Before the
Federal Communications Commission
Washington, D.C. 20554

Reply Comments in the matter of the	)	
	)	
Review of the Emergency Alert System	)	EB Docket No. 04-296
	)	
Independent Spanish Broadcasters Association, the Office of Communication of the United Church of Christ, Inc., and the Minority Media and Telecommunications Council, Petition for Immediate Relief)	)	4 August 2011
	)	
Randy Gehman Petition for Rulemaking	)	

Reply Comments
of Monroe Electronics
Regarding the Third Further Notice of Proposed Rulemaking

1. **We support the comments of the National Association of Broadcasters and others in regards to the acceptance of FEMA conformance testing as a measure of CAP compliance.**

   Specifically, we concur with the NAB's request "that the Commission rely on the EAS equipment conformance testing process already established by the Federal Emergency Management Agency (FEMA), and take into account the fact that CAP-compliant equipment has been available on the market for approximately two years. Many broadcast EAS Participants have already purchased and installed this equipment."[1]

2. **We note the widespread support of commentators regarding FCC adoption of the ECIG Implementation Guide.[2]**

   We find Gary Timm's comments and conclusions that the ECIG Implementation Guide should be adopted by the Commission to be succinct and compelling. As he states, "Thus the ECIG Implementation Guide is essential to implementing FCC Next Generation EAS and should be acknowledged in some fashion in the FCC Rules, whether by direct incorporation in the FCC rules

[1] Comments of the National Association of Broadcasters (20 July 2011), p.3.

[2] NAB, Comments of the National Cable Telecommunications Association, Comments of TFT, Inc., and Comments of Sage.

or by reference to the FEMA adoption of the ECIG Implementation Guide and direction that its methods be followed for FCC EAS purposes."[3]

We have also appended a December 10, 2010 memorandum ECIG from the Federal Emergency Management Agency (FEMA) Integrated Public Alert and Warning System (IPAWS) Program Management Office, expressing concurrence with the "ECIG Recommendations for a CAP EAS Implementation Guide".

3. **We concur in part with the comments of the Named State Broadcast Associations in that "there does not appear to be a need for the Commission, separate from FEMA, to certify equipment compliance with CAP or the EAS-CAP Industry Group Guide" - insofar as that FEMA testing pertains to EAS encoder/decoders.[4]**

   As regards CAP-conformant EAS encoder-decoders, we further concur that "if the Commission decides not to conduct a parallel certification process, the Commission should make it abundantly clear in the Report and Order resulting from the Third Further Notice that FEMA's conformance testing, certification process, and determination that particular EAS equipment complies with CAP, will be accepted by the FCC for all purposes, with the effect that all EAS Participants installing and using such equipment shall be deemed to be in compliance with the equipment authorization procedures set forth in Part 11 of the Commission's Rules."[5]

   However, we do not concur that this approach is adequate for intermediary devices, as in our opinion their FEMA testing was incomplete and they have not at all been subject to Part 11 certification. We have already identified our concerns with the testing of intermediary devices in our prior comments.[6]

   Whether or not the FCC institutes a parallel certification process for CAP functionality, it is known that all EAS encoder/decoders that have passed the IPAWS CAP conformance process already meet all Part 11 certification requirements. We are of the opinion that the large majority of industry has been of the understanding that the possession of FCC certification for EAS plus IPAWS conformance for CAP has been sufficient assurance of whether a device meets the intention of the FCC's order to be able to accept a CAP message.

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[3] Comments of Gary Timm (19 July 2011), p.2.

[4] Named State Broadcast Associations, p.21.

[5] Named State Broadcast Associations, p. 21.

[6] Comments of Monroe Electronics (19 July 2011) , p. 4 (note1), pp.10-11, p.12, and p. 15,

4. **We respectfully disagree with the comments regarding the gubernatorial mandatory alert not being "event driven."[7]**

   To the contrary, the CAP-based methodology created in the ECIG CAP-to-EAS implementation Guide for the gubernatorial alert in fact *retains* the characteristic of alerts being event driven, while adding an ability to filter and prioritize messages tagged with that gubernatorial authority.

   The ECIG methodology is a useful compromise between event driven messaging, and the creation of a capability to ensure that critical messages of any event type are widely disseminated when a governor invokes that authority. We must also take this opportunity to reiterate that the idea of creating of a new EAS event or originator code would seem to create more problems than it resolves, by moving away from event-driven emergency alerting, and creating conflicts with the CAP based methodology provided in the ECIG Implementation Guide.

