

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

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| In the Matter of |) | |
| |) | |
| Amendment of Part 11 of the Commission's Rules |) | PS Docket No. 15-94 |
| Regarding Emergency Alert System |) | |

COMMENTS OF MONROE ELECTRONICS IN REGARDS TO THE BLUE ALERTS NPRM

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I. INTRODUCTION

In these comments to the above captioned proceeding, Monroe takes no particular position on the merits of the proposed Blue Alert concept itself. Our comments are principally directed towards certain technical, operational and cost issues related to the addition of an event code, the potential for re-use of an existing event code, and the significant need to ensure the complete text of the CAP version of an alert message is available to video service providers, even if a broadcast EAS message is received first.

We respectfully note that the addition of a new EAS event code may involve various costs and operational considerations for EAS and public warning stakeholders which may not have been adequately factored in by the Commission. We suggest that, to the extent that a “Blue Alert” is deemed necessary and useful to the general public, the Commission should reconsider the proposed amendment of its rules to add a new “BLU” event code. Instead, we recommend that the utilize the existing “LEW” event code be utilized for this purpose as the most efficient and effective means of accomplishing the stated objectives in the Notice of Proposed Rulemaking (“Notice”).

Perhaps most importantly, we suggest that for a “Blue Alert” to be truly useful by the general public, particularly when delivered by video service providers (TV, cable TV, IPTV, etc.), the Blue Alert message would be best served with the expanded text content that is supported by digital Common Alerting Protocol (CAP) messages as provided via the FEMA IPAWS OPEN system. However, as clearly evidenced by the test results released by FEMA and the Commission, a very significant portion of EAS Participants would likely receive an EAS (FSK tonal) message first, and therefore would broadcast a brief EAS textual message instead of a CAP message that may be retrieved subsequently.¹

For this reason, we urge the Commission to address the questions previously posed in our January 2017 comments regarding “triggered CAP polling”, which are reiterated in our present comments to this above captioned proceeding.²

II. OUR TRIGGERED CAP POLLING PROPOSAL TO ENSURE RICH TEXTUAL ALERTS WOULD BENEFIT THE PROPOSED BLUE ALERT MESSAGE, AS WELL AS EXISTING ALERT MESSAGES SUCH AS AMBER ALERTS.

A. A substantial portion of EAS Participants will receive and transmit a short EAS message before they receive a potentially more informative CAP message.

As noted by the Commission in its Notice, the EAS alerts are configured using the EAS Protocol (typically relayed over the air from broadcaster to broadcaster), as well as Common Alerting

¹ See FCC Report: September 28, 2016 Nationwide EAS Test (April 2017)

² See Comments of Monroe Electronics on Triggered CAP Polling, in Relation to the Amendment of Part 11 of the Commission’s Rules Regarding the Emergency Alert System, as well as the Commission’s Initial Findings Regarding the 2016 Nationwide EAS Test. Filed 9 January 2017. See also Comments of Monroe Electronics in Regards to the Notice of Proposed Rulemaking, filed 26 May 2016, at pp 11-15, and Reply Comments of Monroe Electronics, filed 9 July 2016.

Protocol (CAP) messages accessed by EAS equipment at Participant sites via the Internet. As evidenced by the Commission's own reporting after the national EAS test and the subsequent national NPT test, a significant portion of EAS Participants transmitted an alert that was based by an EAS Protocol message that was received, not a CAP message from FEMA IPAWS OPEN.

According to the FCC's Nationwide Test Report, EAS Participants identified the first source from which they received the test NPT alert. While FEMA issued a CAP based test alert, due to propagation over the EAS broadcast system, 56.5% of EAS Participants first received the alert via over-the-air EAS broadcast monitoring, and 43.5% first received the alert from IPAWS OPEN as a CAP message. Reviewing the source of the alert for TV and cable operations, 54.9% of reporting TV stations received the broadcast EAS message before the CAP message (or the EAS message was the only message received). In cable TV, 61.5% of reporting facilities received the broadcast EAS message first.⁵ Each station that received the EAS message before the CAP version would have broadcast the short standard EAS message derived only from the limited information contained in the EAS protocol header.⁶ These stations would not have the benefit of displaying any of the additional textual information contained in the CAP message available via IPAWS OPEN.

This is a similar finding to additional state-level tests we have monitored, and regarding which we had previously advised the Commission, where up to 60% of stations participating in a statewide CAP RMT test reported receiving the broadcast EAS message first.

