

Before the
Federal Communications Commission
Washington, D.C. 20554
In the Matters of

Amendment of Part 11 of the Commission's)
)
Rules Regarding the Emergency Alert System) PS Docket No. 15-94
)
Wireless Emergency Alerts) PS Docket No. 15-91

Comments of Adrienne Abbott

INTRODUCTION

Since January 1997 the Emergency Alert System has been used to warn citizens of imminent danger. In Nevada, EAS went into use within hours of its birth, as rivers rose during the New Year's Flood brought on by an unprecedented series of El Nino storms. Over the years EAS in Nevada has grown and developed with safety enhancements like the AMBER Alert in 2001 and the addition of a Common Alerting Protocol program in 2013. In 2015 the State Emergency Communications Committee produced a new, updated EAS Plan.

In addition to AMBER Alerts, Nevada emergency management, law enforcement and public safety officials have tested and used EAS for evacuation notices in fires and floods, telephone outages, HazMat spills and hazardous weather conditions. Broadcasters and other EAS Participants as well as our Authorized Originators have made EAS a part of their public warning plans. We all look to the Federal Communications Commission to preserve our ability to continue using this important tool. While some changes are needed in the EAS Rules covered by 47 CFR Part 11, any changes will affect more than just those regulated by the FCC. Our brand new EAS plans, written and printed at significant expense funded through a grant, will be affected. Not only broadcasters but also our Authorized Originators are concerned about maintaining the security of EAS and the information in our EAS Plan.

The following comments, requested by the FCC, are mine alone, the result of more than 20 years experience as the FCC-appointed Chair of the State Emergency Communications Committee (SECC) and a broadcast career that began more than half a century ago with a high school radio show. As a broadcaster in a large Western state,

my concerns are preserving the flexibility the FCC has always granted us to operate EAS at a state and local level as conditions demand. In a state where there is no single broadcast signal that reaches border to border or even far enough to allow a daisy chain to carry messages across the state, the procedures that work in the conventional environs of a bustling east coast market just aren't applicable here. That certain independence that evolved here as a matter of survival still governs many aspects of state and local government while eschewing Federal oversight and a one-size-fits-all template.

Most of my concerns center around the possible loss of that certain independence needed to make EAS work here in the West as well as a misgiving that the FCC is overreaching its authority by trying to legislate the public warning activities of state and local officials.

In the past, EAS state chairs have asked the FCC for more specific information about the duties, roles and authority of the SECC and the state EAS Chair but instead of providing that information in this NPRM, it appears that the FCC has only added to the responsibilities of the SECC and the state chair. Not everyone will have the time or ability to produce the extra work required in this proposal, and the FCC doesn't offer any alternatives for the states where there is no active SECC, EAS Chair or state broadcaster association.

In addition, the Commission, in the NPRM, appears to conflate an EAS plan with a state or local public warning plan. EAS is one tool which is available to emergency officials for public warning. Many communities include provisions for using EAS in their public warning plans along with other tools from social media to cell phone messages to sirens. EAS plans should provide guidance for officials who want to issue an EAS activation within the procedures established by the community warning plan.

Finally, those involved in EAS should remember that an activation is just the doorbell for a disaster or emergency. It is not all the information or the end of information about a crisis but the beginning of an information process. In many cases coverage of the situation will be underway when the decision is made to issue an EAS activation. That coverage will continue after the activation and there will be an increased demand for detailed information from state or local officials. That information is better delivered through trusted local media and news providers rather than additional EAS activations.

My format for these comments is simple. The paragraphs where I have responses are presented in bold type with my comments in regular font. References are footnoted.

Paragraph #1. In this *Notice of Proposed Rulemaking (Notice)*, we take the next step towards strengthening the nation’s public alert and warning systems, the Emergency Alert System (EAS) and Wireless Emergency Alerts (WEA), as community-driven public safety tools capable of ensuring that the public is able to receive and properly respond to alerts issued by alerting authorities, including the President of the United States of America (the President), in emergency situations.¹ Our proposals fall into four categories: 1) improving alerting organization at the state and local levels; 2) building effective community-based public safety exercises; 3) ensuring that alerting mechanisms are able to leverage advancements in technology, including IP-based technologies; and 4) securing the EAS against accidental misuse and malicious intrusion.

Comment: What authority does the FCC have for making changes to state and local plans for alerting the public in an emergency? EAS is one option available to state and local emergency officials. How does the FCC expect to communicate the availability of EAS to state and local emergency managers, law enforcement and public safety officials? While many SECC's work to involve state and local officials in EAS plans, even after 20 years, there is still a great deal of reluctance to use broadcast resources for public warning, especially in the West. Emergency managers depend on FEMA for guidance and information on public warning using a variety of tools. Many officials make choices based on what they learn from vendors without understanding the technology they've acquired with taxpayer dollars. Cybersecurity issues related to EAS and broadcast will be difficult to regulate because the technology available continually advances beyond the FCC's ability to determine effectiveness and make a recommendation. In addition, many EAS participants will not want to reveal their cybersecurity policies in an open forum.

Paragraph #2. With respect to improving alerting organization at the state and local levels, we propose to adopt EAS designations that more accurately reflect the current roles and responsibilities of key EAS Participants.² We propose to streamline and update the State EAS Plan filing process by requiring State Emergency Communications Committees (SECCs) to file their Plans electronically in an online State EAS Plan filing system.³ We further propose to adopt a standard online template for State EAS Plan content, to allow the SECCs to file plans that fully detail their strategy for delivering Presidential and other life-saving alerts in an evolving technological landscape. With respect to building effective community-based alerting exercise programs, we propose to expand the EAS testing regime to include

“live” code tests as community public safety exercises, and to allow use of the EAS header codes and emergency alerting Attention Signal in Public Service Announcements (PSAs) by entities aiming to raise public awareness of, and alert initiator proficiency with EAS. We also emphasize the importance of reaching all community members in alerting exercises, including individuals with limited English proficiency and individuals with disabilities, and seek comment on how to best to ensure that community based exercises address the needs of these individuals

Comment: Adopting new EAS designations could be problematic after more than 20 years of usage of the current terms. Defining roles and responsibilities for all EAS Participants in new terms might contradict not only existing EAS plans and operations but also require state and local communities to revise their public warning plans. A standard template would have to be very general to accommodate a wide variety of practices from state to state. One size does not fit all. The use of "Live Code" tests should NOT be allowed. The need for "Live Code" tests ended with the development of CAP. The idea for Live Code tests developed because the programming of first generation EAS units was somewhat erratic and an argument could be made that annual Live Code tests assured broadcasters that their equipment was working properly. Most of the EAS equipment in use now is much more stable and programming can easily be checked on the computer "home page" for the EAS unit. Rather than serving an educational function, Live Code tests are confusing to the public, contribute to "alert fatigue" and damage the overall credibility of broadcasters in the community. EAS Participants can take part in community and public safety drills and exercises through the use of Common Alerting Protocol and FEMA's test bed.

Paragraph #3. We also seek comment on several issues that reflect the extent to which evolving technologies are changing the alerting landscape. Specifically, we seek comment on whether to retain our current forced tuning and selective override provisions in light of stakeholder feedback and advances in technology.⁵ Further, we seek comment on whether an EAS Participant cable or Internet Protocol Television (IPTV) provider should be required to deliver EAS alerts and tests over any channel, whether “programmed” or not, if it is controlled by the EAS Participant and viewable by the consumer.⁶ Next, we seek comment on the extent to which EAS Participants offer over-the-top (OTT) versions of their broadcast, cable and other services, including live, “on demand,” and pre-recorded services, whether real-time EAS alerts (and only real-time EAS alerts, rather than previously recorded alerts) are provided over these services in a manner

similar to the way such services are available over broadcast or set top box, whether consumers have any expectation that EAS would be available over EAS Participant OTT offerings, and what technical, policy or jurisdictional issues would need to be addressed in order to make EAS available over such services. Finally, we seek comment on the potential of technological advancements to improve alert accessibility.

Comment: The practice of forced tuning has caused more problems for cable subscribers than it has solved. Even EAS Required Weekly Tests can take over older cable boxes and cause them to lock up on the test message. Viewers blame emergency managers, local primary stations and even EAS Chairs for the problem. It will take years to replace every box currently in use and by then, there will be new technology that cable operators will have to provide customers.

Paragraph #4 With respect to alerting security, we propose to require certification of performance of required security measures pursuant to specific criteria that demonstrate implementation of the best practices recommended by the Communications Security, Reliability, and Interoperability Council (CSRIC) IV EAS Security Report.

Comment: Alerting security should be a responsibility for EAS Participants as well as the designated authorized originators listed in the state EAS Plan. These private enterprises and government agencies should not be required to provide the FCC with detailed information about their security practices when that information could be made public. Some of the practices outlined in documents like the CSRIC Report on Cybersecurity are already out of date and with the speed of technology, new recommendations from the FCC will be out of date by the time they are vetted and released. The standards set by the FCC should reflect the changing technology rather than describe specific steps that should be taken. State Broadcaster Associations, industry trade groups, publications and compliance programs should be leveraged to inform and educate EAS Participants in the importance of cybersecurity. The importance of cybersecurity should be emphasized in training programs for State and local government agencies with the authority to originate EAS activations.

Paragraph #4 Cont'd. We further propose to require reporting for false alerts and "lockouts." We propose to ensure that all alerts, especially those issued by the President, are properly authenticated and validated to protect against malicious or accidental misuse of alerting platforms. We also seek comment on whether there are additional measures that can leverage evolving technology to help make the EAS more secure and resilient, such as

adoption of a software-defined networking approach to EAS infrastructure design, either via centralizing configuration and management of EAS, or by virtualizing EAS functions.

Comment: The FCC should provide a specific definition for a "false alert" so EAS Participants know what exactly what to report. In cases where broadcast stations, cable operations and IPTV programming are run by automated systems, EAS participants are dependent on Authorized Originators to send properly coded tests. EAS Participants should not have to report tests which are improperly coded or relayed. FCC Regulations for satellite provides such as DirecTV should be revised to prevent a repeat of the March Required Monthly Test that was a special test for tsunami warnings issued for several Southern California coastal counties.¹ (March 23, 2016) On the surface, the test appears to meet the FCC's standard for a "false activation" because it was broadcast nationally on several DirecTV channels including channel 360 and did not include an adequate graphic to indicate that the message was a test.

Paragraph #4 also proposes reports for "lockouts" without defining lockouts. Cable provider lockouts occur commonly in Nevada but the cable provider has no way of knowing or documenting when and how these occur. As the SECC Chair, I have received numerous reports over the years of cable lockout problems. Early on, one cable provider had instructed their call center to direct callers with complaints to the Local Primary station listed on the text of the EAS message. The Local Primary station received so many calls the General Manager threatened to resign the station from the LP status. Emergency Managers and government officials have also reported receiving calls from customers with locked up cable boxes.

Paragraph #4 Cont'd. Finally, we seek comment on additional measures that may be necessary to ensure access to EAS devices and the Internet Protocol (IP) network that supports them are protected from malicious damage or compromise.

Comment: Due to the time and limitations in any FCC effort to research and vet cybersecurity practices, government recommendations will lag industry practices. EAS Participants and authorized originators should be free to use whatever practices they consider to be the best available to them to protect the integrity of their EAS devices and IP networks.

Paragraph #18. We seek comment on the designations we have identified, based on our analysis of State EAS Plans, as necessary for the successful distribution of Presidential, state and local EAS alerts. We also seek comment on whether additional EAS designations may be needed, for example to

encompass new roles EAS Participants may play in an evolving technological environment, non-traditional monitoring sources, CAP-formatted alerts, and a more accurate way to account for the significant number of viewers served by cable service providers. We seek comment on whether our proposed designations could be used as a uniform vernacular to clarify the roles of EAS Participants, including key EAS sources, in each state and territory.

Comment: Changing the EAS designations in the Part 11 rules would require significant changes to every state and local EAS plan as well as the procedures included in many state and local public warning plans and policies. While the FCC can estimate the cost of re-writing existing EAS plans to include the new designations, many SECC's have no way to pay for the cost of printing or distributing revised plans to all EAS Participants. There will need to be an extensive outreach campaign to retrain EAS participants and originators in the use of the new terminology. Many alert originators are just beginning to understand the EAS process and it could be confusing to them to learn the new designations. In addition, there is no way to estimate the cost of re-writing state and local public warning plans and most emergency management agencies are underfunded and not equipped to re-write, reprint and redistribute new public warning plans. Consideration should be given to the fact that many of these designations have been in use since 1997 and are part of the lexicon of public warning. While the FCC can regulate what terms broadcasters use, the FCC would have less success in changing the culture of the Emergency Management community. The confusion created over the change in terminology could cause delays and misunderstandings in the public warning process.

Paragraph #18 Cont'd. We seek comment on whether our proposed designations could be used as a uniform vernacular to clarify the roles of EAS Participants, including key EAS sources, in each state and territory.

Comment: Not all states have "State Primary stations" or a "State Relay Network" or the capability to originate a statewide EAS message through a State Relay Network. Many western states, including Nevada and California, do not have the ability to "daisy chain" EAS activations from a Primary Entry Point station through a group of stations from border to border. This may be part of the confusion the FCC has experienced trying to trace the path through which a Presidential level EAS message is delivered to individual stations. There are entire regions in the West which are RF isolated and have no outside broadcast coverage. While these areas do have internet service, the connection is volatile and unreliable in an emergency. The Part 11 rules should include provisions for states that do not have these capabilities.

Paragraph #19. Do the current EAS designations limit SECCs ability to adequately assign roles and responsibilities to EAS Participants in their respective states? Or, on the other hand, does the Commission currently maintain more EAS designations than are necessary for this task? We seek comment on how SECCs currently distinguish between PEPs and NP stations. Can one station have both designations? Do the meanings of these terms overlap, as they are used in State EAS Plans? If not every state contains a PEP station, do states designate as NP the station or stations in their state responsible for monitoring the nearest PEP? If so, how does this designation differ from that of an SP station? Are some SPs also denominated as NPs where they act as the primary entry point for both the presidential and some or all state and local alerts? If the definitions of the terms PEP, NP, and SP significantly overlap, is it appropriate that we simplify our EAS denominations by eliminating extraneous terms?

Comment: When it comes EAS Plans, including designations, one size does not fit all...the designations, alerting methods and denominations used in one state simply will not work in another state. Nevada's EAS Plan does not use the term "NP". The state does have two Primary Entry Point stations which are listed in the Nevada FCC Mapbook.

Paragraph #20. Do all state and local alerts originate at the same source?

Comment: Not all state and local alerts originate at the same source. State and local plans provide for originations at a variety of sources, depending on the state's regulations which govern emergency operations. In addition, states will have one or more National Weather Service offices which originate weather warnings. Nevada is a "Dillon's Rule" state. Cities, counties, townships and other local jurisdictions have the ability to declare an emergency and direct citizens to take protective actions without going through the Nevada State Division of Emergency Management, under the provisions of NRS 414. Local agencies listed in Section 2.3 of the Nevada EAS Plan have the ability to issue EAS activations. These agencies are encouraged to work within their own framework to develop local emergency Public Warning/Public Information plans which include the use of EAS. State and local officials not listed in the Nevada EAS Plan may request EAS activations from the nearest authorized agency or the state Division of Emergency Management. These provisions apply whether the activation is issued through the use of Common Alerting Protocol, which is the preferred method, or through the Legacy EAS, which is maintained as a backup for use when the internet is not available. When CAP is used, the EAS activation reaches all EAS participants almost simultaneously, rather than through the traditional "daisy chain".

Paragraph #20 Cont'd. If not, should we provide SECCs with terms that allow them to distinguish among the primary initiation points for the various types of state and local alerts that are initiated in their respective states? What would be an appropriate title for such designations? For example, would it be appropriate to designate the source responsible for originating an AMBER Alert as a State AMBER Alert Primary? Conversely, are some state or local alerts likely to initiate from more than one source, frustrating the use of a single designation?

Comment: The Nevada SECC does not this assistance.

Paragraph #20 Cont'd. Is it appropriate that we continue to use LP as the denomination for those stations that are monitored by PN stations?

Comment: Yes, LP or Local Primary is still a valid term for stations which act as a gateway to EAS. The old-style or Legacy EAS is still used in many places to issue public warnings. Not every state has a Common Alerting Protocol or CAP program to issue EAS activations and some states where a CAP program has been added have not providing information and training about CAP to state and local officials.

Paragraph #20 Cont'd. Is it appropriate that we continue to use the term PN for stations that are not monitored, in light of the fact that the Non-Participating National (NN) designation was deleted from the rules when the Commission required all EAS Participants to carry the Presidential Alert?71 If not, what designation would be preferable?

Comment: The Nevada EAS Plan uses the term "EAS Participants" because the Plan includes all entities required to participate in EAS, not just broadcasters. Using the term "PN" in an EAS plan could be confusing to entities which are not radio or TV stations.

Paragraph #21. *Uniform Vernacular.* Can the designations we propose be used as a uniform vernacular for referring to the roles of EAS Participants in State EAS Plans? CSRIC IV notes that there is "no one size-fits-all framework" that can be applied to every SECC because SECCs have limited resources to write State EAS Plans.

Comment: No. However, each state Plan should include a list of definitions so the users-the originators of EAS messages-as well as the participants understand their roles in responding to activations.

Paragraph #21 Cont'd. Although each SECC must create a State EAS Plan that addresses the needs of their respective states, fundamental components

of EAS are uniformly implemented nationwide. In our analysis, these commonalities are sufficient to support successful implementation of a uniform set of EAS designations, and the uniform designations that we propose to adopt are sufficient to describe states' varied approaches to EAS. We seek comment on this analysis, and on any idiosyncrasies in states' approaches to EAS that may merit special consideration.

Comment: Again, it is important to remember that EAS does not work the same in Nevada as it does in New Jersey.

Paragraph #21 Cont'd. We also seek comment on whether the same EAS designations can be used both for EAS Participants' role in transmitting the Presidential Alert, as well as for state and local EAS alerts.

Comment: Any changes made in EAS designations will generate a need to change not only state and local EAS plans but also state and local public warning plans. The resulting confusion could cause delays and misunderstandings in issuing public warnings and that could endanger the public we are trying to protect.

Paragraph #21 Cont'd. Finally, we also seek comment on CSRIC IV's conclusion that limitations on state resources frustrate the use of uniform designations. What additional resources, if any, would be necessary to utilize the EAS designations that we propose to adopt?

Comment: The problem is not just the lack of state resources, the lack of communication between the FCC, FEMA and the National Weather Service should be resolved before any changes are made to the current EAS designations. For example, the San Francisco Enforcement Bureau was unaware of the upcoming EAS NPT being conducted by FEMA. It should not be an SECC responsibility to inform FCC officials about FEMA tests. Similarly, SECC's are volunteer groups and members do not have the ability to re-educate all emergency management, law enforcement and public safety officials as well as the public about changes in EAS designations.

Paragraph #22. *Additional Designations.* Are additional EAS designations necessary to reflect changes in the alerting landscape?

Comment: No, not at this point. However, this may change as alerting technologies develop and improve. We should revisit this question in five (5) years.

Paragraph #22 Cont'd. Should EAS designations reflect the service provided by the designated entity in light of the fact that EAS Participants are no longer only broadcasters, and that many EAS Participants monitor non-

broadcast sources, such as satellite? For example, would it be appropriate for State EAS Plans to designate a "satellite NP?"

Comment: Current EAS designations should not be changed just because some state plans include monitoring assignments for non-broadcast sources. Not every state has access to satellite monitoring sources and the term "satellite NP" would be confusing to participants in those states as well as those who originate EAS messages.

Paragraph #22 Cont'd. Are EAS designations useful for CAP monitoring, or does the fact that most EAS Participants receive an EAS alert by monitoring a CAP feed preclude the need for designations?

Comment: State and Local EAS Plans provide information including CAP monitoring sources as monitoring assignments. The Plans should provide information on EAS designations for CAP monitoring assignments, such as a vendor's aggregator which acts as a backup to the FEMA aggregators. Not every state or local area EAS originator has access to a CAP product and even where CAP is available, an emergency or disaster could render the internet and CAP programs useless and new or extra EAS designations could be confusing to emergency officials who are trying to issue an EAS activation.

Paragraph #22 Cont'd. Further, we seek comment on whether any EAS Participants other than broadcasters (e.g., analog and digital cable systems, wireline video systems, wireless cable systems and direct broadcast satellite) are currently designated as key EAS sources. Should they be? We note, for example, that an individual cable headend can be responsible for delivering an EAS alert to as many as 803,000 subscribers.

