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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	)	EB Docket No. 01-66
Regarding the Emergency Alert System	)	RM-9156
	)	RM-9215

REPORT AND ORDER

Adopted: February 22, 2002 **Released: February 26, 2002**

By the Commission:

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I. INTRODUCTION

1. In this *Report and Order*, we amend Part 11 of the Commission's Rules ("Rules") to revise the technical and operational requirements for the Emergency Alert System ("EAS").[1] Specifically, we amend the Part 11 rules to (1) add new state and local event codes, including a Child Abduction Event Code, and new location codes; (2) permit broadcast stations and cable systems to program their EAS equipment to selectively display and log state and local EAS messages; (3) increase the time for retransmitting Required Monthly Tests ("RMTs") from 15 to 60 minutes of receipt of the RMT message; (4) revise the minimum required modulation level of EAS codes; (5) permit broadcast stations to air the audio of a presidential EAS message from a higher quality, non-EAS source; (6) eliminate references to the now-defunct Emergency Action Notification ("EAN") network; (7) eliminate the requirements that international High Frequency ("HF") broadcast stations purchase and install EAS equipment and cease broadcasting immediately upon receipt of a national-level EAS message; (8) exempt satellite/repeater broadcast stations which rebroadcast 100% of the programming of their hub station from the requirement to install EAS equipment; (9) authorize cable systems serving fewer than 5,000 subscribers to meet the October 1, 2002 deadline by installing certified EAS decoders, to the extent that such decoders may become available, rather than both encoders and decoders; and (10) provide that low power FM stations need not install EAS decoders until one year after any such decoders are certified by the Commission.

2. The rule changes we are adopting in this *Report and Order* are primarily intended to enhance the capabilities and performance of the EAS during state and local emergencies. Recent events in this country have highlighted the importance of maintaining an alert system which affords national as well as state and local authorities the capability to provide emergency communications and information to the American public immediately via broadcast stations and cable systems. Nevertheless, we recognize that participation in EAS at the state and local levels remains voluntary and we do not wish to impose additional costs or burdens on broadcast stations and cable systems that may have the unintended effect of discouraging voluntary participation in state and local EAS activities. Therefore, we will not require broadcast stations and cable systems to upgrade their existing EAS equipment to add the new state and local event codes and location codes that we are adopting in this proceeding. Rather, we will permit broadcast stations and cable systems to upgrade their existing EAS equipment to add the new event and location codes on a voluntary basis until the equipment is replaced. All existing and new models of EAS equipment manufactured after August 1, 2003 will be required to be capable of receiving and transmitting the new codes. We believe that this approach strikes an appropriate balance between promoting public safety by permitting enhancements to state and local EAS and ensuring that any such enhancements do not result in reduced voluntary participation in state and local EAS activities.

II. BACKGROUND

3. In 1994, the Commission adopted rules establishing the EAS as a replacement for the Emergency Broadcast System ("EBS") and requiring cable systems as well as broadcast stations to participate in EAS.[2] The Commission extended the EAS requirements to wireless cable systems in 1997.[3]

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[1] 47 C.F.R. §§ 11.1, *et seq.*

[2] *Amendment of Part 73, Subpart G, of the Commission's Rules Regarding the Emergency Broadcast System, Report and Order and Further Notice of Proposed Rule Making*, FO Docket Nos. 91-171/91-301, 10 FCC Rcd 1786 (1994) ("*First Report and Order*"), *reconsideration granted in part, denied in part*, 10 FCC Rcd 11494 (1995) ("*Memorandum Opinion and Order*").

Participation in national EAS alerts is mandatory for broadcast stations, cable systems and wireless cable systems.[4] These entities participate in state and local area EAS plans on a voluntary basis. Broadcast stations were required to install the new EAS equipment by January 1, 1997. Cable systems with 10,000 or more subscribers were required to install new EAS equipment by December 31, 1998. Cable systems with fewer than 10,000 subscribers and wireless cable systems[5] are required to install EAS equipment by October 1, 2002.

4. On March 20, 2001, the Commission issued a *Notice of Proposed Rulemaking* ("*NPRM*")[6] to seek comment on various revisions to technical and operational EAS requirements requested in petitions for rulemaking filed by the National Oceanic and Atmospheric Administration ("NOAA") National Weather Service ("NWS")[7] and the Society of Broadcast Engineers ("SBE").[8] The *NPRM* also proposed to revise the EAS rules to eliminate obsolete references to the EAN network and its participants and to delete the requirement that international HF broadcast stations purchase and install EAS equipment. Thirty-four parties filed comments on the *NPRM*.[9]

III. DISCUSSION

A. EAS Codes

5. The EAS equipment used by broadcast stations and cable systems sends and receives messages using a precise format called the EAS protocol. Each EAS message has four parts: digital

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[3] *Amendment of Part 73, Subpart G, of the Commission's Rules Regarding the Emergency Broadcast System, Second Report and Order*, FO Docket Nos. 91-171/91-301, 12 FCC Rcd 15503 (1997) ("*Second Report and Order*"). For purposes of the EAS rules, a "wireless cable system" is a collection of Multipoint Distribution Service, Multichannel Multipoint Distribution Service or Instructional Television Fixed Service channels used to provide video programming and other one-way and two-way communications services to subscribers. The channels may be licensed to or leased by wireless cable system operators. *See* 47 C.F.R. § 11.11(c)(1).

[4] Although all broadcast stations, cable systems and wireless cable systems are required to install EAS equipment, they have the option of requesting FCC authorization to be Non-participating National ("NN") sources. In the event of a national EAS alert, NN sources are required to transmit a sign-off announcement and then go off the air. *See* 47 C.F.R. §§ 11.19, 11.41 and 11.54. In addition, Class D noncommercial FM, low power FM and low power TV stations are required to install EAS decoders, but are not required to install or operate EAS encoders. *See* 47 C.F.R. § 11.11(b).

[5] Hereafter, for convenience, we include wireless cable systems when we refer to cable systems.

[6] *Notice of Proposed Rulemaking, Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System*, 16 FCC Rcd 7255 (2001).

[7] NWS Petition for Rulemaking, RM-9215 (filed December 30, 1997). The Commission staff issued a public notice announcing the filing of NWS's Petition on January 14, 1998. Comments on NWS's petition were filed by the Society of Broadcast Engineers.

[8] SBE Petition for Rulemaking, RM-9156 (filed August 14, 1997). The Commission staff issued a public notice announcing the filing of SBE's petition on August 22, 1997. Comments on SBE's petition were filed by the National Association of Broadcasters, Fox Television Stations, Inc., Multi-Technical Services, Inc., and the West Virginia Broadcasters Association. Reply comments were filed by SBE.

