

SBE's Vision For EAS: Improved Public Warnings in the Digital Age

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EAS promised to warn those at risk better than its predecessor, EBS. Since EAS was launched in January of 1997, that promise has been substantially fractured. EAS was supposed to warn better than EBS. Many times it did not. When EAS works as designed, it is usually in places where broadcasters and emergency managers went far beyond Part 11. They met each other on common ground to solve problems. SBE filed Comments on January 24 of this year on Docket 04-296. SBE's vision to recast EAS could give new hope for the EAS promise. It is worth a try to snatch victory for improved public warnings from the jaws of defeat.

There are those that have called for junking today's EAS as a failed system. SBE does not agree. Our position is that EAS must continue to play an important role as a legacy system in the distribution of public warnings by broadcasters to the public, enhanced and integrated with existing communications systems and enhancements recommended by SBE and others. This strategy will reinforce the unique value added by broadcasting to the warning picture. This enhanced value is supplied by broadcasting as the public needs to hear in great detail what they must do or not do as the emergency plays out. Hurricane Katrina recently reinforced this unique role of broadcasting that goes beyond warnings. The lesson: Broadcasting must continue to package distribution of public warnings with its traditional role to provide details that are difficult to convey in a warning.

The roots of EAS rest in the soil of the Federal Government's primary warning mission for CONELRAD during the Cold War days of the 50's, a reliable way so the President could speak to the public rapidly in times of great national peril. EAS was supposed to be an improvement in this mission, to warn faster and more reliably than the EBS that replaced CONELRAD. In many ways EAS is an improvement. However, like its predecessor, EBS, EAS still permits the system and its equipment to be used for public warnings issued from the NWS and Civil Authorities. The FCC's Rules (Part 11) for EAS stop short of telling how to use the EAS for these other needs beyond very general guidelines. Part 11's incomplete descriptive leadership and guidance for local warning use has caused some states and areas to craft EAS local protocols to deal with the needs of their citizens. Since 99.9999% of EAS activity involves emergency-life-saving messages from NWS and Civil Authorities, this should not have been a surprise. Other states did little or nothing, leaving the local emergency dimensions of EAS literally in a sink or swim mode.

SBE took on the mission to assist other stakeholders to create a robust and reliable public warning system some years ago. SBE has and continues to carry out this mission not only at the national level, but also through all the SBE Chapters nationwide that support or directly manage many LECC's. Some of the sweeping changes SBE made, although addressed to the FCC, may ultimately fall to the FCC's federal partners for review and action. It is SBE's hope that the federal partnership regarding emergency warnings that the FCC alludes to in this FNPRM will implement sharing and discussion of suggestions to improve the warning process, no matter which doors they come through.

Doing away with the LP is the most sweeping and controversial suggestion SBE is making for the EAS. Local and State Relay networks as perfected in Washington State and California will take their place.

The EAS Rules have within them an imbedded assumption that the two Local Primary (LP) stations that are prescribed by the Commissions Part 11 for the distribution of the Federal level Presidential Message are adequate for distribution of Weather and Civil Authority sourced public warnings. This assumption has led to bottlenecks and failures.

The idea is to remove as many potential obstacles between government warning centers and broadcast stations. This means that any broadcast station that survives can be a path to the public for EAS messages. If EAS no longer depends on LP stations, we have finally eliminated the old EBS daisy chain.

It is instructive that broadcast stations still relay messages to other Broadcast Stations in many areas, otherwise known as the daisy chain topology, remains as one of the most often criticized aspects of EBS. Unfortunately many of the shortcomings of the EBS daisy chain topology were not addressed and fixed. This saddled EAS with an updated but still problematic version of the classic daisy chain. It is SBE's firm believe that the role of Broadcast Stations should be limited to the job of reaching the public. This is a mission that Broadcasters constantly demonstrate can do very well especially during major emergencies.

If we really want to take EAS beyond the daisy chain model, we need to follow the lead of the NWS and their NWR systems. They are essentially multipoint distribution systems that transport emergency warnings to Broadcasters as well as citizens who have NWR Receivers. SBE submits that this concept should be expanded to include state and local governments. It should be clearly incumbent for each local warning center to install and operate multipoint distribution relay systems to broadcasters for messages that they

create. Just as with NWR, Broadcasters can then relay this information to our listeners and viewers.