   The CAP-based gubernatorial code as formulated in the ECIG guidelines addresses a number of pressing issues in both the cable and broadcast sectors – such as helping better ensure alerts of any event type can be aired in unattended operations should there be such a necessity.

5. **We concur with and support the argument by the Wireless RERC to make the benefits of making the expanded alert information contained in a CAP message available in the EAS.**

   Specifically, we support the recommendation by the Wireless RERC that Commission permit and encourage the following or similar language "If an EAS participant transmits an EAS text message that has been constructed from a received CAP message, the EAS participant can also transmit any text from the received CAP message that provides additional information beyond the required EAS protocol elements."[8]

   The ECIG CAP-to-EAS Implementation Guide provides information on how that expanded text may be included within EAS. Further, we concur with the concept that the FCC should encourage EAS participants to innovate in finding methods of making the expanded alert information contained in CAP EAS messaging – which may include graphics, maps and other vital information – in ways to benefit not only special needs population, but the general population as well.

6. **In response to various comments about the extent to which CAP EAS equipment exists in the market, we observe that CAP EAS equipment has already been steadily and rapidly implemented in the broadcast and cable industries.**

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[7] Comments by the Broadcast Warning Working Group (20 July 2011), p.4; Joint Comment of the Named State Broadcast Associations (20 July 2011), p. iii.

[8] Comments of the Wireless RERC (19 July 2011), p. 5.

Through July 31, 2011, our estimation, based on multiple sources, is that a significant majority of EAS Participants have either already ordered and installed CAP EAS encoder/decoders, or currently have such equipment under order.[9]

Based on our research, we believe that the majority of the cable television marketplace currently has either a CAP-conformant EAS encoder/decoder, or has a unit that is ready to receive a simple software update for CAP conformance. Additional delays to the CAP implementation deadline will do little for the large majority of EAS participants who have already ordered and installed CAP EAS equipment.

For example, we estimate that 25 of the 28 largest television groups (in terms of stations) have already ordered and/or installed CAP EAS devices, together representing 38% all of TV stations. In addition to the largest station groups, many more commercial and NCE television stations are also known to have already ordered and/or installed CAP EAS equipment, leadng us to the conclusion that the majority of television stations across the nation have installed, or have on order, CAP EAS equipment.

Further, most of the nation's largest radio groups are known to have ordered such devices.[10] Of the 10 largest cable MSOs, all are known to have such equipment, or are awaiting a simple software upgrade for CAP conformity.

We also make note that a substantial majority of EAS participants appear to have adopted CAP-enabled EAS encoder-decoders, while intermediary devices have been adopted by a small minority of EAS participants. In regards to the comments of APTS[11], for example, we note evidence that a growing number of NCE stations have been or are in the process of implementing CAP EAS encoder-decoders, including Oregon Public Broadcasting, Idaho Public Broadcasting, Twin Cities Public Broadcasting, Mississippi Public Broadcasting, and others.

We argue that what is needed for compliance to the FCC's order is not only knowable, but has in fact been known (or assumed) in the market place.[12] As apparent evidence of this widespread

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[9] Based on a review of direct and indirect sales channels, and feedback from EAS Participants.

[10] Press reports indicate that Clear Channel, Cumulus, Citadel, CBS, Entercom, and others have all ordered CAP EAS encoder/decoders.

[11] Comments of the Association of Public Television Stations and the Public Broadcasting Service (20 July 2011), p. 3-4.

[12] On 17 May 2010, the EAS-CAP Industry Group released its CAP EAS Implementation Guide (ECIG-IG-1.0). ECIG membership included virtually all CAP EAS equipment manufacturers. On 30 September 2010, FEMA announced the long-anticipated – and long-expected - adoption of the CAP standard, which triggered a 180-day deadline for implementation. Subsequently, the FCC extended the deadline by an additional 180 days, to 30 September 2011, by which they must be able to accept CAP-formatted EAS messages. During March and April 2011, multiple vendors filed declaration of conformity with FEMA, signaling their tested ability to accept messages using the

knowledge, we point not only to the installation of CAP-ready EAS equipment by the majority of EAS participants already, but also to the group purchases of CAP-ready EAS equipment by several State Broadcast Associations.

We do not believe that there is any need to be an extension to the current September 30th deadline for any technology reason. As discussed above, any updates to CAP EAS gear as a result of changes in Part 11 relating to either CAP or EAS functionality can be handled by software updates to equipment that is already in the field. Software updates will be a normal and expected feature of the next generation CAP EAS environment.