Comment: The Nevada EAS Plan does NOT include any subscription services such as cable systems or satellite services as key EAS sources. Small and rural broadcasters cannot afford the monthly cost of these services. Cable services, direct broadcast satellite services and satellite internet service are not available everywhere in this state. SECC's need to consider the financial situations of small broadcasters as well as the availability of non-broadcast sources when determining monitoring sources for their EAS participants.

Paragraph #22 Cont'd. In light of these facts, we believe that the ability of cable providers, DBS providers and wireline video providers to effectively transmit an EAS alert would be crucial to the American public's ability to receive a Presidential Alert. Should we update EAS designations to add a category for cable and other Multichannel Video Programming Distributors (MVPDs) that monitor LPs but serve a significant number of people?

Comment: Before adding new EAS responsibilities to cable, DBS and wireline providers the FCC needs to consider how these services currently fit into the EAS architecture. For example, DirecTV carries a Required Monthly Test on ten percent of its channels every month, according to Part 11 Rules. Because DirecTV is based in El Segundo, California, which is in the Los Angeles County LECC, the RMT originates in the local sheriff's office but DirecTV carries the test on channels that cover the entire country. The Legacy EAS audio message is of poor quality while the Legacy text script lists the counties in the Los Angeles LECC without indicating that the counties are in California. Finally, the graphic used by DirecTV does not indicate that a routine test is underway. ¹

Paragraph #22 Cont'd. What about any other EAS Participant that serves a significant portion of the public? Should the EAS Participants with the most extensive coverage or subscribership in a state be given a specific EAS designation? Should they be considered key EAS sources, notwithstanding the fact that they are not monitored by other EAS Participants? Should entities other than broadcasters be monitored by EAS Participants?

Comment: These decisions should be made by the SECC or LECC.

Paragraph #22 Cont'd. We also seek comment on the extent to which non-broadcaster EAS Participants are members of or otherwise involved in the operations of their SECCs. What steps can we take to facilitate increased participation by representatives of these entities in the SECC and State EAS Plan process?

Comment: Representatives of these entities should be invited to participate in the SECC/LECC and state EAS Plan process. However, most cable operators and other non-broadcast providers are highly automated operations and it may be impractical for these companies to have representatives on state and local EAS committees, particularly committees in smaller or rural areas.

Paragraph# 25. We propose to convert the paper-based filing process for State EAS Plans into a secure, online process using a State EAS Plan Filing Interface (SEPMI) that would be designed to interoperate with the ETRS. The data collected in SEPMI would complement the monitoring assignment data already collected by ETRS. The data collected via ETRS and SEPMI would provide an end-to-end picture of the EAS distribution architecture for each state that could be used to populate an EAS Mapbook. We propose that the entry format for State EAS Plan data into SEPMI would be a pre-configured

¹ DirecTV March 2016 EAS RMT. Recording and photo of test available upon request

online template to be designed by the Bureau in collaboration with SECCs and other stakeholders, using a similar to process to the one we directed the Bureau to use when designing the templates for ETRS. CSRIC IV observes that State EAS Plans are inconsistent in both structure and content, and that “[t]his lack of consistency makes it difficult for the FCC to determine if a proper distribution network exists for . . . distribution [of the Presidential Alert] in each state.” We seek comment on this proposed online filing process below.

Comment: Broadcasters in Nevada have had serious and well-founded concerns about EAS and the activation process. Nevada did not make the state EAS plan available on the FCC website to protect the security of the plan and process and to make sure that new stations in the Nevada Operational Area made contact with the SECC so they could be included in the information distribution process and trained on use of the EAS plan. The FCC does not provide any assurance that the SEPFI would be secure while expecting stations to maintain a high level of security on their individual EAS equipment. The lack of consistency in State EAS Plans is partly the result of the difference in how EAS works in each state. As has been noted already, one-size-does-not-fit-all. Some state operational areas do not stop at state borders. Presidential Alerts will be transmitted from EAS participants in one state to participants in another state, making templates incomplete and confusing. The online filing process will be further complicated by the fact that not every SECC Chair is employed by a broadcaster with access to the FCC ETRS or the proposed SEPFI. Not all states have an active SECC or current EAS plan and no one available to submit the information to SEPFI.

Paragraph #26. *Costs.* We seek comment on the cost savings likely to result from adopting SEPFI.

Comment: SECC's are volunteer groups and most are not supported by industry or government funding. State broadcaster associations, grant funds or private individuals pay for most of the costs of meetings, plan writing and organization. Adopting the SEPFI will not provide a cost savings to the Nevada SECC. Instead there will be a cost for the time spent on activities related converting the current plan to the FCC template, getting the new plan approved by the SECC and the Stakeholders and then uploading the plan to the SEPFI. The SECC will need to find a way to make sure that all EAS participants are aware of the changes to the EAS plan. In addition, there will be the cost of printing and distributing the new plan to all EAS participants and providing updated training for the participants and EAS originators.

Paragraph #26 Cont'd. The EAS collection approved by the Office of Management and Budget (OMB) estimates that each State EAS Plan takes twenty hours to complete, and that the average hourly wage of an individual who completes a State EAS Plan is \$25 per/hour. Accordingly, OMB approves of our estimate that the production of State EAS Plans, nationwide, costs \$25,000.

Comment: The estimate of \$25,000 for production of state plans nationwide is not realistic. The cost of rewriting and updating Nevada's State EAS Plan exceeded \$10,000.² That figure does not include the cost of printing, making digital copies, distribution and training participants in setting up CAP equipment as well as training originators to in the use of the state's various CAP products.

Paragraph #26 Cont'd. How much reporting time and cost would be saved by bringing this process online if certain aspects of State EAS Plans could be automatically updated and populated by cross-referencing data already collected by the FCC, as recommended by CSRIC IV? For example, could SEPFPI be pre-populated with data contained in the Consolidated Database System (CDBS), Licensing and Management System (LMS), or other relevant databases?

Not all the information in an EAS Plan can be found in an FCC database. For example, in creating the Nevada EAS Mapbook, information had to be researched to find such basics as studio addresses, phone numbers, and current contact information. In addition, the FCC will have to provide SECC Chairs or members who are not affiliated with a broadcast station, with access to the SEPFPI or other data base to make the appropriate entries and changes at their convenience. Finally, not all SECC's will endanger the security of their EAS programs by putting their plans online.

Paragraph #26 Cont'd. We seek comment on CSRIC IV's recommendation. Would additional time and cost be saved by offering users drop-down menus for each EAS designation that could include every licensed EAS Participant in the state?

Comment: Again, EAS Operational Areas cannot be defined by state. The ETRS may provide enough information to help the SECC's build their own Mapbooks and provide the FCC with the information needed to show the distribution of National or Presidential level EAS messages.

² Washoe County Grant

Paragraph #26 Cont'd. We also seek cost on any legal fees that SECCs may incur in order to ensure compliance with our proposed State EAS Plan requirements.

Comment: It is alarming to know that SECC's might incur "legal fees" in bringing state EAS Plans into compliance with the FCC proposals. It is discouraging to learn that many SECC Chairs and members who are mainly volunteers and possibly state broadcaster associations would need to consult FCC legal counsels to meet the FCC's new requirements. This could also cause state and local emergency and public safety officials to back away from roles on the SECC as well as using EAS.³

Paragraph #26 Cont'd. In light of these potential improvements, we seek comment on whether any cost associated with requiring SECCs to reenter State EAS Plan data online would be significantly lower than those required to draft a new paper-based plan, and would be outweighed over time by the efficiency and/or other benefits (such as standardization of the information offered by the State EAS Plans, as described below) of an online, template-based process.

Comment: This proposal punishes states and SECC's which have recently updated their EAS Plans because they are now being asked to redo those plans according to a new template. In addition, online EAS plans are a security risk. Some SECC's are not willing to put information about their EAS procedures and processes online. The states where SECC's have recently updated their plans don't have the funding to rewrite that plan, even if it could be "standardized" and then print and distribute the new plan to EAS participants and originators as well as train participants and originators. States which have old plans or no plans at all might benefit from some kind of template or list of what information should be in a state or local EAS plan. However, standardization would not be a benefit because there are many variations in how EAS operates. For example, EAS participants are required to have CAP equipment but state or local emergency officials cannot be made to purchase a CAP origination product or use that product. The state plan for operating a Legacy style EAS will not be the same as the plan for a state that uses an elaborate satellite-based CAP EAS activated by a specific agency from a single source. The variations needed to create a standardized plan to accommodate such variations would not be an improvement over the existing state plans.

Paragraph # 27. With respect to the potential administrative cost savings, we anticipate that the proposed use of a template will facilitate the agency's review of the Plans.

³ Legal Fees?

Comment: Instead of a template, the FCC should provide a list of elements that should be included in an EAS Plan.

Paragraph # 27 Cont'd. Because the State Plans currently are submitted in differing formats, with different levels of detail and using inconsistent terminology, it can be time-consuming and difficult to conduct a review that ensures that each Plan contains the elements required by the rules, or that the Plans, in concert, will function efficiently and effectively as a nationwide daisy chain that can pass along alerts in a seamless manner.

Comment: Because SECC's are volunteer groups, they don't have funding to provide plans using specific computer formats or programs. The current variations in state plans are the result of a lack of direction from the FCC on exactly what information a plan should include so there will be variety in the plans. There are 50 states and not every state has an EAS plan so the agency review process should not be difficult or lengthy. Part of the problem with reviewing EAS plans may be related to the fact that there is no "nationwide daisy chain" to pass alerts to all areas of the country. No matter how much time the FCC spends reviewing plans for details on this process, it won't be found because, even with broadcast coverage and the internet, there is still no "nationwide daisy chain".

Paragraph # 27 Cont'd. We believe that with the use of an on-line template, the Commission's ability to review the Plans for compliance with the required elements and to identify potential problems that might hinder achieving the basic goals of the EAS will be improved by enabling us to conduct such reviews in a quicker and more accurate fashion. Facilitating the review process in this manner may not only improve the effectiveness of the EAS, but it could yield significant administrative cost savings to the extent that FCC review and approval of the Plans could be automated, at least in part. We seek comment on the likelihood and weight of such potential benefits.

Comment: FCC review and approval of a state EAS plan should not be an "automated" process. The process of delivering life-saving information should not depend on whether a plan has sequential bullet points or notes in a certain font.

Paragraph #28. *Standardization.* Would adopting a standardized online template dramatically increase the consistency and thoroughness of State EAS Plans? According to CSRIC IV, "SECCs need the resource of a federal government database to assure EAN dissemination." We seek comment on CSRIC IV's conclusion. On the other hand, CSRIC IV notes that there is "no one-size-fits-all framework" that can be applied to every SECC, because

SECCs have limited resources to write State EAS Plans. We seek comment on the extent to which a standardized template for State EAS Plans would contribute to improving the efficacy and standardization of EAS, as well as streamline the development of State EAS Plans by identifying the appropriate informational parameters for State EAS Plans. What resource limitations do SECCs encounter that potentially challenge their ability to produce standardized State EAS Plans, and what measures could the Commission take to help address these constraints?

Comment: There are many variations in EAS operations which make standardized templates difficult to use. For example, EAS participants are required to have CAP equipment but not every state or local emergency agency has a CAP origination product or uses that product. Not all EAS activations are made by a single state agency. Not all EAS plans are limited to public warnings for a single state. These variations will affect the portion of the plan that applies to the activation process. Some states have elaborate plans for public warning which incorporate EAS activations, WEA messages, telephone notification systems, internet components such as websites and emails, social media, and even community sirens. Other states have very basic public warning plans and some have nothing at all. Any approach the FCC takes must be flexible enough to accommodate SECC's operating in these various environments.

Paragraph # 29. *Structure.* What is the optimal structure for the SEPFI template? CSRIC IV recommends that the Commission should follow the matrix-based model exemplified by the Washington State EAS Plan to quickly, clearly, and efficiently identify the dissemination path of the Presidential Alert through each state. We seek comment on whether the SEPFI template should be based on the matrix used by the Washington State EAS Plan. Could this matrix be adapted to also illustrate the dissemination path for alerts formatted in CAP, including state and local alerts?

Comment: Nevada's EAS Plan provides a Mapbook as described in the Part 11 Rules.⁴ Various elements of the Washington State EAS Plan were incorporated in the 2015 rewrite of the Nevada EAS Plan but we updated and incorporated our FCC Mapbook rather than using a matrix similar to the Washington State matrix. The Mapbook has the advantage of identifying each broadcast station in the three Nevada EAS Operational Areas and which sources the individual stations are required to monitor.

Paragraph # 29 Cont'd. We seek comment on how the SEPFI template should identify EAS Participants. CSRIC IV recommends that EAS Participants be

⁴ Part 11 reference to the Mapbook

identified by FCC Facility ID as well as by a station's call letters in order "to reduce the need for frequent changes and updates to the database, and state plans due only to changes in call letters." We seek comment on CSRIC IV's recommendation, as well as on the optimal implementation of other structural elements of SEPFI.

Comment: EAS broadcast participants should be identified by call letters as well as their FCC Facility ID to reduce confusion but this should not be used as an excuse not to regularly update EAS Mapbooks. In addition to call letter changes, stations go off the air and new stations enter the market. Cable operators are also bought and sold regularly and their identifying information can change. The SEPFI should be accessible to SECC Chairs so they can update their plan information as needed.

Paragraph #30. *Security.* We seek comment on whether access to State EAS Plan data should be limited and secured, as CSRIC IV recommends, and on the steps we should take to safeguard against unauthorized access to SEPFI. Specifically, CSRIC IV recommends that the Commission should follow the Disaster Information Reporting System (DIRS) access model. We observe that DIRS utilizes a two layer access model and provides a secure methodology for multiple company employees to access the DIRS database, causing us to believe that the model could be easily adaptable to the State EAS Plan context. We seek comment on whether access to SEPFI should be based on access provisions for DIRS. Similar to DIRS, should SEPFI utilize a two-layer security system, requiring both a SECC ID and an individual User ID to prevent any unauthorized person from establishing a fraudulent User ID under the company's name? We seek comment on the identifying information that SECCs should be required to provide for the individuals authorized to access the SEPFI. Should such information include a contact name, affiliated company name, office and cell phone numbers, and an e-mail address? Should additional information be required?

Comment: The EAS participants covered by the Nevada EAS Plan as well as the emergency officials who originate EAS activations agree that the processes and procedures must remain secure. State officials have designated portions of the EAS Plan "For Official Use Only" out of concern for the security of EAS. SEPFI will need to have demonstrated security measures. Access should be limited to individuals with significant roles in the SECC's with a process for regular review of those individuals.

Paragraph # 31. What is the most cost-effective way to protect potentially sensitive data contained in State EAS Plans? We seek comment on specific

aspects of State EAS Plan data that may implicate national security or that otherwise could present security concerns when aggregated into a single database.

Comment: Some of those involved in EAS planning may think security concerns can be satisfied by redacting information such as back-door phone numbers. That really isn't enough to protect the integrity of the system. EAS activation procedures are fairly standard across all states, equipment types and participants. Someone with a basic knowledge of EAS procedures and operations in a broadcast facility could easily hack into the system, as has been demonstrated in the past.⁵

Paragraph # 31 Cont'd. Are there any particular aspects of State EAS Plans that should be made confidential in light of this sensitivity? Would it be sufficient to provide such data with the same level of confidentiality as test data submitted to the Commission via ETRS? If not, how should sensitive SEPMI data be protected? Even if data contained in an individual State EAS Plan may not be sensitive or present national security concerns, would State EAS Plan data become more sensitive when aggregated via SEPMI? If so, what additional protections should be afforded to aggregated data versus individual state data, and how could this be implemented? What costs, if any, would those additional protections impose on reporting entities?

Comment: All EAS Plans should be considered "confidential" and "For Official Use Only" to protect the public, especially as false EAS activations have become more frequent. The FCC is increasing the citations and fines it issues for false activations but cyber-criminals are often beyond the agency's reach. The result is a lessening of credibility in the real activations and a danger that the public will ignore vital information. Aggregated data provides a would-be spoofer with more information about the procedures needed to hack the EAS.

Paragraph # 32. *National Advisory Committee (NAC)*. The NAC succeeded the Emergency Broadcast System Advisory Committee (EBSAC) as the Federal Advisory Committee responsible for assisting the Commission with administration of the EAS. CSRIC IV recommends that the Commission should reestablish a NAC to facilitate communication with SECCs. We seek comment on CSRIC IV's recommendation.

Comment: A committee such as the proposed NAC could be an asset to SECC's and EAS Participants. The committee would need to include individuals with expertise in the

⁵ Zombie attack

broadcast, cable, wireline and satellite industries as well as the areas of public safety, emergency management and public warning. The committee members would also need to have experts in FCC legal matters to be able to properly advise those seeking information on EAS questions.

Paragraph # 32 Cont'd. Is there a need for additional and routine communication with another organization that is not already taking place today between the Commission and the SECCs?

Comment: Yes, there are no regular lines of communication between the FCC, FEMA and the National Weather Service, the major "consumer" of EAS. SECC's are often tasked with the role of educating state and local emergency management, law enforcement and public safety officials about EAS and public warning in addition to being the source of information and training for EAS participants. SECC Chairs and members are volunteers who are not always able to keep up with the expectations of the FCC. In addition, the FCC does not communicate the contributions of SECC members to the industry they regulate.

Paragraph # 32 Cont'd. Could a reestablished NAC be charged with initial approval of State EAS Plans?

Comment: Yes

Paragraph # 32 Cont'd. Could they be charged with performing outreach to SECCs to answer any questions about our new State EAS Plan filing process, and encouraging the timely completion of up-to-date State EAS Plans?

Comment: Yes

Paragraph # 32 Cont'd. With what other responsibilities should the NAC be charged? Should membership in the NAC continue to consist of SECCs Chairs, and representatives from the National Association of Broadcasters (NAB), the Society of Broadcast Engineers (SBE) and the NWS? If not, then how should the membership of the NAC be modified?

Comment: NAC should also include emergency agency officials such as representatives from the International Association of Emergency Managers, the National Center for Missing and Exploited Children, the FBI and the Police Chiefs and Sheriff's Associations.

Paragraph # 39. *A List of Entities Authorized to Activate EAS.* We propose that State EAS Plans should contain a list of all entities authorized to activate EAS for state and local emergency messages (e.g., Public Safety Answering

Points (PSAPs)) whose transmissions might be interrupted by a Presidential Alert. We seek comment on this proposal.

Comment: The list of entities authorized to activate EAS is a critical piece of any EAS Plan. SECC's should keep in mind that the role of a broadcaster or other EAS participant is not to initiate EAS activations but to provide a gateway to the community for emergency managers, law enforcement and public safety agency officials. Creating this list is not difficult and should be one of the first decisions made by the SECC. The Nevada EAS Plan includes a list of those authorized to issue EAS activations. The list was developed in conjunction with state and local officials, including officials from all three states covered by the Nevada EAS Plan. Considering that there has never been a national level EAS activation, the possibility that a state or local activation might be interrupted by a Presidential Alert is too low to be a hindrance to the developing an EAS plan.

Paragraph # 39 Cont'd. We note that the Presidential Alert is required to take priority over all other alerts, and as such, might interrupt alerts initiated by any state-based entities. We seek comment on whether state and local alert originators would have reason to activate the EAS during a national crisis concurrent with a Presidential Alert.

Comment: Again, in all the years of EAS, EBS and CONELRAD, there has never been a Presidential Alert. While the possibility is always there, it is so remote that this is not something that should delay or concern those developing state and local EAS Plans. However, the SECC's should keep in mind that the decisions to carry a state or local EAS message is voluntary and not every station will carry every message issued at the state or local level, while stations are required to carry National level tests and activations.

Paragraph # 39 Cont'd. If so, is it reasonable to require that all entities authorized to activate the EAS should be included in State EAS Plans? Would such an inclusion ensure that SECCs are able to conduct outreach to these entities in order to organize and coordinate emergency managers' alert messaging should a Presidential Alert become likely, and to mitigate the potentially chaotic alerting situation that could result from a national crisis?

Comment: Current EAS Rules provide the protocol for National level EAS activations. The President has FEMA and the FCC to support a decision to issue a National level EAS activation. The purpose of state EAS Plans is to provide the protocol and information for state and local officials to issue EAS activations at the state and local level. Training for

EAS originators should include information about the impact of a National level EAS activation during a state or local crisis or disaster.

