PARTNERSHIP FOR PUBLICWARNING
www.PartnershipForPublicWarning.org

October 25, 2004

SECRETARY
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554

In the Matter of Review of the Emergency Alert System

EB Docket No. 04-296
Notice of Proposed Rule Making
Adopted: August 8, 2004 Released: August 12, 2004

SUBJECT: Partnership for Public Warning (PPW) Comments Concerning the FCC Review of the Emergency Alert System

On behalf of the Partnership for Public Warning, I am pleased to submit the attached comments in response to the Notice of Proposed Rulemaking (EB Docket No. 04-296) regarding the Emergency Alert System.

The Partnership for Public Warning (PPW) is a non-profit, public-private partnership established to improve America's ability to warn and inform citizens during times of emergency. Those who participated in the development of the attached comments include representatives from all major stakeholder groups – local government, state government, private industry, non-profit organizations and representatives of special interests.

Please do not hesitate to contact me should you have any further questions.

Respectfully yours,

Kenneth B. Allen

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Executive Director
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Attachment

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Introduction

The Partnership for Public Warning is pleased to provide these comments in response to the Federal Communications Commission Notice of Proposed Rulemaking on the Emergency Alert System (EB Docket No. 04-296, adopted August 4, 2004).

The Partnership for Public Warning (PPW) is a non-profit, public-private partnership established to save the lives and property of people at risk by improving the nation's alert and warning capabilities. As the only national organization dedicated to public warning, PPW provides an objective, consensus-based forum where all stakeholders – both public and private – are working together to improve the nation's public warning capabilities. Participants in PPW include local government, state government, federal agencies, the private sector, non-profit community, academia, special needs groups and the public.

At the outset, PPW wishes to commend the Commission for its willingness to undertake this inquiry. Over the past several years we have seen the emergence of new threats to the American public. These threats, coupled with the changing demographics of our society, pose new challenges in alerting and informing the public during times of emergency. Although the Emergency Alert System (EAS) was established in 1994 and implemented in 1997, little effort has been made to ensure that it has kept pace with the changing threats, technologies and demographics. The Commission's action in seeking public comment is an important first step in upgrading the EAS.

As noted in the Commission's inquiry, PPW has conducted an assessment of the EAS and provided recommendations to make it more effective. While we intend to address the specific questions asked by the Commission, we believe it is appropriate to reiterate our recommendations – which remain valid.

"The Partnership for Public Warning recommends that the Department of Homeland Security take the lead in creating an

effective national public warning capability. Consistent with this leadership role, DHS should, in concert with the appropriate federal agencies and other stakeholders, take the following steps to strengthen the EAS:

1. Provide strong management oversight of the entire EAS system and clear guidance on key issues such as new technologies, state plans, standards, training and public education.

2. Upgrade and improve the Primary Entry Point (PEP) system.

3. Update and clearly designate EAS management, operation and oversight responsibilities among the appropriate federal agencies and other authorities.

4. Provide funding and resources to support and operate the EAS system.

5. Work cooperatively with all stakeholders through a public-private partnership to develop standards, policies and procedures to integrate the EAS into a comprehensive national public warning capability.

6. Maintain the existing EAS and fully investigate all proposed improvements compatible with EAS."

For further information regarding the above recommendations and the challenges facing the EAS, see the PPW Report "The Emergency Alert System: An Assessment" (PPW Report 2004-1, February 2004).

We urge the FCC and other appropriate agencies to adopt the above recommendations. At the same time, we wish to emphasize that the nation needs a comprehensive national public warning capability. Creating such a capability must begin with our legacy systems – the EAS and NOAA Weather Radio (NWR). However, such a capability must also include other technologies and services that now exist to deliver alerts and warnings. Such a capability must also recognize that warning is primarily a responsibility of local government. As PPW has previously stated, creating an effective warning capability requires standards, policies, education, collaboration and leadership. In addition to its work on EAS, PPW has developed a national strategy and plan for creating an effective national public warning capability. We urge the Commission to review this strategy and plan as it considers changes in the EAS. For further information, see "A National Strategy for Integrated Public Warning Policy and Capability (PPW Report 2003-1, May 2003) and "Public Alert & Warning – A National Duty, A National Challenge: Implementing the Vision" (PPW Report 2003-4, September 2003).

Finally, we wish to emphasize the willingness and desire of the Partnership and its members to assist the FCC and other federal agencies in addressing this important issue. PPW was specifically created to provide a forum where government and industry work together to improve the nation's public warning capability. We remain committed to that goal. We believe that a public-private partnership is vital if we are to develop an emergency alert and warning capability that can reach people wherever they are, whatever the time of day or night and whatever their special needs. PPW provides the forum for that partnership.

There is one final point that we wish to make before addressing the questions raised by the Commission. The Commission has posed some difficult and thought-provoking questions. This is a complex set of issues and there is no single path to creating a more effective national public warning capability. It is impossible to fully explore and answer these questions within the standard framework of the Notice of Proposed Rule Making process. In addition to this inquiry, we believe that it would be valuable to host a meeting of interested stakeholders to discuss these questions in detail. Such a meeting would be consistent with the Negotiated Rulemaking Act. PPW is uniquely qualified to do this and would be pleased to host such a meeting on behalf of the Commission.

Comments

PPW believes that there are many recommendations offered in its comments that the Commission can implement immediately without additional authorities and without any significant additional expense.

Paragraph 3, Page 2

Along with its primary role as a national public warning system, EAS and other emergency notification mechanisms, are part of an overall public alert and warning system, over which the Federal Emergency Management Agency (FEMA) exercises jurisdiction. EAS use as part of such a public warning system at the state and local levels, while encouraged, is merely voluntary. Thus, although Federal, state, and local governments, and the consumer electronics industry have taken steps to ensure that alert and warning messages are delivered by a responsive, robust and redundant system, the permissive nature of EAS at the state and local level has resulted in an inconsistent application of EAS as an effective component of overall public alert and warning system. Accordingly, we believe that we should now consider whether permissive state and local EAS participation is appropriate in today's world.

We note that the EAS was established as a means for the president to communicate with citizens during times of emergency. However, it has never been used for that purpose. On the other hand, local, regional and state governments use the EAS many times each year to warn and inform citizens of local threats and emergencies. Yet, as the Commission notes, local and state use of EAS is voluntary. We do not believe that mandating state and local participation will enhance the effectiveness of EAS or insure success. Therefore, we believe that state and local participation should for the time being remain voluntary. On the other hand, PPW believes that if EAS is properly supported, enhanced and marketed, a greater spirit of voluntary cooperation will follow.

Before rushing to judgment on whether local and state participation in EAS should be mandatory, we urge the Commission to undertake two initiatives. First, undertake an initiative to assess the use of EAS by local and state governments and to assess its effectiveness. Success must be judged on how well the system performed before, during and after a disaster and the actions people actually take to protect themselves. A formal after action report process is needed to judge success. PPW suggests that we need to assess the protective actions people at risk take as a result of the warnings they receive. Second, undertake a collaborative process to discuss this issue with local and state governments, broadcasters, cable operators and others who would be affected by a requirement that participation in EAS be mandatory. The federal government should not mandate the use of EAS without fully consulting with all affected parties. PPW would be pleased to host such a collaborative process. The collaborative process recommended in the above paragraph would permit the affected stakeholders to work together to address the many questions that would emerge if participation in the state and local EAS were made mandatory.

Such questions include the following. Presently, mandatory participation in the national level EAS is accomplished through the requirement that EAS messages containing the EAN event code override all the programming of broadcasters and cable operators. How will the government go about mandating state and local participation? Does requiring state and local EAS participation mean requiring broadcaster and cable operator participation in EAS planning workshops? Does it mean requiring re-transmitting EAS messages with certain state and local EAS event codes? What about state and local emergency management participation? Enforcement of the state and local mandated codes will prove even more difficult in those areas without EAS plans or in those areas with old plans.

While we do not support a requirement that local and state participation in EAS be mandatory, PPW does support more active federal leadership in coordinating the use of EAS by local and state governments. Under the status quo the federal government's interest in EAS is confined to ensuring that the system is available for use by the president during times of emergency. No federal agency is responsible for ensuring that the system is developed and managed in a manner that makes it useful to local and state governments. For example, several effective EAS state and local plans have been developed voluntarily. But many more would be developed if the federal government played a much more active role in requiring the development of such plans. When EBS plans were first being developed in the mid 1970s, the FCC, NWS and DCPA (now a part of FEMA) were very pro-active in developing plans. With the help of the SECC Chairs, they held workshops in every state that facilitated the planning process. There were six workshops in Texas alone. These efforts culminated with every state having a plan and over 400 local plans being implemented. This same effort is needed today for EAS. Federal leadership of a collaborative process that involves all stakeholders would do much to enhance the effectiveness of EAS.

Paragraph 4, Page 2

There are similar questions about the technical capabilities of EAS. For example, since it relies almost exclusively on delivery through analog radio and television broadcast stations and cable systems, is EAS, in the current communications universe, outdated? How could it be made more efficient? Should it be phased out in favor of a new model? If so, what would the new model look like? If a new model were to be adopted, what legal and practical barriers would have to be overcome to ensure its implementation and effectiveness? Would a new model require legislation from Congress or an Executive Order? What technologies should serve as the basis for such a model? Alternatively, should EAS requirements be extended to other services (e.g. cellular telephones)?