Further, we understand that FEMA expects to have IPAWS available to make CAP messages available to CAP EAS units before to the end of September, and is also considering issuing frequent test messages by that time as well. For all these reasons, we feel that additional delays based on concerns over the perceived need for additional development is unwarranted in our opinion.

7. **We feel it is very important for the Commission to understand that any future updates or revisions to FCC rules and FEMA standards will by and large be accommodated by software updates to CAP EAS equipment already in the field. This flexibility should address many perceived concerns regarding IPAWS and CAP standards and specifications.**

The new EAS will be characterized by regular periodic software updates, as is the case with virtually every other software and standards-driven business. These software updates to CAP EAS encoder/decoders can readily be supported by devices already in the field.

Deployment of equipment today does not limit the updating of equipment should the FCC or FEMA amend their rules or technical requirements. This is a critical capability designed into this CAP EAS equipment, given the large numbers of CAP equipment already deployed, and the likelihood of enhancements by FEMA in the upcoming months and years. Devices installed today will be able to accept a broad range of future enhancements and refinements to IPAWS standards, state CAP systems, and other FCC requirements.

Software updates can readily be provided to CAP equipment in the field as additional CAP-based services are added and refined. CAP EAS devices are by and large software-based, so it is a matter of updating software to enable the interfaces with these additional services. This will prove to be a vital capability and benefit to the EAS community. For example, while the IPAWS CAP aggregator is anticipated to be brought on-line as early as September 2011,[13] we would certainly expect future updates as the IPAWS system is expanded and refined over time.

Common Alerting Protocol. These events concerning widely known products were well publicized in the industry trade media, in broadcast and public warning e-mail discussion lists, and in company advisories.

[13] Briefing by FEMA IPAWS to EAS-CAP Industry Group, July 2011.

In fact, we expect considerable refinement to occur after the IPAWS aggregator begins communicating with the large number of CAP EAS devices already in the field. We can already foresee additional refinements over the upcoming years could include modifications to the interface with the IPAWS aggregator, future upgrades to higher versions of CAP (v2.0 and onwards, for instance), revision of the IPAWS CAP profile and possible refinements of the CAP EAS Implementation Guidelines. **All these refinements over the upcoming years would of course be readily managed via software updates provided to devices already installed at EAS participant sites.**

In our opinion, to delay the deployment of CAP EAS equipment would effectively delay the deployment and development of IPAWS overall. CAP EAS manufacturers must (and in most cases already have) both anticipate and commit to support required software/firmware updates to respond to iterative changes in IPAWS. Conversely, we feel it is in the best interest of both the Commission and EAS participants to ensure the long-term commitment of CAP EAS manufacturers.

8. **As noted in our previous comments, we urge the Commission to consider the implications and impact on the CAP EAS manufacturing community – and to the EAS CAP effort in general – if it imposes any further delay to CAP EAS implementation.**

The EAS industry is effectively a regulated market, as is the CAP EAS market – now with direct and indirect regulation by both the FCC and DHS-FEMA. Further, the EAS industry is by no means a mass-market commodity. Very much to the contrary, we have found that the total market for CAP EAS equipment is as little as half the size of that during the original EAS implementation (due to industry consolidation, centralized operations and other factors) in the radio, television and cable sectors. At the same time, the market is characterized by vigorous competition among a number of manufacturers, resulting in aggressive and favorable pricing for EAS participants.

Given the nature of this regulated market, it is absolutely essential that the manufacturers involved this regulated marketplace receive some measure of predictability in terms of a known and reliable CAP implementation deadline.

The idea of extending the CAP deadline yet again to a known calendar date certain is one matter. The idea of extending the CAP deadline 180 days from an ***unknown*** future date of publishing the revised Part 11 rules is a very different and - in our opinion - completely untenable prospect.

We have already raised our concerns in terms of the inventory and personnel commitments that the CAP EAS manufacturers have already undertaken to meet anticipated market requirements in advanced of the published September 30th, 2011 deadline.[14] The lack of a reliable CAP

[14] Comments of Monroe Electronics, pp.16-18.

implementation deadline will likely make resource utilization inefficient and difficult to manage even in the most professionally staffed CAP EAS manufacturer. This is not a trivial concern. These issues of resource utilization and prioritization will have predictably negative effects in CAP EAS manufacturers, and risks the ability and willingness to further invest in technological innovation for the further improvement of advanced and accessible alert and warning capabilities.