Paragraph #40. *A Description of SECC Governance Structure.* We propose that State EAS Plans should specify the SECC governance structure used to organize state and local resources to ensure the efficient and effective delivery of a Presidential Alert, including the duties of SECCs, the membership selection process utilized by the SECC, and the administrative structure of the SECCs. We seek comment on this proposal in light of the expectations expressed by the Commission in the EAS Deployment Order for the administration and governance of SECCs, and subsequent observations by the Bureau, CSRIC IV and EAS stakeholders that the Commission should provide further guidance on the issue.

Comment: This level of organization is beyond the scope of many SECC's, which, for the most part, have been informally organized volunteer groups largely headed by long-time broadcast veterans supported by state broadcaster associations. On one hand, if the FCC requires this level of organization, some SECC's will expect government funding and support as the level of work will increase to levels beyond the ability of many SECC Chair or members. On the other hand, if the FCC mandates an increased level of organization and work roles, as volunteers level SECC's, state and local governments may realize the need for public warning and create paid positions for those who will be responsible for EAS, WEA and other public warning responsibilities.

Paragraph #40 Cont'd. We seek comment on whether by soliciting information on SECC administration in State EAS Plans, both in the form of comments in this docket and via the SEPFI, we can develop a basis for analysis of SECC administration that we may leverage to produce best practices for SECC governance or otherwise offer guidance to these volunteer committees, as requested by CSRIC IV.

Comment: Currently, it seems to me that EAS functions best in those states where there is a combination of strong leadership from volunteers with an interest in strong public warning policies, support from state broadcaster associations and cooperation from state and local emergency management, law enforcement and public safety officials who all come together in the SECC/LECC structure. The states where EAS does not function well appear to lack one of these critical pieces. It would interesting to see whether the information gathered by the FCC supports this theory.

Paragraph #40 Cont'd. Is there a need for a consistent, uniform governance structure for SECCs nationwide to ensure effective functioning of EAS?

Comment: No. Neither the FCC nor FEMA have the ability to mandate the use of EAS at the state and local level. Again, "one size does not fit all" and adding further regulations to EAS SECC's would not substitute for the lack of interest or commitment in the states where EAS is weak.

Paragraph #40 Cont'd. If so, what specific elements should such structure contain? Should the Bureau coordinate with SECCs to determine an optimal, uniform governance structure? We acknowledge that CSRIC IV did not find that a "one size fits all" approach would work for SECC governance. Given the disparity of size and resources from state to state, is there guidance we can issue that could clarify the roles and responsibilities of SECCs in a manner that would be useful in each state?

Comment: The FCC would be better off finding the states where they consider EAS to be weak and determining whether they are missing committed individuals to serve on the SECC, weak state broadcaster organizations or lack of interest from state or local government officials. The FCC could then seek assistance from groups such as NASBA or NAB to develop a stronger EAS.

Paragraph #41. *LECCs and Local Area EAS Plans.* Finally, we seek comment on the role that LECCs continue to perform, and whether they serve a vital role in the delivery of EAS messages to local areas.

Comment:

Paragraph #41 Cont'd. We seek comment on whether LECCs perform a function that requires a separate Local Area EAS Plan to be filed with the Commission, or whether Local Area EAS Plans could be subsumed within State EAS Plans. CSRIC IV observes that "[a]ll federal emergency alert systems, of which EAS is an essential component, depend on local distribution" and recommends that policies be developed "that will encourage local communications distribution systems to participate in the emergency warning process."

Comment: LECC's are a necessary component of EAS Plans in large states, especially Western states where there is no one single broadcast station which covers the entire state and no "daisy chain" to connect Operational Areas and relay information from one end of the state to the other end. LECC's allow EAS activities to be tailored specifically for the area and the local needs. Local plans should be incorporated into the state EAS plans. . LECC's should include the same kind of representation as SECC's--all those with an interest in public warning. That means the LECC will include broadcasters, cable

operators, IPTV providers, representatives of law enforcement, public safety and emergency management agencies. These officials know what their communities need and what works best in those communities.

Paragraph #41 Cont'd. Consistent with that observation, we seek comment on whether SECCs currently have the expertise to describe and plan local alerting responsibilities.

Comment: EAS plans do not take the place of community public warning plans. EAS is a tool that is available to state and local officials for warning and informing the public. State and local public warning plans designate who and how an alert message is presented to the public. Not every crisis, emergency or disaster will result in an EAS activation. It is up to state and local officials to decide whether a situation warrants an EAS activation and then follow the guidance in the EAS plan for issuing the activation. Properly staffed SECC's will have the expertise to develop plans for the use of EAS.

Paragraph #41 Cont'd. Do LECCs and Local Area EAS Plans provide an additional value not captured by SECCs and State EAS Plans?

Comment: Yes. The value comes in large states, like those in the West where there is no one single broadcast station which covers the entire state and no "daisy chain" to connect Operational Areas and relay information from one end of the state to the other end. Local plans can be tailored to accommodate unusual or unique situations of a particular area.

Paragraph #41 Cont'd. Does the size of some large states or the lack of SECC resources present challenges for comprehensive local planning?

Comment: Yes. Many smaller, RF-isolated areas in the West have developed their own systems for public warning which include provisions for EAS activations. The people who have developed systems aren't always organized into an "LECC" but they may be members of a Local Emergency Planning Committee or LEPC.

Paragraph #41 Cont'd. With SEPFI, information relevant to state and local plans will be filed in a single system. Will there be a continued need for local plans, assuming we move forward with implementing SEPFI?

Comment: The groups described above may or may not have formalized their plans into a written document. And where a document does exist, the availability of SEPFI may not be a benefit because their situation does not involve the traditional components of broadcaster, cable operator, IPTV provider and full-time government representatives.

Paragraph #43. *Expanded Emergency Alerting Procedures.* We propose that State EAS Plans should contain a comprehensive listing of procedures by which state emergency management officials, local NWS forecasting stations, and EAS Participant personnel transmit emergency information to the public during an emergency using regulated alerting tools (e.g., EAS and WEA) as well as any alternative alerting mechanisms (e.g., the NPR Squawk Channel, highway signs, and social media).

Comment: An EAS plan is not a community public warning plan. EAS is a tool for community officials to use according to their needs. Broadcaster, cable operators and other EAS participants do not originate EAS activations on their own but according to procedures in their EAS plans. Alerting mechanisms such as highway signs and social media are not regulated by the FCC and SECC's/LECC's have no authority to require or regulate the usage of these devices. Control of mechanisms such as "highway signs" varies between states and local governments as well as the type of highway sign. Some signs are controlled by highway departments, some signs are controlled by state troopers or state patrol. Other signs may be under the control of local transportation agencies. These agencies all have their own policies for the use of these signs in emergencies. SECC's/LECC's do not have the authority to make those policies part of a state EAS plan. State and local officials have the ability to incorporate EAS plans into their plans for using the various mechanisms available to them for public alerting.⁶

Paragraph #43 Cont'd. We propose that this revised language would subsume the Section 11.21 language that State EAS Plans include a "statement of any unique methods of EAS message distribution such as the use of the Radio Broadcast Data System (RBDS)." We seek comment on this proposal. Would this proposed rule change allow SECCs to adequately capture the different alerting methods that EAS Participants may leverage? Would it accurately reflect how emergency managers utilize the suite of alerting tools available to them?

Comment: This is an overreach of the FCC's authority and capabilities. SECC's/LECC's do not have any authority to incorporate procedures for issuing emergency information

⁶ "I have to admit that I have no experience yet on social media. Our IT and PIO folks are very "close hold" on use of it, so I have not leveraged the technology although I know it is important. As for Highway signs, I go through NDOT and am granted use of them in emergency situations (through them, not directly)."

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with these unregulated mechanisms in state and local EAS plans. EAS Participants are only responsible for following procedures to pass on EAS activations and warning information according to their state plans and the FCC rules. EAS Participants do not "leverage" different alerting mechanisms. The originators of the warning information are responsible for determining how many available mechanisms they use to issue warning information. Many state and local public warning plans already include procedures for using these mechanisms available in a particular community for public warning. In addition to not having the authority to write procedures for using these unregulated mechanisms SECC's/LECC's do not have the expertise in these areas and any plans they write may conflict with existing community warning plans and cause public confusion. State plans should include a reference to the use of community warning plans where participants and authorized originators may find more information on procedures for using alternate warning mechanisms available in their community. The FCC should work closely with FEMA to make sure their training for emergency managers includes information about the availability of EAS at the state and local level and to contact their SECC's and LECC's for more information.

Paragraph #44. In light of the monitoring assignments that EAS Participants used successfully during the first nationwide EAS test, and for the reasons provided below, we propose to encourage SECCs to specify a satellite-based source, such as the NPR Squawk Channel, in State EAS Plans as an alternate monitoring assignment for the Presidential Alert where it presents a reliable source of EAS messages. We seek comment on this approach.

Comment: This is an acceptable proposal and one that many states have already incorporated in their EAS plans. NPR stations are the backbone of EAS in many states, including Nevada. The only concern is whether NPR stations have access and the ability to monitor the Squawk Channel 24/7. Smaller stations may not have the equipment to maintain a separate audio channel just to monitor Squawk. Will the FCC require NPR stations to maintain information about EAS activities such as weekly tests on the Squawk Channel in their EAS logs? We would appreciate some clarification of this matter.

Paragraph #44 Cont'd. In the Second Report and Order, we observed that "the vast coverage area of satellite signal footprints would allow immediate alerting of substantial portions of the country with appropriate equipment" and that satellite systems are "generally immune from natural disasters and therefore may provide critical redundancy in the event that terrestrial wireline or wireless infrastructure is compromised." CSRIC IV notes that many EAS Participants are currently unable to meet their requirement to

monitor two sources for the Presidential Alert without recourse to such satellite-based communications technologies because of incomplete PEP coverage. NPR states that in instances where EAS Participants monitored both the Squawk Channel and their regular monitoring assignment, the Squawk Channel actually triggered EAS equipment ahead of the terrestrial relay network by 10-20 seconds in most cases. Does the NPR Squawk Channel provide a faster and equally reliable alternative to the daisy chain process?

Comment: The NPR Squawk Channel was a reliable source for the 2011 National EAS Test for many stations in the Nevada EAS Operating Area. My own survey conducted after the 2011 test showed that some Nevada stations received the test from the NPR stations before they received it from the PEP stations.

Paragraph #44 Cont'd. Do other satellite-based monitoring sources, such as EMnet? Are such technologies sufficiently reliable to serve as a primary or secondary EAS monitoring assignment for the Presidential Alert? If so, how should use of the Squawk Channel and other satellite-based communications resources approved by FEMA be codified in the Commission's EAS rules?

Comment: We do not have access to EMNet or satellite-based monitoring sources other than NPR to determine if such technologies could substitute as EAS monitoring assignments for Presidential level alerts. It should be noted that there are some areas in the west where satellite-based communications resources are not available and EAS participants are unable to monitor an internet connection for CAP EAS activations. The decision to use the Squawk Channel or other satellite-based systems should be left to the SECC's/LECC's as part of their EAS plans and not codified in the EAS rules. In addition, if the NPR Squawk channel is to be used as a national entry point, NPR stations should be required to document the weekly Squawk tests and other activities. This would give the SECC a better idea of the reliability of relying on the Squawk Channel for National-level EAS activations.

The other concern raised by the use of the Squawk channel is how "hubbed" NPR stations as defined in Part 11, should respond to a regional NPT.⁷ Multiple Nevada licensed stations serve as hubs for "satellator" stations in other states, like Colorado or Utah. That is, full power FM stations with Main Studio waivers carrying programming from the "hub" Main Studio in Nevada. These are NCE stations carrying NPR

⁷ §11.11(b) ... Analog and digital broadcast stations that operate as satellites or repeaters of a hub station (or common studio or control point if there is no hub station) and rebroadcast 100 percent of the programming of the hub station (or common studio or control point) may satisfy the requirements of this part through the use of a single set of EAS equipment at the hub station (or common studio or control point) which complies with §§11.32 and 11.33.

programming. The Main Studio stations which originate the programming have EAS equipment but they don't carry state or local EAS activations because the activations don't apply to audiences in Wyoming or California or where ever the satellator stations are located. However, when it comes to a regional NPT, which is an FCC "must carry" Event Code, how would they receive and rebroadcast it if the NPT is coded for one or more of the states in which they have a station but not the state in which the Main Studio and their EAS equipment is located? With the possibility of more regional NPT's and the ETRS requirement on the horizon, the FCC must provide some clarification on how these stations should respond to a regional NPT. The clarification should take into consideration that not all hubbed stations are NPR stations. Some carry religious or educational programming and the clarification should include the responsibility these stations have for handling an NPT.

Paragraph # 45. We also seek comment on whether and how alert originators use alternative alert distribution platforms, such as social media and highway signs, to supplement their traditional alerting channels. What is the extent to which emergency managers at the federal, state, and local levels currently leverage targeted feedback during emergency situations to disseminate and gather information? We seek comment on the extent to which social media has served as a reliable and effective source of crowdsourced data about developing situations. To what extent have alert originators begun taking advantage of social media's crowdsourced communications functionality in order to establish a real-time conversation with individuals and communities in crisis? Is the information generated by social media platforms reliable enough to be trusted by emergency managers, and if not, what challenges are involved? We seek comment on the steps that emergency managers currently take to confirm the accuracy of crowdsourced reports of emergency situations in order to act on, correct or clarify, or otherwise respond to such reports. Are the platforms secure enough to be used in emergency situations? To what extent has the use of social media platforms supplemented alert accessibility, either by providing translations of alerts in languages other than English or by providing alerts in multiple formats? To what extent has the personalization of alerts facilitated and encouraged public engagement and participation with alerting platforms, and, in turn, instigated more rapid protective action taking?

Comment: These questions should be posed to state and local emergency managers and other originators of public warning messages. The use of warning platforms from highway signs to social media vary from state to state as well as locally, depending on the technology available to state and local originators of public warnings. EAS plans are not community public warning plans and only provide information and guidance for the

use of EAS. The FCC should work with FEMA to establish communications with state and local emergency officials for their interest in and concerns about the use of warning mechanisms. SECC's/LECC's generally are not directly involved in the decisions about using these mechanisms. The state EAS plan should provide information about the use of a CAP program as an interface for CAP-enabled social media tools, programs for certain types of highway signs and other warning mechanisms. State and local officials should also be aware that adding these capabilities can result in higher costs for CAP programs.

Paragraph 45 Cont'd. We seek comment on whether state and local use of social media alerting tools should be included in State EAS Plans.

Comment: No, state EAS Plans should not include state and local use of social media alerting tools. The use of social media alerting tools should be included in the community public warning plan and the use of such tools should be left to the individual emergency officials tasked with issuing public warnings. The state EAS plan should provide information about the use of a CAP program as an interface for CAP-enabled social media tools, programs for certain types of highway signs and other warning mechanisms. State and local officials should also be aware that adding these capabilities can result in higher costs for CAP programs.

Paragraph 45 Cont'd. Further, we seek comment on the extent to which highway signs are used to retransmit EAS alerts formatted in CAP. If IPAWS-OPEN is capable of distributing CAP-formatted alerts to highway signs, do any barriers currently exist to such use?

Comment: Not every highway sign is a dynamic message sign, capable of carrying multiple messages. Not every highway sign with changeable message capability can be remotely activated and controlled. Even the most advanced highway signs are not capable of retransmitting an entire CAP EAS alert. Like WEA messages, there is a limit to the amount of text that can be shown on a highway sign. Nevada's Department of Transportation (NDoT) is looking into the use of the state's CAP program to carry certain EAS messages, particularly AMBER Alerts. The barriers to such use include the limits on the amount of text, determining who will decide what text should appear on the highway sign, the cost of adding the CAP sign interface to the existing contract with our CAP providers, the availability of internet service to the NDoT offices in remote areas of the state and the type of highway signs available to NDoT. NDoT does not control all the highway signs in the state. Local governments and the Nevada Highway Patrol also have access to highway signs.

Paragraph 45 Cont'd. We seek comment on what, if any, other alternative alerting systems alert originators are relying upon to supplement their use of EAS and WEA, and seek comment on our proposal that this information be specified in State EAS Plans.

Comment: This is information the FCC should solicit directly from state and local emergency officials, perhaps with the assistance from FEMA. The FCC should also keep in mind that EAS plans are not community public warning plans. Many states and local communities have specific public warning plans which provide information for the use of EAS, WEA, social media and other alternative warning devices down to and including sirens. Many state and local emergency officials, particularly in the West, are unaware of the availability of EAS and tools such as CAP and WEA messaging, at least until contacted by some from their SECC or LECC. It is not unusual for a state or local government agency to know that they have access to a CAP product and how it can be used. Even then, officials are reluctant to use EAS and CAP because they lack training and support from their supervisors and there is very little information on EAS available in the FEMA ICS training curriculum.

Paragraph # 46. Are there examples of best practices from our federal, state and local government partners for using crowd sourced information in an emergency situation? We observe that the Peta Jakarta initiative in Indonesia may provide an example of how a government alert initiator can leverage crowd sourced data to increase the overall effectiveness of alerts. The Peta Jakarta project piloted a program that monitored Twitter for posts mentioning the word for "flood" during flooding season. The system would automatically respond to such messages, asking whether the user saw flooding, at which point the user could confirm their report either by turning geo-location on in their device settings, or by responding, in turn, with the word for "flood." Peta Jakarta then incorporated the results of this information-gathering process into a live, public crisis map that depicted in real time areas in the city that were affected by flooding. To what extent would it be possible to leverage this model as a best practice for automated crowd sourcing of reliable emergency response data, using regulated alerting platforms in the United States? To what extent is a similar model to the one utilized by Peta Jakarta feasible using EAS and/or WEA, in order to provide an authoritative source of information? We observe that emergency managers used Twitter in a 2013 flood in Boulder, Colorado to prioritize deployment of satellite- and drone-based imaging platforms to the most severely impacted areas. To what extent could community feedback via EAS

or WEA be similarly used to prioritize emergency managers' information gathering efforts?

Comment: Given the FCC's emphasis that the criteria for EAS activations include an extreme or unusual, imminent threat to life and limb, EAS participants probably would not support using an EAS activation to drive community participation in a social media project during a disaster or emergency. The FCC should contact emergency officials for their interest in this project.

Paragraph #47. *Monitoring Assignments.* In this section, we propose rules and seek comment on issues designed to optimize monitoring assignments in State EAS Plans. First, we seek comment on methods of improving and clarifying monitoring assignments as currently implemented in State EAS Plans. Specifically, we seek comment on how to define operational areas,

Comment: SECC's/LECC's are better able to define operational areas than the FCC because they are familiar with the broadcast and NOAA Weather Radio coverage areas which are needed to define an operational area. This is particularly true in the West where geography affects radio signal coverage and some communities are RF-isolated and do not receive any outside broadcast signals.

Paragraph #47 Cont'd. [we seek comment] on whether to include CAP-based monitoring assignments in State EAS Plans,

Comment: The SECC's/LECC's have first-hand knowledge of whether a state or local government agency is using a CAP product to issue EAS activations so they should decide whether to include any state CAP product based monitoring assignments in State EAS Plans in addition to the FEMA aggregator. Because state contracts can vary from year to year, a CAP-based monitoring assignment can change from year to year.

Paragraph #47 Cont'd. [we seek comment]...on how to remove single points of failure from EAS monitoring assignments.

Comment: There is probably no one way to remove single points of failure from EAS monitoring assignments. Education, training, testing and communication are the best ways to prevent single points of failure. Even then, EAS participants change hands, broadcast stations are sold or change managers and staff and information is lost. The FCC should support industry trade groups like the state broadcaster associations and the International Association of Emergency Managers to promote stronger EAS awareness and participation.

Paragraph #47 Cont'd. Next, we propose to expand the monitoring assignments section of State EAS Plans to reflect more accurately the various methods that EAS Participants use to monitor sources for EAS. Specifically, we propose that State EAS Plans should include the extent to which monitoring assignments for state and local alerts differ from monitoring assignments for the Presidential Alert.