EAS messages can be easily converted for use with digital transmission systems, i.e. satellite, cell phone, Internet, etc. This was demonstrated in the field tests conducted in Denver and Baltimore during the development phase of EAS. It was always intended that EAS messaging be expanded to other services albeit on a voluntary basis, and that a wide range of EAS-aware devices for the general public would follow.

One way to enhance EAS would be to have the audio portion of the EAS message in digitized form and in a standardized text packet. The packet could be transmitted at the end of the two-minute audio window of the EAS message and before the end of message digital code. This would allow for the display of the text of the audio on television screens and provide hearing-impaired viewers with more detailed information about an emergency. Others have suggested text solutions that would not interrupt on-air programming. PPW believes that such solutions should be investigated since they might offer the potential to foster development of new types of personal warning devices, or devices that could be integrated with existing radio and TV receivers.

New solutions should be standardized and open. As an example, we draw the Commission's attention to the Common Alerting Protocol (CAP) developed under PPW's leadership. CAP is the first national message format standard for transmitting warning messages. Implementation of the CAP standard at the origination points of emergency messages would be a significant improvement. There would be an expansion to the number of existing CAP-aware or CAP-able applications, warning devices and appliances. CAP is compatible with the existing NOAA SAME/EAS protocol. The testing and implementation of the Advanced EAS Relay Network (AERN) with CAP is recommended. AERN can augment existing local and regional EAS relay measures with a secure digital network based on non-proprietary CAP data as well as "streaming" audio. It can make possible activation of not just EAS, but also any other alerting technology with a single, coordinated warning message. AERN combines the security and robustness of data transmission with the flexibility and interoperability of a standards-based communications. AERN is not a product; it is an open source architecture that can be implemented by any vendor or system integrator without licensing or patent restrictions and without significant changes to existing government regulations or policies.

Any new warning model would face the same implementation and training problems that EAS has already overcome in some areas of the country. Technology is not the problem.

Developing effective plans and assessment reports, providing resources, training and testing are the methods to solving the problems.

With regard to other services, Section 11.43 of the EAS rules specifies that entities can voluntarily participate in the national EAS. The FCC, in coordination with FEMA, needs to be more pro-active in seeking the voluntary participation of the major national networks in the national level EAS. The networks would be a low cost enhancement even if they participated in an ancillary support or reinforcement role. Several national broadcast networks, wire services and cable program suppliers were volunteers in the EAS Emergency Action Notification (EAN) Network until 1995. Since then, only National Public Radio (NPR) has agreed to voluntarily participate in the distribution of national level EAS messages. Adding these networks will greatly expand the reach and reliability of the national level EAS. Other technologies that greatly expanded in the late 1990s, such as the Internet and cell phones, should be integrated into a total warning structure that includes EAS and NWR.

Paragraph 9, Page 4

The Commission, in conjunction with FEMA and the NWS, implement EAS at the federal level. The respective roles currently are based on a 1981 Memorandum of Understanding between FEMA, NWS, and the Commission, on a 1984 Executive Order, and on a 1995 Presidential Statement of Requirements. In addition, State Emergency Coordination Committees (SECCs) and Local Emergency Coordination Committees (LECCs) develop state and local EAS plans.

The 1981 MOU between the FCC, FEMA, NOAA NWS, and the FCC National Industry Advisory Committee (NIAC) reflected the operational capabilities of EBS. It needs to be updated to reflect the capabilities of EAS. The key objective of the 1981 MOU was to achieve capabilities at the state and local level by which EBS could be used effectively to disseminate warning notifications and emergency public information in relation to natural disaster, manmade disaster, and attack. Under the MOU, state and local EBS plans were developed to ensure that the federal assets at the state and local levels worked together to form effective warning networks. The assets included were the EBS equipment located at broadcast stations, the NAWAS equipment located at emergency management offices and the NAWAS and NWR equipment located at NWS offices. The new MOU should reflect how the current federal assets located at the state and local levels, NAWAS, EAS equipment at broadcast stations and cable systems, NOAA Weather Radio, and private warning systems would be integrated into a total warning structure.

Although DHS/FEMA conducted some EAS training of emergency management officials in the mid 1990s, much more needs to be done. The FEMA Civil Preparedness Guides (CPGs) that explain EAS and warning systems to emergency management should be updated and republished. At one time FEMA conducted EAS workshops at its National Emergency Management Training Center, at its Regional Centers and over its satellite educational network. These programs should be funded, restarted and managed by DHS.

Paragraph 15, Page 6

SECCs and LECCs. State Emergency Communications Committees (SECCs) and Local Emergency Communications Committees (LECCs), comprised of emergency management personnel and volunteers from industry, may be established in each state and territory to prepare coordinated emergency communications systems and to develop state and local emergency communications plans and procedures for EAS and other Public Alert and Warning (PAW) systems the state may use in combination with EAS. These committees also establish an authentication procedure and establish the date and time of the required monthly EAS tests.

PPW believes that the SECCs and LECCs -- the key interface with the state and local levels of emergency management -- are critical to the success of EAS. PPW submits that EAS works best where the SECCs and LECCs are strong. The FCC needs to better recognize the efforts of the State and Local Emergency Communications Committees. Possibilities include publishing their accomplishments in News Releases, recognizing them at meetings and other Commission public service forums, and hosting workshops so they can exchange ideas.

We do not understand why the FCC appointed the SECC Chairs for over 30 years but then recently decided to stop appointing them. PPW believes that there should a clear and responsible chain of command and control for the key people who volunteer their time and effort to make EAS work. There must be a process in place to make sure that this vital volunteer effort has proper oversight.

A DHS funded and managed SECC and LECC assistance program would provide sorely needed training and give all levels of government feedback to gauge the effectiveness of warnings. Because of personnel turnover in the broadcast and cable industries, this must be done on an ongoing basis.

Paragraph 17, Page 7

The United States is divided into approximately 550 EAS local areas, each containing a key EAS source, called the Local Primary One (LP-1). The LP-1 monitors its regional PEP station for Presidential messages, and serves as the point of contact for local authorities and NWS officials to activate EAS. Other stations and cable systems in the area monitor their LP-1 station, and if a Presidential message is sent, they are required to air the message received from their LP-1 station. For non-Presidential messages, these monitoring stations and cable systems may carry the message at their discretion. Local Primary sources are assigned numbers in the sequence they are to be monitored by other broadcast stations in the local area (*i.e.*, LP-1, 2, 3, etc.). Broadcast stations and cable systems are required to monitor at least two EAS sources for Presidential alerts, as specified in their state EAS plans. As we discuss in paragraph below, however, the number of households that actually are watching or listening to these broadcast and cable outlets at any point in time is often relatively small.

The Primary Entry Point (PEP) system was designed in the 1980's as a last resort system and backup to the EAN Network. It was designed for situations when the President would be cut off from superior and traditional means to communicate emergency information to the public. When the EAN Network was dissolved in 1995, the PEP system was all that was left.

In addition to the improvements mentioned in our Paragraph 4, Page 2 answer, certain other improvements need to be made to PEP. This will insure that a Presidential message

transmitted on the PEP system has the greatest chance of reaching as much of the populace as possible and as fast and reliably as possible. PEP should be expanded to include additional entry points as well as the major national broadcast and cable networks mentioned above. PEP communication links from FEMA must be robust and redundant. Each State EAS entry point must be able to reliably receive a PEP message. And, most important, each state EAS plan must insure that a PEP message (and any state level EAS message) is reliably received by all of the broadcast stations and cable systems operating in the state. Ongoing assessments must be done to verify the reliability and dependability of all state EAS Plans.

The public instinctively turns to radio, television and cable television for emergency information during disasters. Therefore, they will continue to serve a vital role in emergency preparedness, response and recovery. Also, radio is the main reliable last resort disseminator of emergency information during large-scale power outages to people with car radios and battery powered portable receivers. Witness the role of radio in providing emergency information to the public during the New York City blackout and the recent hurricanes. PPW certainly does not want to minimize the role of television in the emergency public information (EPI) process. During these disasters, many television stations worked hand-in-hand with radio stations that were still transmitting to provide vital emergency information to the public. The broadcasting community, like many other segments of our society, can and do come together to help when the chips are down.

Paragraph 18, Page 7

State and local emergency operations managers can request activation of EAS for state and local public alert and warning. State-level EAS entry points are designated as State Primary and State Relay. State Primary Entry Points can be broadcast stations, state emergency operation centers, or other statewide networks, and can act as sources of EAS state messages originating from the State Governor or a State Emergency Operations Center. State Relay sources relay state common emergency messages into local areas. Local Primary sources are responsible for coordinating the carriage of common emergency messages from sources such as the NWS or local emergency management offices as specified in EAS local area plans.

The PPW EAS Assessment Report points out that the connectivity between local officials and the local EAS is fragmented at best. This link is critical because it enables local officials to broadcast local emergency alerts to the local populace. In some recent major local disasters, the national media provided more local emergency information to the populace outside the disaster area than was available to the populace directly affected by the disaster. In these instances, local radio stations with emergency power were the only link to the populace in the disaster area. DHS needs to insure that local emergency officials have all the resources they need to reliably communicate with the public during disasters. PPW believes a formal, funded national EAS and Emergency Public Information (EPI) needs assessment should be conducted as soon as possible.