[9] A list of the commenters and reply commenters, and the abbreviations by which they are referred to in this document, is set forth in Appendix A.

header codes, a two-tone attention signal, an audio and/or video message, and an End of Message code. The header codes define the nature of the event or emergency (event code), the location of the emergency (location code), the party that originated the emergency message (originator code), and the valid time period of the message. The two-tone attention signal, which must be transmitted for a minimum of eight seconds, provides an audio alert to audiences that emergency information is about to be sent. The EAS protocol is virtually identical to the NOAA Weather Radio ("NWR") Specific Area Message Encoding ("SAME") technique, which NWS uses to transmit messages over NWR transmitters around the country.

6. The *NPRM* sought comment on numerous revisions to the EAS codes requested by NWS and SBE, including the adoption of a naming convention for event codes, new event and location codes, and a revision of NWS's originator code.

1. Event Codes

a. Naming Convention

7. In the *NPRM*, we invited comment on NWS's request that the Commission adopt a naming convention for state and local event codes.[10] Under the naming convention suggested by NWS, the third letter of all hazardous state and local event codes would be limited to one of four letters: "W" for warnings, "A" for watches, "E" for emergencies, and "S" for statements.[11] NWS asserted that the naming convention would make possible a wider range of consumer products without lessening the current capabilities of the EAS or NWR-SAME. We noted in the *NPRM* that adoption of the naming convention would require revision of the existing event codes for Tornado Warning (TOR), Severe Thunderstorm Warning (SVR) and Evacuation Immediate (EVI) to TOW, SVW and IEW, respectively. We expressed concern that adding the revised codes and deleting the existing codes for these three important events would require any broadcast station or cable system that wishes to participate in state and local EAS alerts to modify or upgrade its EAS equipment to handle the revised codes. Therefore, we sought comment on ways to ease the transition in the event that we adopted the naming convention, such as requiring NWS to transmit both the revised codes and the existing codes for these three events during a transition period. We also requested specific information on any costs that broadcast stations and cable systems participating voluntarily in state and local EAS alerts may incur if the naming convention is adopted and the impact the revised codes would have on existing EAS equipment that is not modified or upgraded.

8. Based on our review of the comments, we conclude that the best approach is to use the naming convention suggested by NWS on a going-forward basis for the new event codes that we adopt in this proceeding and any new event codes we may adopt in the future, but not to revise any existing event codes. NWS asserts that adoption of the naming convention will ensure that the NWR-SAME and EAS systems are downward compatible with consumer products using these code systems.[12] NWS explains

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[10] *NPRM*, 16 FCC Rcd at 7257.

[11] Under NWS's naming convention, "warnings" include events that pose a significant threat to public safety and/or property, have a high probability of occurrence in a particular location, and have a relatively short onset time; "watches" include events that pose a significant threat to public safety and/or property, but either the onset time or probability of occurrence or location is uncertain; "emergencies" include events that do not meet the definition of warning or watch but are of such a nature that the information is important and may require public response; and "statements" are follow-up messages. *NPRM*, 16 FCC Rcd at 7257.

[12] NWS Comments at 1.

that although it is not possible to integrate new three-character event codes into the hundreds of thousands of existing consumer products or the millions of such products anticipated in coming years, adoption of the naming convention would allow an algorithm in consumer devices to check the third character of any event code not integrated in the device for a W, A, E, or S and generate a generic notification with the intended alert level. Thus, for example, if the third letter in an event code is "W," the consumer device would recognize the event as a warning and alert, even if the device does not recognize the first two letters of the event code.[13] We agree that it is logical to apply the naming convention prospectively to new event codes because it will enable existing and future consumer products to alert upon receipt of a new event code even if the product does not recognize the particular code.

9. However, we believe that any benefits that may result from revising any existing codes to conform with the naming convention are outweighed by the costs. As several commenters point out, it does not appear that it is necessary to revise the existing codes.[14] NWS does not offer any specific reason or justification for revising the existing codes. Rather, NWS simply states that "[w]hile it may appear that not revising these event codes would have no adverse consequences, it is not unreasonable to conclude that inaction now may result in reduced future applications, complications, and significant costs for changes."[15] We are not persuaded that some possible, undefined future consequences justify the costs that would be incurred by broadcast stations and cable systems if we revised the existing codes to accommodate the naming convention. In this regard, we share concerns voiced by some commenters that revising the existing codes would require any broadcast station or cable system that wishes to participate in state and local EAS alerts to upgrade its EAS equipment to handle the revised codes.[16] Two EAS equipment manufacturers indicate that the revised codes could be accomplished through software and/or firmware upgrades to existing equipment,[17] while the National Cable & Telecommunications Association ("NCTA") states that the manufacturers it has contacted have suggested that hardware and/or software upgrades will be required to the equipment in each and every location with equipment.[18] Estimates of the cost of such upgrades provided by the equipment manufacturers range from $100 to $300 plus shipping and handling.[19] NCTA estimates that for the cable industry the cost to upgrade equipment would be $200 to $500 plus labor and the administrative costs of installing the upgrades for some companies in as many as 2,500 headends and nodes.[20] Commenters express concern that some broadcast stations and cable

[13] NWS states that the naming convention was included in the NWR-SAME specification prior to the manufacture of the first NWR-SAME weather receivers and NWS believes that all such receivers have this capability. NWS Comments at 1. RadioShack, the leading supplier of consumer NWR-SAME weather radios, also confirms that its weather radios have this capability. RadioShack Comments at 1-2.

[14] SBE Comments at 7; Thunder Eagle Comments at 5-6; Named StBAs Reply Comments at 3. In addition, the Connecticut Broadcaster Association Emergency Communications Committee ("CBA/EAS") submitted separate comments indicating that it fully supports and incorporates by reference the comments filed by Named StBAs. CBA/EAS Comments at 1. Hereafter, we include CBA/EAS when we refer to Named StBAs.

[15] NWS Comments at 2.

[16] NCTA Comments at 4-5; NAB Comments at 3-4; Named StBAs Comments at 6; WSAB/WA SECC Comments at 4.

[17] Gorman Comments at 1; TFT Comments at 3.

[18] NCTA Comments at 4.

[19] Gorman Comments at 1; TFT Comments at 3. These estimates include the cost of upgrading EAS equipment to revise existing codes and to add new codes.

systems, particularly smaller entities, may forego equipment upgrades necessary to incorporate the revised codes because of these costs.[21] As we discuss in more detail below, we do not wish to impose additional costs and burdens on EAS participants that may result in reduced voluntary participation in state and local EAS activities. We are also very concerned that revision of the existing codes may cause the public to miss emergency warnings for these important events if some broadcast stations and cable systems choose not to upgrade their EAS equipment.