SBE feels that we must not stop there. We are firmly convinced that the time has come to fundamentally change not only the way messages are delivered from their sources, but the composition of those messages. The FCC, in their recent R&O, added a number of communications systems to the EAS family that are all going to require embedding text messages in EAS. The present SAME protocol EAS message format was designed for Radio, and certainly was not designed for embedded text. The EAS voice message section contains the specifics concerning an emergency message that go beyond the preformed display text keyed to each of the three letter EAS codes. The problem is that there is no mechanism for dealing with real time text within the present voice message format. This issue has recently plagued television, since this medium has a federal mandate to convey emergency information visually as well as aurally. The short-term result has been less than ideal. Some FV stations have been faulted (if not cited) for not supporting warnings with real time text. Some TV stations have opted out of the voluntary aspects of EAS. The solution is obvious – the information contained in the voice message must somehow be delivered to television station as real time TEXT as part of digital EAS. Thankfully the vehicle for handling this chore is ready to go and that's the Common Alerting Protocol, or CAP.

Our vision of for EAS sees a day when every Broadcast Station and other personal receiving device will receive public warning messages from all authorized emergency message sources so that every station and communications system receives the same accurate message, at the same time. This vision includes television stations and cable systems having complete and accurate text messages for real time information rich crawls for their viewers. Radio Stations will also be able to receive text messages embedded in EAS that can be integrated into their formats thereby enhancing the number of stations participating in the EAS. One way to do this is with text-to-speech technology that will let automated or unattended stations function more effectively as real time warning information sources.

Here is more of SBE's vision for the future of EAS:

- Provide for Federal coordination for the entire national warning effort through a centralized authority.
- Bring authorized emergency management warning originators into the EAS

warning family. This is not a marriage of convenience. It is a marriage of necessity. Most warning failures occur at the origination point. This marriage must take place so improvements in delivery and display will have meaning and value.

- Provide Federal level support in the form of funding, training and education for EAS. EAS must cease to be an unfunded federal mandate.
- Provide reliable and high quality RF link spectrum between warning origination points and what SBE calls WARSEPS (WARning System Entry PointS) by authorizing specific channels for this purpose, and by changing the Table of Allocations so sharing of public safety and public works radio channels could fulfill this strategic need. If the roots of federal spectrum management lie in protecting the sanctity of emergency messages, can the FCC afford not to do this?
- Immediate consideration for a national needs assessment to implement new and expand existing distribution systems (SRN's and LRN's) that are critically needed to link the various state and local government entities that are - the sources of EAS messages to EAS entry points that provide and distribute this information to the public. We really do not have an accurate nationwide catalog of what needs to be fixed and reinforced to make EAS better. Without this catalog, we cannot put a price tag on maintenance, repair and improvement.
- Acknowledge the Common Alerting Protocol (CAP) as the open standard used to distribute public warnings from government entities to public distribution systems. CAP is the only horse in this race to SBE's knowledge. We are literally betting on a sure thing.
- Require government entities to transmit to TV and cable systems, a CAP encoded text representation of the voice message to insure that people with impaired hearing or who have only text based systems can receive EAS warnings.
- Mandate that receivers and set-top converters and certain other electronic receiving devices become warning appliances. The improvements SBE is suggesting will help remove the oxymoronical cloud that hangs over EAS now as a "voluntary mandate." Digital broadcasters will then have an EAS that can function without programming interruptions without blocking warnings from getting to their audiences.

The fastest path to this new and more effective warning world would be for the FCC to establish receiver and set top converter standards to turn these devices into stand-alone warning appliances. Program interruptions could then be tailored for those directly affected. In most cases, there would be no need for a program interruption since the receiver or converter would make a warning noise or trigger an external alarm, send a local wi-fi signal, or dial a phone number.

If the video monitor or actual radio is turned off, or no one is around to watch or listen, the "warning appliance" features would store the warning and/or forward it. CAP makes all this not only possible but probable. Some EAS experts believe much or all of this will eventually come about with or without FCC action, but is more likely to happen if the FCC does see fit to act. CAP is already established as a non-proprietary open standard language to allow warnings to flow freely between

One of the reasons SBE's vision makes sense is that it is a plan to handle warnings to people with hearing, sight or language issues that prevent or hinder reception of present-day EAS warnings.

SBE's Comments were written and edited by the SBE's EAS Committee led by Clay Freinwald, SBE Vice President. The SBE's FCC Liaison Committee reviewed the Comments by before going to the SBE elected Board for final approval, standard policy for all SBE filings before the FCC. There were over 100 other parties filing Comments in this preceding. SBE's approach was to take almost all of the questions that the FCC asked and provide detailed responses. Most of the other parties who filed made selective responses to a few of the questions, or simply stated a generalized opinion of what the FCC should do. For anyone involved deeply in EAS, you can read the complete SBE filing at: http://www.sbe.org/documents/SBE_EAS_FNPRM_all.pdf