Paragraph 22, Page 8

PPW has recently recommended that a single federal entity, specifically DHS, should take the lead in creating and overseeing an effective national public warning program. PPW also noted that DHS, with

other federal agencies and stakeholders, should update and clearly designate EAS management, operational and oversight responsibilities among the appropriate federal agencies and other authorities. Additionally, MSRC has recommended that a single federal entity should be responsible for assuring: (1) that public communications capabilities and procedures exist, are effective, and are deployed for distribution of risk communication and warnings to the public by appropriate federal, state and local government personnel, agencies and authorities; (2) that lead responsibilities and actions under various circumstances are established at federal, state and local levels within the overall discipline of emergency management; and (3) that a national, uniform, all-hazard risk communication warning process is implemented from a public and private consensus on what best meets the needs of the public, including people of diverse language and/or with disabilities, including sensory disabilities. MSRC and PPW also assert that effective delivery of emergency information to the public should be achieved through a public/private partnership that makes coordinated use of mass media and other dissemination systems. We seek comment on PPW's and MSRC's suggestions. Would legislation be required to effectuate the recommendations described in this paragraph?

PPW has already recommended that the Department of Homeland Security take the lead in developing a national warning program. Such a national program, however, cannot and should not be developed without the full participation of all stakeholders. PPW has recommended – as had every other major report that looked at public warning – that a public-private partnership be established to provide a forum where stakeholders could work together in a collaborative process. These stakeholders include other federal agencies (e.g. FCC and Department of Commerce), local, state and tribal governments, private industry, broadcasting industry, special interests (e.g. the deaf and hard of hearing) and the public. The Partnership for Public Warning was created to provide such a collaborative forum and we are pleased to note that all the major stakeholders have participated. We reiterate our offer to assist the Commission, DHS and other federal authorities in developing an effective national public warning capability.

PPW does not believe it is necessary to enact legislation to implement major improvements in EAS and move towards a more effective national public warning capability. Legislation would be valuable only if it provided a clear congressional mandate for creating a more effective public warning capability and providing the funding to make it a reality.

Paragraph 23, Page 9

We seek comment regarding the respective roles of the federal government departments and agencies involved with the implementation of EAS, specifically the Commission, DHS, FEMA and NOAA. Should each of these agencies remain involved? If not, what specific changes in roles should occur? For changes to occur, would the Commission or other federal entity have to recommend that current legal authorities be updated or supplemented? Should a new public/private partnership be created to ensure the effective and efficient delivery of emergency information to the public and, if so, how should this partnership be structured and what should its responsibilities be? What federal agency should be its primary point of contact? Should a particular federal agency take the lead role for the future EAS?

Every report that has studied the issue of public warning has recommended a public-private partnership. We believe that recommendation remains valid. PPW was established by state and local emergency managers to create that partnership. PPW remains available to assist the federal government and other interested stakeholders. There is no need to develop a new partnership. Funding is critical to ensure that work projects are completed.

We note that the PPW national strategy can be implemented in less than 24 months at a cost of less than $10 million.

PPW believes that one useful distinction is between the maintenance of warning facilities like EAS and the actual use of those facilities to issue warnings. The historic lead role of the FCC in enforcing the maintenance of the EAS infrastructure has been complicated by the assignment of other roles, especially funding, to other agencies. At the same time, the focus of the FCC's mass-media regulatory activities has tended to isolate EAS from other warning systems, thus unintentionally impeding the development of an integrated national warning architecture.

PPW believes that lead responsibility for EAS, as part of an integrated national warning capability, should lie with an agency involved in the actual warning process. The FCC should and must remain involved in a supporting role as regards regulation, review of licensee emergency plans, and enforcement within its purview. A number of federal departments and agencies may have occasion to use EAS (and other warning systems) in discharging their responsibilities. PPW believes there is a need for a single well coordinated operational mechanism for disseminating warnings from federal agencies in a timely, accurate and effective manner. However, safeguards must be provided to ensure that such a mechanism does not become a bottleneck or, worse, a cause of single point failure. Its strength must come from emergency managers at local and state warning centers who now recognize that information, including warnings, is a resource that is at their disposal that can help manage any emergency to a faster and better conclusion.

We believe the FCC, DHS and NWS now have most of the legal authorities necessary to develop, regulate, implement and oversee EAS, NWR and other warning systems. DOJ has some role based on its legal authorities and AMBER funding. PPW believes it would be inappropriate for any of these agencies to disengage either from EAS or from the larger national warning architecture. One overall lead agency should be designated and empowered to ensure that crucial issues do not fall between the "cracks in the floor" of emergency management, or in its jurisdictional foundations.

With regard to federal advisory committees, the FCC provides administrative support to MSRC and FEMA funds PEPAC. MSRC, PEPAC and PPW all have similar goals. PPW is unique in that it includes all major stakeholder groups and has addressed the entire spectrum of issues associated with public alerting and warning. A public/private partnership, with a goal to integrate warning across the board, would be able to research and provide recommendations regarding EAS, PEP, private initiatives, technology advancements, disability issues, planning, training, and more. It would provide recommendations concerning training, education, funding, resources, operations, regulations, and more, to those agencies responsible for warning.

Such a partnership exists in the form of the national non-profit Partnership for Public Warning (PPW). However, PPW has been hampered in its pursuit of these goals by the lack of a single federal agency with unambiguous authority for supporting PPW and for

applying identified best practices in public warning to federal, and by funding and guidance, to state and local, programs.

PPW believes that DHS has the necessary authority to provide leadership in the public warning arena. Legislation, would be helpful – but not essential -- to unambiguously delineate DHS's responsibility in this area, which until now has been more implicit than explicit.

Paragraph 24, Page 9

We also seek comment about several aspects of state and local EAS. First, we note that some parties assert that voluntary (as opposed to mandatory) participation in state and local EAS alerts impairs the credibility of the entire EAS. They claim that it makes no sense to mandate participation only on a national level in a system that has never issued a Presidential alert and is instead used to deliver vital information about life-threatening local, state, and regional events. These parties believe that the voluntary nature of participation in state and local EAS alerts also makes it difficult to find enough dedicated people to participate with system implementation. As we noted in the *Localism NOI*, the dissemination of emergency information is a critical and fundamental component of broadcasters' local public service obligations, and we accordingly seek comment on whether voluntary participation in EAS is consistent with those obligations. We seek comment on whether the Commission should adopt rules to require broadcasters to make their facilities available to local emergency managers? If so, what should be the nature and scope of any such rules? In their comments, parties should address the issue of whether there would be adverse effects from imposing some uniform requirement on broadcasters rather than allowing them to continue to make voluntary arrangements with local officials? Conversely, should incentives be provided to encourage the participation of broadcasters and cable operators? What incentives could be provided? To avoid what broadcasters and cable operators might view as a burdensome level of program interruptions, should there be a federal rule establishing a standard regarding when state emergency managers may and must activate EAS and, if so, what should that standard be? Should use of any of the existing voluntary EAS codes be mandated? Should the federal government monitor EAS usage to determine a standard?

PPW re-emphasizes our earlier comments in Paragraph 3 with regard to mandatory state and local participation. PPW suggests that the FCC should make participation in EAS state and local planning an integral part of a licensee's public service record and its license renewal criteria for broadcasters. EAS activities should also be included in a licensee's public file.

The FCC should also investigate how it can encourage the participation of cable operators in EAS. In the past there were Federal programs that disbursed funds to industry based on their participation in state and local warning activities. These included FEMA's Broadcast Station Protection Program and FEMA's assistance in the 1980s to cable systems to install channel override capability for use by local emergency officials.

DHS already funds preparedness grants to states. These grants should include requirements for developing and maintaining operational public warning systems. Other program examples include DOJ funding of AMBER and the NOAA NWS Storm Ready County program. A comparable *Warning Ready County* program is high on our list of recommendations.

Broadcasters and cable operators have traditionally made their facilities available to emergency managers by coordinating the creation of pathways so emergency managers

have access to their EAS equipment. This is accomplished via EAS entry points and/or relay networks spelled out in SECC and LECC Plans. If the EAS equipment at broadcast and cable facilities receives EAS messages from emergency managers that are preprogrammed with agreed upon event codes, the EAS equipment can automatically preempt programming with the emergency manager's message. This will happen automatically even if the broadcast and cable facilities are unattended. This capability is also available through the EAS Required Monthly Test (RMT). This coordination is all part of the existing EAS planning process that implies good coordination and cooperation. New rules and standards are not needed at this time.

Mandating transmission of additional codes would present serious coordination problems. Without effective state and local plans that properly identify authorized officials, secures communications links, and spells out specific conditions for activation, broadcasters and cable operators would risk giving up program control mandated under FCC rules to sources they have no formal relationship with for an undefined range of warning events.

Effective monitoring of EAS usage will be a key element in determining its success, and in evaluating potential adjustments and improvements. The FCC and DHS should institute after-action service assessments and issue public reports to ascertain the effectiveness of all warning systems including EAS during disasters. NWS presently performs timely and comprehensive service assessment reports to ascertain the effectiveness of their operations during hurricanes, large outbreaks of tornados, etc. Since EAS equipment records all messages received and transmitted, broadcasters and cable operators have an audit trail that could form the basis of the process we recommend. Since there would be some workload and paperwork burden for broadcast and cable entities, careful thought would have to go in to how the assessment process would be funded, administered, and carried out.