These statistics have profound implications for the proposed Blue Alert, and the value of the textual information displayed by video programmers. If the proposed Blue Alert event code were to be received first via EAS Protocol, the textual output rendered by EAS devices would be remarkably uninformative. For example, the textual output of such a message of the suggested Blue Alert (BLU) event code would likely be: *"A Civil Authority has issued a Blue Alert for the following areas: Washington, DC, at 3:00pm on July 15 2017 effective until 5:00pm."* Clearly, such a message would have minimal value for the purposes of a Blue Alert.

Likewise, should even the existing Law Enforcement Warning ("LEW") event code be utilized for this purpose, the message would result in this equally uninformative example: *"A Civil Authority has issued a Law Enforcement Warning for the following areas: Washington, DC, at 3:00pm on July 15 2017 effective until 5:00pm."*

In neither example is the resultant EAS message consistent with the objectives of the Commission's NPRM, nor of the objectives contemplated by the Blue Alert Act.⁷

Likewise, the resulting textual portion of an EAS message for an AMBER Alert may be significantly less informative to the public than a CAP XML version of the same alert which may reside on the IPAWS OPEN system. The same could be said of all other EAS event codes as well.

⁵ See Nationwide EAS Test Report.

⁶ While we remain firm in our opinion that the broadcast EAS system (relying on FSK based EAS protocol) continues to serve an essential role as a backup to Internet based CAP dissemination systems, as evidenced by EAS Participants that only received the EAS version of an alert message, and did not receive a CAP message for whatever reason.

⁷ See 42 U.S.C. § 14165b (b)(2)(E)-(F).

B. The use of a “triggered CAP polling” methodology as proposed by Monroe Electronics is an effective solution to this problem; however, the Commission must address first certain fundamental questions before industry can adopt or implement any such solution.

We urge the Commission to address our previous questions related to the implementation of “triggered CAP polling” – meaning that the EAS device should automatically poll IPAWS OPEN upon receipt of a broadcast EAS message, to verify whether a corresponding CAP message exists, and to utilize that CAP message instead of the broadcast EAS message.⁸

In our January 2017 comments, we indicated our intent to implement this feature in our EAS products in an upcoming software release.⁹ However, we have deferred this “triggered CAP polling” feature until such time as the Commission can address certain fundamental questions posed in our previous comments to the Commission.¹⁰ Rather than unilaterally implement this enhanced feature for civil and weather event codes (and not the NPT and EAN), we greatly desire input from the Commission first before pursuing such a course of action.

After careful consideration, we have also concluded that it would be highly inadvisable for any EAS manufacture to introduce “triggered CAP polling” until the Commission can address even a few of the questions posed below, as there may be a greater risk of unique “vendor interpretations” and inconsistencies without such input from the Commission.¹¹ We feel it is critical for all EAS vendors to implement this feature uniformly, and to implement to feature to a common specification or at least using common assumptions. For this reason, we have temporarily held off implementing this feature in anticipation of the Commission responding to several fundamental question posed in our January 2017 filing.

We reiterate these questions below in the anticipation that the Commission will offer clarification.

- Should “triggered CAP polling” be implemented for all EAS event codes (including the national EAN and NPT event codes, which require transmission “immediately upon receipt”? Alternatively, should “triggered CAP polling only be implemented on a voluntary basis for non-national civil and weather event codes?
- Is any potential delay or latency permissible in light of the “immediacy” requirements of §11.51 (n) and §11.54 (a), should this enhancement be incorporated in conjunction with

⁸ See Comments of Monroe Electronics on Triggered CAP Polling. See also Comments of Monroe Electronics in Regards to the Notice of Proposed Rulemaking, filed 26 May 2016, at pp 11-15, and Reply Comments of Monroe Electronics, filed 9 July 2016.

⁹ See Comments of Monroe Electronics on Triggered CAP Polling.

¹⁰ See Comments of Monroe Electronics on Triggered CAP Polling, Comments of Monroe Electronics in Regards to the Notice of Proposed Rulemaking, and Reply Comments of Monroe Electronics.

¹¹ We considered a suboptimal scenario where one manufacturer may introduce triggered CAP polling for all event codes, but another may introduce it only for non-national (CIV and WXR) event codes. We also considered the suboptimal scenario where various manufacturers make their own subjective decisions on how much latency or delay is acceptable between receiving an EAS message and resolving a subsequent poll of IPAWS OPEN for CAP messages. As can readily be inferred, a wide variety of scenarios could develop with rather inconsistent performance and results across different EAS manufacturers, and even different configurations among various EAS Participants. This would not yield the uniformity and interoperability that the Commission has desired.

the EAN and NPT Event codes?