10. Moreover, NWS disputes our suggestion in the *NPRM* that it has the capability to transmit both existing and revised codes for Tornado Warning, Severe Thunderstorm Warning and Evacuation Immediate events during a transition period, asserting that NWR-SAME systems cannot encode two event codes in the same message header.[22] Other commenters also raise strenuous objections to this suggestion, arguing that the simultaneous transmission of existing and revised codes for these important events could lead to confusion and error.[23] Thus, it appears that providing a transition period during which both existing and revised codes could be used is not a viable option. Particularly in view of the cost and safety concerns cited above, we are unwilling to revise any existing event codes without being able to afford broadcast stations and cable systems an adequate period of time to ease the transition.

b. New Event Codes

11. Section 11.31(e) of the Rules lists the authorized three-letter event codes for national EAS events and tests, which broadcasters and cable systems are required to receive and transmit, and for state and local EAS events, which broadcasters and cable systems voluntarily participating in state and local area EAS plans may transmit on an optional basis.[24] We sought comment in the *NPRM* on requests by NWS and others that we amend Section 11.31(e) to add new state and local event codes for emergency conditions not included in the current list and for certain administrative messages and non-EAS applications.[25] We included a listing of the recommended new event codes in an Appendix to the *NPRM*.[26] We also sought comment on whether, as an alternative to adding new state and local event codes and location codes, we should amend the rules to provide that any modifications to existing authorized EAS equipment that are necessary to implement revisions in EAS codes are Class I permissive changes that do not require a new application for and grant of equipment certification.[27] Under this alternative, broadcasters and cable systems could satisfy their EAS obligations with equipment designed to function with either the existing codes or an expanded range of codes. Additional state and local event codes and location codes could be developed directly by state and local officials, broadcasters and cable operators, equipment manufacturers and other interested parties. The use of these codes and the equipment needed

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[20] NCTA Comments at 5.

[21] NCTA Comments at 4; Named StBAs Comments at 6; WSAB/WA SECC Comments at 4; Seven Ranges Comments at 11.

[22] NWS Comments at 2.

[23] Named StBAs Comments at 7; WSAB/WA SECC Comments at 4.

[24] 47 C.F.R. § 11.31(e).

[25] *NPRM*, 16 FCC Rcd at 7257.

[26] *Id.* at 7268-69.

[27] *Id.* at 7261. *See* 47 C.F.R. § 2.1043.

to access them would be implemented on a permissive basis as determined by the specific needs and interests of the local area participants. We suggested that this alternative approach would eliminate the need to conduct rulemakings to revise the state and local event codes, and would afford equipment manufacturers greater flexibility in the design and modification of EAS equipment.

12. We will amend Section 11.31(e) of the Rules to add new state and local event codes. There is widespread support among the commenters for the addition of new event codes.[28] Commenters assert that adding new event codes to Section 11.31(e) will improve and expand the capabilities of EAS and thereby promote public safety.[29] We agree. In addition, commenters overwhelmingly oppose our alternative suggestion to leave the development of state and local event codes and location codes to state and local authorities.[30] Commenters fear that this approach would result in great variations in EAS equipment throughout the country, which could threaten the reliability of the EAS system and jeopardize public safety.[31] Commenters are also concerned that equipment manufacturers may be reluctant to insert new codes into their equipment unless the codes are specified in the Commission's rules and that the cost of purchasing customized equipment might be prohibitive and result in decreased voluntary participation in EAS.[32] We believe that these are valid concerns and therefore will not adopt our alternative suggestion to leave the development of event codes and location codes to state and local authorities.[33]

13. Although commenters generally support the addition of new state and local event codes, they differ on how the new codes should be implemented. Some commenters urge us to require all broadcast stations and cable systems to upgrade existing EAS equipment to incorporate the new codes and commence use of the new codes on a specified future date.[34] Other commenters favor voluntary upgrades of existing equipment.[35] We will adopt NCTA's suggestion to permit broadcast stations and cable systems to upgrade their existing EAS equipment to add the new event codes on a voluntary basis until it is replaced.[36] Further, we are cognizant of the effects of these rule changes on equipment manufacturers and therefore will not require that newly manufactured equipment be capable of receiving

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[28] *See* NWS Comments at 2; SBE Comments at 15; NAB Comments at 3; NCTA Comments at 4; Named StBAs Comments at 7; WSAB/WA SECC Comments at 4; RadioShack Comments at 3; Cox Comments at 3; Ohio EMA Comments at 2; Thunder Eagle Comments at 7; Schallenberg Comments at 2; OAPC Comments at 2; ARMS Comments at 2; NCMEC Comments at 9; DC AMBER Taskforce Comments at 1; 39 Members of Congress Comments at 1; Range Telecommunications Comments at 1.

[29] *Id.*

[30] Named StBAs Comments at 13; WSAB/WA SECC Comments at 11-12; Ohio EMA Comments at 3-4; TFT Comments at 7-8; Gorman Comments at 2; Thunder Eagle Comments at 12; NWS Comments at 7; RadioShack Comments at 3; SBE Reply Comments at 7.

[31] Named StBAs Comments at 13; WSAB/WA SECC Comments at 11-12; TFT Comments at 8.

[32] Named StBAs Comments at 13; WSAB/WA SECC Comments at 11-12.

[33] However, as discussed below, we will amend the rules to provide that any modifications to existing authorized EAS equipment that are necessary to implement revisions in EAS codes are Class I permissive changes that do not require a new application for and grant of equipment certification.

[34] SBE Comments at 7; Ohio EMA Comments at 2; SBE Reply Comments at 11.

[35] NCTA Comments at 4-5; NAB Comments at 4; Thunder Eagle Comments at 5.

[36] NCTA Comments at 4-5.

and transmitting these new event codes until August 1, 2003. Thus, all existing and new models of EAS equipment manufactured after August 1, 2003 will be required to be capable of receiving and transmitting these codes. We believe that this approach is preferable for several reasons.

14. First, participation in EAS at the state and local levels has been voluntary since we first authorized its use for state and local emergencies in 1976.[37] Despite the fact that participation in state and local EAS is voluntary, broadcast stations and cable systems have participated extensively in state and local EAS activities and have helped to make EAS an invaluable tool for disseminating information about state and local emergencies to the public. We fully expect that broadcast stations and cable systems will continue to be active participants in their state and local EAS plans and we strongly encourage them to upgrade their existing equipment and begin using the new codes without delay. We think, however, that it would be contrary to the voluntary nature of state and local EAS to mandate upgrades to existing EAS equipment to incorporate new optional event codes.

15. In addition, we are concerned that imposing additional costs and burdens on broadcast stations and cable systems at this time may have the undesired effect of reducing voluntary participation in state and local EAS activities. The commenters confirm that implementation of the new codes will necessitate software/firmware and, in some cases, hardware upgrades to existing equipment.[38] Two equipment manufacturers which filed comments estimate that such upgrades will cost from $100 to $300 plus shipping and handling.[39] While these costs may seem relatively modest, we recognize that they may present a financial burden to some broadcast stations, particularly radio stations in smaller markets.[40] Furthermore, it appears that the costs of upgrades for cable systems may be significantly higher. In this regard, NCTA estimates, based on discussions with equipment manufacturers, that the cost for cable systems to upgrade their equipment would be $200 to $500 plus labor and the administrative costs of installing the upgrades in each and every headend.[41] NCTA further observes that for cable systems this additional expense would come only three years after making substantial expenditures to purchase and install new EAS equipment.[42] Similarly, the National Association of Broadcasters ("NAB") points out that it has only been about five years since broadcast stations made substantial investments in new EAS equipment.[43] Several commenters predict that the costs and burdens associated with a requirement to retrofit existing equipment to implement the new codes would cause some broadcast stations and cable

[37] In 1976, the FCC, NWS, the Defense Civil Preparedness Agency and the National Industry Advisory Committee ("NIAC") approved a plan for the use of the former EBS for state and local emergencies. *See* Plan for Nationwide Use of the Emergency Broadcast System for State and Local Emergencies (June 28, 1976). This plan was revised in 1982 pursuant to a Memorandum of Understanding between the FCC, the Federal Emergency Management Agency, NWS and NIAC. *See* Memorandum of Understanding on State and Local Emergency Broadcasting System (April 21, 1982).