Paragraph 25, Page 10

We also seek comment on whether Commission rules that require states with EAS plans to file those plans with the Commission for approval have little impact because Commission rules do not require that states have plans in the first instance. Further, no current guidelines or standards exist for the structure/creation of state or local EAS plans. We seek comment on whether the Commission should adopt rules requiring state and/or local EAS plans. We further seek comment on whether the Commission should establish national guidelines and standards for the structure of such plans? Parties filing comments should consider the following issues: Should there be a specific standard of review, and if so, what should it be? Is the Commission the appropriate agency to undertake this task? Is the SECC and LECC structure the appropriate mechanism for generating such plans? Who should generate such plans? Does the Commission or other federal entity currently have legal authority to require and oversee the development of such plans? Where would enforcement action lie for failure to develop an appropriate plan? Should periodic updating and review of state and local plans be required and, if so, how often? Should adjacent state and local jurisdictions implement standardized EAS plans so that responses to large-scale emergencies that impact more than one state or local area can be better coordinated? Should multi-state regions be defined and plans developed for them? Should there be reporting requirements for EAS activations to facilitate the development of accurate reports?

It would seem to PPW that Executive Order 12472 requires that the FCC, "Review the policies, plans and procedures of all entities licensed or regulated by the Commission that are developed to provide national security or emergency preparedness communications

services, in order to ensure that such policies, plans and procedures are consistent with the public interest, convenience and necessity." Obviously this includes EAS plans. For example, it seems to us that the FCC would want to know if an EAS plan conflicts with Part 11 or any of its regulations. Also, proper review would also answer the question, "Does a given EAS plan strengthen distribution of a national level EAS message or does it inhibit, confuse, or otherwise disrupts it?"

PPW believes that there should be a requirement that local and state EAS plans be developed but only if the planning effort is fully funded. At the same time, EAS planning should not be isolated from other emergency communication plans. An EAS plan should be part of an all-hazards and all-modes public warning and information plan at the federal, state and local levels. One established mechanism for encouraging and standardizing such plans is via the guidance associated with federal funding to state and local programs. That would suggest that such planning might best be driven by an agency with an existing funding relationship with state and local emergency managers. We also reiterate our recommendation that the federal government assist local and state governments in the development of their plans.

When the 1976 Agreement between the FCC, DCPA (now a part of FEMA), NWS and NIAC was signed, model state and local EBS plans were developed as guides for the development of plans across the country. Plans were approved based on how well they adhered to the elements contained in the model plans. Later, EAS plans were approved in a similar manner. However, in reviewing EAS plans, two key operational differences between EBS and EAS had to be considered. EBS plans required one monitoring assignment while EAS requires two, and since the EAN network was disestablished in 1995, each state EAS entry point must be able to reliably receive a PEP station signal.

The government must commit resources to have an effective state and local EAS. We think EAS and new technologies must be included in an integrated warning plan and that the voluntary participation aspect of the EAS state and local level should be maintained.

Several interstate EAS plans have been developed by the SECCs. The SECCs in those areas know how best to solve interstate problems. By maintaining close liaison with the SECCs, the FCC will know the status of interstate plans and how well EAS performed during emergencies.

As part of the development of after-action reports of EAS effectiveness during disasters, the FCC should obtain the EAS equipment records for emergency messages received and transmitted by broadcast stations and cable systems. While this can be accomplished because EAS equipment records all messages received and transmitted, a mechanism must be devised to deal with the added workload and paperwork it would generate for broadcast and cable entities, emergency managers, and for the entity charged with review. PPW believes that gathering this information would be consistent with the FCC authority in Section 11.61(b) where EAS test messages must be entered in broadcast station and cable system records for review by FCC inspectors.

Paragraph 26, Page 10

We also seek comment on whether uniform national guidelines are preferred over the disparate manner in which states and localities implement EAS. For example, EAS alerts may be requested by FEMA emergency managers, state and local emergency managers, public safety officials, and other individuals identified in state plans. EAS may also be activated at the state or local level by any AM, FM, or TV station or cable system, at management's discretion, in connection with day-to-day emergency situations posing a threat to life and property. Additionally, broadcasters and cable operators can, but are not required to, monitor the NWS and activate EAS in response to an NWS warning. We seek comment on whether the Commission should adopt rules to require all EAS participants to monitor the NWS where signals are available. Should staff at any broadcast station or cable system continue to be permitted to initiate EAS alerts without concurrence from local or state emergency managers and, if so, should the Commission or some other federal entity establish standards regarding the issuance of public warning by these entities?

State and local plans frequently differ in many respects. Such differences may include which officials are authorized to originate emergency messages in a locality, their authority and responsibility, which communications assets are available to distribute messages, what stations volunteer to serve as Local Primary sources, and more. We see nothing wrong with these differences. To the contrary, state and local plans must be tailored to the unique needs and assets of the jurisdiction. There is no single model that will work everywhere in the country. At the same time, there is value in having model guidance to insure that all plans at least contain the essential elements to be effective. PPW believes that there are core elements that must exist in all plans that are already clearly outlined in 47 CFR Part 11.

We recommend that there be a standard format used in writing local and state plans. PPW believes all current plans should be looked at regarding style and format elements by a committee composed of SECC Chairs and other interested parties. There may be value in writing plans with a preamble followed by a series of Communications Operations Orders (COOs). The California SECC used this method to make plan changes without requiring approval of the entire plan each time a change or correction is made. The link to their website is: http://eas.oes.ca.gov/Pages/easplan.htm.

PPW believes that local conditions and resources vary sufficiently that it would be unwise to impose too many technically detailed requirements on state and local implementations. There is also the risk that such standardization might stifle beneficial innovation. However, PPW does believe that there is a need for a national "standard of warning practice" to articulate minimal expectations and to provide decision-makers with a basis for evaluating warning system investments and operational warning decisions. PPW believes that any final decision on plan style and format should be made in concert with the assistance of State and local emergency managers, a representative group of SECC and LECC appointees, industry personnel, and interested electronic media outlets.

FEMA can only activate the national level EAS upon Presidential request for a national message. State and local officials, including NWS, can *request* EAS activation for state and local emergencies. Unless there are agreed upon procedures in advance, preferably through EAS plans, EAS activation at the state and local level is on an ad hoc basis.

There are many areas in the country where local officials do not have EAS equipment or communications links to access the EAS equipment at broadcast stations and cable systems and there are also areas where NWR signals cannot be reliably received. Therefore, it is very important that the EAS equipment at broadcast stations and cable systems still have the capability to encode (originate) EAS messages. PPW is aware that EAS message origination policies for broadcasters do exist in state and local EAS plans as an emergency backup in case warning origination equipment within government, or links to EAS entry points, are not available. Under these conditions, the encoding (originating) of EAS warning messages at broadcast stations and cable systems should be conducted under the direction of emergency authorities.

The origination of Required Monthly Test (RMT) messages is a different case. To minimize program interruption, broadcasters and cable operators need to have control over when an RMT is originated. Emergency managers can participate in the RMT process but only after close cooperation with the media and as specified in their EAS plan. This is usually spelled out clearly in SECC and LECC plans so emergency warning originators, broadcast licensees and cable entities can all be on the same page. PPW notes that the expanded relay time for RMT's that was authorized by the Commission two years ago has eased the burden of compliance.

Monitoring NWS (NWR transmitters) has always been voluntary except where NWS fully participates as an EAS Local Primary (LP) source as specified in an EAS state plan. Where NWS does not participate in the EAS structure of a state, broadcasters and cable operators can monitor NWS/NWR voluntarily on any of the extra inputs on their EAS equipment. Requiring monitoring NWR where NWS does not fully participate in EAS disrupts the EAS monitoring structure of the state and local area.

Also, PPW is aware that many plans already mandate or suggest monitoring of NWS/NWR. PPW believes a nationwide effort to link civil warnings into NWS/NWR must be carried out. This will have the effect of eventually bringing most or all NWS/NWR stations into the system in a way that will enhance and reinforce the warning mission. Once this is done, PPW believes plans that do not now involve NWS/NWR would benefit from its inclusion.

PPW believes that most if not all broadcasters and cable operators would much rather relay emergency messages then originate them. They can and do relay selected SAME messages from NWR on a daily basis, Amber alerts and other EAS alerts. However, until local emergency managers have EAS equipment, CAP or other means to originate messages directly to broadcasters, cable operators and NWS, broadcasters and cable operators are being forced to be the primary originators of last resort.

Paragraph 27, Page 10

The primary method of delivery of Presidential EAS messages to state and local areas is over-the-air broadcast signals that follow a hierarchical structure, beginning with FEMA's relay of the message to the 34 PEP stations, which in turn are monitored by the 550 LP1 and state relay stations, which in turn are monitored by over 14,000 broadcast stations and 10,000 cable systems nationwide. However, some

emergency managers and SECC members say they lack confidence in the manner in which this system is implemented in their states. They believe stations "down the chain" may miss important state and local messages because, for example, stations that they monitor "up the chain" chose not to air a non-Presidential message or are unattended stations that have pre-programmed their EAS equipment to forward only certain event codes. Some claim that PEP station, or because the PEP station's signal cannot cover the large area it is supposed to cover. Some assert that, in any event, the process takes too long to transmit across an entire state. Accordingly, we seek comment regarding how to improve the distribution of emergency alerts, both national and state/local. Should the originating local agencies transmit alerts directly to as many stations and cable systems as possible without intervening relay stations? Should other technologies, such as satellite delivery systems, be used as part of a backbone to distribute the alert to entry points? Given the changes in technology within the broadcasting industry, is there still a need to structure EAS with the PEP system? To the extent that any businesses using such technologies are small businesses, how should that status affect our analysis? As we discussed in paragraph 25 above, could inconsistencies in the manner in which states implement EAS be alleviated by the adoption of national guidelines?