- If so, would the FCC desire either or both of the EAN and NPT codes to also be furnished with this immediate CAP polling capability?
- What is the maximum delay or latency that would be acceptable to the FCC, in order to allow for this function to be accomplished?

As suggested in our Comments filed on May 26, 2016, it could be argued that the few seconds that may be required to additionally poll the IPAWS OPEN system may be sufficiently limited and necessary as to fall within the Commission's intent of "immediate" transmission of these alerts. However, after due consideration, we feel it advisable for EAS manufacturers to obtain clarification on whether any latencies introduced by "triggered CAP polling" – however minimal – are acceptable to the Commission. Conversely, the Commission may advise that this "triggered CAP polling feature may be acceptable and appropriate for non-national civil and weather EAS event codes, but the national EAN and NPT codes should maintain a "first in, first out" approach to the immediate transmission of these national event codes.

These questions must be addressed by the Commission before the EAS manufacturer community attempt to implement triggered CAP polling functionality. It would be highly inadvisable for individual EAS manufacturers to proceed without such clarification, due to the high likelihood of differing interpretations of fundamental assumptions. Different interpretations and assumptions will inevitable result in significantly different performance outcomes across EAS manufacturers and EAS Participants.

C. Though not a directly part of this current NPRM, the same questions must be also be addressed prior to additional national testing of the EAS system.

We further note that FEMA has signaled its intention to conduct a national EAS test using the NPT code on September 27th, 2017 (with a fall back date of October 4th, 2017).¹² The NPT event code now carries the requirement for transmission immediately upon receipt.¹³ The FEMA test provides an additional reason – and urgency – for the Commission to clarify what it means by transmission immediately upon receipt of an NPT or EAN message. Specifically:

- We wish to reconfirm the implicit assumption that an EAN or NPT should begin transmission upon receipt and validation of the EAS Protocol headers (in the case of broadcast EAS receipt of an EAN or NPT); or upon receipt and download of an accompanying audio file (in the case of Internet receipt of a CAP based message from IPAWS OPEN).¹⁴ Conversely, we seek to confirm that the Commission did not intend for an NPT or EAN message to be recorded in its entirety, and then transmitted after the EOM (end of message) signal, or for the NPT or EAN to be substantially buffered (for example for more than a minute), and then transmitted.

¹² Letter from John E. Veatch, Assistant Administrator, National Continuity Programs, Federal Emergency Management Agency, to Lisa Fowlkes, Bureau Chief, Public Safety & Homeland Security Bureau, FCC, EB Docket No. 04-296, (filed July 14, 2017) (FEMA National Test Letter).

¹³ 47 CFR §§ 11.51 (n) and 11.54(a).

¹⁴ Note that we have explicitly not asked regarding the scenario of receipt and initiation of a streaming audio feed for an EAN or NPT message, as the technical specifications for this have not been provided as yet to EAS manufacturers. As such, this is not yet a feasible technical scenario.

- As above, we seek to confirm whether any potential delay or latency is permissible in light of the “immediacy” requirements of §11.51 (n) and §11.54 (a), such as in the case that “triggered CAP polling” is incorporated in conjunction with the EAN and NPT Event codes.¹⁵
- We ask whether the FCC desires either or both of the EAN and NPT codes to also be furnished with this immediate “triggered CAP polling” capability. Such functionality would not be available in relation to the upcoming September 2017 national EAS test, but could be available for the 2018 national test provided the Commission furnishes clarification.
- In the functionality as described here, we seek to clarify what the maximum delay or latency would be acceptable to the FCC, in order to allow for this function to be accomplished.

“Triggered CAP polling” is a voluntary enhancement that would necessitate a software update for supporting EAS devices. Such functionality may be of interest primarily to those EAS vendors who serve the video services segment of the media industry.

As such, EAS manufacturers who are interested in adding this type of functionality will require sufficient time after the Commission provides clarifications to allow for development, regression testing and acceptance, then including the new functionality in a regularly scheduled software/firmware update, and then time to permit EAS Participants sufficient time to obtain, test, accept and implement the associated software/firmware update. We suggest that a period of not less than 12 months after the Commission clarifies the above questions as a necessary implementation timeframe for such a feature.

III. A NEW DEDICATED BLUE ALERT EVENT CODE WOULD NOT PROVIDE ANY SIGNIFICANT ADVANTAGES OVER THE EXISTING “LEW” EVENT CODE; AND IN FACT WOULD CAUSE ADDITIONAL COMPLICATIONS, COSTS AND DELAYS IN IMPLEMENTATION.