[38] Gorman Comments at 1; TFT Comments at 3; NCTA Comments at 4.

[39] Gorman Comments at 1; TFT Comments at 3. These estimates include the cost of upgrading EAS equipment to revise existing codes and to add new codes.

[40] *See* KPVI Comments at 1; Seven Ranges Comments at 11; NAB Comments at 4.

[41] NCTA Comments at 4.

[42] *Id.*

[43] NAB Comments at 8.

systems to suspend their voluntary participation in state and local EAS.[44] We are troubled that this could result in the public missing important emergency warnings. Moreover, the record before us is incomplete in that only two EAS equipment manufacturers submitted comments including specific cost information for their equipment. While we expect that the costs of upgrading other models of EAS equipment will be comparable, we are unable to fully assess the impact that mandatory upgrades of existing equipment would have on broadcast stations and cable systems without specific cost information for all types of EAS equipment. Thus, for these reasons, we think that the public safety objectives underlying addition of the new codes are best accomplished by encouraging maximum voluntary participation in state and local EAS plans, rather than by mandating upgrades to existing equipment.

16. Although we are not mandating that broadcast stations and cable systems upgrade their existing EAS equipment to incorporate the new event codes, we will require broadcast stations and cable systems which replace their EAS equipment after February 1, 2004 to install EAS equipment that is capable of receiving and transmitting the new event codes. Thus, after February 1, 2004, broadcast stations and cable systems may not replace their existing EAS equipment with used equipment or older models of equipment that has not been upgraded to incorporate the new event codes. This will ensure that all broadcast stations and cable systems have the capability to receive and transmit the new event codes when their EAS equipment is replaced.

17. We recognize that broadcast stations and cable systems which do not upgrade their existing equipment will be unable to receive or transmit the new event codes.[45] However, we believe that any minor inconvenience this may cause EAS participants (e.g., by causing their equipment to log an "unknown event") is offset by the benefits to the public of adding the new event codes. In addition, we are confident that permitting EAS participants to upgrade existing equipment on a voluntary basis will not compromise the functioning of the EAS system. The State Emergency Communications Committees ("SECCs") and Local Emergency Communications Committees ("LECCs") have played a critical role in developing state and local EAS operating plans and ensuring that the public receives timely and useful information when natural disasters and other emergency situations arise. We expect that the SECCs and LECCs will continue to demonstrate their commitment and dedication to EAS by updating their state and local plans and taking other steps necessary to ensure the smooth implementation of the new codes within their states (e.g., by encouraging key sources which relay EAS messages to obtain the upgrades promptly).

18. Commenters express differing views on which new event codes should be added to the list in Section 11.31(e). Some commenters assert that event codes should only be added to the extent necessary to address the public's need to be informed in an emergency and to enhance public safety,[46] and some commenters caution that the total number of event codes should be modest to avoid threatening the memory and functioning of EAS equipment.[47] Many commenters make specific recommendations as to

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[44] NCTA Comments at 4; WSAB/WA SECC Comments at 3; Named StBAs Comments at 5.

[45] One manufacturer states that if one of its units receives a new code before it is upgraded, it will print out that it has received an "unknown event" and will not forward the message. Gorman Comments at 1. Another manufacturer indicates that its non-upgraded units will not recognize new codes as valid EAS messages. TFT Comments at 3.

[46] Named StBAs Comments at 7; WSAB/WA SECC Comments at 4.

[47] SBE Comments at 15; Named StBAs Comments at 7; WSAB/WA SECC Comments at 4; Gorman Comments at 1.

which codes should be adopted and which should be rejected as redundant or unnecessary.[48] We will add the following new event codes to the list in Section 11.31(e):

Nature of Activation	Event Code
Avalanche Warning	AVW
Avalanche Watch	AVA
Child Abduction Emergency	CAE
Civil Danger Warning	CDW
Coastal Flood Warning	CFW
Coastal Flood Watch	CFA
Dust Storm Warning	DSW
Earthquake Warning	EQW
Fire Warning	FRW
Hazardous Materials Warning	HMW
Law Enforcement Warning	LEW
Local Area Emergency	LAE
Network Message Notification	NMN
911 Telephone Outage Emergency	TOE
Nuclear Power Plant Warning	NUW
Radiological Hazard Warning	RHW
Shelter in Place Warning	SPW
Special Marine Warning	SMW
Tropical Storm Warning	TRW
Tropical Storm Watch	TRA
Volcano Warning	VOW

As we discuss above, we are using NWS's naming convention for these new codes. In adopting these new codes, we have attempted to balance the interest in promoting public safety with the various concerns articulated by commenters. Following is a discussion of the event codes which prompted specific comments or objections.

19. *Child Abduction Emergency Code.* We included a Missing Child Statement (MIS) event code in the list of suggested event codes in the *NPRM* based on requests to Commission staff for a specific event code to be used in connection with local, state and regional AMBER Plans.[49] Fourteen parties filed comments endorsing the addition of a specific event code to activate AMBER Plans.[50] As

[48] *See e.g.*, NWS Comments at 3-4; SBE Comments at 16-19; Named StBAs Comments at 8-9; WSAB/WA SECC Comments at 5-6; Cox Comments at 3-4; Thunder Eagle Comments at 7-8; OAPC Comments at 2-3; NCMEC Comments at 6-10; ARMS Comments at 4; Frost Comments at 1; DC AMBER Taskforce Comments at 3-4; SBT Comments at 1-2; 39 Members of Congress Comments at 1-2; Range Comments at 1.

[49] *NPRM*, 16 FCC Rcd at 7268.