There are several state EAS entry points that cannot reliably receive a PEP station signal. Additional PEP stations and a number of the major national broadcast and cable program suppliers must be added to the PEP system to insure total nationwide coverage. Broadcast stations and cable systems affiliated with a major network could then receive EAS national messages on their network receivers at no additional cost. If a separate satellite system were developed to distribute EAS national messages, broadcasters and cable operators would need to install receiving equipment to receive that satellite's signal.

PPW would like to acknowledge the contribution of National Public Radio (NPR) to voluntarily participate in the national level EAS. NPR monitors a PEP station and will relay PEP Presidential messages over their satellite distribution system directly to their affiliates nationwide. The federal government should encourage more networks to volunteer.

EAS state plans must be kept up-to-date to be effective. If the monitoring problems are not correctable with the existing communications assets in a state, then the federal government needs to develop a means to solve the problem. Several states have already funded satellite links to distribute their EAS messages. Unfortunately, this is an expense. The original EAS monitoring structure was designed to be inexpensive using terrestrial based Local Primary and Relay stations that have high power signals and emergency power. These monitoring structures should be maintained as backup systems to the satellite systems.

Also, some EAS plans already detail an enhanced web monitoring structure for EAS. There are many EAS equipment configurations that have four or more inputs. The web idea makes use of the extra inputs to monitor multiple sources for SAME/EAS messages. This makes the EAS monitoring structure much more robust and less prone to message loss.

As stated earlier, the PEP system was designed as a last resort system in the event the EAN network was inoperable. PEP stations were selected using a federal government program that determined whether a station's transmitter site was located in a low risk area. Due to budgetary considerations, the communications link from FEMA to the PEP

station transmitter sites was based on the public switched network. This link needs to be upgraded or complimented as soon as possible.

What works in one state may not work in another. State officials, broadcasters, cable operators and local NWS personnel know what works best in their state. Some suggested criteria for evaluating state plans include: date of the plan, connectivity to the PEP system, statewide test results, state network reliability, performance in emergencies, compliance with Part 11, SECC membership, authentication procedures, approvals, etc.

Paragraph 28, Page 11

In the *2002 Report and Order*, the Commission amended Part 11 of the Commission's rules by, *inter alia*, adding new state and local event codes, most of which are for non-weather events such as child abductions (Amber Alerts) and new location codes. The Commission did not mandate the use of these codes. Rather, effective May 16, 2002, broadcast stations and cable systems could upgrade their existing EAS equipment to add the new codes on a voluntary basis until the equipment is replaced. All models of EAS equipment manufactured after August 1, 2003, had to be capable of receiving and transmitting the new codes. Broadcast stations and cable systems that replace their EAS equipment after February 1, 2004, must install equipment that is capable of receiving and transmitting the new event codes. We seek comment regarding whether circumstances have changed such that the Commission should adopt rules that require broadcasters and cable operators to upgrade their EAS equipment so that it is capable of receiving and transmitting all current event and location codes, including those adopted in the 2002 Report and Order. If such upgrading of EAS equipment should be required, how much time should broadcasters and cable operators have to replace their EAS equipment? How will this impact small cable operators and broadcasters? Should the government fund upgrades for small systems to mitigate the burden?

The FCC should forthwith require the upgrades in its 2002 Report and Order so that all broadcast stations and cable systems have the same EAS operating capabilities nationwide. Otherwise EAS messages with the new event codes will not be "recognized" by the EAS equipment. EAS equipment not upgraded will only display the event as an "unrecognized message".

In the 1994 Report and Order establishing EAS, the FCC mandated several state and local event codes that were not related to the national level EAS. Therefore, the same policy should have applied to the 2002 Report and Order.

When EAS equipment first became available, several groups cooperated to pool their purchasing power to obtain discounts from manufacturers. Also, some State broadcaster organizations have funded EAS enhancements for smaller stations. These avenues might help smaller operators with any cost burden of performing the code upgrades.

Paragraph 29, Page 12

In the 1994 *First Report and Order* on EAS**,** the Commission encouraged - but did not require - EAS participation by digital broadcasters. In the *Localism NOI*, however, we noted that digital technologies have evolved, and can allow broadcasters to provide emergency information in innovative ways. For example, using digital technology, broadcast stations can pinpoint specific households and neighborhoods at risk, with minimal burden on the available spectrum. Accordingly, we seek comment on how digital technology can be used to enhance warnings, and to what extent broadcast stations currently make use of that technology. We also recently reached the tentative conclusion that EAS rules should apply to all audio

streams broadcast by a radio station, such as IBOC. We seek comment on whether we should adopt rules extending EAS obligations to other digital broadcast media, such as DBS, DTV, and satellite DARS services. Commenters should also address whether, when television stations turn off their analog signals as part of the DTV transition, they could leave a market devoid of an EAS participating broadcaster? Is digital cable television service treated in the same regulatory fashion as is "over the air" digital broadcast? If so, should the Commission extend EAS obligations to digital cable television? Does it continue to serve the public interest to exempt services that reach increasingly larger portions of the American public from any requirement to provide public warning? What burdens would extending the obligations place on these services, and do the benefits outweigh the burdens? For example, if DBS satellites were required to carry EAS, what effect would inclement weather have on their ability to send signals. Further, if an EAS alert needed to be sent to an area on the border of a DMA, where a DBS provider only provided local-into-local service in one DMA, satellite customers in the unserved DMA would not receive the signal. How would an EAS signal be fed to a DBS operator? While it could be sent over fiber to their local receive facility (LRF) where they offer local-into-local service, they would not have an LRF where they don't provide local-into-local service. Similarly, how would DBS operators conduct testing, particularly on a national v. local level? Finally, to the extent that software updates were needed in set top boxes, what would be an appropriate implementation time frame? What about legacy boxes that have already been deployed? Satellite DARS serves the public primarily on a nation-wide, rather than regional, basis. Does this distribution structure affect the ability of satellite DARS licensees to discharge EAS obligations effectively? If the national distribution of satellite DARS services limits the ability to discharge state and local EAS obligations, are such limitations technological or regulatory in nature?

PPW believes that wherever the FCC has granted a particular entity the use of limited communication resources (e.g., radio-frequency spectrum or orbital positions), it should expect if not require some fraction of that resource be made available for emergency public safety activities. Within the broadcast realm at present this might apply at this time just to EAS, but PPW believes the requirement should be framed in such a way that in the future other public warning services and activities could have some assurance of access to spectrum or bandwidth resources for life safety warnings. PPW thinks of this as a call to provide emergency lanes on as many information highways as possible.

PPW further believes that digital radio and television should be integrated into a comprehensive public warning capability, but that the current EAS rules regarding technology and procedures are not sufficient or appropriate to be applied in the digital realm. The technical details of how the message gets there should be left to industry to formulate effective methods and standards that can take full advantage of these technologies. Similarly, this applies to all audio streams including IBOC.

Concerning the shut down of analog TV, PPW believes the public should not be left devoid of an officially recognized public warning capability that is at least equivalent in availability and effectiveness to EAS. Whether such a service is implemented via a technology called "EAS" may be less important than is the actual service provided to the public.

Historically, national programmers have been encouraged to participate in EAS voluntarily. This practice should be continued for now. The federal government must begin to reach out to the DBS, DTV and satellite DARS industries. When the federal government develops the capability to capture all state and local level warnings in a timely manner, then there would be merit to require DBS, DTV and satellite DARS to transmit those warnings to their subscribers who are at risk.

If "over the air" digital broadcast television is required to participate in EAS or as PPW recommends, an integrated warning system, then so should digital cable television service. This would fall in line with the 1992 Cable Act requirement for cable television to participate in the distribution of emergency messages.

Paragraph 31, Page 13

In creating EAS, the Commission sought to design a public alert and warning system that would function seamlessly with many sources of emergency communications. The Commission wished to avoid limiting EAS to a particular transmission system, so it adopted a mandatory standard digital protocol with a flexible architecture that the Commission believed could be used by many kinds of transmission media, encompass new technologies, and be expanded and upgraded as new kinds and generations of transmission systems became available. Despite this intended technical flexibility, EAS, as currently constituted, reaches the very limited audience listening to broadcast radio or watching broadcast or cable television at the time the emergency announcement is made. The most ubiquitous outlet for EAS is radio. However, on average, Americans listen to the radio for only about an hour and a half a day, primarily between 6:00 a.m. and 6:00 p.m. Even fewer people are reached by television. Although more than 98 percent of households in the United States have at least one television, the average set is in use only 31 percent of the day. We seek comment on whether this level of penetration is sufficient to comprise an effective public warning system. If it is not, what level of penetration should we seek and what is the best mechanism for reaching that goal?

Based on the body of social science research and expert opinion regarding effectiveness of public warnings, PPW respectfully suggests that no single warning medium can ever be sufficient alone, no matter how great its penetration. By the same token, even a warning medium of limited reach can be of significant value if it reinforces and corroborates warnings received through other channels. A single, uncoordinated warning can easily be discounted as a false alarm. Effectiveness of warnings depends in large part on the coordination of multiple warning media, which raises public confidence in the reality and accuracy of the warning message.