A. Benefits in utilizing the existing “LEW” event code include least-cost, fastest implementation in both the EAS and WEA, and ready integration into existing state EAS and Blue Alert plans.

Of the 27 states that current have Blue Alert plans, only two are known to incorporate the EAS into these plans at the present time. These two states currently incorporate the EAS into their Blue Alert plans using the existing “Law Enforcement Warning” (“LEW”) event code.¹⁶

¹⁵ Specifically, upon receipt of a broadcast EAS message, our proposal is for the EAS device to automatically interface with the IPAWS OPEN server to determine the presence of a matching or corresponding CAP message, and transmit that instead. This proposed functionality would entail a brief delay as the poll of the IPAWS OPEN system is conducted, the message validated, and any associated multimedia (audio files) downloaded.

¹⁶ As noted by the Commission in its NPRM, Montana and Florida utilize the “LEW” event code to transmit Blue Alerts *See, e.g., State of Montana, 2016 Emergency Alert System (EAS) Plan* at 27 (Mar. 16, 2016), https://www.readygallatin.com/download/website/plans/ST_Plans/MT-EAS-Plan-Mar-16-2016.pdf; IPAWS Non-Weather, *Alert: EAS Law Enforcement Warning* (Jan. 9, 2017), <http://ipawsnonweather.alertblogger.com/?p=13270>.

The “Law Enforcement Warning” event code is currently integrated into all FCC-certified EAS equipment installed at every EAS Participate site in the United States. No effort on the part of EAS Participants would be required to include this “LEW” code since it is already present on each EAS device. If an EAS Participant decided to participate voluntarily in a state’s Blue Alert program, then it would be simply a matter of selecting this “LEW” event code for transmission, just as EAS Participants have done for all other EAS event codes.

State EAS Plans and state Blue Alert Plans could more effectively reflect the designation of the “LEW” event code for the exclusive purpose of “Blue Alerts.” The redefinition of the existing “LEW” to conform with the objectives of the Blue Alert initiative, poses no significant complication to the occasional usage of that event code for other purposes. For example, issues such as hazardous road conditions and road closures – insofar as they even rise to the level of activating the EAS - could be addressed via other existing event codes, such as a Local Area Emergency (“LAE”), Civil Danger Warning (“CDW”) and/or Civil Emergency Message (“CEM”). The redefinition of “LEW” to be consistent with the objective of the Blue Alert initiative could provide the impetus for EAS Participants to actually utilize the “LEW” event code, which at present is often not programmed for automatic transmission by EAS Participants.

We believe there is no practical reason why the existing “LEW” code could not be effectively utilized by alert originators to disseminate information related to (1) the serious injury or death of a law enforcement officer in the line of duty, (2) an officer who is missing in connection with their official duties, or (3) an imminent and credible threat that an individual intends to cause serious injury to, or kill, a law enforcement officer.¹⁷

As noted, the existing “LEW” event code is already used in those states that incorporate EAS into their respective Blue Alert plans.¹⁸ Creation of a new event code for Blue Alerts may result in a need for those states to revise their existing state Blue Alert plans, whereas the “LEW” code is already designated for use in conjunction with Blue Alerts.

Use of the “LEW” event code also presents significant efficiencies in terms of timing and cost for both EAS participants, WEA stakeholders and alert originators. Utilization of the “LEW” event code may be accomplished in a significantly shorter time frame in the EAS, since this event code is already present on FCC-certified EAS devices. EAS Participants would simply need to add the existing “LEW” code to the list of event codes to be automatically forwarded (transmitted). This would be accomplished by logging into the device and making the appropriate selections. No software would be required, and implementation of the Blue Alert concept would be immediate. EAS Participants may then enable the “LEW” for transmission at their discretion, should they decide to voluntarily participate.

Because the “LEW” code is already present on all EAS devices in operation, the FCC’s rules on this matter could then come into effect immediately by utilizing the “LEW” code for Blue Alerts, without additional action on the part of EAS Participants or alert originators. Creation of a new event code would entail a process requiring significantly more time, as discussed in B. below.

We believe that the use of the existing “LEW” event code would effectively “promote compatible

¹⁷ See *Blue Alert Guidelines*.

¹⁸ Similarly, it may be the case that alert originators could benefit from additional guidelines, use cases or best practices on the usage of other “broad” EAS event codes, such as Local Area Emergency (“LAE”), Civil Danger Warning (“CDW”) and Civil Emergency Message (“CEM”).

and integrated Blue Alert plans throughout the United States” even more than creating a new event code, since “LEW” is already used by several states for Blue Alert purposes.²⁰ Further, the redefinition of the existing “LEW” code as the Blue Alert code could lead to the same outcome of facilitating the adoption of new Blue Alert plans and integrate existing plans into a cohesive framework, and serving as a central and organizing element for Blue Alerts.