Comment: While the EAS Part 11 rules require two Monitoring Assignments, some SECC's/LECC's have determined that more than two monitoring assignments were needed to make EAS work in their states. The reasons for this vary and are another indication that a one size fits all" template won't work for every state. In Nevada, the SECC decided that there was a need for redundancy because utility systems often failed during bad weather and in disasters. Frequent wildland fires can destroy utility poles and knock out power, telephone, cable and internet services. The Nevada EAS Plan requires EAS participants to monitor two broadcast sources, the National Weather Service NOAA Weather Radio, the FEMA CAP aggregator and the AlertSense CAP aggregator. In addition, when FEMA added a new PEP station in Las Vegas, the Southern Nevada EAS Plan was updated to require participants to monitor a third broadcast source, KDWN, the new PEP station. The LP1 and LP2 stations did not want to step down from their roles so the area has three broadcast monitoring assignments as well as the Las Vegas National Weather Service NOAA Weather Radio. There is no PEP station coverage in the Eastern Nevada Operational Area so KNCC, the NPR station operated by the University of Nevada-Reno Board of Regents, was added to the monitoring assignment list prior to the 2011 National EAS test. And again, the existing LP1 and LP2 stations did not want to relinquish their roles as LP stations. The Elko National Weather Service NOAA Weather Radio remains as the fourth monitoring source. The PEP station for the Reno area, KKOH, has always been the Local Primary 1 station since the beginning of EAS in 1997 with NPR station KUNR as the Local Primary 2 stations and the Reno office of the National Weather Service NOAA Weather Radio as the third monitoring assignment for the Operational Area. There are significant gaps in NOAA Weather Radio coverage in the Eastern Sierra which particularly affect California communities which receive no broadcast coverage from other California stations and therefore depend on Local Primary stations in Nevada for weather warnings as well as other public warning messages. The Nevada EAS Plan includes guidance for California officials who want to issue EAS activations in communities east of the Sierra crest. These out-of-state officials must go through the Reno Local Primary 1 station to issue broadcast EAS messages until California develops their CAP system. A similar situation exists in extreme Southern Nevada where the communities in the Bullhead City area are RF-isolated from the rest of Arizona. The Eastern Sierra counties of Mono and Inyo do

not receive any outside broadcast coverage, including from Nevada's two PEP stations, and don't participate in test schedules for either the Western Nevada or Southern Nevada EAS Operational Area. They have been advised to develop their own EAS plan and form their own EAS Operational Area because the information they will file with the EAS Electronic Test Reporting System will not match the current written plans through no fault of their own. Only SECC's/LECC's have the knowledge of these local situations and the ability to provide an accurate list of EAS monitoring assignments for the FCC Mapbook. When the Nevada SECC wrote the first EAS Plan in 1996 we assumed we had the ability to require more EAS monitoring sources than the two required by Part 11. Some SECC's may not have considered whether this decision was within their scope.

Paragraph #47 Cont'd. Finally, we propose to clarify that EAS operations must be implemented in a manner consistent with guidelines established in a State EAS Plan submitted to the Commission.

Comment: Yes, the support of the FCC is necessary for EAS Chairs and SECC's/LECC's to make sure EAS participants comply with the guidelines and requirements of the State EAS Plan. It has been helpful that the FCC has cited stations for not following the Nevada EAS Plan.

Paragraph #48. We propose that State EAS Plans should continue to divide their respective states into geographically-based operational areas, specifying primary and backup monitoring assignments for EAS Participants to receive the Presidential Alert in each operational area. We seek comment on this proposal.

Comment: The division of Nevada into three Operational Areas has worked well for us and the SECC's/LECC's have been able to specify multiple monitoring sources for Presidential Alerts in each operational area. Because the state is so large that there is no overlap of broadcast signals and utility services such as power, phone, internet and cable are subject to failure, it is important that each area be able to operate on their own without depending on outside sources.

Paragraph #48 Cont'd. We seek comment on whether dividing states into operational areas facilitates EAS administration by more clearly defining responsibilities for EAS alert distribution by geographic area for key EAS sources.

Comment: Yes. This has worked for Nevada.

Paragraph #48 Cont'd. CSRIC IV notes a lack of uniformity among State EAS Plan definitions of “operational areas,” and recommends that such service areas should be uniformly identified. We seek comment on CSRIC IV’s conclusion.

Comment: Operational areas should be defined with maps and physical descriptions, including information on features which limit broadcast coverage such as mountain ranges or the lack of NOAA Weather Radio transmitters. There is no one single reason for separate operational areas but each plan should present the elements that define the areas.

Paragraph #48 Cont'd. Is it possible to standardize the definition of an operational area nationwide? If so, how should SEPFI define operational areas?

Comment: No, the various reasons for an operational area probably can't be made to fit into a national standard. But there should be a standard requirement for maps and reasons for the operational area.

Paragraph #48 Cont'd. Could the definition of an operational area have implications for President’s ability to transmit a regional Presidential Alert?

Comment: Yes. An operational area may be so isolated that there is no way to receive a regional or national Presidential Alert either over the air or from the internet. This may change in the future but the current state of the technology in the West is such that internet service is very fragile and there are communities that are dependent on a single provider and when that provider goes down, service may not be available for weeks at a time.⁸

Paragraph #49. We propose to remove the current restriction that State EAS Plans include monitoring assignments for Presidential Alerts formatted in the EAS Protocol only. We seek comment on this proposed change. As technologies evolve, the Presidential Alert may not necessarily be issued using the EAS Protocol, and we seek to remain technologically neutral so that our rules may evolve correspondingly.

Comment: This restriction may no longer be valid because FEMA is scheduled to launch the next National EAS Test on the CAP platform. Technology restrictions should be lifted but only with the understanding that EAS participants have the option of receiving and sending the Presidential level messages with the technology that is available to them.

⁸ Assemblywoman Robin L. Titus, D-38

Paragraph #49 Cont'd. We seek comment on the extent to which EAS Participants are prepared to receive a Presidential Alert formatted in CAP.

Comment: Most EAS Participants are prepared to receive a Presidential Alert in the CAP format but there are those participants who are so isolated that they do not have internet capability or their service may not be available at the time the Presidential level message is sent.

Paragraph #49 Cont'd. We observe that new alerting protocols may be developed in the future, and we seek comment on whether removing this technology-specific limitation from our rules better prepares the nation for receiving the Presidential Alert.

Comment: Technology limits are one reason why the FCC and other government agencies lag behind private industry resources. However, the FCC also has to make sure that all EAS participants have the capability to use new technology before mandating specific uses.

Paragraph #50. CSRIC IV observes that, as currently written, State EAS Plans reflect the requirement in the EAS rules that each EAS Participant monitor at least two sources for the Presidential Alert by including two monitoring assignments for the Presidential Alert, but also observes that merely listing two monitoring sources may not serve to remove single points of failure from EAS alert distribution where, for example, both monitored EAS sources, in turn, monitor the same source. We agree with CSRIC IV's observation and seek comment on whether we should require that the two sources that EAS Participants are required to monitor for the Presidential Alert as specified in their State EAS Plan, cannot, in turn, monitor the same key EAS source. Are there further steps that we can take to remove single points of failure within the EAS Protocol-based alert distribution architecture, and from EAS in general, and if so, what are they?

Comment: It is not always possible, particularly in Western states, for EAS participants to receive one or more sources for the Presidential Alert. The FCC should work with FEMA and the National Weather Service to make sure that there are multiple sources available for participants to receive Presidential level EAS messages.

Paragraph # 51. We further propose that State EAS Plans should include the extent to which monitoring assignments for state and local alerts differ from monitoring assignments for the Presidential Alert.

Comment: A requirement that state or local EAS plans differentiate between monitoring assignments for state and local alerts and Presidential Alerts would complicate current requirements and mean that plans would have to be rewritten. The extra requirements will result in confusion for EAS participants, particularly non-broadcast participants and new participants who don't have the benefit of years of involvement in EAS. That could lead to confusion and conflicts in the information the public receives. There is no benefit to such a change.

Paragraph # 51 Cont'd. To what extent do states' Presidential and local alerting strategies differ?

Comment: Presidential alerts originate from FEMA and are delivered nationally. There is no role specified in Part 11 for the state to play if and when a Presidential alert is issued. The state EAS plan provides guidelines for issuing state and local EAS activations.

Paragraph # 51 Cont'd. We seek comment on whether the importance of transmitting state and local alerts to communities has had any impact on the ability of the community to deliver a Presidential Alert.

Comment: In some Western states, the impact of repeated weather warnings for non-life threatening weather conditions has led to a lack of credibility in EAS warnings. A Presidential alert delivered during the Western "monsoon season" would probably not result in people taking any protective actions.

Paragraph # 51 Cont'd. Has the use of alternative alerting structures led to innovations that augment the ability of EAS Participants to efficiently and effectively receive and retransmit a Presidential Alert during a national crisis?

Comment: State and local officials in Nevada are just now seeing the difference between the use of CAP EAS activations and the old style Legacy activations. They are also seeing the impact of WEA messages on the public. Many members of the public have objected to the use of WEA messages for AMBER Alerts particularly at night. The concerns have officials questioning the value of WEA messages.⁹

Paragraph # 51 Cont'd. Alternatively, has the use of such alternatives resulted in lack of use of the EAS and lack of proficiency in its use by local emergency managers and EAS Participants?

⁹ May 16 email from NVBA

Comment: No.

Paragraph # 51 Cont'd. In either case, would including in State EAS Plans a description of the extent to which a state's alerting strategy for the Presidential Alert differs from their state and local alerting strategy serve to facilitate dialogue at the state and local level about the extent to which new and emerging technologies could be used to improve the ability of EAS Participants to receive and retransmit the Presidential Alert?

Comment: No, such a discussion would be beyond the understanding of most EAS participants and authorized originators. It would lead to confusion and conflicting messages to the public. Such discussions should be part of the community public warning plan.

Paragraph # 52. In order to address all State EAS Plan monitoring requirements in the same Section of Part 11, we propose to relocate State EAS Plan requirements currently contained in Sections 11.52 and 11.55 to Section 11.21.146 We propose to merge those requirements into one Section by amending Section 11.21 to state that EAS Participant monitoring assignments and EAS operations must be implemented in a manner consistent with guidelines established in a State EAS Plan submitted to the Commission, and by removing that language from Sections 11.52 and 11.55. We seek comment on whether this proposal is consistent with CSRIC IV's recommendation that the Commission amend Section 11.21 to state that "[s]tates that want to use the EAS shall submit a State EAS Plan."

Comment: The Nevada EAS Plan includes an FCC Mapbook which meets the criteria set by the Part 11 rules. The Mapbook took hundreds of hours to develop because the Nevada Operational Area covers Nevada and parts of California and Arizona. A mapbook can be easily developed by states where the Operational Area is confined within their geo-political borders. It may not be within the FCC's authority to require that states that want to use the EAS shall submit a State EAS Plan.

Paragraph # 52 Cont'd. We seek comment on whether the data submitted in State EAS Plans must accurately reflect actual monitoring assignments for the EAS Mapbook to be a useful tool to analyze and address issues with EAS functionality.

Comment: Yes, the data in the EAS plans and the mapbook must be accurate not only for analyzing EAS functionality but to make sure stations don't get cited for violating state EAS plans.

Paragraph # 52 Cont'd. Would State EAS Plans be more up-to-date, inclusive, and effective given the improvements we propose in this Notice? If so, does this militate for the use of State EAS Plan provisions other than monitoring assignments (e.g., expanded emergency alerting and testing procedures) as mandatory instructions for participation in EAS?

Comment: EAS at the state and local level is a voluntary function. It doesn't matter whether the FCC provides a standardized template and provides the SEPFI for submitting the template, someone still has to produce an EAS plan. That "someone" is usually an EAS SECC or LECC with the support of a state broadcaster association and/or other EAS participants, originators and associated trade groups. There is no way to force compliance in states where this organization and support are lacking. The FCC should work with FEMA to determine what states lack EAS plans and find ways to support efforts to develop plans for those states.

Paragraph # 52 Cont'd. We seek comment on whether, contrarily, failing to require EAS Participant monitoring assignments to be implemented pursuant to State EAS Plans would risk making the state EAS planning process a hollow exercise without bearing on the actual organization of EAS.

Comment: In states with no EAS plan or organization, broadcasters and other EAS participants still have to monitor sources for required EAS tests and Presidential alerts. The FCC needs to find out how these participants determine their monitoring assignments and satisfy their documentation requirements. The FCC should work with FEMA to combine their expertise on EAS and offer resources to support the organization of SECC's/LECC's to develop satisfactory EAS plans. If these states have AMBER Alert plans those plans can be a starting point for a full EAS plan.

Paragraph # 53. A Description of "One-to-Many, Many-to-One" Alerting Implementation. We propose that State EAS Plans should describe the extent to which alert originators coordinate alerts with community feedback mechanisms, such as 9-1-1, to make full use of public safety resources.

Comment: It is beyond the authority of the FCC to require that SECC/LECC's place such requirements on state and local EAS originators as well as EAS participants. EAS participants provide alert originators--community officials authorized to issue EAS activations--with access to the public through broadcast, cable and IPTV audiences. Neither the EAS SECC's nor the EAS participants are in a position to seek access to the number or content of 9-1-1 calls nor the response the 9-1-1 operators provided the callers. The Nevada EAS plan recommends that alert originators involve Public

Information Officers in the activation process and be prepared to deal with the response from both the public and the media to any EAS activation.

Paragraph # 53 Cont'd. We seek comment whether 9-1-1 call takers are well positioned as a nexus of communications between first responders and communities in crisis.

Comment: The roles and responsibilities of 9-1-1 call takers are better left to state and local officials to define within the framework of their own public warning plans. The decision of whether to issue an EAS activation should not depend on the availability of 9-1-1 call takers to respond to inquiries from the community. Not every PSAP has resources such as extra call takers but EAS plans should provide reminders that PSAP's and 9-1-1 call takers need to be aware of the possible impact of EAS activations. The FCC should work with FEMA to seek information on the role of 9-1-1 call takers as a nexus of communications between first responders and communities in crisis.

Paragraph # 53 Cont'd. We seek further comment on whether, notwithstanding that this has been true in the context of state and local emergencies...

PSAP's and 9-1-1 call takers need to be aware of EAS activations particularly where emergency officials can issue CAP activations directly from the scene of an incident with their laptops, tablets or smart phones, instead of requesting activations through a PSAP or 9-1-1 center. This is a training issue related to state/local emergency plans.

Paragraph # 53 Cont'd. ...it would also be the case during a national crisis giving rise to a Presidential Alert.

Comment: It is most likely that a national crisis would generate a lot of media coverage before the Presidential level EAS is issued. The national media has changed considerably since the Cold War era which produced the Presidential EAS alert. Now, the 24/7 cable news networks and social media outlets provide constant coverage of national and international events.

Paragraph # 53 Cont'd. We seek comment on the extent to which alert originators are prepared to gather, analyze and act upon community feedback in crafting and initiating alert content.

Comment: This information should be solicited directly from state and local emergency managers, law enforcement and public safety officials. Most state and local emergency officials will have a process for this built into their public warning plans. Those plans will include a provision for community feedback about the nature of any warnings issued for

a disaster and whether those warnings were credible and reliable. These plans will also include any use of social media in a community's public warning plans.

Paragraph # 53 Cont'd. Relatedly, we seek comment on the extent to which first responder entities, such as PSAPs, are currently authorized as alert originators, and, if desirable, on the steps that we can take to facilitate increased participation.

Comment: This information should also be solicited directly from state and local emergency managers, law enforcement and public safety officials. This will vary depending on the public warning plan used by a specific state or local government agency. State and local EAS plans generally include a list of agencies authorized to issue EAS activations but the decision to activate is left to the particular agency acting within the framework of their particular plan. That agency plan will provide guidance on whether PSAPs or other staff are authorized to issue EAS activations or alerts through other warning mechanisms.

Paragraph # 53 Cont'd. Can PSAPs play an important role in ensuring that alerts are accessible or available in languages other than English if the 9-1-1 call(s) giving rise to the alert suggest that such measures could facilitate alert interpretation and impact?

Comment: Yes but repeat EAS activations in foreign languages may not be the best way to distribute critical information to non-English speaking populations. Foreign language stations need to develop their capability to communicate emergency information to their audiences in their broadcast language. In addition, emergency officials should be able to access local language banks and other resources for adequate and accurate translations of critical information. Many state and local public warning officials are working on ways to develop a process for providing warning information in other languages predominant in their communities. There is a significant need for training non-English speakers because few countries have national policies for providing public warnings.

Paragraph # 53 Cont'd. Finally, we seek comment on the impact that any potential next generation television capabilities may have on the ability to support two-way communications.

Comment: It is difficult to predict at this point how next generation television capabilities could affect two-way communications between emergency officials and affected populations. It will be many years before these capabilities are available to most households. People in rural areas are still watching analog TV's. Some cable

viewers don't want new cable boxes because they don't like having to learn how to use a new remote control device for their television, no matter how attractive the features and benefits. Not everyone wants emergency information. In addition, state and local officials will need to be trained in the use of these new technologies. Considering how little training has been made available in the use CAP, it could be many, many years before we see the full capability of next gen TV at work in a community disaster.

Paragraph # 55. *Testing Procedures.* We propose that State EAS Plans should continue to contain procedures for special EAS tests, as required by Section 11.61, including the new "live code" tests that we propose to include as part of the Commission's Part 11 testing regime below.

Comment: "Live code" tests create confusion and damage the credibility of the EAS. They were started as away to check the programming of older, first generation. Some of that equipment had a tendency to unexpectedly drop or lose programming and "live code" tests were seen as a way to detect the programming problems rather than actually checking the programming. The newer, current generation of CAP-compliant equipment is more stable and does not have the same programming issues. It is also easier for non-technical staff to check programming. State and local emergency officials should conduct routine tests to maintain their proficiency. IPAWS and vendors have the ability to use a special "test bed" during disaster exercises and drills using actual Event Codes and messages.

Paragraph # 55 Cont'd. We also propose that State EAS Plans should be required to include procedures for Required Monthly Tests (RMTs), Required Weekly Tests (RWTs) and national tests designed to ensure that the system will function as designed when needed for a Presidential Alert. We seek comment on this proposal.

Comment: The Nevada EAS Plan includes an annual Required Monthly Test schedule which incorporates state and local emergency officials as test originators. The test schedule is available on the Nevada Broadcaster Association website.

Paragraph # 55 Cont'd. We seek comment on whether specifying the schedule, origination source, and script are necessary components of the successful operation of RMTs, RWTs, and national tests, and on whether SECCs already communicate this information to EAS Participants in their state even where it is not included in State EAS Plans.

Comment: Yes, organized scheduling of Required Monthly Tests prevents confusion, allows participants the opportunity to make sure their equipment is functioning properly

and provides EAS originators the opportunity maintain their skills and ability to issue EAS activations.

Paragraph # 55 Cont'd. Further, we propose that this section of State EAS Plans should include a description of the extent to which State/Local WEA Tests are utilized by alert originators as a complement to the Presidential Alert distribution system to verify that WEA is both capable of disseminating a Presidential Alert, and informing the public that a Presidential Alert is presently being delivered over EAS. We seek comment on these proposals.

Comment: The cell phone industry has not provided Federal, state and local officials with a means to send WEA test messages. WEA is a separate function from broadcast, cable and wireline so any agreement for testing would have to come from the cell phone providers.

Paragraph # 56. We seek comment on whether State EAS Plans should include a listing of the manners in which a state or community conducts such live code tests. Should the Plan include the language of the notification to be provided during the test (e.g., audio voiceovers, video crawls) to make sure the public understands that the test is not, in fact, a warning about an actual emergency? We also seek comment on whether the notification requirement should incorporate the new accessibility component of Section 11.51 of our EAS rules, which establishes requirements for the visual message portion of an alert. Should the Plan contain pre-test outreach procedures to coordinate with EAS Participants, state and local emergency authorities, and first responder organizations and the public?

Comment: I do not support the proposal for "live code" tests of any kind. They are confusing to the public and damage the credibility of EAS.

Paragraph # 57. We seek comment on whether each of these testing procedures continues to play an important role in ensuring system readiness for a Presidential Alert. In particular, with respect to State/Local WEA Testing, we seek comment on whether the ubiquity of smartphone technology makes it likely that, in the event of a Presidential Alert, members of the public would likely have their smartphone closer at hand than any traditional EAS source.

Comment: The cell phone industry has not yet agreed to regular test schedules for WEA messages. And while many consumers have smartphones, not everyone has them and not everyone wants one. Some people who have smartphones turn off the WEA

messages after one or two activations. Most consumers with smartphones rely on them for information, news and entertainment and likely to receive word of a Presidential Alert on their smartphone before receiving it from a traditional EAS source.

Paragraph # 57 Cont'd. If so, we seek comment on whether it is likely that the first medium through which members of the public would receive notice that a Presidential Alert is occurring is through their smartphone, notwithstanding the fact that the actual alert may be aired over EAS.

Comment: Yes, it is most likely that consumers who carry smartphones will receive notice of a Presidential Alert on their smartphones. However, with the limits to the number of characters in a WEA message, these consumers are likely to spend a lot of time looking for confirmation of what is happening and a source of more complete information about the Presidential Alert. That delay in acquiring complete information could be avoided if smartphones also came with an activated FM radio chip.