We are also concerned that further delaying the CAP implementation deadline could have an inadvertent effect on the outcome of the national EAS test, as the delay could once again distract manufacturers ' resources that could have been utilized in supporting the ramp-up to the EAS test. The irony is that additional delays in the CAP implementation deadline may well result in the inefficiencies and costliness that all – including the Commission – have noted their desire to avoid.

9. **We recognize the comments made regarding the existence of certain economically disadvantaged operations that may well be deserving of waivers.** As the ACA notes "(t)he problems are compounded by the fact that CAP-compliance will have a disproportionate economic impact on small cable companies just as initial EAS compliance had a disproportionate impact. The economic impact is different because of the number of headends involved, the smaller number of subscribers served by each headend, and the operator's inability to spread the costs over a large number of subscribers."[15]

However, while a case is cogently laid out for extending waivers to selected EAS participants, we suggest these waivers would be more appropriately accomplished on a case-by-case basis, rather than a blanket delay or exemption for certain categories of EAS participants, some of whom who have already made purchases of CAP EAS equipment. As we discuss below, we find that there are cogent reasons why the September 30th CAP implementation deadline can and should remain in place, while acknowledging that there are EAS participants with unique economic or operational constraints that make them deserving of waivers.

10. **Based on the current status of CAP EAS deployment, standards development, and industry knowledge of the process, we respectfully request the Commission maintain the September 30th 2011 deadline for CAP compliance to prevent additional industry confusion and unnecessary delay in the development and deployment of a national next-generation CAP-based public alert and warning infrastructure.**

Given the rapid adoption of CAP-compliant EAS equipment by the broadcast and cable industry, we arrive at a somewhat different conclusion than those filing comments requesting an additional extension to the CAP implementation deadline. We do not feel that there is sufficiently compelling evidence that a further extension to the CAP deadline will help many

[15] Comments of the American Cable Association (20 July 2011), p. iv.

issues that are perceived to be outstanding. Rather, we are concerned that additional extensions, particularly without a firm deadline, will likely create issues that may put undue strain on the overall CAP EAS endeavor, as we previously identified in our filed comments.[16]

Further, we understand that there is already a significant number of state and local CAP systems across the nation that already issue CAP messaging, as noted by the NAB in its comments.[17] Delaying deployment of CAP EAS equipment would also likely have the impact of further stifling growth of CAP EAS initiatives at the state and local level. We note multiple conversations with state and local authorities who are deferring significant effort on their own CAP capabilities, due to uncertainty over the dependability of the September 30th deadline.

11. **We concur with the comments filed by FEMA suggesting "that there be an allowance for a Period of Configuration of CAP-EAS device to commence on the established date for EAS participants to be able to receive CAP messages and extend for a period of 120 days".[18]**

This would appear to be a very workable and common-sense idea that would provide a number of beneficial outcomes. A configuration period would enable the September 30th deadline to remain in place, while providing a system shake down period for additional adjustments and minor implementation details. Further, as we have previously noted in these reply comments, the software-based nature of CAP EAS devices provides a ready ability to furnish updates to units already in the field, as inevitable refinements are made in response to what we will observe and learn in this first 120 day "configuration period".

As we noted in our previous comments, "We suggest to the Commission that it is an appropriate and necessary objective to lay the technology foundation today – including installation of certified and conformed EAS equipment – so that the basis for further development, testing and deployment of next generation EAS can be accomplished. Government and industry need to establish the first steps now, so that the system can be adjusted, expanded and refined as needed by respective Federal, state and local jurisdictions. We remind the Commission that such adjustments and refinements in next generation EAS will principally involve software/firmware upgrades that can be readily accommodated after the equipment is in the field **(in fact many of the updates may only be discoverable after the system is fielded**).[19] The 120 day "configuration period" suggested by FEMA is a very useful part of that process, however an essential part of that process is having those CAP EAS units installed and operating.

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[16] Monroe, pp. 16-18.

[17] NAB, p.3.

[18] Reply Comments on Behalf of Federal Emergency Management Agency, Integrated Public Alert and Warning System Program Management Office (3 August 2011), p. 2.

[19] Monroe, p. 16, emphasis added.

MEMORANDUM

To: EAS-CAP Industry Group (ECIG)

From: Antwane Johnson
Division Director
Integrated Public Alert and Warning System (IPAWS) Program Management Office

Ref: ECIG IG Concurrence Memorandum, August 9, 2010

Date: December 2, 2010

Subject: Federal Emergency Management Agency (FEMA) Concurrence with the "***ECIG Recommendations For a CAP EAS Implementation Guide***" Guidance **REVISED**

After listening to the concerns of the EAS vendor community, The FEMA IPAWS PMO has reconsidered the issue of audio file types and mime types.