Government resources are needed to develop model integrated warning systems and plans. The models should include all mediums including the unique techniques developed by industry such as CAP, generic voice dialing systems, sirens, special and private radio systems, etc. The models should then be used to develop emergency plans throughout the country. Follow up training and exercises are needed. Models would still be needed if a new system replaced EAS. The country has been without a public warning planning and training program for to long.

EAS was designed to alert the public to an emergency through transmission of a four-part message. These include a digital header part containing the critical elements about the message, an eight second alert tone, an audio message limited to two minutes and a digital end of message code to reset equipment. EAS alerts are a heads up to the public. They must be followed with emergency information to provide additional details and keep the public up to date.

Paragraph 32, Page 13

Because EAS relies almost exclusively on delivery through analog radio and television broadcast stations and cable systems, is EAS, in the current communications universe, outdated? Instead, should there be a concerted government/industry effort to combine EAS with alternative public alert and warning systems (APAWS) to form a comprehensive national public warning system capable of reaching virtually everyone all the time? The possibilities are numerous and varied. Several companies offer landline-based interactive notification systems that would convey national, regional, and local emergency messages via the public switched telephone network to wireline telephone subscribers located in the specific geographic areas affected by emergencies. Other companies offer systems that use Internet and/or cellular capabilities, including the cell broadcast feature of digital cellular networks, to deliver alerts to mobile handsets of wireless subscribers or to televisions, cable boxes, clock radios, cars, computers, stand alone units or other devices after incorporating patented receiver devices. Some companies offer satellite based warning and messaging systems which use very small aperture terminal networking to provide direct satellite communications. There are also emergency message and warning systems offered on a subscription basis that use computerized calling systems, fax, email, and digital messaging to reach many different types of devices. Some of these systems are used currently by certain states, along with EAS as part of their public alert and warning system. How could a combined warning system that makes use of some or all of the features described here be implemented? Should the Commission require any APAWS to participate in the existing EAS and, if so, which ones and how should they participate? For example, should all APAWS be required to be compatible with the existing EAS protocol? In considering these issues, should our analysis distinguish between wireless systems used primarily for one-versus two-way communication, or point-to-point or multi-point versus broadcast? Commenters should discuss any legal or practical barriers to its implementation and effectiveness, noting whether legislation would be required from Congress or by Executive Order.

Integrating EAS into an Alternate Public Alert and Warning System (APAWS) might be the right approach, both from a public warning effectiveness point of view, and in terms of allowing market forces to align with government in driving toward continual improvement to the nation's warning capabilities.

We note that cell phone broadcast is a specific concept that would take several years for the appropriate new cell phones to be adopted into the general population. It is a valid concept but it is not yet a proven commodity. It should be studied immediately and if proven workable, implemented as soon as possible. However, there are companies offering systems that use Internet and/or cellular capabilities, including the delivery of emergency text messages. Although the voice channel of cellular systems is prone to overload, the data channel that carries text is extremely reliable and even performed well on September 11, 2001.

Before embarking on legislation or Executive Order changes, the responsible government agencies should adopt an overall strategy for an integrated national public warning capability. This would ensure that any changes relevant to EAS are compatible and coordinated with other warning and emergency information programs.

EAS should certainly be one element of an integrated national warning capability, at least for the foreseeable future. Other technologies should not be misunderstood as "alternatives" in the sense that they could replace EAS. These other technologies should be viewed as additional facets of an integrated public warning architecture.

PPW offers as one example the Advanced EAS Relay Network (AERN) using CAP as described in paragraph 4 above. AERN illustrates one approach to integrating EAS with other existing and future systems in a forward-looking national warning architecture. The inherent "backward compatibility" of the CAP data standard makes it possible to enhance EAS and other systems without disrupting them.

The federal government needs to answer several questions to be able to develop a plan of action to build a nationwide operational warning system. Have we identified the existing warning and communications assets available to states and localities, especially the federal assets? Are they being fully utilized as part of a warning system? What assets are needed in the areas where warning systems are dysfunctional? How are the inter-operational problems corrected?

The legacy systems of EAS and NWR definitely have a place in an integrated warning structure.

Paragraph 33, Page 14

As an alternative, would the appropriate approach be to integrate EAS into a PAW "system of systems" by adopting and using a single, integrated interface that would link the emergency manager and all emergency notification and delivery systems, regardless of the technology on which a particular system is based? In this regard, we note that the Organization for the Advancement of Structured Information Standards (OASIS), a not-for-profit, international consortium that addresses the development, convergence and adoption of e-business standards, has adopted the Common Alerting Protocol (CAP) as an OASIS standard. CAP is a standardized, non-proprietary, data interchange format that simultaneously disseminates consistent all-hazard emergency alerts or public warning messages over different kinds of communications networks and systems, including those designed for multilingual and special needs populations. The CAP format is compatible with emerging and existing formats, such as web service applications, NWS' SAME, and the EAS protocol and offers a number of enhanced capabilities. Proponents assert that CAP has the potential to increase warning effectiveness and reduce costs and operational complexity by eliminating the need for multiple custom software interfaces to the many APAWS involved in all hazard warning. Several government agencies and private companies have also implemented CAP, including DHS, NWS, and Comlabs, Inc. We seek comment on whether the CAP could act as an effective interface through which an emergency manager could access multiple emergency notification services, including EAS.

PPW has supported the development of CAP as an approach to the goal of coordinated dissemination of well-crafted public warnings. CAP is now a confirmed standard that is being used in the real world. CAP was designed to provide both a procedural template for the composition of complete and effective warning messages, and a technical framework for integration of existing and future warning systems. PPW believes that the burden on warning originators during emergencies would be greatly reduced by the use of a single warning origination tool, with output in the non-proprietary standard CAP format that could then be automatically translated into the 'native' formats of EAS, NWR and any other warning system.

Paragraph 34, Page 14

MSRC's Future Technologies/Digital Solutions Task Force recommends that the government should coordinate development of a Media Common Alert Protocol (MCAP) which should: (1) be designed to deliver emergency messages via digital networks; (2) flow over all methods of digital transport; (3) be received by all digital receivers; and (4) be optimized for point-to-multi-point networks and devices only. MSRC also suggests that key attributes of the MCAP should be addressability, scalability, interoperability and prioritizing. MSRC recommends that industry organizations and companies should develop standards and specifications for carriage of MCAP on various media. We seek comment on MSRC's recommendation. We are mindful that the availability of particular delivery methods may differ in rural and insular areas from more urban areas. We seek comment on any particular needs or considerations we should afford rural areas.

PPW supports the MSRC's recommendation and believes that the OASIS CAP standard, designed based on social science research and field experience in the composition and dissemination of effective warning messages, offers a solid foundation for it. PPW notes that CAP was designed for use over both broadcast and point-to-point links and has been deployed in both modes, and that few practical differences have been identified between the two contexts. However, to the extent there may be a need for a specialized broadcast "profile" of the more general standard, PPW believes it should share most of the existing characteristics of CAP.

Rural areas usually have fewer warning assets than urban areas. Many rural counties rely on nearby urban areas for warning messages. It is imperative that warning plans take these adjacent areas into consideration in the planning and testing phases. During large-scale emergency evacuations, rural areas may need as much or more advance notice to prepare for the needs of evacuees.

Paragraph 35, Page 15

Finally, to what extent does an effective public warning system depend on the consumer electronics equipment that receives the warning? MSRC has identified as two primary functionalities of a future warning system the ability of a device (such as a radio or television set) to automatically turn on and tune in to the channel carrying the warning, and the capability of such a device to receive a geographically addressed message (through FIPS or GPS). We note that the technology exists to have consumer electronic devices turn on automatically in the event of an emergency. We note that, as described in paragraph 14 above, NOAA Weather Radios currently supply both these functions. Would mandating the adoption of such technology to other consumer electronic devices enhance the effectiveness of EAS and other PAW systems?

PPW supports the broad implementation of such technology in consumer devices, with the caveat that broad market uptake can have the downside effect of creating inertia that impedes technical advances. This is another reason PPW recommends that the national public warning architecture be viewed as a "system of systems" rather than a monolithic technical framework that could become more inflexible the more widely it was deployed.

PPW believes in creating solid standards and practices for warnings so manufacturers can feel confident that they can build personal warning devices that can take better or full advantage of all the capabilities of the current SAME/EAS protocol. The manufacturer of

the only warning appliance TV receiver on the market to date stated to PPW that they rely on an embedded NWR receiver because NWS uses NWR as one of their warning distribution resources.

PPW believes the value of imbedding NWR receivers, as SAME message sources will increase once more local emergency management warning centers are linked in to NWR. The State of Washington has been experimenting in cooperation with NWS on this with some success. PPW believes the fastest path to nationwide implementation will be through a national EAS needs assessment showing what links are missing or broken, followed by funding, possibly through DHS, to meet those identified needs.

We note that there are a few radio models available that can turn on automatically upon receiving an EAS event and/or location code. However, they have a very small market share in only a few areas.

As another example, presently there are hundreds of unused FIPS numbers (EAS location codes) that can be used for the purpose of alerting not only unique geographic areas but also groups of individuals and organizations. Only a few states have taken advantage of this capability. State and local authorities need to be made aware of this capability. Also, there are a number of other ideas to increase warning message distribution including: a Warning Ready County program administered by the government, e-chip TV requirement similar to the v-chip requirement, an insurance credit program for warning devices similar to the one for smoke detectors, etc. Closed captioning of video programming (See 47 CFR Part 79) that is a feature present in most television receiving sets could also be used for display of extensive emergency information for the hearing public as well as the hearing impaired.