For this reason, we suggest that the Commission, EAS Participants, EAS manufactures, the Blue Alert program, and the general public would be better served by not amending Section 11.31(e) of the EAS rules to add a new “BLU” event code. Rather, the Commission should designate the existing “LEW” event code contained within the EAS Protocol for this purpose.²¹

B. Challenges to creating a new “BLU” event code including a substantially extended timeline for both EAS and WEA, additional costs to EAS Participants and manufacturers, and the need to revise some Blue Alert plans and all state EAS plans.

Monroe Electronics has not permitted the arbitrary creation of event codes on its EAS platforms. To prevent the potential for error and misuse, event codes may be added via software update furnished by the manufacturer. Several other EAS manufacturers may have taken this approach as well. Because the addition of a new event code will necessitate a software update, we urge the commission to allow adequate time to permit EAS manufacturers to include the new code in a regularly scheduled software/firmware update, as well as to permit EAS Participants sufficient time to obtain, test, accept and implement the associated software/firmware update.

As we noted in our comments regarding the new severe weather codes, the sheer scale of deployment of this EAS equipment will require substantial lead time to fully implement the addition of a new event code.²³ The process of updating software by EAS Participants is itself simple – the cumulative task of creating a software update, making it available to customers, who would then field the software update to many thousands of sites (often remote and unmanned) can be significant (particularly where corporate policies require regression testing and acceptance before installation of any software update within their enterprise).²⁴ We suggest that a period of not less than 12 months would be advisable for this purpose based on prior experience should the commission decide to amend its rules to include the proposed BLU event code.

If Commission decides that a new event code is warranted, then this feature would be added to EAS devices via software downloads, as occurred during the implementation of the new severe weather-related codes.²⁵ As previously, Monroe Electronics would make available a software update for the DASDEC-II and One-Net SE platforms through a software update downloaded

²⁰ 42 U.S.C. § 14165b(b)(2).

²¹ 47 CFR § 11.31(e).

²³ Letter from Ed Czarnecki, Senior Director of Strategic Development & Global Government Affairs for Monroe Electronics, Inc., to Marlene H. Dortch, Secretary, FCC, EB Docket No. 04-296, at 1 (filed Feb. 13, 2015) (Monroe *NWS Ex Parte* Letter).

²⁴ Monroe *NWS Ex Parte* Letter at 2.

²⁵ Monroe *NWS Ex Parte* Letter at 1.

from its website.²⁶

However, as discussed further below, for the severe weather codes, EAS Participants benefitted by a coincidence of timing which allowed the functionality to be included in an imminent in-version (or minor) scheduled software update. Depending on the timing of the Commission's decision for a new Blue Alert event code, EAS Participants may find such update could be implemented within a scheduled in-version update, or within a scheduled major version upgrade that would have to be purchased.

Further, the EAS Participant would need to expend a portion of man-hours to download, transfer and install the update, and verify settings. As noted above, the process of updating software by EAS Participants is itself relatively simple – the cumulative task for EAS Participants of obtaining the software update, performing lab testing and acceptance (where required by corporate policies), and then fielding the software update to many thousands of sites (often remote and unmanned) can result in a significant investment of manhours (particularly where corporate policies require regression testing and acceptance before installation of any software update within their enterprise).²⁷

If the additional of a new event code needs to be treated as an out-of-schedule special software release, we would anticipate an extra cost burden on EAS Participants, starting with the necessity to install an additional software updates at thousands of EAS Participant sites for this specific purpose, in addition to any regularly scheduled software updates the EAS Participant may have already been managing. Many of larger EAS Participants have formal lab test and acceptance processes for any software update to be deployed in their enterprise, and out of sequence lab testing would further increase related implementation costs for some EAS Participants.

In addition to the delays involved in implementing a new event code in EAS, the addition of a new event code that is not currently supported in the WEA mobile phone alert standard would entail a revision of those standards and specifications by the mobile industry, potentially involving in greater costs and a significantly extended timeline that the Commission may find undesirable.²⁸ Using the existing “LEW” event code would therefore seem to be the best course to achieve rapid adoption of the Blue Alerts concept by both the EAS and WEA systems.

C. Conclusion: a cost-benefit comparison shows use of the existing “LEW” code to be the most efficient public policy option.