IPAWS agrees that the audio encoding should be constrained to allow **MP3 ONLY** audio formats encoded as described in § 3.5.2 (1): "mono, 64 kbit/s data, preferably sampled at 22.05 kHz or otherwise at 44.1 kHz." IPAWS agrees that the <mimeType> element should be appended with the file type name (as in "audio/x-ipaws-audio-mp3") to eliminate the need for file type determination by inspection. These constraints will only apply to messages transmitted through IPAWS and intended for EAS distribution. EAS devices retrieving messages from other sources are not so constrained. This memo (to be published on the ECIG website) in addition to the Implementation Guide should suffice as guidance documentation, and no revision to the CAP standard or Profile are required.

IPAWS restates its previous position that the EASText <parameter> Element not be immediately included in the CAP profile. The Implementation Guide describes a satisfactory alternate means of deriving this information, and this area may be addressed in a future revision to the CAP standard and the IPAWS CAP Profile.

IPAWS appreciates the efforts of the EAS vendor community and encourages their input to help make the CAP implementation successful.

MEMORANDUM

To: EAS-CAP Industry Group (ECIG)

From: Antwane Johnson
Division Director
Integrated Public Alert and Warning System (IPAWS) Program Management Office

Date: August 9, 2010

Subject: Federal Emergency Management Agency (FEMA) Concurrence with the "***ECIG Recommendations For a CAP EAS Implementation Guide***" Guidance

The Federal Emergency Management Agency IPAWS Program Office would like to announce that it has reviewed and concurs with the above referenced document, with the following conditions:

1) **Specific Mime Types:** This recommendation envisions that the CAP standard and IPAWS CAP Profile would be altered to specifically enumerate and/or identify the mime type in the message, as:

   a. *audio/x-ipaws-audio-mp3*
   b. *audio/x-ipaws-audio-wav*
   c. *audio/x-ipaws-streaming-audio-mp3*

   Currently, the CAP 1.2 specification does not require specific enumeration and/or identification of mime type, rather assumes that the file type associated with a message should not be restricted. FEMA believes that specific enumeration and/or identification should not refer to specific mime types, hence allowing any file type to be associated with a given alert message.

2) **EASText <parameter> Element:** This recommendation envisions that a new element called "EASText" would be implemented in the CAP standard and IPAWS CAP Profile that would allow emergency managers and other CAP message originators to dictate the exact text they wish to see conveying their message in TV visual crawl messages and radio and TV aural messages voiced by text-to-speech technology.

   This element is not currently supported in the CAP standard or the IPAWS CAP Profile, however FEMA believes that, in that, the Implementation Guide describes a satisfactory alternate means of deriving this information, this area may be addressed in a future revision to the CAP standard and the IPAWS CAP Profile.

It should be noted that public alerts and warnings intended for transmission over the Emergency Alert System (EAS) may be encoded as Common Alerting Protocol (CAP) messages in various ways. As

both CAP v1.2 and the CAPv1.2 IPAWS Profile v1.0 make use of several free form text elements and several optional elements, there is ample opportunity for a CAP message rendered by one CAP-to-EAS device to differ when rendered by another vendor's device. There can also be a difference between what the originator intended for an alert, and what alerts contain, when broadcast by CAP/EAS devices.

The EAS-CAP Industry Group (ECIG), formed in 2008 as a group of EAS equipment manufacturers and other interested parties, has produced this recommendation, for use by the CAP-to-EAS vendor equipment community. The guide is intended to further reduce the areas of uncertainty in how an alert will be presented to the public via CAP/EAS, so that originators and distributors of alerts can deliver the intended message to the public, regardless of the vendors or platforms involved. The guide has not been written to benefit any specific vendor or type of equipment. The goal is general interoperability at a data and messaging level.

The EAS-CAP Implementation Guide has been prepared in light of several points of reference, including the Federal Emergency Management Agency (FEMA) CAP v1.2 IPAWS Profile v1.0 Requirements, the recently approved CAP 1.2 specification, and other references. The guide has been written to facilitate the success of any CAP-to-EAS system including existing and planned state, local, territorial and tribal systems; the proposed IPAWS system, and emerging National Weather Service systems. To that end, in addition to addressing general CAP-to-EAS implementation issues, this guide also directly addresses constraints and requirements of the IPAWS program.

FEMA is encouraged by, and applauds the efforts of ECIG, the vendor community and others involved in developing these recommendations. In addition, FEMA looks forward to working with the ECIG community to move this forward to a successful implementation.