[50] NCMEC Comments at 6-10; OAPC Comments at 3; ARMS Comments at 4; DC AMBER Taskforce Comments at 3-4; 39 Members of Congress Comments at 1-2; Lampson Comments at 1-2; Frost Comments at 1; Range Comments at 1; NAB Comments at 6-8; WSAB/WA SECC Comments at 6-8; Named StBAs Comments at 7-9; SBE Comments at 16; SBT Comments at 1-2; KPVI Comments at 1; Named StBAs Reply Comments at 3; SBE Reply Comments at 3-4. None of the commenters oppose addition of a specific event code to activate AMBER Plans.

the National Center for Missing and Exploited Children ("NCMEC") explains, the AMBER[51] Plan is a voluntary partnership between law enforcement agencies and the media to send out an emergency alert to the public in serious child abduction cases.[52] It was established in 1996 in response to the abduction and murder of a nine-year old girl in Dallas, Texas. Under the AMBER Plan, area radio and television stations interrupt programming to broadcast information concerning a serious child abduction case using the EAS. To maintain the integrity of the EAS and prevent its overuse, AMBER alerts are only used for the most serious child abduction cases, where police believe the child is in danger of serious bodily harm or death, not for runaways or most parental abductions. Currently, there are approximately 26 active AMBER Plans nationwide on the local, state and regional levels and numerous other AMBER Plans under development. However, because there is no specific EAS event code for serious child abductions, AMBER Plans are presently activated using the Civil Emergency Message event code. NCMEC states that the use of the Civil Emergency Message event code for AMBER alerts has caused confusion among some listeners and viewers, who initially think that the Civil Emergency Message is being used to alert the public about a natural disaster.

20. We conclude that the public interest will be served by adding a specific event code to be used for AMBER alerts. We believe that the addition of a specific code for this purpose will promote public safety by providing local law enforcement authorities and EAS participants with a means to quickly disseminate information pertaining to serious child abduction cases. Additionally, we are very concerned that the current practice of using the Civil Emergency Message code to activate AMBER alerts may mislead and confuse some listeners and viewers. However, we agree with commenters who maintain that the Missing Child Statement code suggested in the *NPRM* may misrepresent the purpose of the AMBER Plan and lead to overuse of the EAS system.[53] Accordingly, we will instead add a Child Abduction Emergency (CAE) event code. We think that the designation Child Abduction Emergency is more appropriate because it underscores that the code is only to be used for the most serious child abduction cases when a child's life is believed to be in danger; thus, use of the Child Abduction Emergency code will protect the integrity and credibility of both the AMBER Plan and the EAS system. In response to concerns raised by one commenter,[54] we emphasize that participation in local AMBER Plans will be entirely voluntary under our rules.

21. *Nuclear Power Plant Warning Code.* The *NPRM* sought comment on recommendations to add Nuclear Power Plant Test Message (NPM) and Nuclear Power Plant Warning (NPW) event codes.[55] Two commenters object that use of these codes could conflict with internal NWS codes used for "non-precipitation warnings."[56] Another commenter asserts that a separate code for nuclear power plants

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[51] NCMEC explains that the acronym "AMBER" stands for "America's Missing: Broadcast Emergency Response." NCMEC Comments at 2.

[52] NCMEC Comments at 2-8.

[53] NCMEC Comments at 9; 39 Members of Congress Comments at 1; Lampson Comments at 1; OAPC Comments at 3; ARMS Comments at 4; WSAB/WA SECC Comments at 7; DC AMBER Taskforce Comments at 3-4; SBT Comments at 1; Named StBAs Comments at 8-9; NAB Comments at 6-7; Range Comments at 1; SBE Reply Comments at 3-4.

[54] WSAB/WA SECC Comments at 8.

[55] *NPRM*, 16 FCC Rcd at 7269.

[56] WSAB/WA SECC Comments at 6; SBE Comments at 18. WSAB/WA SECC notes that while the non-precipitation warning codes are for NWS internal use only, some systems require a manual translation of the code

is redundant and unnecessary if the Radiological Hazard Warning code is adopted.[57] One commenter submits that separate Radiological Hazard Warning and Nuclear Power Plant Warning event codes are appropriate because the risk posed by a nuclear plant is greater and could impact a much wider geographical area; this commenter suggests that we add NPP for Nuclear Power Plant Warning to avoid any conflicts with internal NWS codes.[58]

22. We will add a NUW event code for Nuclear Power Plant Warnings in lieu of the codes suggested in the *NPRM*. This code will not conflict with the internal non-precipitation warning codes used by NWS. Moreover, while a nuclear power plant emergency could fall under the general category of radiological hazards, we believe that it is appropriate to add a separate, more specific code for nuclear power plant emergencies because they pose a greater risk to the public. We think that the NUW code is preferable to the NPP code suggested by one commenter because it conforms with the naming convention we are adopting in this proceeding.

23. *School Closing Statement Code.* In the *NPRM*, we requested comment on a recommendation to add a School Closing Statement (SCS) event code.[59] Two commenters oppose adding this code, arguing, among other things, that the media already does an adequate job of announcing school closures due to inclement weather and other causes and that school closings are typically done on a district-by-district or school-by-school basis so there would have to be separate alerts for each district and school.[60] None of the commenters expressly support addition of this code. We concur with the arguments made by commenters and therefore will not add the School Closing Statement event code.

24. *Dam Break Warning Code.* We requested comment in the *NPRM* on the addition of a Dam Break Warning (DBW) event code.[61] NWS opposes the addition of this code.[62] NWS states that, as part of its legislatively-mandated mission, it issues Flash Flood Warnings and other messages for dam break emergencies based on information provided by federal, state and local land and water management authorities through agreements with appropriate agencies. NWS contends that adding another code for the same event would create operational conflicts and possible public confusion during emergencies. SBE disagrees with NWS, arguing that the Dam Break Warning is more than a simple Flash Flood Warning and would reach parties that would not normally require notification and call to action for typical flash flood situations.[63] We will not add the Dam Break Warning event code. We will defer to NWS's view that this code is unnecessary in light of its expertise as the agency primarily responsible for issuing alerts for dam break emergencies.

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received into a different code to be transmitted, and that an operator error could result in the NWS sending a nuclear power plant warning inadvertently. WSAB/WA SECC Comments at 6.

[57] NWS Comments at 4.

[58] SBE Comments at 18; SBE Reply Comments at 4.

[59] *NPRM*, 16 FCC Rcd at 7269.

[60] WSAB/WA SECC Comments at 5; SBE Reply Comments at 5-6.

[61] *NPRM*, 16 FCC Rcd at 7269.

[62] NWS Comments at 3.

[63] SBE Reply Comments at 5.

25. *NWS's Internal Use Only Administrative Codes.* The *NPRM* sought comment on four "administrative" event codes which would be used by NWS to control individual NWR transmitter systems: Transmitter Primary On (TXP), Transmitter Backup On (TXB), Transmitter Carrier On (TXO), and Transmitter Carrier Off (TXF).[64] One commenter objects to adding these codes to the EAS rules because they are for internal NWS machine command and control functions and thus fall outside the scope of EAS, which is intended to be used for the dissemination of call to action and warning messages.[65] This commenter also maintains that inclusion of these codes in the EAS rules would limit NWS's operational flexibility because further rulemakings would be required before NWS could implement any additional such codes.