Paragraph # 57 Cont'd. We seek comment on whether this makes State/Local WEA Testing procedures a necessary component of state-level preparedness to receive a Presidential Alert.

Comment: The cell phone industry would have to agree to participate in a state or local testing program and that agreement may or may not be part of the state/local EAS program. There would have to be a reporting mechanism similar to the ETRS which EAS participants will use to report the results of the next National EAS test. This would provide information for the FCC to judge whether the cell phone industry has the ability to receive information about a Presidential Alert. There would be questions about whether this information would be available to SECC's/LECC's and how they could use that information in their state EAS plans.

Paragraph # 57 Cont'd. If so, should the manner in which a state or community uses smartphone technology, through WEA or otherwise, to augment an EAS alert be included in State EAS Plans?

Comment: It may be too early to consider including WEA and smartphones in state or local EAS plans because not everyone carries or wants a smartphone or WEA alerts. In addition, cell phone coverage is less than complete in Western states and cell phone

systems can be easily overloaded or lost during a crisis or disaster. Consideration must also be given to states where laws prohibit drivers from using their cell phones while driving. The WEA tones are very distracting but a driver cannot even pick up the phone to check the message without risking a citation. A driver who receives such a ticket is likely to ignore the next WEA message or turn off the message capabilities on their phone.

Paragraph # 58. Security and reliability are critical components of an alerting system, especially one that may be used by the President. A public safety communications system that is vulnerable to mistaken use or malicious intrusion poses as much of a threat to public safety as an efficient, secure system offers a benefit. A compromised alerting system could be used to misdirect public safety resources, or lead members of the public into harm's way. Accordingly, we propose to require certification of performance of required security measures, as discussed in greater detail below. Should State EAS Plans also describe the measures EAS Participants have taken to comply with our proposed security requirements?

Comment: State EAS Plans, especially those which are public documents, should not describe measures EAS participants or alert originators have taken or could take to comply with security requirements, either proposed or already in effect.

Paragraph # 58 Cont'd. Should State EAS Plans include any additional information regarding their approach to cyber risk management, including if and how they use tools like the National Institute for Standards and Technology (NIST) Cybersecurity Framework (NSF), or other risk management construct, and how this has been extended to their emergency alerting system?

Comment: EAS plans should not provide specific information about cybersecurity. Instead, EAS plans should inform participants including alert originators, that security measures need to be taken to protect the integrity of EAS. The FCC, FEMA and the National Weather Service should work with SECC's/LECC's, state broadcaster associations, cable associations, emergency management, public safety and law enforcement associations to help provide EAS participants with information on the latest cybersecurity practices and steps they can take to protect their facilities and EAS.

Paragraph # 58 Cont'd. In the alternative, do the certifications proposed below provide adequate disclosures regarding EAS Participants' security efforts, obviating the need for the separate inclusion of such information in State EAS Plans?

State and local EAS plans should include a reminder to EAS participants including those who originate EAS activations that there is a need for adequate cybersecurity measures.

Paragraph #60. We propose to amend our EAS rules to authorize EAS Participants to conduct periodic EAS exercises using live event header codes, provided that they are used in a non-misleading manner, and that steps are taken to prevent public confusion prior to and during the test....We seek comment on these proposals.

Comment: There is no need for a program of EAS testing using live or real event codes. This practice was started because certain older generation EAS equipment would lose programming and it was difficult for non-engineer station staff to tell that equipment programming had changed. Live codes were instituted when certain states noticed that stations which thought they had programmed commonly used Event Codes in their equipment were unable to receive and rebroadcast those alerts. Next generation, CAP-compliant EAS equipment does not have the same problem and the manufacturer of the older problem equipment is no longer in business. In addition, the newer EAS equipment is easier for non-technical staff to operate and check programming. EAS testing using live codes is not only unnecessary but confusing to the public and damages the credibility of EAS.

Paragraph #61. *Benefits.* Would expanding our Part 11 rules to permit live code testing facilitate opportunities for system verification, proficiency building, and raising public awareness about EAS? We seek comment on whether, as certain SECCs claim, using a live code enables more realistic system verification because use of a live code is the only way to determine how EAS equipment will react to certain live event header codes that are not activated by default in EAS equipment. Further, we seek comment on whether live code testing promotes alert originator proficiency by providing an opportunity for alert originators to practice selecting an appropriate event code for simulated emergency events, and practice crafting a message that informs the public of the occurrence of that specific event that would effectively motivate the public to take protective action. We also seek comment on whether live code testing facilitates opportunities for EAS stakeholders to raise public awareness about EAS. Some SECCs requesting a live code waiver state that their live code testing will coincide with "Severe Weather Preparedness Week" scheduled in their state, and the live code presents a visual crawl that is distinct from the visual crawl associated with

test messages that better facilitates schools' businesses' and homeowners' own emergency preparedness drills. We seek comment on this claim. Finally, we seek comment on the extent to which live code testing offers superior public awareness and proficiency training opportunities than RMT and RWTs because they present testing conditions that more accurately reflect actual emergency conditions.

Comment: Live code tests are not necessary. FEMA's IPAWS Joint Information Test Command (JITC) lab offers EAS participants including alert originators, the opportunity to practice sending messages with real Event Codes in a "test bed" environment which includes the ability to see how EAS equipment responds to their activations. This testing capability can be set up to operate remotely within a "webinar" type presentation so EAS participants do not travel to the IPAWS Lab in Maryland. Live code testing does not provide "superior" public awareness of emergency messaging. EAS participants already conduct routine EAS tests which provide an opportunity for public education.

Paragraph # 62. *Notification and Outreach.* We seek comment regarding the steps that EAS stakeholders could take to minimize any public confusion that may result from live code testing. We seek comment on the methods used by EAS Participants to inform the public that the Attention Signal they hear does not indicate an actual emergency. Is it necessary to codify specific notification procedures, or are available best practices sufficient? We seek comment on the extent to which outreach to first responder agencies has mitigated public confusion about the use of live codes. How can first responder organizations, such as PSAPs, be utilized as an integral part of an alerting exercise in a manner that harnesses their potential as a nexus for emergency information? We seek comment on whether our proposed rule adequately circumscribes the use of the emergency alerting attention signal in a manner that maximizes its utility while minimizing over-alerting and public confusion.

Comment: Live code testing is confusing to the public which has already been desensitized to EAS alert tones and messages by overuse of weather warnings. For example, there were more than 90 EAS messages issued by the Reno office of the National Weather Service in May of 2015. Almost all those messages were issued in the mid to late afternoon, with more than 10 activations issued in a three hour period on one afternoon. That is a tremendous burden for broadcasters, cable operators and IPTV providers to carry for messages about "bad weather" including rain, thunder and lightning. Adding more tests with real Event Codes will not make a difference in current

public perceptions about EAS and may result in problems for the system including the loss of Local Primary stations out of concern about over-use of EAS.

Paragraph # 63. Frequency of Live Code Testing. How often should live code testing occur?

Comment: Never. State and local officials have the ability to use FEMA'S IPAWS JITC and their own CAP programs to simulate EAS and WEA messages in a "test bed" during community exercises. Community officials would be able to avoid the publicity programs to tell people that an upcoming alert is actually a test and avoid any costs for overtime staffing of PSAP's and 9-1-1 call centers.

Paragraph # 63 Cont'd. We observe that some EAS stakeholders have requested a waiver of the Commission's EAS rules to conduct live code tests as often as annually. We seek comment on whether the removal of this regulatory burden would lead EAS stakeholders to engage in more frequent live code testing.

Comment: The FCC should work closely with FEMA and the IPAWS office to use the CAP "test bed" in the IPAWS office rather than sending a live code test.

Paragraph # 63 Cont'd. If so, we seek comment on whether we should limit how often live code tests may occur in a particular geographic area, and, if so, on what that limit should be.

Comment: The FCC also needs to consider the broadcast coverage of a geographic area where a live code test waiver will be issued. Not enough information about these tests have been shared with neighboring Operational Areas.

Paragraph # 63 Cont'd. We observe that our EAS rules currently allow special tests to be conducted as often as daily. Are there steps that we should take to prevent over-alerting and alert fatigue? On the other hand, should SECCs be required to conduct live code EAS tests at certain predetermined intervals in order to ensure that emergency managers in each state have opportunities for system verification, proficiency training, and public awareness outreach?

Comment: Live code tests are not only unnecessary and confusing to the public, if these tests were determined to actually be necessary for training and education, so many would be needed for training each emergency official with the authority to issue EAS activations live code tests would have to be conducted weekly in large Western

states. CAP programs provide alternatives for training officials and providing public outreach.

Paragraph #64. Cost Savings. Would this action remove regulatory burdens for EAS stakeholders and reduce costs? We seek comment on the anticipated extent of these cost savings. We also seek comment on any operational concerns that EAS stakeholders believe to be implicated by this proposal.

Comment: If live code tests were mandated EAS participants including alert originators, would have to find funding for the public education campaign. Broadcasting would not be the only industry affected. Staff in PSAP's and 9-1-1 Call Centers would have to be trained to deal with the live code test and extra staff would be needed to take calls after the test. These steps are impractical for the unnecessary live code test.

Paragraph # 65. EAS Participants may use Public Service Announcements or obtain commercial sponsors for announcements, infomercials, or programs explaining the EAS to the public to increase awareness of the EAS. Our rules state that “[s]uch announcements and programs may not be a part of alerts or tests, and may not simulate or attempt to copy alert tones or codes.” Since that time, we have granted requests for waiver to use the emergency alerting Attention Signal in PSAs to entities other than EAS Participants in order to raise public awareness about EAS. The Commission has also granted similar requests from FEMA to use the emergency alerting Attention Signal in WEA PSAs provided that the PSA presents the tones in a non-misleading manner. In light of the value of the success of these PSAs, in the WEA Fourth NPRM, we proposed to allow the use of the WEA Attention Signal in WEA PSAs, subject to the same limitation.

Paragraph # 66. Consistent with our approach to the use of the emergency alerting attention signal in PSAs in the WEA Fourth NPRM, we propose to amend Section 11.46, which currently prohibits the use of the EAS alert tones or codes in otherwise permitted PSAs, to allow federal, state and local government entities to issue PSAs that use the EAS header codes and Attention Signal, provided that they are presented in a non-misleading and technically harmless manner. In so doing, we allow entities other than EAS Participants to conduct EAS PSAs, and allow such PSAs to be used in connection with testing exercises that may include use of live event codes and the emergency alerting Attention Signal. We seek comment on these proposals. We seek comment on whether limiting the use of PSAs to EAS Participants and federal, state, and local government entities offer an

optimal balance between ensuring that the emergency alerting Attention Signal is not over-used, on the one hand, and ensuring that the public is familiar with the EAS and understands its public benefits on the other hand? We seek comment on whether this is the appropriate subset of entities who should be able to use the emergency alerting Attention Signal in PSAs.

Comment: Since the late 1950's, several generations of Americans have been trained to recognize the distinct two-tone attention signal used for EAS messages. Using the attention signal in PSA's also risks losing EAS credibility but with more people moving away from traditional broadcast media, there may be a need to reeducate people about the alert tone. A reasonable option might be to work with broadcasters, cable operators and IPTV providers to run a series of PSA's once a year during a designated emergency preparedness week.

Paragraph # 67. How can we ensure that PSAs designed to raise public awareness about EAS do not have the unintended consequence of causing public confusion about whether the use of the EAS header codes and Attention Signal signify that an actual emergency is occurring?

Comment: Concern about confusion over PSA's is legitimate as well as concern about over-use and de-sensitizing the public. EAS participants and alert originators should be encouraged to take advantage the current schedule of routine tests to educate the public about EAS and alerting messages.

Paragraph # 67 Cont'd. We seek comment on whether the Commission should require entities that wish to use PSAs to coordinate with other EAS Participants and state and local authorities and the public to minimize any confusion. As with the use of the EAS header codes and Attention Signal for live code EAS tests, should entities seeking to use the EAS header codes and Attention Signal for EAS PSAs provide notification during the PSA to make sure the public understands that the use of the EAS header codes and Attention Signal does not, in fact, signify the occurrence of an actual emergency? Should entities seeking to use the EAS header codes and Attention Signal for use in EAS PSAs be required to coordinate the test among EAS Participants and with state and local emergency authorities, as well as first responder organizations such as PSAPs, police and fire agencies?

Comment: Live code testing should not be a part of routine EAS testing. With many Western states having multiple public safety agencies, coordinating live code tests, preparing staff and the public for the test event and adding extra staff to handle calls from the public could become a drain on financial resources.

Paragraph # 68. We seek comment on whether there is a negative public perception of EAS that deserves to be redressed, and on whether the public has a clear understanding of what EAS is. In its requests for waiver, FEMA stated that “many people are startled or annoyed when hearing the WEA Attention Signal for the first time.”

Comment: Yes, there is a negative public perception of EAS particularly here in Nevada where the National Weather Service issues frequent, multiple warnings for thunderstorms. Some of these warnings are carried as WEA messages so yes, people can be doubly annoyed. Nevada also has a law banning motorists from using their cell phones while driving so anyone who receives a WEA message risks a citation if they pick up the phone and try to retrieve the message. Highway Patrol warns that the few seconds of distraction from looking at a cell phone can result in a serious or fatal traffic accident, even though the WEA message may contain critical information.

Paragraph # 68 Cont'd. We note that the WEA Attention Signal is a loud, attention-grabbing, two-tone audio signal that uses frequencies and sounds identical to the distinctive and familiar Attention Signal used by the EAS. We seek comment on whether alerts become more annoying when multiple alerts are received at the same time on a variety of platforms. We also note that the Commission has received a number of complaints from individuals stating that the EAS Attention Signal is intrusive, and annoying.

Comment: Recent AMBER Alerts issued in Nevada generated a lot of negative feedback from the public. People found the attention signal obnoxious and annoying but they were also frustrated by the lack of specific information in the WEA message which has a short character limit. People also complained about the lack of consistency in the instructions for turning off the WEA messages and indicated that the process of finding information on their service provider's website was bothersome and complicated.

Paragraph # 68 Cont'd. Accordingly, we seek comment on the public perception of EAS, and the EAS Attention Signal. To this point, we also seek comment on whether PSAs would be a useful tool for changing public perceptions about EAS for the better by, for example, providing them with information on how EAS saves lives and helps people to protect their property.

Comment: PSA's along won't be enough to change people's minds about the effectiveness of EAS messages.

Paragraph # 68 Cont'd. As a testament to the success of the WEA PSA in this regard, FEMA offers that it has earned over \$30 million in free media, and that the WEA PSA is currently the most played FEMA PSA. We seek comment on the success of any EAS PSAs that EAS Participants have issued pursuant to Section 11.46. Further, we seek comment on additional steps that EAS stakeholders could take to improve the efficacy of EAS PSAs at raising public awareness about, and shifting public perceptions of EAS. What effect on public perception would likely result were EAS PSAs allowed to be conducted in connection with EAS tests, including live code tests?

Comment: The frequency or equivalent value of a PSA does not mean it was an effective PSA. If the WEA PSA were a success, TV stations, emergency managers, law enforcement and public safety officials, even the Governor's office, would not receive calls and complaints from those upset, confused or annoyed about WEA messages, including those which are issued overnight.¹⁰ Adding EAS attention tones to PSA's or conducting live code tests would produce more complaints and result in more people turning off the WEA features in the cell phones.

Paragraph # 70. We seek comment on how to best ensure that community-based alerting exercises address the accessibility needs of individuals with limited English proficiency and individuals with disabilities. Specifically, we seek comment on the extent to which live code testing may be used by local emergency managers to target the particular needs of communities with accessibility needs, such as individuals with sensory disabilities and individuals with limited English proficiency, and on how to better prepare such communities for emergencies through PSAs.

Comment: Few local emergency managers in Western state are willing to conduct live code tests targeting special needs communities. These groups have specific requirements and concerns during emergencies and disasters. Preparing special needs communities for a live code test could be a lengthy process. Preparing foreign language communities for a live code test would be complicated because many foreign countries do not have a community warning system so there is no equivalent to EAS in their culture. Educating these populations about EAS and WEA involves more than just translating a PSA. Defining a wildland fire to someone who has grown up in a South Seas island environment or a tsunami to someone who has grown up in a desert environment present unique challenges and an education process that has to include more than just information about an alert tone. The FCC, FEMA and the National

¹⁰ May 2016 Nevada AMBER Alerts

Weather Service should work with EAS participants to develop an educational process which takes all these needs into consideration.

Paragraph #71. Accessible Live Code Testing. Is an accessible video crawl or full-screen replacement slide sufficient to overcome the public's preconception of the meaning of the Attention Signal?

Comment: No, because not everyone sees the full screen slide and video crawl often moves too quickly to catch the words which say that a test is being conducted. If a foreign language message is added, people won't wait to see if the crawl runs a second time. Instead, they will call 9-1-1 to get information.

Paragraph #71 Cont'd. Are there additional steps that we should take to ensure that the public is not misled or confused by state use of live codes for testing purposes? For example, might persons with cognitive or intellectual disabilities benefit from color-coding a border around different categories of warning, such as weather, terrorism, or earthquake?

Comment: Coloring coding borders or graphics is not enough to help define tests. Vendors would have to produce products that meet FCC standards and even then the variations in the way TV's are set up would make it difficult to distinguish colors. People who are blind, color blind or have intellectual or cognitive disabilities might find distinguishing the colors difficult.

Paragraph #71 Cont'd. What technical and operational issues might be implicated by such an approach? We observe that many entities requesting waiver of our Part 11 rules in order to conduct a live code test do so because of their concern that a "test" code might not be relayed through law enforcement communication, thus weakening the designation of a "statewide exercise." In this way, does live code testing facilitate the transmission of EAS tests over a larger variety of media, and therefore improve their accessibility?

Comment: States which are not capable of conducting statewide tests are not in a position to conduct a live code test. Not all law enforcement, public safety and emergency management agencies can easily be made aware of the live code test and that will create confusion in the public and lead to a lack of credibility in EAS alerts.

Paragraph # 72. Further, we observe that live code testing often does not occur in a vacuum, and is requested to supplement larger efforts to raise public awareness of emergency response resources, such as during a "Severe

Weather Preparedness Week.” Does live code testing promote and facilitate such community engagement?

Comment: With so many EAS activations issued for weather warnings in Western states, there is no need for an additional activation in the form of a live code test.

Paragraph # 72 Cont'd. Do such events provide opportunities for those that might not normally be able to access the emergency alerting attention signal to create community response mechanisms that ensure that some community members, such as those who do not speak English or those with disabilities, are not left behind during an emergency? What role should community stakeholders, including those who deliver alerts as well as those who benefit from the receipt of alerts, play in the design, execution, and subsequent evaluation of live code tests and subsequent alerts?

Comment: Many state and local emergency managers work to make sure special needs community members are not left behind during an emergency. FEMA and the Red Cross already work to make sure everyone has access to critical information. The FCC needs to develop a relationship with FEMA and the National Weather Service so they are not duplicating current efforts to inform the community, including those with special needs.

Paragraph # 72 Cont'd. How can the Commission work with public safety officials, SECCs, EAS Participants and other stakeholders to facilitate the inclusion of the entire community, including non-English speakers and those with disabilities, in such planning, execution and evaluation?

Comment: The Commission should work with FEMA and the National Weather Service to determine what efforts are underway now to provide an entire community with critical information. EAS Chairs and members of SECC's and LECC's often attend multiple meetings on the same topics. Rather than add another layer of meetings, the FCC should determine what efforts are underway now and see where there are gaps in EAS representation.

Paragraph # 72 Cont'd. Would the Commission’s proposed testing rules provide transparency and allow collection of best practices results that would enhance this facilitation role? How should broadcasters and other EAS Participants, as well as PSAPs and emergency managers that coordinate live code tests, be equipped with the tools necessary to serve multilingual communities and communities of individuals with disabilities? Could tests be designed to allow broadcasters and other EAS Participants to share resources during an emergency, such as non-English speaking personnel and air time,

to ensure that non-English speakers maintain access to EAS and emergency information?

Comment: Live code tests are not necessary and EAS participants and alert originators should not be required to take part in tests they consider unneeded and confusing to the public.

Paragraph # 73. How, if at all, should the Commission conduct outreach and gather feedback on the ability of public safety officials, SECCs, EAS Participants and other stakeholders to plan and execute community tests and exercises to reach populations with limited English proficiency and individuals with disabilities?

Comment: Most community tests and disaster drills are conducted with the assistance of FEMA and the Red Cross. The FCC should coordinate with FEMA, the Red Cross, the National Weather Service and other disaster agencies to determine the need and role for EAS tests during disaster drills.

Paragraph # 73 Cont'd. How should the Commission evaluate the results?