We conclude there is nothing of significance that would prevent the existing Law Enforcement Warning (“LEW”) event code from helping to “disseminate information when a law enforcement officer is seriously injured or killed in the line of duty, is missing in connection with the officer’s official duties, or an imminent and credible threat that an individual intends to cause the serious injury or death of a law enforcement officer is received, and for other purposes.”²⁹ Rather, the

²⁶ Monroe NWS *Ex Parte* Letter at 1.

²⁷ Monroe NWS *Ex Parte* Letter at 2.

²⁸ Informal discussions with wireless industry experts indicate a timeframe of 24 to 30 months to implement a new event code in WEA, due to changes in existing standards, and implementation by the various carriers.

²⁹ See Rafael Ramos and Wenjian Liu National Blue Alert Act of 2015.

existing “LEW” code would seem to be optimally suited for such a purpose, for a range of technical, operational and economic considerations we detail below.

The COPS Office has stated that “a dedicated Blue Alert EAS event code would serve as the central and organizing element for Blue Alert plans coast-to-coast and greatly facilitate the work of the National Blue Alert Network.” We conversely suggest that reuse of the existing “LEW” event code could similarly serve this goal, while minimizing costs among EAS Participants³⁴, easing barriers to adoption (such as having to wait for a software update), speeding up implementation of the Blue Alert concept, and resolving various other issues related to other public warning systems such as WEA (which also may experience a significant delay in implementing a new event code that is not contained within the specifications and standards guiding that system).³⁵

It has also been suggested that the existing “LEW” code is currently used for various situations, such as road closures. The “LEW” code is, in actuality, used relatively infrequently. It may be an equally effective strategy for a state Blue Alert plan and State EAS Plan be updated to specify use of the “LEW” code to be reserved for Blue Alert purposes only. Other codes, such as Local Area Emergency (“LAE”) would suffice for usage for notifications like road closures (to the extent that such bulletins belong on EAS at all).

For the reasons detailed above related to the overall efficiency of using an existing EAS event code for Blue Alerts, we urge the commission to reallocate the “Law Enforcement Warning” (“LEW”) event code for this voluntary purpose. However, if a new BLU event code is the ultimate decision of the Commission, then we simply urge the Commission to adopt a reasonable timeline to allow both EAS manufacturers and EAS Participants to implement this new code.

IV. COST CONSIDERATIONS

A. EAS Participant Cost Considerations

If an existing event code is utilized, such as “LEW”, then EAS Participant costs would be significantly minimized, necessitating only the time required to log in and select the existing event code for automatic forwarding. In terms of economic impact on EAS Participants, we feel that this is by far the most reasonable approach.

If a new event code is required within a scheduled future software update, then the EAS Participant costs extend incrementally to include the time (and any possible fees) related to obtaining and installing the software update, and then logging in and selecting the new event

³⁴ Because the “LEW” event code is already supported in all FCC-certified EAS equipment, enabling this code for automatic forwarding would be a matter of logging into a device user interface and adding the “LEW” code to the list of codes for forwarding, assuming the “LEW” had not previously been selected.

³⁵ See ATIS J-STD-101, JOINT ATIS/TIA CMAS FEDERAL ALERT GATEWAY TO CMSP GATEWAY INTERFACE SPECIFICATION, The Commercial Mobile Alert Reference Point C (CMAC) protocol contains a parameter called <CMAC_event_code> which contains EAS (SAME) event codes. Introduction of a new event code may result in CMAC/WEA message rejection, unless both the underlying CMAC specification is amended and mobile operator systems are configured to accept a new event code. On the other hand, both the CMAC/WEA specification and mobile operator systems (to our knowledge) already support the existing “LEW” event code, without further revision required.

code. The additional cost is the extension of timeline such an approach would require. Additional considerations related to EAS Manufacturer costs are discussed in Section V. below.

For the above reasons related to potential EAS Participant costs, we urge the Commission to reconsider usage of an existing EAS event code – specifically “LEW” – as the most cost effective and rapid voluntary option.

B. EAS Manufacturer Cost Considerations

If the existing “LEW” event code were to be utilized, then there would be no associated development costs by manufacturers, since the “LEW” code is already present on FCC-certified EAS devices.

However, if a new event code is designated for Blue Alerts, then manufacturer costs for including a proposed “BLU” event code into a software update will vary from manufacturer to manufacturer, depending on the nature of a regularly scheduled update, and depending on whether the manufacturer has planned to even issue a periodic software/firmware update in the 6 month timeline proposed by the Commission.