26. We will not add these administrative codes to the list of event codes in Section 11.31(e). We see no need to amend the EAS rules to include event codes which are clearly not intended for transmission over the EAS system. Instead, we think that a better approach would be to leave it to NWS's discretion to implement these internal use only administrative codes over its NWR-SAME system.[66] This approach will afford NWS greater flexibility to make any necessary changes or additions to its administrative codes and to implement such codes without having to request a Commission rulemaking.

27. *SKYWARN Code.* Two commenters request that we add the new event code SKY to be used to activate SKYWARN, which is the NWS's national volunteer severe weather spotting program.[67] According to these commenters, NWS Forecast Offices ("NWSFOs") currently activate the SKYWARN volunteers using telephone trees, pagers and announcements on NWR. The commenters state that the addition of the SKYWARN code would enable the NWSFOs to automate the activation of the SKYWARN volunteers and would also get the SKYWARN activation message via the EAS to news media, which would result in the greatest possible dissemination of the activation message. One commenter asserts that we should not act on the request for a SKYWARN code at this time, arguing that recommendations in this area should be made by NWS.[68]

28. Although we recognize that the SKYWARN volunteers provide a valuable service, we will not add the SKYWARN code to the list of event codes in Section 11.31(e). Notably, NWS has not endorsed the adoption of this event code. We agree that recommendations in this area should be made or at least supported by NWS. In addition, we are concerned that transmission of this code over the EAS would vastly increase message traffic on the EAS system. In this regard, we are worried that overuse of the EAS, particularly for non-emergency messages, could reduce voluntary participation in EAS and could also desensitize the audience to the alerting system.

29. *Miscellaneous Watch and Statement Codes.* The *NPRM* requested comment on a number of new event codes recommended for "watch" events, including Avalanche Watch (AVA), Civil Danger

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[64] *NPRM*, 16 FCC Rcd at 7269.

[65] SBE Comments at 12.

[66] We acknowledge that EAS equipment at broadcast stations and cable systems which monitor NWR directly will not recognize these administrative codes and may log an "unknown event." Broadcast stations and cable systems may avoid this minor inconvenience by upgrading their equipment to incorporate the selective displaying and logging feature we are authorizing in this *Report and Order*. *See* paragraph 45 below.

[67] Thunder Eagle Comments at 8; Martin Reply Comments at 1.

[68] SBE Reply Comments at 11.

Watch (CDA), Coastal Flood Watch (CFA), Dust Storm Watch (DSA), Earthquake Watch (EQA), Hazardous Materials Watch (HMA), Radiological Hazard Watch (RHA), Tropical Storm Watch (TSA) and Volcano Watch (VOA). Two commenters oppose adding many of these watch event codes due to concerns over the physical limitations of existing EAS equipment, i.e., concerns that adding too many codes will threaten the memory and functioning of the equipment.[69] Additionally, they complain that many of the recommended watch event codes are not useful and contend that it would be more appropriate to skip the watch and proceed directly to a warning for these events.[70] For similar reasons, both commenters also recommend elimination of many of the existing watch and statement event codes.

30. Although it is unclear from the record what effect, if any, the addition of the relatively modest number of event codes recommended in this proceeding would have on existing EAS equipment,[71] we are sensitive to concerns that adding too many codes could threaten the memory and functioning of the equipment. Furthermore, we agree with the commenters that some of the suggested watch event codes may not be particularly useful. A "watch" is defined as an event which poses a significant threat to public safety and/or property, but either the onset time or probability of occurrence or location is uncertain.[72] Watches are typically issued where the conditions are ripe or favorable for the event to occur, but the event has not yet been created or confirmed, e.g., a hurricane watch or a tornado watch. However, for some events, such as Civil Danger, it may not be particularly useful to issue an EAS alert where the probability of occurrence or location is still uncertain. In such cases, it would seem to make more sense to proceed directly to a warning if and when it is determined that there is a high probability that the event will occur. Thus, we do not think that it is necessary to add a corresponding watch code for every warning code we add. Therefore, we will not add all of the watch event codes suggested in the *NPRM*.[73] We will not, however, eliminate any of the existing watch and statement event codes. We do not think that it would be prudent to remove from the EAS rules any codes that are already in use.

c. Cancellation Codes

31. In the *NPRM*, we sought comment on SBE's suggestion that we amend the rules to include a cancellation code for each event code in the current list and for each event code that will be added to the list.[74] SBE maintained that cancellation codes are needed for situations where a warning can be cancelled prior to its issued expiration time. We stated in the *NPRM* that we were not convinced that the cancellation codes suggested by SBE are necessary given that EAS messages already contain a code that specifies the valid time period of the message. We therefore requested specific comment on how frequently situations arise where a warning can be cancelled prior to its issued expiration time.

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[69] SBE Comments at 15; WSAB/WA SECC Comments at 4.

[70] SBE Comments at 16-19; WSAB/WA SECC Comments at 5-6.

[71] One equipment manufacturer notes, without elaboration, that "the event code table and location code table can't be unlimited." Gorman Comments at 1.

[72] *NPRM*, 16 FCC Rcd at 7257.

[73] Specifically, we are not adding the suggested event codes for Civil Danger Watch, Dust Storm Watch, Earthquake Watch, Hazardous Materials Watch, Radiological Hazard Watch and Volcano Watch.

[74] *NPRM*, 16 FCC Rcd at 7259.

32. We will not add any cancellation codes at this time. It is unclear based on the record before us that cancellation codes are necessary. Only two commenters addressed the question we raised in the *NPRM* regarding how frequently situations arise where a warning can be cancelled prior to its issued expiration time. NCTA states that the cable industry's experience is that cancellation circumstances do not arise with sufficient frequency to justify addition of cancellation codes.[75] The Ohio Emergency Management Agency ("Ohio EMA") reports that the State of Ohio has not experienced a single situation where a cancellation code was needed.[76] Furthermore, SBE indicates in its comments that it no longer seeks the addition of cancellation codes for all event codes, but rather only for specific event codes "where a clear advantage can be demonstrated."[77] SBE suggests that cancellation codes would be appropriate for the Evacuation Immediate, 911 Telephone Outage and Shelter in Place event codes.[78] Two other commenters also support the addition of cancellation codes for certain specific event codes, such as Civil Emergency Message, Evacuation Immediate, 911 Telephone Outage and Shelter in Place.[79] However, even for these few events, the commenters have not explained why they believe cancellation codes are necessary or demonstrated that there is a greater likelihood that the warnings for these events can be cancelled prior to the issued expiration time.

33. As an alternative to adding cancellation codes, one commenter suggests that EAS alerts could be cancelled by resending the alert with the valid time period set for zero (+0000-), which would be decoded to mean that the alert has been cancelled.[80] In its reply comments, SBE acknowledges that this suggestion may have merit, but maintains that it can only offer tentative support for this suggestion without input from manufacturers as to its impact on EAS equipment.[81] We conclude that we cannot evaluate this suggestion without specific information from manufacturers as to what effect it might have on existing EAS equipment.