Comment: The Commission should work with FEMA, the Red Cross, the National Weather Service and other disaster agencies to come up with a plan for evaluated the needs of the community and the results of the community tests. The EAS tests conducted in these community drills should be evaluated against the community public warning plan.

Paragraph # 73 Cont'd. What steps, if any, should the Commission take in response to any such information it may collect? For example, should the Bureau conduct outreach to EAS Participants and other stakeholders in particular regions that have non-English speaking communities to gather information about best practices for ensuring alerts reach non-English speaking communities? What accountability measures should be instituted or encouraged if the tests fail to reach citizens due to their lack of English proficiency or disability?

Comment: Any information the Commission gathers during community disaster exercises should be shared with the EAS Chairs, state and local officials involved in the disaster exercise. State and local officials can then meet with various community members, EAS participants and alert originators to determine where changes are needed. Accountability measures should take into consideration the roles of each EAS Participant. Broadcasters should not be punished, for example, for choosing to run live

coverage of a disaster and convey detailed emergency information to special needs communities rather than running a "canned" EAS message with its limited text and lack of details.

Paragraph # 74. Accessible PSAs. We seek comment on whether EAS PSAs in languages other than English are particularly effective at informing individuals who would otherwise not be able to understand the contents of an English-language EAS message about how to respond should they hear the common alerting Attention Signal. We note that notwithstanding the ubiquity of the EAS and its familiar audible signal, the tpt/ECHO waiver request indicates that at least one population, i.e., recently arrived individuals with limited English proficiency, was not familiar with the EAS Attention Signal, and needed the PSAs to become familiar with these sounds and their meaning.

Comment: Educating and training special needs communities on how to respond to the EAS alerting signal has to involve more than just playing the actual alert signal. Many foreign countries do not have a community warning system so there is no equivalent to EAS in their culture. Educating these populations about EAS and WEA means teaching them about unfamiliar events. Someone who has grown up in a South Seas island environment has no understanding of a wildland fire with 50 foot flames that moves at 40 miles an hour. Someone who has grown up in a desert environment has no way to understand the dangers of a tsunami. This lack of cultural understanding presents unique challenges for foreign language populations. The FCC, FEMA and the National Weather Service should work with EAS participants and community officials to develop an educational process which takes all these needs into consideration within the framework of the community's public warning plan.

Paragraph # 74 Cont'd. Are there other groups or individuals for which EAS PSAs would provide this value? Would it be helpful if EAS PSAs were made available in American Sign Language (ASL) in order to better meet the needs of certain individuals with hearing loss? To what extent can PSAs transmitted over the Internet, including via OTT services, offer enhanced utility and accessibility to the public, as well as to individuals with disabilities?

Comment: There are many states where community public warning plans already take account of special needs communities such as the deaf and hard of hearing or blind. Some organizations already offer PSA's on public warning plans in ASL. The FCC should encourage EAS participants to work with FEMA, the Red Cross and other community

groups to determine what needs exist in their communities and what options exist for providing information to those populations.

Paragraph #79. We seek comment on the propriety of our selective override and forced tuning rules in an evolving alerting landscape. Specifically, we seek comment on whether the Commission's existing cable force tuning and selective override provisions continue to serve the public interest, and whether technological advancements should impact that analysis.

Comment: Problems with force tuning and selective override have resulted in the decision by some cable operators to not carry state and local EAS activations. As a result, cable subscribers do not receive EAS activations if they are not watching a local channel when the activation is issued. That leaves some community members unaware of possible emergency information

Paragraph #79 Cont'd. We seek comment on the extent to which alerting functions incorporate (or are being modified to incorporate) advanced technology, in order to improve functionality and better support the conveyance of emergency information.

Comment: Cable operators cannot instantly replace their subscribers' equipment as new technology evolves and products come on the market. Equipment is usually replaced on a rotating basis and as older products fail, depending on whether the customer has opted for the company's maintenance policy or has the money for new equipment. Even then, there are subscribers who do not want their equipment replaced because they don't want to spend the time learning to operate the new system.

Paragraph #79 Cont'd. Finally, we seek comment on technical issues that may suggest that forced tuning has an unacceptably negative impact on consumers viewing force tuned broadcast and cable channels.

Comment: Cable operators who choose to carry state and local EAS activations describe complaints from viewers who object to having programs interrupted by activations or whose system lock up after an activation. Some operators say informally that they have lost subscribers as a result of problems from force-tuning.

Paragraph # 80. Impact of Technological Advancements. In light of technological advancements or other factors that may impact cable operators' capacity to implement selective override, should selective override remain an acceptable voluntary EAS alternative for cable systems, or should all cable system providers refrain from interrupting local broadcast

programming where the broadcast provider is participating in the EAS system and thus transmitting state and local EAS alerts?

Comment: Broadcast TV stations in Nevada have expressed their frustration with cable operators who do not have the equipment to selectively override local broadcast channels. As a result, cable operators who carry EAS activations interrupt local news coverage of weather events which typically generate EAS activations in the late afternoon and early evening. The news coverage providers more detailed information from staff meteorologists, live shots from affected areas, maps and other graphics. Cable subscribers lose up several minutes of this critical information as a result of the EAS activation. The cable providers do not have the ability to upgrade all customers' set top boxes. As a result of the concerns raised by local broadcast stations most cable providers in the Nevada Operational area do not carry state or local EAS activations.

Paragraph #80 Cont'd. Alternatively, are there reasons why smaller cable systems (e.g., those serving fewer than 5,000 subscribers), would need the selective override option, in contrast to the larger systems, and would a regime that maintained the option for smaller cable systems only – while larger systems uniformly delivered broadcast-originated state and local EAS alerts, news or weather-related emergency information – make sense? If smaller cable providers need this exception, should it be permanent? If not, for how much time should smaller cable systems fit into an excepted category?

Comment: There are several smaller cable providers in Nevada who do not have the financial resources to add new equipment. Several local cable companies are community operated, including the cable system in Virginia City, Nevada. Comstock Cable TV has approximately 30 subscribers and operates as a non-profit business. The area is mountainous, surrounded by steep, rocky terrain unsuitable for receiving broadcast signals and without the southern exposure needed for satellite service. Any new requirements for equipment would place a severe financial strain on the company and put the cost of service out of reach for most of the subscribers.

Paragraph # 81. Have technological advancements enabled cable operators' ability to selectively override broadcast signals? For example, cable services now benefit from the introduction of digital technologies, including "smart" STBs. How do these and related technologies affect the use of selective override? Have STB and headend technologies advanced to the point where selective override on a channel-bychannel basis can be readily programmed into cable equipment, without imposing undue burdens on cable providers?

Is it reasonable to assume that all content delivered by STB shall be interruptible, such that EAS warnings could be delivered in banner form or otherwise for all content (without directing the subscriber to another channel through force tuning or by other means)? Have technological advances in EAS equipment made it easier and more affordable to engage in selective override? We note in this regard that some parties maintain that force tuning via the STB is not the only way that MVPD EAS Participants can display EAS information.

Comment: Next generation STB's could include the ability to provide direct warnings to homes and business in a targeted area and possible even provide return or two way communications with affected residents. However, it is impractical to expect cable companies to immediately and instantly provide all subscribers with new STB's. Cable companies usually replace equipment on a rotating basis and they will need time to educate subscribers about the new boxes. Some subscribers may not want the new boxes out of privacy concerns or because they are reluctant to learn how to use their new equipment.

Paragraph # 82. Does the widespread and growing availability of programming distributed by IP-based networks, including STBs and "smart" TVs capable of "on-screen" graphical user interface (GUI) user input, suggest that greater user control with respect to EAS acknowledgement and/or feedback should be supported or encouraged? Do our current cable force tuning and selective override requirements affect emergency operators' ability to leverage these technological advancements to rapidly and efficiently obtain feedback from consumers, in response to EAS messages? What regulatory obstacles exist that might unnecessarily impede greater consumer interaction with received alerting messages? Would facilitating this interaction introduce the capability for crowdsourced citizen feedback during emergencies and disasters that would improve community, state and national response? What possible consequences or potential for abuse, if any, would need to be addressed in harnessing this capability?

Comment: The FCC should work with FEMA to determine emergency officials' concerns about the role of next generation STB's and how they would handle feedback and response to EAS activations.

Paragraph #83. *Delivery of EAS Messages through Different Platforms.* Looking only at the content of the EAS messages transmitted through the EAS system, are there or can there be any differences between the EAS

messages that consumers see when viewing the alert on their local broadcast channel as compared to the EAS alert transmitted by a cable system provider? Are those EAS messages always identical in a given geographic area regardless of whether it is transmitted over the air or through a cable provider's system? Should they be identical? Specifically, has the implementation of Common Alert Protocol (CAP)-based alerting made it more likely that cable providers can relay more detailed EAS alert information (e.g., based upon the enhanced text in a CAP message) than what has been possible in the past or via the traditional broadcast-based EAS architecture?201 If so, have cable providers been originating EAS messages that have a greater emergency response value when using the force tuning option? Is there a significant difference in the accessibility of alerts offered by broadcasters and cable providers?

Comment: Any differences in the text of an EAS messages between cable systems and broadcast channels would depend on whether the EAS activation was received in CAP or the Legacy platform.

Paragraph #83 Cont'd. To what extent, if at all, do cable franchise agreement provisions govern whether cable operators may participate in selective override where local broadcast providers are delivering state and local EAS alerts, news or weather-related emergency information? How should any differences in the actual EAS messages impact our analysis of the force tuning and selective override issues? Does the variation stemming from selective override complicate response from community emergency managers?

Comment: Cable franchise agreements vary from state to state. Some states still allow local communities to craft their own cable franchise agreements while in Nevada, cable franchise agreements are made at the state level according to the provisions of NRS 711, Video Service. The Legislature determines the requirements for cable providers based on what actions residents request lawmakers to take.

Paragraph #89. In order to implement our statutory obligations in a manner consistent with the public interest, we seek to understand whether and how the way in which consumers view content has changed consumer expectations for how they will receive EAS messages. In this regard, we seek to ensure that EAS alerts endure and remain reliable as technology advances. We seek comment on the extent to which entities offering content outside of

traditional broadcast or pay TV modes of architecture are making EAS alerts available to consumers.

Comment: New sources of EAS activations include various smartphone applications or apps such as "Ping4alerts!" or "AlertID". Other apps have built-in capability for alerting users to dangerous conditions such as "Wunderground", "Earthquakes", "Volcanoes" or "Tsunami". Many broadcast news apps include an alert function which broadcasters can use to issue more detailed information on EAS activations. Many of these apps are available at no cost. Other technologies available include mobile systems such as "On Star" or "Lexus Enform", which require a subscriber cost. In addition, these technologies require a certain level of consumer sophistication. Vendors such as GSS First Alert provide basic alerting devices which are available at a minimal cost.

From a technical perspective, what hardware, software, and standards updates would need to be addressed before alerts could be delivered via alternative means, such as via IP-based platforms? Are the potential issues with offering alerts outside traditional broadcast or pay TV delivery mechanisms? What kind of strategies could be employed to standardize the availability of alerts across technologies, applications, and platforms? To what extent are these efforts already underway?

Comment: The use of CAP has helped produce many new alerting technologies and provides a standardized platform for passing on critical information from EAS activations.

Paragraph #90. We further seek comment on whether consumers have an expectation that alerts will be durable across different technology platforms. Do consumers expect that the alerts provided with programming offered via traditional technologies would still be provided when programming is offered through some other means, such as through an online offering? To the extent that commenters believe the Commission should take action to address consumer expectations with respect to receiving EAS alerts through new technologies, on what statutory basis would the Commission take such action? Commenters should also address any possible unintended consequences of Commission action.

Comment: Consumers in Nevada expect to receive EAS messages which apply to them directly, not to the people on the other side of town or the next valley over the hill. The FCC, FEMA and the National Weather Service need to keep in mind that sometimes broadcast is not the best way to communicate emergency information and that most

information can be better targeted to those affected. Newer technologies such as WEA messages and other smartphone products are better suited for targeted warnings.

Paragraph # 91. We seek comment on whether EAS alerts offered through different technologies may have a greater potential to meet the emergency information needs of the public than do alerts offered via traditional media. What, if any, potential do these services have to improve EAS geo-targeting, for example, by using a devices' geolocation technology when the consumer is viewing content over the Internet? We seek comment on this assertion.

Comment: The goal of many emergency officials is to be able to directly target and warn people who are about to be affected by a disaster. WEA and other technologies are better able to do this kind of warning than broadcast. Both EAS and WEA messages have limits. EAS messages have a two minute time limit for the audio message. WEA messages have a 90 character text limit. Even Twitter has a 140 character limit. At some point, the alert has to be supplemented with additional information and details so there is still a role for broadcast information and a need for technology like FM chips in cell phones.

Paragraph # 91 Cont'd. Could alerts via non-traditional platforms offer consumers greater personalization options? For example, could consumers elect to receive alerts for geographic areas other than the location in which their device is located, in order to remain vigilant of prospective threats to loved ones living in other parts of the country?

Comment: Consumers with concerns about loved ones living in areas affected by disasters should have plans for ways to communicate during an emergency. There are free smartphone apps such as "Life 360" which allow consumers to see where loved ones are and communicate with them if needed. The FCC should work with FEMA and emergency officials to inform consumers about the importance of emergency planning.

Paragraph # 91 Cont'd. Further, we seek comment on how new technologies could facilitate consumer feedback on, and interaction with alert content. Could the text crawl of such alerts potentially contain clickable URLs and phone numbers directing the recipient to additional resources and information about developing emergency situations?

Comment: The text crawl of some smartphone alert apps used by broadcasters already allow consumers to instantly access the full text of the message. Consumers can use Social Media such as Twitter or Facebook to instantly respond to the messages and describe the emergency situation if they are in the area. Putting URL's or phone

numbers in the text of EAS text which crawl across the screen could be frustrating for consumers because there's no way they can access those links from their TV's and the crawl does not continue long enough for a consumer to copy the information. The time or text characters would be better used providing more information for the alert. It is important to remember that the FCC does not have the authority to require a state or local emergency manager to include specific information in an EAS or other public warning message. State and local officials must be allowed to provide the information they think will benefit the public.

Paragraph # 91 Cont'd. We seek comment on the extent to which the advancements in technology may allow for customer feedback on alerts, such as confirming that an individual is threatened by a certain emergency condition, or enabling that individual to request specific emergency assistance by interacting with an alert. We seek comment on whether these technologies could give rise to a cycle of information sharing consistent with a "many-to-one/one-to-many" alerting dynamic.

Comment: The FCC should work with FEMA and the National Weather Service to determine how these technologies should be used. There are some privacy concerns here which prevent state and local emergency officials from seeking information from citizens with disabling medical or physical conditions.

Paragraph # 93. We seek comment on whether we should consider tablets that consumers use to access mobile services as "mobile devices" under our Part 10 WEA rules. Do 4G LTE-enabled tablets currently support the distribution of WEA messages?219 If not, we seek comment on what, if any, standards, software, or hardware modifications would be required to enable 4G-LTE-enabled tablets to support the distribution of WEA messages? Would 4G-LTE tablets be able to receive WEA alerts when they are connected to a Wi-Fi network or other unlicensed spectrum, based on the user's preference (such as when the user is at home and connected to their own Wi-Fi network), but while the tablet still remains within range of the Participating CMS Providers' 4G-LTE network? We seek comment on any costs commenters believe would likely be attendant to providing WEA alerts to 4G LTE-enabled tablets. We also seek comments on any benefits likely to result from the delivery of WEA alerts to 4G LTE-enabled tablets. Specifically, we seek comment on whether modernizing alerting platforms in this manner would increase the likelihood that individuals would receive potentially life-saving alerts by requiring that they be transmitted to the devices and

services they use most. Are Participating CMS Providers prepared to develop a voluntary roadmap for providing WEA alerts to 4G LTE-enabled tablets?

Comment: The ultimate cost of these improved devices to the consumer must also be considered.

Paragraph # 94. We seek comment on the potential of new and emerging technologies to improve alert accessibility. In particular, we seek comment on the state of technology for machine-generated translation (i.e., the use of software to translate text or speech from one language to another), to provide emergency alerts in non-English languages, and whether and how such technology could be leveraged by both the EAS and WEA systems. Are languages such as Spanish, that share a character set with English, more easily machine translatable than languages that use other character sets? How advanced are machine translation technologies for English to ideographic languages, such as Chinese? Could such translators be incorporated into EAS equipment? We also seek comment on the potential utility of platform-based video relay service capabilities to enhance the understanding of alerts and warnings for individuals with hearing and vision disabilities. We seek comment on these questions in order to gain a better understanding of achievable alert accessibility technologies.

Comment: Foreign language stations would benefit from software translation programs which could be incorporated in their EAS equipment to automatically translate emergency messages.

Paragraph # 95. Further, we seek comment on the ability of OTT alerting to improve EAS alert personalization. Could OTT EAS alerting be leveraged to improve alert accessibility for all Americans, including those with sensory disabilities those with limited English proficiency? For example, could the availability of URLs make it possible for alert content to be presented in languages other than English and in American Sign Language (ASL)? Could consumers personalize alert preferences with respect to text size, crawl speed, and contrast based on their unique needs? Could alerting via OTT services facilitate the use of symbols as accessible replacements or supplements to alert messages? Is it technically feasible and should consumers be given the ability to control the volume of the emergency alerting Attention Signal or audio message, independent of the volume settings in place for other activity on their device, in order to ensure that the alert is audible from anywhere in the home, or at least is appropriate for the

user who may be deaf or hard of hearing? Similarly, is it technically feasible and should there be a requirement for any consumer, with or without a disability, to be given the flexibility and capability to control other settings of the alerting signals and audio levels, such as the type and intensity of vibrations and flashing lights, in order to accommodate their individual needs? Alternatively, would it be appropriate to enable users to lower the volume of an EAS alert in certain circumstances?

Comment:

Paragraph # 96. In the WEA NPRM, we seek comment on the feasibility of providing WEA messages in languages other than English and on the extent to which accessibility requirements would improve the presentation of multimedia content in WEA messages.²²¹ Would extending WEA rules to include tablets and other mobile devices, as defined in the Commission's Part 10 rules,²²² further enhance the accessibility of alerting to the public and to persons with disabilities? To what extent should WEA messages be subject to Commission accessibility requirements? Would the larger screen of tablet computing devices enable them to provide WEA messages that are more accessible to individuals with visual disabilities?

Comment:

Paragraph # 103. Collectively, the incidents described above reveal an unacceptably high risk of unauthorized EAS signal broadcasts and insufficient real-time Commission awareness of, and visibility into the possible negative impacts of unauthorized alerts.²³⁵ In combination, they point to troubling security vulnerabilities associated with the nation's EAS. Unless appropriate actions are taken to enhance the broadcast network security environment through which the nation's EAS operates, these risks, vulnerabilities, and resulting problems are likely to persist, and indeed grow. That potential is likely to be exacerbated by the Nation's ongoing national transition to CAP alerts because of the increasing reach and number of originators capable of transmitting alerts.

Comment: Many of the incidents described in this section are the result of problems from the Legacy or old-style EAS system. The FCC should work with FEMA and the National Weather Service to convince state and local officials to acquire and use CAP programs.

Paragraph #109. In this section, we seek comment on proposals intended to decrease the likelihood of false or malicious EAS broadcasts, and to codify best practices consistent with CSRIC IV's recommendations. We also propose rules requiring the reporting of false alerts, i.e., alerts issued in situations other than a bona fide emergency, test, or public awareness campaign,

Comment: The FCC should present a specific, clear and concise definition of what constitutes a false alert. For example, an EAS participant should not be cited or fined for automatically relaying an alert sent by an EAS originator who had problems programming the activation, for example, sending a Required Monthly Test with the Event Code for a Required Weekly Test.

Paragraph #109 Cont'd...and lockouts,

Comment: Currently there is no way to monitor cable operations for lockouts or events where the subscriber cannot control a STB. Frustrated viewers often call the broadcast station where the STB is locked or the station which is noted in the text of the EAS crawl. There have been cases where the cable company representatives have told callers to contact the state EAS chair to fix the problem.

Paragraph #109 Cont'd...and new rule changes for alert authentication and validation. We believe that these proposed rules – backed by an annual certification of specific actions from EAS Participants demonstrating adherence to the security best practices recommended by CSRIC IV – will fundamentally enhance the security of the EAS and help provide a baseline of actions from which to initiate risk management processes to protect the EAS. Additionally, the proposed reporting requirements would provide a minimum set of actions to assist in the communication of incident detection and response. These proposals are intended to complement, rather than replace, the Commission's current support for voluntary implementation of best practices developed through cooperation with industry and advisory bodies. Each proposal is intended to be flexible, so commenters should describe in detail how they propose to implement any preferred approach they may have, and how those choices advance the goals of this Notice. We encourage EAS Participants to examine all of their approaches to managing security risk, including planning and recovery, to inform their recommendations for improvements.

