for AMBER Alerts. When WEA for AMBER Alerts was first introduced, there was no set policy for the activation of AMBER Alerts as it relates to time of issuance. Many users complained that AMBER Alerts were being issued by local agencies at times that were disruptive. In response to that, many groups, including local emergency communications committees and AMBER Alert planning committees developed internal policies for “do not disturb hours” where WEA would not be activated to limit the number of people who opted out of AMBER Alerts all together.
- The FCC should consider either 1) requiring alert originators to develop policies for issuing/not issuing AMBER Alerts in overnight hours or 2) allowing users to have a “do not disturb” setting which would opt them out of AMBER alerts during hours they set. Many existing emergency notification systems allow for “do not disturb” hours, which can be overridden in the case of very life-threatening emergencies. Without these types of options for the consumer, we run the risk of having users opt out of all alerts, and limit the effectiveness of the system.

III (E) WEA ATTENTION SIGNALS AND PUBLIC SERVICE ANNOUNCEMENTS

- (70) We agree that allowing the use of the WEA attention signal should be permitted in the development of television, radio and web public service announcements. The familiarization of the public with the WEA program and the types of alerts that local, state and federal agencies issue are of paramount importance as we work to prepare the public.
- (70) It is important to allow all levels of alert originators (local, state and federal) to be able to use the WEA attention signals in public service announcements. This will serve to help localize the message, and make it more effective in communities.

III (G) ALERT PRIORITIZATION

- (76) We believe that WEA messages should pre-empt any and all data sessions, and the FCC should work with cellular providers to ensure that any WEA message delivered during a voice session does not interrupt that voice session. This should limit the concern that a WEA message could interrupt an emergency phone call.
- (77) In order to ensure that priority messages are delivered in a way that increases the ability for residents to take the proper protective actions, we believe a prioritization scheme should be built into WEA to ensure that those messages with the most severe impact potential be delivered first. This should be categorized based on the “Severity” field selected when the alert is originated.