2. Location Codes

34. Location codes are six-digit numerical codes used in the transmission of EAS messages to indicate what geographic areas may be affected by an emergency. These codes have three separate parts. The "SS" portion of the location code is a two-digit number that identifies the state or territory in which the emergency is located. The "CCC" portion of the location code is a three-digit number that identifies the county or city affected by the emergency. The "P" portion of the location code is optional and allows the message originator to divide a county into nine sections to further pinpoint the affected portion of the county. The "SS" and "CCC" numbers are unique Federal Information Processing Standard numbers assigned by the National Institute of Standards and Technology. The "SS" numbers

[75] NCTA Comments at 6.

[76] Ohio EMA Comments at 2.

[77] SBE Comments at 14-15.

[78] *Id.*

[79] Named StBAs Comments at 9-10; WSAB/WA SECC Comments at 8-9.

[80] Thunder Eagle Comments at 9-10.

[81] SBE Reply Comments at 11.

are listed in Section 11.31(f) of the Rules.[82] The "CCC" numbers are contained in the State EAS Mapbook.

a. Marine Area Location Codes

35. The *NPRM* sought comment on NWS's request that we add new location codes to cover marine areas, which are not presently included in the location codes specified in Section 11.31(f) of the Rules.[83] The marine areas are immediate offshore areas likely to be affected by extreme weather conditions and are identified by two-digit numbers that would comprise the "SS" portion of the location code. We included a listing of the specific marine area location codes requested by NWS in an Appendix to the *NPRM*.[84]

36. We will amend Section 11.31(f) of the Rules to add the marine area location codes suggested by NWS. Numerous commenters support adding marine area location codes to the EAS rules to ensure the public's safety in near shore and open waters.[85] We are persuaded that addition of these location codes, which will be used with the Special Marine Warning (SMW) event code we are adopting in this *Report and Order*, will enhance public safety. In its comments, SBE suggests an alternative method of defining the marine areas in which the marine areas would be listed as "water counties" and assigned to the nearest state or the state where the responsible NWSFO is located.[86] However, we think that the alternative suggested by SBE would be unworkable because, as NWS points out in its reply comments,[87] NWSFOs change over time. One commenter questions whether marine weather alerts transmitted via NWS weather radio would need to be relayed to commercial broadcast stations and cable systems for EAS transmission since land areas adjacent to bodies of water would be covered by land weather alerts.[88] In addition, NCTA asserts that the cable industry does not serve sailing vessels that are not in port and therefore would have little reason to transmit these codes.[89] While we anticipate that the Special Marine Warnings will primarily be transmitted over NWR to marine weather radios, we expect that some EAS participants which serve communities adjacent to the marine areas may wish to transmit the marine alerts voluntarily over EAS. However, consistent with the approach we are adopting for new event codes, we will not require broadcast stations and cable systems to update their existing equipment to add the new location codes. Rather, broadcast stations and cable systems may upgrade their existing equipment on a voluntary basis until it is replaced. All existing and new models of EAS equipment manufactured after August 1, 2003 will be required to be capable of receiving and transmitting these location codes. In addition, broadcast stations and cable systems which replace their EAS equipment after February 1, 2004 must install EAS equipment that is capable of receiving and transmitting the new location codes.

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[82] 47 C.F.R. § 11.31(f).

[83] *NPRM*, 16 FCC Rcd at 7259-60.

[84] *Id.* at 7270.

[85] NWS Comments at 5; NAB Comments at 4; Collins Comments at 2; Cox Comments at 2; Ohio EMA Comments at 2; Thunder Eagle Comments at 10.

[86] *Id.* at 10.

[87] NWS Reply Comments at 1.

[88] Schallenberg Comments at 2.

[89] NCTA Comments at 6.

b. Entire Country Location Code

37. In the *NPRM*, we requested comment on whether we should add an entire country location code to be used by the Federal Emergency Management Agency ("FEMA") when issuing a national level EAS message.[90] NWS and SBE sought addition of an 000000 location code so that multiple alerts are not needed to activate the entire country when a national level emergency situation arises. In addition, we requested comment on NWS's proposal that we require EAS equipment at broadcast stations and cable systems, when retransmitting the event code and 000000 location code, to trigger transmission of all county location codes stored within the equipment in order to enable activation of consumer products that activate only upon transmission of the location code for the county in which they are located. We expressed concern that the triggering proposal would require costly modification of existing equipment at broadcast stations and cable systems but asked whether we should permit this as an optional feature of EAS equipment. Further, we sought comment on whether there are a significant number of consumer devices which rely upon EAS transmissions of broadcast stations and cable systems rather than NWS weather transmitters.

38. We will not add an entire country location code to the EAS rules at this time. While a number of the commenters support the addition of an entire country location code,[91] it is unclear from the record in this proceeding that an entire country location code is needed. As NAB observes,[92] we previously considered this issue and determined, after consultation with FEMA, that "alerting the nation on a regional basis would be much more manageable and reliable but would retain effective and timely warning capability."[93] We think that it would be premature to add an entire country location code without further evidence of a need for such a code. It is also unclear from the record whether modifications to existing EAS equipment would be required to implement an entire country location code and, if so, what such modifications would cost. The cost of any such modifications is particularly significant because an entire country location code would be used for national EAS alerts, which all broadcast stations and cable systems are required to transmit. One equipment manufacturer indicates that addition of an entire country location code would not require any modification of its existing EAS units.[94] Another manufacturer reports that an entire country location code is not necessary for its EAS equipment because its equipment reacts to any message with an EAN code, regardless of the location code embedded in the message.[95] However, we are unable to thoroughly assess the impact that addition of this code would have on broadcast stations and cable systems without specific information from manufacturers on all models of EAS equipment. We may revisit this issue at a later date if we receive evidence that it would not require modification of any existing models of EAS equipment.

39. Two commenters also suggest subdividing the country into nine regions and creating regional location codes.[96] However, we note that entities which originate EAS alerts are already able to

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[90] *NPRM*, 16 FCC Rcd at 7260.

[91] NWS Comments at 5; SBE Comments at 11; Thunder Eagle Comments at 11; Cox Comments at 2; Ohio EMA Comments at 2; TFT Comments at 5.

[92] NAB Comments at 5.

[93] *Memorandum Opinion and Order*, 10 FCC Rcd at 11500.

[94] TFT Comments at 5.

[95] Gorman Comments at 2. *See also* Seven Ranges Comments at 13.

[96] NWS Comments at 5; SBE Reply Comments at 7.

include up to 31 state location codes in EAS messages.[97] In this way, a group of several states can be activated for a regional emergency. We think that this approach, which can also be used to activate several regional groups for a national emergency, affords alerting entities more flexibility to tailor their EAS messages to particular regions of the country.

c. Customized Location Codes

40. In the *NPRM*, we invited comment on NWS's suggestion that we permit the use of any combination of the standard alphabet and numbers in the "CCC" portion of the location code.[98] NWS stated that organizations responsible for the warning communications associated with special facilities – such as nuclear power plants, chemical, biological and nuclear weapons storage facilities, and plants that produce and store hazardous materials – are now using or evaluating the use of NWR as their primary radio communications system. NWS further stated that allowing the geographic code blocks to include both numbers and letters plus the * symbol would enable these organizations to create up to 1.4 million possible location code and message combinations, which could provide site specific information such as shelter in place information, evacuation routes and safe areas.