If the addition of a new event code can be accommodated in a regularly scheduled update, then costs incurred to develop software/firmware update will include coding, testing, approvals, documentation, fielding, customer support, as well as administration and overhead incurred. Capitalized development costs for such an incremental addition to an already planned software update would include payroll costs of those employees directly associated with software development, as well as those supporting customer inquiries related to the new event code.

The addition of a new event code to an already scheduled software/firmware update is an incremental cost to a planned overall software application effort. Based on our most recent experience with adding the three severe weather event codes, payroll costs for adding and testing the new codes were modest. However customer service support directly related to the new codes were significantly higher than expected for a 3 month period after fielding the software update.

However, if a special or dedicated software update is necessitated (as a 6 month timeline would almost certainly entail), then this out-of-cycle update would carry the full burden of application development costs. This burden would include all payroll costs incurred for coding of a sub-version update, regression testing and analysis, change management documentation, customer documentation, as well as administration and overhead directly related to the update activity. Additional costs for a special software release would include secure hosting of the software update, user (customer) notification and support for availability of the update, user support for installation and configuration of the update, and any other material or services required to support the update sub-version. In our experience, a special out-of-cycle or dedicated software update of any kind can result in significantly higher manufacturer/developer costs.

V. CAP/EAS ORIGINATOR SYSTEM CONSIDERATIONS

Monroe Electronics supports numerous states and counties with alert origination systems, use to initiate alert messaging (such as AMBER alerts) through IPAWS OPEN as well as the broadcast EAS. All CAP/EAS alert origination systems deployed by Monroe Electronics currently includes support for the “LEW” event code for EAS and WEA, with expanded CAP text description (for EAS messages) plus WEA text, along with the option to include multimedia (pictures, video, etc.) resource references and attachments. As such, there would be no system cost for alert originators should the “LEW” event code be leveraged for the purposes of “Blue Alerts,” and the

implementation timeline would be immediate since the capability already exists in these fielded systems provided by Monroe Electronics.

The amendment of the Commission's rules to add a new "BLU" event code would also necessitate the updating of software and systems utilized by alert originators to initiate messages via EAS and WEA. The result of such a change in the Commission's rules would be software application development costs (along similar parameters as described in IV. above) for systems providers to alert originators. Presuming such an update would be made available to alert originators at no charge, the Commission would have created a situation where industry must create product for state and local governments without compensation.

If the addition of a new event code can be accommodated in a regularly scheduled update, then developer costs incurred add the new feature to CAP and EAS origination systems include coding, testing, approvals, documentation, fielding, customer support, as well as administration and overhead incurred.

As noted earlier, there are 27 states that currently have Blue Alert plans. Only two that we are aware of have incorporated the EAS into their state Blue Alert plans, designating the "LEW" event code for Blue Alerts. These facts have several implications. The vast majority of states would need to have their CAP and EAS origination systems updated to include the new event code (compared to using the existing "LEW" event code). The vast majority of states would also need to create new policies for using EAS in conjunction with Blue Alerts – regardless of whether "LEW" or "BLU" is selected as the appropriate event code. Additional training and coordination would also be required within these states to integrate and coordinate the EAS, public warning and public information roles within a Blue Alert implementation. For this reason, we believe that the Commission's proposed 6-month timeline for implementation of its proposed Blue Alert rules would be insufficient to allow proper integration and adoption in many states, particularly if a new event code was created for this purpose.

The Commission asks whether an event code could be configured to automatically populate the WEA message with uniform language applicable to all alerts. Within Monroe Electronics' systems for alert originators, either the existing "LEW" or a new "BLU" event code could be configured to automatically prepopulate the WEA message with uniform language that might be applicable to all Blue Alerts.

We observe, however, that an alert message text simply saying "This is a Blue Alert for [area]" as suggested in the NPRM as an example is a rather problematic example. Such a Blue Alert could refer either to information about a missing officer or a message about dangerous fugitive on the loose – and these are two scenarios that would potentially entail very different responses by the public. This is a similar issue to that which we raise above in relation to EAS broadcast of such messages, with only the minimal EAS Protocol message content. We observe that there may be no single message applicable to "all Blue Alerts," however Monroe's alert origination systems are capable of storing message "templates" which could be used for different Blue Alert scenarios using CAP.

VI. BLUE ALERTS CAN BENEFIT FROM IMMEDIATE IMPLEMENTATION USING A "LEW" EVENT CODE; OTHERWISE THE COMMISSION SHOULD ALLOW 12 TO 18 MONTHS AFTER THE EFFECTIVE DATE FOR A NEW "BLU" EVENT CODE.