There is a wide and growing array of technologies for alerting and informing individuals with various disabilities. The range of special-audience requirements is so broad that it seems futile to try to address them all with any one technology. Thus PPW believes that the creation of a "warning internet" to deliver consistent messages into various specialized warning systems is the only viable approach to this challenge.

Paragraph 40, Page 16

Emergency Warning for Non-English Speakers. We should also consider the needs of people with primary languages other than English when considering the best method of contacting the public during an emergency. In order to ensure that foreign language audiences are alerted, the Commission's EAS rules provide that EAS announcements may be made in the same language as the primary language of the station. We seek comment of the efficacy of these rules. For example, if a radio station transmitting in English is located in a predominantly Spanish-speaking community, should the station transmit EAS alerts in both English and Spanish? Additionally, products can be developed to convert the EAS digital signal to provide aural and visual messages in any language. We seek comment on whether current methodologies for providing alert and warning to non-English speaking persons are adequate. If not, what additional provisions are necessary, and what would be the costs associated with implementing such provisions?

PPW believes that there are a number of technologies for multi-lingual alerting and information available, but that most of them operate outside the current framework of

EAS. While some of these systems might benefit from the enhanced bandwidth offered by digital broadcasting technologies, PPW feels it is unrealistic to expect that EAS alone could ever adequately serve the needs of all language groups. This is another area where EAS could benefit from an operational partnership with other technologies, implemented through a standards-based "warning internet" for coordination.

The digital header portion of the EAS protocol contains only the critical elements of a warning message. Until recently, no one had developed a method to digitally package the aural portion. Now a company has developed a method so that the aural portion can be digitally packaged and transmitted as part of the EAS protocol. This improvement is an example of how legacy systems can be improved to provide more information to the public. There are also potential solutions made possible using the CAP standard.

Each community has unique needs in this area. For example, we note that Arlington County, Virginia has over 60 languages. It is the responsibility of the local emergency managers to develop systems that will reach the public in all appropriate languages. In some instances EAS may be the chosen dissemination method. In other instances other technologies may be more appropriate.

Paragraph 41, Page 17

Security. We also seek comment as to the security issues relevant to EAS. Security and encryption were not the primary design criteria when EAS was developed and initially implemented. Now, however, emergency managers are becoming more aware of potential vulnerabilities within the system. For example, the complete EAS protocol is a matter of public record and potentially subject to malicious activations or interference. Further, EAS distribution methods have potential for security concerns. For example, Internet Protocol-based systems and control links could be subjected to "denial of service" attacks aimed at preventing them from functioning. Additionally, when a station is operating unattended, no one is available on-site to intervene should an unauthorized seizure occur. There is also concern about physical security and unauthorized use of the system at state and local EAS activation sites. Although Commission-certified EAS encoders have the capability for password protection, it is up to each station and cable system to implement sufficient security and there is no way of knowing which stations use password security. Finally, EAS signal could be subject to jamming. Such vulnerabilities could be exploited during times of heightened public anxiety and uncertainty. We seek comment on how to improve the security of EAS distribution methods, information, and equipment or how to ensure the security of any public warning system. Should the Commission require password protection of all EAS encoders? Who should be responsible for system security and what security standards, if any, should be implemented? How can the authenticity of EAS messages be verified and/or how can broadcasters be protected from liability issues if they inadvertently rebroadcast a false or incorrect EAS message? Would adoption of any of MSRC's Best Practices alleviate security concerns?

PPW addressed the EAS security issue at length in its EAS report. We doubt that any public "over the air" protocol can be made completely fool proof and totally secure. But certainly security improvements to the existing structure can only help. Section 11.32(a)(1) specifies that, "Encoder programming access shall be protected by a lock or other security measures." Enforcement of this specification should be conducted. We are aware of no unauthorized access to the EAS since its establishment. However, broadcasters and cable operators should insure that EAS messages they have selected for reception and transmission over their facilities originate from authorized sources. These are specified in EAS plans. The fact that unattended operation is permitted only

strengthens this point. We believe that jamming radio and television signals is rare, especially the high power signals usually transmitted by EAS Local Primary sources. Also, emergency managers should insure that their communications links to broadcasters and cable operators are as secure as possible.

The SAME/EAS protocol is transmitted in the clear. Unless costly changes are made to SAME/EAS devices, there is some risk that they could be "spoofed." The FCC has allowed software-only EAS devices to come on the market. PPW sees some enhanced risk of "spoofing" if the software falls into the wrong hands. Sixty years of warning research has shown that warning recipients usually require corroborative information before taking drastic protective actions, this would almost certainly mitigate the effectiveness of any EAS spoofing attempt.

Loss of one EAS source is not critical as long as broadcasters and cable operators use the multiple monitoring capabilities of their EAS equipment. EAS plans employing the web monitoring structure greatly decrease the chance of failure to receive EAS messages.

PPW notes that digitally encoded messages can be digitally signed and encrypted to a high level of confidence. Digital signatures can be used not only to authenticate a message, but also to ensure that it has not been modified in transit. Such signed and encrypted messages have the advantage that they can transit un-trusted communications links (e.g., radio links, telephone lines, satellite circuits) without fear of compromise. Thus, adoption of a digital message format such as CAP that can transmit text, audio and imagery would also permit the use of these mature standards for data encryption and authentication.

MSRC's Best Practices should be incorporated into the development of EAS plans.

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Location of EAS Equipment. In the *2002 Report and Order*, the Commission modified its rules to exempt satellite/repeater stations which rebroadcast 100% of their hub station from the requirement to install EAS equipment, provided the hub station complies with existing National level EAS equipment installation, activation and testing regulations. We acknowledge that this practice removes EAS equipment from the satellite/repeater stations and thereby precludes their participation in the State or local EAS activations via the EAS network. We seek comment on the impact this practice has or will have on any proposed changes to EAS or public warning systems. We also seek comment on whether the Commission should extend this practice to any other EAS providers. In this regard, such comment should address whether any centralized placement of EAS equipment, such as at the head-end of a cable system or satellite uplink, would have a positive or negative impact on the efficacy of EAS as a national, state, or local emergency notification system. Where is the best place to locate EAS equipment so it can be the most useful and maintainable?

The automated EAS was created so that unattended stations and repeater stations far removed from their master station would be able to receive and selectively transmit EAS messages for their service area. This is especially important if the master station is located in another EAS area with different EAS monitoring assignments. Satellite stations operating as part of a nationwide satellite network also need to eventually have their own EAS equipment. Providing extended timelines for compliance with EAS equipment

requirements is one way to provide some financial relief to satellite/repeater stations. Very large cable systems serving multiple counties sometimes have nodes that provide county level service to subscribers in a particular county. These nodes could also be input locations for emergency messages. PPW suggests that DHS funds be made available to support this need, once a comprehensive EAS needs assessment is carried out.

We note that local franchise agreements with cable companies can include arrangements for providing emergency messages to cable subscribers. One method to accomplish this is to use the EAS equipment at cable facilities.

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Testing. FEMA conducts weekly closed circuit tests of the PEP system by sending signals to EAS equipment at each PEP station site. However, no on-air tests of the PEP system ever have been conducted. All broadcasters and cable operators are required to conduct EAS weekly and monthly tests to ensure their EAS equipment is in operating condition. Should comprehensive periodic testing of the entire national EAS system from the PEP stations on down to state and local broadcast stations and cable systems be required? If so, how often should such testing occur? Should a special national level test code be adopted for this purpose, and should a post-test report be required? Should these national tests be in addition to the current testing requirement? Would having too many tests become a public nuisance leading to ignoring EAS alerts by the public? Additionally, we seek comment on whether the required monthly tests adequately evaluate the state-wide distribution of EAS alerts and, if not, what method of testing should be required.

Under EBS, nationwide tests of the national level EBS were conducted every three months. The White House Communications Agency (WHCA), FEMA, FCC, and the national radio broadcast networks and wire services participated. The FCC developed test reports based on the return of questionnaires from broadcast stations. With the demise of the EAN network in 1995, these types of national tests were discontinued. End-to-end testing of the national level EAS should begin immediately. Given the capabilities of the EAS equipment, this can be easily accomplished in an unobtrusive manner. Section 11.31(d) already contains the codes that can be used to proceed with national tests.

PPW is aware that the Primary Entry Point Advisory Committee (PEPAC) has been looking at the issue of national testing since well before September 11. One plan suggests a series of tests to confirm proper operation by time zone or region. Basic PEP tests right now are totally closed circuit in nature. The first step towards open circuit testing was actually implanted in the form of a simple programming adjustment to the EAS decoder/encoder at each PEP station. It enabled them for local origination of an EAS weekly test. All PEP stations performed that change and conducted local tests before September 11, 2001. This confirmed that the encoders are functioning properly. The final step of that draft plan, yet to be taken, would be a coordinated test using the existing EAS Required Monthly Test (RMT) model. The voice message would be short and simple, and possibly voiced by the President.

Some states already conduct meaningful statewide RMTs. These tests help states identify EAS monitoring problems. NWS personnel and authorized officials can participate in RMTs by originating the test messages.