Paragraph # 111. In light of the issues raised above, we propose action to ensure that EAS Participants are following EAS security best practices, which in turn will make our nation's alerting system more secure and reliable. We

propose that EAS Participants must submit an annual reliability certification form that attests to performance of required security measures with a baseline security posture in four core areas, as described in the following sections. We believe this annual certification would establish minimum expectations for security, and provide the Commission with the necessary assurances that EAS Participants are adhering to industry best practices and therefore taking appropriate measures to secure the EAS. We believe this requirement would be minimally burdensome, and would allow EAS Participants ample flexibility in implementing core security mechanisms based on the individual entity's particular needs. As an initial matter, we seek comment on whether an annual certification would achieve these objectives, and on the relative costs and benefits of this approach.

Comment: A small broadcaster or cable operator may not be equipped with the knowledge of cybersecurity to be able to self-certify compliance with the Commission's list of Best Practices.

Paragraph # 111 Cont'd. We expect that the information required to make a determination by the certifying official is readily available as part of the Participant's normal operations, and that the amount of legal and management review is negligible given that the best practices to which they certify are well known and have been carefully assessed by industry in the CSRIC process. We estimate that certification should add an average of fifteen minutes to the annual update of the "identifying information" section in ETRS, resulting in an increased cost to industry of approximately \$549,360 per year. If additional legal and management review would be required, we assume it would only be required the first year to ensure appropriate internal processes were in place and would amount to no more than an average of one hour per company for an additional \$2,179,440 the first year. For those EAS Participants who are not using best practices, we estimate it should take no more than four hours per device to perform the necessary changes, resulting in an estimated cost of \$879,040 to industry. We seek comment on the accuracy of the estimates of the expected number of Participants that are not using best practices, the accuracy of the assumptions underlying the amount of time required for compliance, and the accuracy of cost estimates.

Comment: I believe these estimates are low. A small radio station would pay a minimum of \$50.00 an hour for a contract engineer or IT tech to review the setup and operations of the station's EAS equipment. It would take at least an hour to go through

the entire EAS chain to make sure there were no vulnerable points of entry for a hacker.

Paragraph # 111 Cont'd. Are there additional costs that are not sufficiently captured by these proposed cost estimates?

Comment: There would be additional costs for rural broadcasters. Many would have to contract with engineers or IT experts to travel to their community for at least the initial security review. There would be additional charges for travel, lodging, meals and other per diem expenses.

Paragraph # 111 Cont'd. Administratively, should the "identifying information" section of ETRS be used to provide an EAS Participant's certification, or should a different mechanism be used for making and recording the certification? Is it reasonable and efficient to require the certification to be part of the current required annual update of ETRS identifying information? What ways might there exist to further reduce the burden on EAS Participant while achieving the same result? Would the longer term burden be reduced by including a provision to review the certification requirement in five years with the intent to sunset the requirement if it becomes clear that Participants are effectively managing cybersecurity risk through mature implementation of the NIST Cybersecurity Framework or suitable equivalent as demonstrated through the planned cyber risk assurance meetings and Sector Annual Report recommended by CSRIC IV?

Comment: The FCC should work with FEMA and trade groups like NAB, NASBA, NCTA, BWWG and the SBE to work with broadcasters and cable providers on cybersecurity issues for EAS and other broadcast operations. It should also be noted that even with the ETRS, not all stations will file correct information. Many stations have operated for years with incorrect information on their broadcast licenses, particularly tower locations. Similar errors will carry over to the ETRS.

Paragraph # 112. Further, we seek comment on each of the four core elements that would be addressed in the annual certification. Particularly, we ask whether these four areas of certification provide sufficient assurance that security best practices are being followed. Are there any additional – or alternative – areas that should be subject to certification to achieve system security assurance aims?

Comment:.

Paragraph # 112 Cont'd. Are there measures that the Commission or industry stakeholders can take to ensure performance of the proposed security measures are minimally burdensome for all EAS Participants, from the largest broadcasters and cable systems to the smallest independent operators? For example, could industry organizations at the national and state levels work with their members to conduct outreach to smaller and less resourced EAS Participants to educate them and otherwise help them to successfully certify their compliance with the security guidelines we propose today?

Comment: Yes, this kind of cooperative effort can be effective in states with active state broadcaster associations and strong EAS organizations. The problem will be among the smaller and more rural EAS participants who aren't members of their SBA and don't participate in SECC's/LECC's. But as we found out in the Zombie Attack hoax, even an attack on a rural station can affect other stations across the country.

Paragraph # 112 Cont'd. What, if any, should the Commission's role be in such an outreach effort?

Comment: Part of the answer is promoting better communications between the smaller broadcasters and the SECC's/LECC's. This is particularly important for the new LPFM and LPTV stations just coming into the marketplace. This is why FCC Mapbooks are important to good EAS plans. The FCC should share the Mapbooks they produce from the ETRS with the SECC's.

Paragraph # 112 Cont'd. We note in this regard that the Bureau has already released a Public Notice reminding EAS Participants of the EAS security best practices recommended by the CSRIC IV Initial EAS Security Report and has participated in a number of industry-related panels discussing cybersecurity as well as a webinar on cybersecurity for broadcasters. Are there other outreach steps in the CSRIC IV Final EAS Security Report that the Commission should undertake to raise public awareness regarding EAS security and to help EAS Participants incorporate EAS security best practices?

Comment: The FCC's Public Notice was not well publicized or distributed within the industry. Even now it is difficult to find on the FCC website. It should be made readily available to FEMA, the National Weather Service, EAS Chairs, the NAB, NASBA, BWWG, the SBE, IAEM, NCTA and other industry groups. Because there have been so many technological advances since the list of best practices was identified, the document

should be reviewed and updated and released again, this time with a stronger marketing campaign. The Commission should realize that by the time this NPRM is reviewed and finalized, the CSRIC security best practices Public Notice will be approximately 5 years old, a lifetime in computer technology. Many larger and even medium size EAS participants are already engaged in cybersecurity practices that were not available when the CSRIC IV committee finalized its list of best practices.

Paragraph # 128. There currently is no requirement that EAS Participants report to the Commission or FEMA that they have generated a false EAS alert or what circumstances led to the false alert; thus requiring the Commission to rely on reports from the public and the press. This situation has often hampered the Commission's real-time awareness and ability to respond to a crisis or emergency associated with these activities. The Commission's experience over the last decade of collecting and analyzing communications network outage data through its Network Outage Reporting System (NORS) shows the value of acquiring network reliability data. False EAS alerts, if reported, could similarly provide situational awareness about the health of the EAS to the Commission in real time, and facilitate the Commission's ability to take action to mitigate the effects of the alert.

Comment: EAS Participants have not had a place to report that they've received a false EAS message. Generally such messages have been shared with SECC's, state EAS Chairs or state broadcaster associations.

Paragraph # 129. Accordingly, we propose, and seek comment on, a rule requiring EAS Participants to report the issuance or retransmission of a false EAS message via ETRS.258

Comment: The ETRS could be used to report malicious EAS activities including possible hacks of a participant's EAS equipment. However, state and local EAS chairs who are not broadcasters and state or local EAS originators would also need to have access to the ETRS to report false tests.

Paragraph #129 Cont'd. Should an initial report including only EAS header codes, source, area affected, and time discovered of the false message be required? Is that information sufficient for an initial report? Is it reasonable to require such information or should less be required of the initial report? What other information should be included?

Comment: Stations self-reporting an unintentional EAS activation should not be placed in a position of self-incrimination. Stations which receive a false, malicious and

intentional EAS activation should be able to report the message without fear that they would face a citation or fine.

Paragraph #129 We also seek comment on whether EAS Participants should be required to file their false alert report in ETRS within thirty minutes of identification of a false EAS message transmission. Is there a more appropriate time frame for a required initial report? Should a final report be required 72 hours after the initial report that includes an explanation of the root cause of the improper transmission? What other information should be included? Is that time frame long enough for EAS Participants to provide a final report? Is there a more appropriate time frame for the final report?

Comment: With many EAS participants operating automated systems for extended periods of time, a thirty minute reporting requirement is unreasonable. If a false EAS alert is sent over a holiday weekend, it could be three or four days or more before it is discovered. FCC rules require EAS records to be checked weekly so the initial reporting process shouldn't begin until after that 7-day period. The FCC should also consider whether a false alert that is received by an EAS participant but not rebroadcast should be reported.

Paragraph #129 Cont'd. Should any information in the final report be considered confidential? If so, what information should be covered as such?

Comment: Information in these cases should be treated in the same way the FCC treats information in any investigation. The final report should be made public.

Paragraph #129 Cont'd. We seek comment on the effectiveness and appropriateness of using the ETRS as a reporting tool. Is there a better method of reporting false message transmission?

Comment: The ETRS could be an appropriate reporting tool but there should be some accommodation for EAS chairs who do not have access to the ETRS.

Paragraph #130. Finally, we request comments on the costs, burdens and benefits of the proposed mandatory reporting requirement; whether the requirement would promote the reliability, resiliency and security of EAS services; and whether we could more narrowly tailor the requirement or otherwise pursue an alternative that would maximize the potential benefits to society or would accomplish the proceeding's objectives in a less costly, less burdensome, or more effective manner. Based on similarities with our Part Four outage reporting requirements for the notification and initial

reports, we estimate that complying with the reporting requirement will require approximately fifteen minutes for the initial report and forty-five minutes for the final report, for a total of one hour and an estimated cost of \$46,400 per year. We seek comment on the reasonableness and accuracy of this estimate. Commenters should be specific about costs and their sources.

Comment: It may take only fifteen minutes for an EAS participant to file a report about a false EAS activation but it could take much longer to discover and research the EAS records to find the false report and gather the appropriate information needed to file the report. As the FCC notes, we have no experience with this process.

Paragraph # 132. Accordingly, we seek comment on a proposed rule to require all EAS Participants to report instances when their EAS equipment causes, contributes to, or participates in a lockout that adversely affects the public (e.g., when multiple cable STBs cannot return to normal operation due to the failure to receive an EOM signal or otherwise correctly process an EAS alert). Is this definition of a lockout sufficient to capture all such events where the public's access to cable programming a cablebased alerts are concerned?

Comment: Cable providers will need to develop and distribute new STB's which can record and report lockout problems. This process could take several years to accomplish. For the time being, cable providers will need to train their call centers to document subscriber calls about lockout situations. Not every locked out cable subscriber calls their cable company. The FCC will need to reach out to broadcasters and emergency officials to ask them to report calls from cable customers with locked out STB's.

Paragraph # 132 Cont'd. We seek comment on whether there are some lockouts below a certain threshold that would be unnecessary to report because of limited effect on consumers. To what extent would excluding some lockouts from reporting requirements reduce the burden on EAS Participants?

Comment: A cable subscriber who cannot gain control of their STB won't understand an FCC-determined "threshold" for reporting the lockout, much less the need to report the lockout on an FCC website. The cable operator could provide a place to report lockouts on their website along with instructions on how to reset the box.

Paragraph # 132 Cont'd. What threshold would strike an optimal balance between minimizing costs and keeping the Commission informed of significant incidents?

Comment: How does the Commission define a "significant incident"? **Paragraph # 132 Cont'd. Is there a better reporting method or definition for what constitutes a lockout that would provide the Commission with the appropriate amount of information to monitor and address this issue? Given that such false EAS alert-driven lockouts can have a significant impact on potentially millions of viewers, should an initial report should be required within fifteen minutes of identification of such an incident? Is there a more appropriate timeframe for a required initial report?**

Comment: Not every lockout is the result of a false EAS alert. Cable boxes can lock up as a result of a routine EAS required weekly test. One caller complained to me that his box had been locked up for two weeks.

Paragraph # 132 Cont'd. We also seek comment on the scope of information that should be included with a lockout notification. For example, would the date and time, message source, affected device type(s), and estimate of the number of devices affected be sufficient for an initial report? If not, what other information should be included? Should a final report be required seventy-two hours after the initial report including the root cause of the incident? Is that time frame sufficient to provide a complete and thorough final report?

Comment: Cable operators have no way of knowing when or which STB's are affected by a lockout problem. Subscribers don't always call the cable company when their STB's lock up and cable company call takers don't always understand what a lockout is or have any way to determine if it's related to an EAS activation.

Paragraph # 132 Cont'd. We seek comment on the effectiveness and appropriateness of using the ETRS as a reporting tool for this type of incident.

Comment: The ETRS would not be an effective or appropriate tool for reporting cable lockouts because the current level of cable technology does not provide cable operators with sufficient information to report cable lockout problems.

Paragraph #136. Accordingly, we seek comment on the desirability and feasibility of discarding CAP formatted EAS alerts where the digital signature

is invalid. What barriers to the implementation of such a rule exist? Is a requirement for all EAS Participants to treat as invalid any CAP-formatted message signed with an invalid signature sufficient to achieve the desired goals?

Comment: As noted in Paragraph 135, some state and local CAP systems do not require digital certificate authentication. That choice was made by state and local officials when they acquired their CAP programs. The decision on how to handle CAP alerts with invalid signatures should be left up to the state and local officials where such situations exist.

Paragraph #136 Cont'd. We also seek comment on the desirability and feasibility of digital signature authentication for all CAP messages, not only those originated by IPAWS-OPEN. Should we require all CAP-formatted messages to be digitally signed? Are there any technical barriers to such a requirement? Is the current process for digitally signing CAP messages for IPAWS-OPEN sufficient? Could it be effectively used for all CAP messages? Should we specify a method of ensuring that all EAS Participants can properly authenticate the alert originators they are responsible for monitoring, or should that be specified within the State EAS Plans? Are State EAS Plans the appropriate location for defining the authentication process for State and Local digital signatures? What impact would there be to state and local authorities from requiring all CAP-formatted EAS messages be digitally signed? Is this rule – in conjunction the certification requirement described above – the most effective and efficient means of ensuring performance of required security measures? If not, what other methods of ensuring performance of required security measures should be adopted? Would any of the questions or proposals in this paragraph apply equally to the WEA system? If so, then to what extent? Commenters should include detail concerning such proposals, including costs and benefits of applying these types of security measures to the WEA system.

Comment: The decision to use CAP technology that requires digital signatures is made by state and local officials who determine which CAP product they will use. Broadcasters and other EAS participants are not in a position to tell state and local officials what brand or manufacturer of CAP technology they should use. EAS originators should work with state and local EAS SECC's to determine their the need for digital signatures and other security features. Costs of the CAP product will vary depending on the vendor and the features selected by the agency selecting the CAP product.

Paragraph #144. There are some indications that checking for interstitial alerts [defined as when subsequent, redundant header codes are transmitted prior to the transmission of the EOM code to terminate the original alert] as a means of alert validation might have prevented the Bobby Bones Show Incident. Recent recommendations from CSRIC IV, however, advise against discarding all interstitial alerts, as some such alerts may be damaged or otherwise inappropriate for retransmission, and some such alerts may be valid and appropriate. In light of the CSRIC IV recommendations on this issue, we seek comment on the desirability and feasibility of revising Part 11 of the rules to require discard of none, some or all interstitial alerts.

Comment: The National Weather Service may be a significant generator of interstitial alerts. It is not unusual for NWS to issue multiple alerts during severe weather which are less than 5 minutes apart. EAS participants running these activations often find that the first activation is still playing when the second activation interrupts the first activation and plays but the first activation is then lost and can't be replayed or retrieved from the EAS equipment. The NWS apparently has no way to prioritize the messages so if one message is a Tornado warning and the second message is an extension of an existing Flash Flood Warning, the content of the Tornado Warning is lost.¹¹ This is a technology issue for EAS equipment manufacturers as well as a policy problem with the way the National Weather Service issues weather warnings. Stations covered by the Nevada EAS plan have repeatedly asked the NWS to provide more time between warnings only to be told that the warnings are issued according to criteria set by the NWS.

Paragraph #145. Finally, we request comments on the costs, burdens and benefits of the above proposed changes; whether the changes would reduce the incidence of inadvertent or false alerts; and whether we could more narrowly tailor the changes or otherwise pursue an alternative that would maximize the potential benefits to society or otherwise would accomplish the proceeding's objectives in a less costly, less burdensome, and/or more effective manner. In the Sixth Report and Order, we estimated the total cost to EAS Participants to modify software and firmware to accommodate the "six zeroes" nationwide location code at \$2.2 million. Would the changes to include a year parameter and to check validity based on time and the station ID header code entail similar costs and would that estimate be accurate for this purpose?

¹¹ May 2015 weather warnings from the Reno WFO

Comment: This depends on the cost the manufacturers of the EAS equipment will charge for the updated firmware or software. After providing a series of updates since 2011 at no charge, including the national "six zeroes" location code manufacturers may not be willing to fund the cost of developing and implementing the additional improvements mandated by the FCC.

Paragraph # 150. We believe that a need exists to presumptively treat as confidential the information submitted by an EAS Participant pursuant to reporting on the issuance or retransmission of a false EAS message via ETRS, or on instances when an EAS Participant's equipment causes, contributes to, or participates in an incident that adversely affects the public and equipment does not return to normal operation after receiving an EAS alert. We recognize that some of the information in both contexts may contain material that, if disclosed, could potentially cause substantial competitive harm to the EAS Participant or even undermine national defense and public safety. Conversely, the same information may provide valuable insight into EAS vulnerabilities, information detailing specific corrective action(s) taken, the need for specific corrective action(s), or reasons why the EAS may have functioned suboptimally. Given these competing concerns, we tentatively conclude that treating such information in a presumed confidential manner is justified. We seek comment on this view. We also seek comment on whether there are sound reasons why the Commission should treat submissions related to EAS annual certifications, false alert reporting, and lockout notifications differently with respect to their respective presumptive confidential treatment

Comment: EAS Participants might have some concerns about publically releasing information about their operating procedures which could lead to a loss of security. Just because the FCC considers that EAS is not specifically a revenue-generating mechanism, the Commission should keep in mind that EAS participants see public warning as part of their mandate to serve their communities and that trusted relationship is a valuable component of their operations. EAS security is not isolated to just EAS equipment. Many of the same procedures used for protecting EAS equipment from hackers are used to safeguard other functions within an EAS participant's operations. The broadcast business is very competitive and some stations may have concerns about releasing proprietary information that could give their competitors an advantage.

Paragraph # 151. Sharing with Other Entities. In our effort to strengthen the nation's public alert and warning systems as community-driven public safety

tools capable of ensuring that the public can receive and respond to alerts issued by alerting authorities in an effective, timely manner, it will be essential to integrate and enhance timely cooperation and information exchanged among federal, state and local officials. We therefore seek comment on whether, if we adopt presumptively confidential reporting and certification requirements, as proposed above, the Commission should share the information with other federal agencies, as the Commission deems appropriate and consistent with the requirements of Section 0.442 of the Commission's rules? Should the Commission restrict such sharing to only certain named federal agencies? We ask for commenters to share their views not only on the extent and limits of such sharing, but provide underlying rationale to support their views. With which state entities, if any, should the Commission share this information? With which non-governmental entities, if any, should it share this information?

Comment: If an EAS participant files information it assumes will be confidential, the FCC should keep that information confidential and not share it with other agencies, Federal or local. Some EAS participants may be reluctant to file complete information if there is a chance that information will be shared with agencies beyond the FCC. If criminal activity is involved in an incident involving an EAS participant's filing, such as a cybersecurity attack, government agencies have the option of seeking a subpoena or court order to access that information.

Paragraph # 152. We further seek comment on whether information should be shared under Part 11 with the National Coordinating Center for Communications (NCC), a government-industry initiative led by DHS representing 24 federal agencies and more than 50 private-sector communications and information technology companies. Would access to data collected pursuant to Part 11 contribute to the NCC's mission? Under what terms, if any, should such access be provided? Should the Commission instead leave to the discretion of the EAS Participants what Part 11 information they chose to share with the NCC? Would the Commission's sharing of Part 11 information with NCC discourage Part 11 reporting? Is there a subset of data proposed to be collected under Part 11 that the Commission should share with the NCC while upholding the confidentiality presumption that we propose be established for information submitted pursuant to Part 11? Would the sharing of Part 11 data in aggregate or generalized form be useful to NCC? Finally, it would appear that such

information sharing would not have any appreciable cost impact. We seek comment on this view.