The Commission has proposed that EAS equipment manufacturers should integrate the Blue Alert event code into equipment yet to be manufactured or sold, and make necessary software upgrades available to EAS Participants, no later than six months from the effective date of the rules. We

appreciate the Commission's proposal to allow EAS Participants to upgrade their equipment (whether through new equipment that is programmed to contain the code or through implementing a software upgrade to install the code into equipment already in place) on a voluntary basis. However, we disagree with the proposed timeline, and instead urge a minimum of twelve (12) months from the effective date of the rules if a new event code is designated, requiring a software update.

Conversely, should the Commission designate an existing EAS event code such as "LEW" for the purposes of Blue Alerts, the technical implementation will essentially be immediate, since "LEW" already exists on all compliant FCC-certified EAS devices.⁴³ No further action would be required on the part of EAS Participants. Voluntary selection of the "LEW" event code by EAS Participants would consist of merely making certain selections in the existing user interfaces of EAS devices.

Regarding software updates for new event codes, the timeframe and effort required to implement a new event code are significantly greater. The comparison to the severe weather-related EAS event codes is not applicable to this Blue Alert proposal, at least in the case of Monroe Electronics. Due to a coincidence of timing, the NWS Report and Order closely dovetailed the timing of a scheduled software release already under development and planned for imminent release by Monroe Electronics. Hence, the previous timeline was achievable only due to a favorable confluence of events, including the ability for Monroe to include the new event codes in an imminently scheduled software update release. We cannot offer assurance in either this case or going forward that our software release schedule will coincide with the six month timeline proposed by the Commission in the NPRM, and therefore urge a longer timeline for implementation. Nor can we offer assurance that such functionality would be placed within a scheduled in-version release or a major version upgrade, depending on the timing.

Further, numerous EAS Participants (particularly larger operations in the cable, IPTV and broadcast sectors) have formal and established test and acceptance processes for any software updates to be installed within their plant. This approval process may take several weeks or even months, depending on pre-scheduled activities occurring within the EAS Participant. Installation of a software update in fielded EAS equipment would occur after such formal testing and acceptance is completed.

For this reason, if a software update is required for a new Blue Alert event code, we urge the commission to establish at least a 12-month timeline from the effective date, which provide adequate margin for both the time needed for EAS equipment manufacturers to incorporate such an update in planned software releases, as well as for EAS Participants to install the software update in fielded EAS equipment.

However, if an existing EAS event code ("LEW") is accepted by the FCC for use in conjunction with Blue Alerts, then the timeline for implementation would be immediately upon the effective date of the rulemaking. In addition to the enormous benefit of timeliness and cost effectiveness, as stated earlier in these Comments, the use of the existing "LEW" code could also vastly streamline adoption of Blue Alerts by WEA, which already has the "LEW" event code in the WEA standards. Near term implementation in both the EAS and WEA in similar timelines

⁴³ The "LEW" code has been present on all DASDEC and One-Net since the equipment was first introduced in 2004.

should be one of the goals of an integrated public warning capability.

We agree with the Commission's proposal to allow EAS Participants to implement the new event codes on a voluntary basis until their equipment is replaced, as this is consistent with the Commission's approach when it has previously adopted other new EAS event codes.

VII. EAS IS CURRENTLY DESIGNED FOR BROAD AREA DISTRIBUTION OF ALERTS.

The NPRM asks whether EAS alerts are suited to deliver Blue Alerts in a targeted geographic manner, consistent with the Blue Alert Act, which provides that Blue Alerts, to the maximum extent practicable, "be limited to the geographic areas most likely to facilitate the apprehension of the suspect involved or which the suspect could reasonably reach, which should not be limited to state lines".⁴⁴ The EAS is based on FIPS geocodes (roughly correlating to county administrative divisions). The EAS cannot target geographic areas other than those defined by FIPS codes. EAS Participants currently cannot distribute Blue Alerts to smaller, narrowly targeted geographic areas, although future broadcast, cable and IPTV developments may potentially offer this capability.

VIII. CONCLUSION

Again, while Monroe Electronics does not take any position on the Blue Alert concept itself, we offer recommendations that the Commission should (1) utilize the "LEW" event code rather than create a new event code if such a Blue Alert initiative is adopted by the Commission, and (2) provide responses to the questions we have posed in relation to the implementation of "triggered CAP polling" to help make the emergency alerts (whether AMBER or Blue Alerts) more meaningful for both EAS Participants and viewing audiences. We hope the FCC will find our comments worthy of due consideration.

Respectfully submitted,
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/s/ Edward Czarnecki

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⁴⁴ 42 U.S.C. § 14165b (b)(2)(F)(ii).