Paragraph 44, Page 18

Training. Some broadcasters and cable operators state that the EAS system and equipment are difficult to learn and use during actual emergencies and that the infrequent use of the equipment results in staff members being unable to remember how to use it when necessary. Additionally, lack of EAS training for emergency management personnel is a concern. We seek comment on whether additional training resources should be provided to emergency managers and, if so, what these materials should include. Should there be periodic mandatory EAS training of broadcast station and cable system personnel? Should emergency managers receive mandatory education and training regarding how and when to utilize warning systems? Who should provide such education and training? Is there a need to educate the public about the EAS and public warning? If yes, who should be responsible for such education? Who should incur the costs of training materials and employee time?

The initial set up of any manual or automated system requires extensive training and planning. Especially when close cooperation is required between the originators and distributors of messages. When it comes to EAS, this is especially true since close cooperation is required between the people who originate EAS messages and the people who are responsible for operating the broadcast and cable entry points for EAS messages. When EAS is automated at broadcast and cable entities, the training burden is significantly reduced. EAS equipment is designed to operate best when it is set to automatic or semi-automatic mode. This can relieve operators from having to decide what to transmit and what not to transmit. Some EAS manufacturers have software based programming for their EAS equipment. This has made it very easy for personnel to originate tests.

Almost all broadcast stations and cable systems now have computer-operated equipment that can interface with EAS equipment. NWS faced the same start up problems with WR-SAME. Their operators are now very proficient at originating SAME/EAS based messages.

Emergency managers and NWS personnel are legally responsible for originating emergency information and warnings. SAME/EAS warning messages are a critical part of that function. Broadcast and cable functions as the means to relay warnings from those with the legal duty to issue them. Broadcasters and cable operators should not place themselves, or allow themselves to be placed in a position where they have to originate EAS messages. The only exception should be when there is no other method available and warnings are issued under the supervision of emergency management as outlined in an emergency procedure in EAS Plans.

DHS provides several training forums for emergency managers. They have great training facilities. EAS training should definitely be a part of their training schedule. Cross training opportunities should be available so broadcast and cable personnel have a better appreciation of the emergency management function, and emergency managers can better understand how broadcast and cable can help them do their jobs better.

A massive EAS public education program is definitely called for. Some of the public thinks EBS is still operating. Public education about EAS and emergency information is

sorely needed. NWS does a good job informing the public about their services. The public remains largely uninformed about EAS in most parts of the country. The government needs to do public education for EAS and warnings in general. The very elements of EAS testing and messaging that were designed to make it less obtrusive to on-air programming have worked to make EAS less visible to the public than the EBS that it replaced. Many people, some in high emergency management positions, still refer to EAS as EBS. Such a public education program must be accompanied by training for those who issue warnings, and for broadcasters and cable operators who must relay them to the public

Emergency managers and NWS personnel can, through coordination with local broadcasters and cable operators, participate in EAS RMTs. They can provide a voice message to be transmitted as the aural message of an RMT.

Paragraph 45, Page 18

Small Operators. Many of the topics discussed above would likely require participating services to incur additional costs. While large companies may have the resources to absorb equipment upgrades and staff, small business entities may not. Should the level of participation required be dependent on the size of the participating entity? How would predicating participation based on company size affect the usefulness of EAS? Should assistance be provided to small businesses? Should we consider government or other funding assistance to small entities? We note that many small cable operators have received temporary waivers of certain EAS rules due to financial hardship. What has been the effect of such waivers?

PPW is not aware of any studies that show any adverse effect from waivers. The absence of studies suggests that the FCC should contact either the LECC and SECC Chair most closely associated with the party requesting a waiver. This would give the FCC more support for granting a waiver that could potentially have adverse impact on local warnings. 47 CFR Part 11 already contains several breaks for small operators. In the past the FCC has given waivers to small operators for various reasons. These practices should continue especially if the reasons are financial, and there is no adverse impact on the warning picture for those in the coverage area of the requestor of the waiver.

How can local entities claiming financial hardship continue to be a part of EAS? Small operators might form alliances to purchase EAS equipment in large numbers to reduce cost. Some DHS funds might be made available to support, repair and enhance EAS in cases of demonstrated financial hardship, or if local needs require more support if a waiver that is or has been granted creates gaps in warning coverage.

Paragraph 46, Page 18

Enforcement. The Commission has been aggressively enforcing the Commission's EAS rules. In 2003, for example, the Enforcement Bureau took approximately 80 EAS enforcement actions. Nonetheless, some broadcasters have failed to install or properly maintain EAS equipment. The base forfeiture amount set in the *Forfeiture Policy Statement* and section 1.80 of the rules for an EAS violation is $8,000. We seek comment on whether we should increase the base amount or otherwise impose higher forfeitures in this area, and on whether there are additional ways to better ensure compliance. We also seek comment on whether we should seek legislation from Congress to increase the maximum forfeitures in this area from the current $32,500 for a single violation or day of a continuing violation and maximum of $325,000 for a

continuing violation.

PPW has concerns about the mixed message sent by penalties for non-compliance for what is actually a voluntary program when it comes to relaying local warnings and alerts. PPW does recognize the vital importance of keeping the installed base of EAS equipment operational. If an inspection finds EAS equipment missing or has never been installed, PPW agrees with those that would support the present fine structure. PPW would also like to suggest that the Commission consider a fine reduction incentive for timely correction of EAS violations. Repeat offenses do need to be dealt with strictly, requiring either the present level of fines, or a multiplier.

PPW respectfully suggests that the Commission consider adding some carrots to foster more support to broadcast and cable licensees for relaying more EAS messages. These include: (1) EAS participant licensees should get special credit during the license renewal process for active participation in the local and state EAS, (2) FCC should work with other agencies on an EAS awards program much like the Mark Trail awards program within NOAA/NWS and, (3) LECC and SECC committee members who work for broadcasters or cable operators should receive special regional training to help them do their no-pay jobs better. This training should be paid for out of homeland security funds.

Paragraph 47, Page 18

Miscellaneous Issues. We request comments on any other matters or issues, in addition to those discussed above, that may be pertinent to establishing the most effective and efficient public warning system in the United States and its territories.

The nation urgently needs an integrated warning system that is kept up to date and tested regularly. This warning system must be thought of as a continuum. It begins with reliable, timely and clear information for authorized originators of warnings, and more faster and better sensors that can recognize a wider range of dangerous conditions. It depends on rapid and accurate assessment and decisions on the need to issue a public warning (or not) and the content of the warning message based on confirmed sensed data. It relies on well-defined and protected emergency lanes that must be built into the ever-growing number of information highways to the media and to the public.

We must never forget that public warnings, EAS included, are not isolated events, but are only one component of the overarching practice of emergency management. Their role within this discipline is expanding as emergency managers are starting to look at information as a resource to be managed in its own right, much like sand bags and fire trucks. Dating back to the old EBS test message, warnings promise “news and other information” that people at risk look for once they have been sensitized to a threat. Expanding and enhancing EAS capabilities will make this process easier, and more able to fit seamlessly into all information paths to the public that come into play once warnings are issued.

Paragraph 48, Page 19

We initiate this proceeding to establish a record on how the Commission can best facilitate the implementation of EAS as part of an effective public alert and warning system. After review of the record we will determine what rules or other next steps are appropriate. We may adopt new rules or revise certain of our current EAS rules, or we may combine an order adopting rules with a report summarizing the record and our policy perspectives regarding matters raised in the record in advance of further work with DHS and others in this area. At the same time, we might make legislative recommendations to Congress. In this regard, we invite comments on whether the Commission should make recommendations to Congress regarding EAS, or whether any of the Commission's EAS rules not otherwise addressed in this NPRM should be changed, and if so, why. Finally, although we have identified above particular subjects that we believe of interest to the public regarding EAS and public alert and warning in general, we welcome comment on any other ideas relevant to the issues addressed in this NPRM.

We end our comments as we began them – by commending the Commission for undertaking this proceeding. The Emergency Alert System is an important part of the nation's ability to warn and inform citizens during times of emergency. Unfortunately, we know that today's system does not work – emergency warnings fail to warn many citizens at risk while warning many not at risk. We can do much better. A more effective public warning capability will save lives, reduce property losses and speed economic recovery.

The Emergency Alert System can play a more effective role in warning citizens during times of emergency. However, it needs to be strengthened. The first step in achieving this goal is more aggressive federal leadership coupled with a collaborative process that involves all the stakeholders. The second step is to implement the many recommendations made by PPW in these comments.

A more effective EAS in and of by itself, however, is not the entire solution to America's public warning capability. We need a comprehensive strategy that integrates EAS, NWS, other existing systems and new technologies into a uniform and comprehensive national architecture that supports the ability of local officials to warn their citizens in a timely and effective manner. The stakeholders involved in PPW have developed such a strategy and a plan for its implementation. We urge the Commissioners to review this strategy and plan carefully.

In considering the development of a national public warning capability, the most important thing to remember is that public warning is not a technology problem. We already have the technologies necessary to warn and inform citizens at risk in a timely and effective manger. There is no need to develop new technologies. The need is for standards, policies, procedures and education. For a better understanding of the key elements of an effective public warning capability, we urge the Commission to read introduction to public warning produced by PPW ("Protecting America's Communities: An Introduction to Public Alert & Warning", (PPW Report 2004-2)).

The Partnership for Public Warning is available to assist the Commission and other federal agencies address these issues. Please do not hesitate to contact us.