Comment: Again, if an EAS participant files information it assumes will be confidential, the FCC should keep that information confidential and not share it with other agencies, Federal or local, including groups like NCC. Some EAS participants may be reluctant to file complete information if there is a chance that information will be shared with agencies beyond the FCC. If criminal activity is involved in an incident involving an EAS participant's filing, such as a cybersecurity attack, government agencies have the option of seeking a subpoena or court order to access that information.

Paragraphs # 153- 157. *Conditions on Sharing.* We seek comment on whether before the Commission should allow data sharing with other entities as we did in the Sixth Report and Order that a state be required to first certify that it will keep the data obtained confidential and that it has in place confidentiality protections in place at least equivalent to those set forth in the federal Freedom of Information Act 290 See 47 C.F.R. § 0. Federal Communications Commission FCC 16-5 62 (FOIA). If the Commission allows the sharing of Part 11 information to another entity, what conditions, if any, should be placed on the use of such information? Should use of Part 11 information by shared entities be restricted to activities relating to protecting public safety, health or national security? Should the entities with which the Commission authorizes the sharing of information be limited in terms of access to the ETRS database on a "read-only" basis? Balancing EAS Participant interest in confidentiality with the need for timely sharing of information when appropriate, it would seem that Part 11 information sharing should be permitted by the Commission only if stringent measures are in place to protect the data from public disclosure. We seek comment on this analysis and what measures, if any, should be in place if the Commission shares Part 11 information with any appropriate entity.

Comment: Again, if an EAS participant files information it assumes will be confidential, the FCC should keep that information confidential and not share it with other agencies, Federal or local, including groups like NCC. Some EAS participants may be reluctant to file complete information if there is a chance that information will be shared with agencies beyond the FCC. If criminal activity is involved in an incident involving an EAS participant's filing, such as a cybersecurity attack, government agencies have the option of seeking a subpoena or court order to access that information.

The fact that the Commission is talking about security training, confidentiality breaches and other safeguards proves the point that the information submitted by EAS participants in relation to cybersecurity and false alerts needs to be kept confidential to protect the broadcast and cable industries. This loss of confidentiality could expose EAS to significant security breaches. State and local emergency officials could lose confidence in the system and choose alternative methods to issue public warnings instead of using EAS.

Paragraph # 158-159. As a logical extension of our discussion above of the costs and operational issues associated with implementing new security measures for EAS, we seek comment on whether our proposed security rules should apply to all EAS alerts, and to all EAS Participants. Specifically, we seek comment on whether the Presidential Alert may warrant additional and/or heightened security measures, whose implementation costs may exceed the benefits when applied to local alerts that are issued more commonly, and that have a less immediate impact on national security. In the discussion below, we seek comment on whether to except EAS Participants currently designated as PN stations from some or all of the security requirements we propose.

Comment: While the proposed security rules should apply to all EAS alerts, only the national level alert code, or EAN, can take over every EAS participants' equipment for an unlimited amount of time. The public does not distinguish between types of alerts. They don't know the meaning of the Event Codes but they understand the difference between an AMBER Alert and an Evacuation message. These local events may not have an impact on national security but that doesn't matter to those who hear or see a local EAS activation. A hacker could create a significant amount of chaos in a given community with a false EAS activation for an AMBER Alert or evacuation order. There is no way to predict how the public would respond to a false EAS activation that takes over most conventional sources of entertainment and information.

Paragraph #160. *Exception for PN Stations.* Are security concerns attendant to participation in EAS less pronounced for PN stations than key EAS sources in light of the fact that they are not monitored by other EAS Participants? Would the severity of an EAS security breach be directly related to the designation of the attacked EAS Participant in the EAS alert distribution hierarchy? If so, does that militate for a graduated application of the security provisions proposed above such that key EAS sources are subject to stricter security requirements than PN stations? Should the application of our

security rules be even more granular, for example, with NP stations being subject to more strict security requirements than Relay stations?

Comment: In this era of Common Alerting Protocol, the role of Local Primary, state relay stations and other EAS sources is not as significant as it was during the first generation of EAS. With CAP, all EAS participants can receive the EAS messages and as was demonstrated in the "Zombie Attack" hoax, it doesn't matter where the message originates.

Paragraph # 161. *Small Entities*. Would it be preferable to allow the EAN to be delivered only by more sophisticated or secure systems, preserving the flexibility for smaller EAS Participants alert originators at the state and local levels to participate in state and local alerting without the need for certain additional security measures? If we were to except small entities from application of some or all of our security rules, is the SBA size standard the appropriate metric for determining whether a business should be considered "small," or would another standard be appropriate and, if so, on what basis(es)?

Comment: The size of the EAS participant is irrelevant as far as security is concerned. Most broadcasters would qualify as a small business according to the current SBA criteria. That would mean the majority of broadcasters would not have to follow the proposed security requirements and that would not benefit the industry nor the public.

Paragraphs #162 - 174 Section 5 Software-defined EAS Networking Would virtualization add value to an EAS implementation that included a central controller? We seek comment on whether the system checking function of the central controller is sufficient to achieve consistency in function without the homogeneity of form that could be created by virtualization.

Paragraph # 175. The NPRM in its background section discusses the two complementary mechanisms by which EAS messages are transmitted: (1) through the traditional, broadcast-based EAS Protocol; and (2) through the newer, Internet-based, CAP-formatted, IPAWS system. We seek comment on how stakeholders believe those two systems should relate to each other going forward. For example, does it make sense to keep the two different systems solely for resiliency considerations? Can the Commission, FEMA and other Federal partners and EAS Participants sufficiently secure the broadcast-based EAS to achieve appropriate levels of resiliency and to ensure that this EAS path does not expose EAS more generally to undue security risks? Are the failure modes of the two paths sufficiently different to suggest

an enduring unique value from both elements? Does a sufficient number of EAS Participants, particularly in rural and other underserved areas have the internet access or other technologies necessary to participate in the CAP-formatted system? Ultimately, does it make sense to migrate to one system? If so, over what time period? What should that new system look like? Would purely internet-based systems be overly reliant on the need for strong cybersecurity?

Comment: For many communities in the Western US, the idea of a public warning system completely based on the internet is unrealistic at this time. Many communities do not have solid, resilient internet service. Many areas still do not even have reliable cell phone coverage, even from major providers such as Verizon, AT&T and Sprint.¹² Smaller communities might have only a single ISP, while even some satellite providers do not serve the rural areas¹³. Where available, internet service can be unreliable particularly in an emergency or disaster. Internet fiber lines run in the same trenches as other major utility services and those lines parallel interstate and state highways, making them vulnerable to "backhoe fade" during road construction and repair as well as damage from floods and fires. Internet service, phone service and other utilities can be unavailable for weeks. Broadcasters report little or no success getting a response from their ISP's customer service call centers.¹⁴ When internet service is not available to broadcasters and emergency officials, it's also not available to the public. If the future of EAS includes the internet, the FCC should work with EAS participants to provide a mechanism for reporting internet outages and getting a better response from ISP's.

Paragraph #176. Are stakeholders confused or is there any inefficiencies we should be aware of because there are two systems?

Comment: Yes, state and local emergency officials who originate public warnings are not only confused about EAS and CAP EAS, in many cases they are unaware that EAS is available to them for state and local warnings. The FCC should work with FEMA to do more outreach to inform state and local emergency officials about both EAS and CAP EAS. Currently these officials hear about EAS and CAP EAS from SECC's or LECC's who have no authority or official standing. State and local officials depend on guidance from FEMA to develop their public warning plans but do not learn about the availability of traditional EAS or CAP EAS from FEMA. At the same time, many of these officials have a distrust or fear of the electronic media. They don't understand the difference between EAS and broadcast news. The members of the electronic news media don't understand

¹² See coverage maps for Verizon, AT&T and Sprint

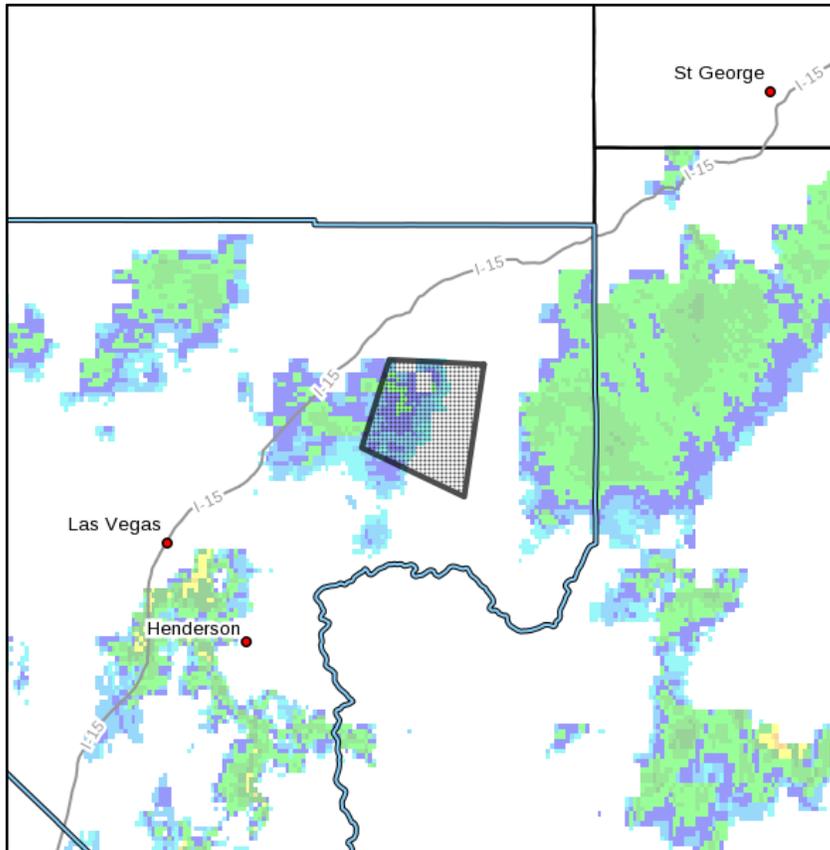
¹³ HughesNet is unavailable in Gerlach and northern Washoe County

¹⁴ Nevada Broadcasters Association SBE/Engineers Meeting on Utility Problems, April 19, 2016.

EAS because journalism schools don't include the role of broadcasters in public warning in their curriculum. As a result, SECC's and LECC's are generally composed of engineers and technicians from the broadcast, cable and internet television industries and emergency officials. SECC/LECC members volunteer their time to build EAS plans and many do not have extra time to educate state and local officials about EAS and CAP EAS.

Paragraph #176 Cont'd. Also, given the ways in which communications have changed since the EAS and its predecessor system was introduced, e.g., the introduction of social media alerts, WEA mobile alerts, and other technical innovations, do we have an alerting system that is appropriate and tailored to today's communications landscape, both in terms of the technology in use and anticipated and in terms of the usage and communication patterns of today's public? If not, do we need a wholesale re-thinking of the alerting system or is the current system sufficiently flexible that we can evolve it over time so that it remains appropriate in light of today's technology, usage patterns and emerging security threats?

Comment: The use of WEA alerts, social media including alerts from broadcast station websites, Twitter accounts and other mobile apps come close to the ideal targeted warning systems. Given the technological improvements in weather forecasting and the needs for most public warning messages, we may be approaching the time when broadcast media is no longer the best approach to most public warnings. The National Weather Service is capable of targeting very specific areas for weather warnings, yet they issue EAS activations based on the counties involved in the warning area polygon. As a result, a warning for a Flash Flood event in a small area of Clark County Nevada is broadcast across the entire county, an area of more than 8,000 square miles. Clark County is the 13th largest county in the country and is approximately the same size as the state of New Jersey. However, the Flash Flood warning applied to only a small area as shown in the map:



Received 05/07/16 17:15:43 Flash Flood Warning, Matched filter NWS, Received on Monitor 3. Log Only. The National Weather Service has issued a Flash Flood Warning for Clark, NV beginning at 5:15 pm Sat May 7 and ending at 7:15 pm Sat May 7 (KVEF/NWS)

The majority of the two million Clark County residents were not in or near the area affected by the flash flood event but they received the EAS message from radio and TV stations. Dozens of similar messages are issued every year in Clark County but only a few activations involve heavily populated areas like Las Vegas or Henderson. As a result of this continued inappropriate use, the credibility of EAS has been seriously diminished, making it of questionable value for a major emergency or disaster. The staff at the Las Vegas Weather Forecast Office say they follow national guidelines for issuing weather warnings.

Paragraph #178. Given the importance of physical security in maintaining the integrity of the EAS system, what additional measures may be necessary to ensure access to EAS devices and the IP network that feeds them are protected from malicious damage or compromise? Are the existing practices

and continuity of operation plans sufficient to ensure reliable delivery of EAS alerts to the public?

Comment: The FCC should work with FEMA as well as state broadcaster associations, industry groups like the IAEM to provide information for EAS participants as well as EAS originators about the security needs for public warning plans as well as EAS plans. SECC's and LECC's may need to request state and local officials to provide "For Official Use Only" declarations to protect EAS plans from being made public.

What additional levels of redundant paths, equipment, power, and other services should be required to ensure operation? For example, in addition to the security measures proposed earlier in Section III(D)(2), what other methods could we use to prevent IP-based attacks from compromising the EAS system? Should we maintain a secondary broadcast EAS system based on legacy EAS in addition to and separate from the IPAWSOPEN-based system?

Comment: Yes, until state and local communities in all areas of the country have acquired CAP programs and the officials authorized to issue public warnings have been trained how to use those programs, there will be a need to continue using the broadcast EAS system with its system of Local Primary stations as the entry point for public warnings. Broadcasters, cable operators and other EAS participants have both broadcast and CAP EAS capability so there is no extra cost involved in maintaining the two platforms. There is a cost to state and local governments to acquire and maintain a CAP product and it may be years before all areas of the country have CAP capability.

Paragraph # 179. We seek comment on the timeframes in which the proposals in this NPRM, if adopted, could reasonably be implemented by EAS Participants. As discussed in greater detail below, we propose that EAS Participants must comply with our proposed rules that include new information collection requirements (i.e., the State EAS Plan rules, initial annual security certification, and security incident reporting requirements) within six months from the release of a Public Notice announcing Office of Management and Budget (OMB) approval of related information collection requirements, or within 60 days of a Public Notice announcing the availability of the Commission's relevant database to receive such information, whichever is later; with subsequent annual certifications due by June 30th of each calendar year. We propose that EAS Participants must comply with proposed alert authentication and validation measures within one year of the rules' publication in the Federal Register. We note that no

action is required to comply with our live code test and PSA rules, and encourage EAS Participants to begin engaging in testing and outreach efforts pursuant to those rule amendments as soon as those rules become effective, thirty days from the date those rules are published in the Federal Register.³⁰² We seek comment on whether this framework appropriately balances the burdens of compliance with the need for rapid improvement of EAS organization, testing, outreach, and security. For ease of reference and comment, Figure 5, below, sets forth proposed timeframes for those instances where we propose specific implementation deadlines.

EAS Designations

Comment: Just because the new designations become effective, it could be years before they are in common use between EAS participants and those who originate EAS messages.

State EAS Plan Contents

Comment: SECC's and LECC's are volunteer groups with limited time available. Rather than six months, one year is a more reasonable amount of time for them to upload the appropriate material to the SEPFI.

Annual Certification

Comment: Small and rural broadcasters may need more time to complete their first cybersecurity certification. If the time frame cannot be expanded to one year, there should be a mechanism for small and rural broadcasters to request an extension of the deadline.

Paragraph # 180. *State EAS Plan Rules.* We propose that the new EAS Designations would take effect 30 days from the publication of final rules in the Federal Register, and to require compliance with our State EAS Plan rules within six months of the release of a Public Notice announcing OMB approval of related information collection requirements, or within 60 days of release of a Public Notice announcing the availability of SEPFI to receive State EAS Plans, whichever is later. States should already have State EAS Plans in place, and our proposed rules would not require that states adopt any particular alerting strategy or necessitate any changes in alerting implementation.

Comment: While there would not be a change in the EAS alerting process, this proposal will require rewriting State EAS plans to include the new designations and the reasons

for the change in terminology. The plans would then have to be published and distributed to EAS participants and EAS message originators. EAS participants and alert originators will have to be trained in the use of the new designations. SECC chairs and members are volunteers who may not have the time to make these changes within allotted time. The deadline should be extended to one year.

Paragraph # 180 Cont'd. We do anticipate, however, that producing State EAS Plans that include the new elements we propose would require additional discussion, strategic planning, and outreach. This discussion may entail a rigorous assessment of state preparedness along the axes discussed above. For example, SECCs may need to perform outreach in order to ascertain the extent to which EAS Participants in their state are using alternative alerting mechanisms such as the satellite-based monitoring sources, highway signs or social media, and the extent to which they are prepared to leverage available technologies to implement “one-to-many, many-to-one” alerting.

Comment: SECC chairs and committee members are unpaid volunteers and many not have time to research state or local public warning plans to determine what other mechanisms are used for public alerting. State and local emergency officials may not want information about their alerting procedures added to EAS Plans which may or may not be public documents available on the internet. The FCC should work with FEMA and emergency management groups like IAEM to determine the extent to which officials have access to alternative alerting mechanisms.

Paragraph # 180 Cont'd. SECCs may also need to engage with key EAS sources in their state in order to aptly apply our proposed EAS Designations. We seek comment on whether requiring compliance with our proposed State EAS Plan rules within this proposed timeframe would provide SECCs with sufficient time to complete any required strategic planning, discussion and outreach necessitated by these proposed rules. Commenters are encouraged to specify an alternative timeline if compliance within six months is considered infeasible, or if compliance can be achieved earlier.

Comment: Because SECC chairs and members are unpaid volunteers, compliance with the six-month deadline is unrealistic. Some EAS chairs and members may consider these requirements excessive and beyond what they thought would be involved in their commitment to EAS. State broadcaster associations are no longer able to provide resources for SECC's that they have in the past. Not every state has a current EAS plan and the FCC has been unable to develop plans in those states. The FCC should work

with FEMA to develop a closer relationship with state and local emergency officials who want to have EAS available as a tool for public warning.

Paragraph # 182. Security Incident Reporting and Annual Security Certification. We propose to require initial compliance with our security incident reporting and annual security certification requirements within six months of the release of a Public Notice announcing OMB approval of related information collection requirements, or within 60 days of release of a Public Notice announcing that ETRS is capable of receiving such reports, whichever is later. With respect to subsequent annual certifications, we propose that this timeframe apply to the first certification, with subsequent certifications due by June 30 of each calendar year.

Comment: The FCC should engage in an extensive outreach program, working with state broadcaster associations, industry and trade groups, FEMA and emergency managers to publicize the Public Notice and certification requirements.

Paragraph # 182 Cont'd. We expect that EAS Participants are already complying with most, if not all, of the best practices described above, and to the extent additional time is necessary to ensure that best practices are fully implemented, we believe that 60 days provides a reasonable timeframe to accomplish that goal while also ensuring that security measures are taken as swiftly as possible. We seek comment on this proposed timeframe, and on our rationale.

Comment: This may not be enough time for small and rural EAS participants to comply with the security certification requirement. The small and rural participants may have to wait for cybersecurity specialists who will be in demand and may respond to larger participants first. If the deadline cannot be extended, there should be a mechanism for small and rural participants to request deadline extensions.

Paragraph # 183. Live Code Tests and EAS PSAs. We propose that our live code testing and PSA rules would become effective thirty days from the date of their publication in the Federal Register. We observe that no action is required in order for EAS Participants to comply with these proposed rules.

Comment: Not every state and local EAS SECC is willing to participate in live code testing. The FCC procedures should include a requirement for live code test originators to notify neighboring EAS operational areas about planned live code tests to prevent confusion and disruption.

Paragraph # 183 Cont'd. Further, in the meantime, EAS Participants may continue to conduct live code tests as regularly scheduled pursuant to the guidance the Bureau provided in the Live Code Testing Public Notice. This proposed rule, if adopted, would alleviate the burden on EAS Participants to seek waiver of our rules in order to engage in this common practice. With respect to EAS PSAs, we propose to expand the set of entities that are permitted to conduct EAS PSAs, and to allow them to include the EAS header codes and Attention Signal. This proposed rule, if adopted, would allow EAS PSAs to become more flexible tools for community public safety outreach. We believe it would serve the public interest for the proposed live code testing and PSA rules to become effective as soon as possible, and seek comment on our rationale.

Comment: There should be no pressure on SECC's/LECC's which choose not to use live code tests or PSA's with EAS header codes and the Attention Signal. Some state and local emergency officials may object to these proposals and the SECC's/LECC's depend on maintaining good working relationships with these officials for an effective EAS.