41. We will not amend Part 11 of the Rules to permit the use of customized location coding in EAS messages. The majority of commenters which addressed this issue vigorously oppose the use of customized location coding in EAS messages.[99] Among other things, these commenters argue that customized location coding is not necessary because the current EAS protocol for location codes has not been used to its potential; that compatibility problems could result if all codes permitted for use in EAS equipment are not specified in the Part 11 rules; that customized location codes could cause existing, non-upgraded EAS equipment to false alert; and that a substantial amount of memory would be needed to store customized location codes in EAS equipment. We believe that these concerns are valid and therefore will not authorize the use of customized location coding in EAS messages without assurances that it will not compromise the EAS system.

3. Originator Codes

42. We asked for comment in the *NPRM* on NWS's request that we revise its originator code from WXR to NWS.[100] We expressed concern, however, that adding the NWS code and deleting the WXR code could have a substantial adverse impact on the use of the EAS for state and local emergency purposes because NWS is the originator of emergency weather information. Therefore, any broadcast station or cable system that wishes to participate in state and local EAS alerts would need to modify or upgrade its EAS equipment to handle the revised originator code.

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[97] *See* 47 C.F.R. § 11.31(c). *See also Memorandum Opinion and Order*, 10 FCC Rcd at 11500.

[98] *NPRM*, 16 FCC Rcd at 7260-61.

[99] RadioShack Comments at 4; Named StBAs Comments at 11; WSAB/WA SECC Comments at 9-10; NCTA Comments at 6; Ohio EMA Comments at 3; Thunder Eagle Comments at 11-12; Gorman Comments at 2; SBE Reply Comments at 6. Only one commenter states that it is not opposed to customized location coding. TFT Comments at 6.

[100] *NPRM*, 16 FCC Rcd at 7261.

43. In its comments, NWS states that it no longer seeks revision of its originator code, conceding that "the minimal benefit would not justify the work necessary to make the revision."[101] In addition, all but one of the commenters which addressed this issue oppose revision of NWS's originator code.[102] Accordingly, we will not revise NWS's originator code.

B. EAS Equipment

1. Selective Displaying and Logging of EAS Messages

44. In the *NPRM*, we sought comment on whether we should amend Part 11 to permit equipment manufacturers to include an optional feature in EAS equipment that would allow EAS users the capability to program their EAS decoders to selectively display and log EAS messages that contain state and local event codes.[103] Currently, the Part 11 rules require EAS equipment to display and log every message received.[104] We observed that permitting this optional feature would promote compatibility of EAS equipment with NWR-SAME equipment because it would relieve EAS participants that monitor NWR-SAME transmissions of the burden of logging every message transmitted, even unwanted test messages.

45. We will amend the Part 11 rules to permit broadcast stations and cable systems to program their EAS equipment to preselect which EAS messages containing state and local event codes they wish to display and log.[105] Many commenters favor some degree of selective displaying and logging.[106] NWS states that this feature is "critical" to improving the effectiveness of both the EAS and NWR.[107] We agree that permitting selective logging and displaying of state and local EAS messages will greatly enhance EAS. It will relieve EAS participants from the burden of logging unwanted messages, e.g., messages that do not apply to a participant's service area or messages concerning events which the participant has decided not to transmit. Additionally, it will enable NWS to broadcast non-alerting messages, conduct tests, and perform system administration and control functions without impacting EAS participants which monitor NWR transmissions. SBE maintains that this feature should be limited to "administrative" event codes that are not intended to reach the general public, such as the designated monthly practice/demonstration (DMO).[108] SBE fears that relaxation of the requirement to display and

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[101] NWS Comments at 7.

[102] NAB Comments at 3; Named StBAs Comments at 12; NCTA Comments at 7-8; WSAB/WA SECC Comments at 10-11; SBE Comments at 14; Thunder Eagle Comments at 12; Gorman Comments at 2; RadioShack Comments at 4-5; Ohio EMA Comments at 19. Cox was the only commenter which supported revision of NWS's originator code. Cox Comments at 2-3.

[103] *NPRM*, 16 FCC Rcd at 7262-63.

[104] 47 C.F.R. § 11.33(a)(3) and (a)(4).

[105] The Part 11 rules do not specify how EAS messages must be logged by EAS equipment. EAS equipment generally logs an EAS message by printing a record of the message on an external printer, by storing the message internally, or by storing the message in an external computer. In addition, broadcast stations and cable systems are required to make entries of EAS activations and tests in their station logs or system records.

[106] NWS Comments at 7; SBE Comments at 2; NAB Comments at 5; Ohio EMA Comments at 4; Thunder Eagle Comments at 13; TFT Comments at 8-9.

[107] NWS Comments at 7.

[108] SBE Comments at 2; SBE Reply Comments at 7-8.

log all emergency events, including events that are designated for the geographic area for which the decoder is programmed, could degrade the system's ability to deliver emergency information to decoder locations near or adjacent to areas directly impacted. However, we conclude that it is more consistent with the voluntary nature of state and local EAS to allow broadcast stations and cable systems to choose which state and local EAS messages they wish to display and log. We are confident that EAS participants will exercise good judgement in making these choices. Broadcast stations and cable systems may upgrade their existing EAS equipment to include the selective displaying and logging capability on an optional basis until the equipment is replaced. All existing and new models of EAS equipment manufactured after August 1, 2003 must be capable of selectively displaying and logging messages with state and local event codes. Broadcast stations and cable systems which replace their EAS equipment after February 1, 2004 must install EAS equipment that is capable of selectively displaying and logging EAS messages with state and local event codes. We emphasize that this selective displaying and logging feature applies only to state and local events. EAS equipment must continue to display and log all national EAS messages and all required weekly and monthly tests.

2. Equipment Authorization Requirements

46. As explained above, we have decided not to adopt the alternative suggestion set forth in the *NPRM* to leave the development of event codes and location codes to state and local authorities. However, we will amend the rules to provide that any modifications to existing authorized EAS equipment that are necessary to implement revisions in EAS codes or to implement the selective displaying and logging feature for state and local events are Class I permissive changes that do not require a new application for and grant of equipment certification. We believe that this amendment will provide equipment manufacturers more flexibility in the design and modification of EAS equipment.

47. Furthermore, as discussed above, we are amending Part 11 to require that all existing and new models of EAS equipment manufactured after August 1, 2003 be capable of transmitting and receiving the new event and location codes adopted in this *Report and Order*. Similarly, we are amending Part 11 to require that all existing and new models of EAS equipment manufactured after August 1, 2003 be capable of selectively displaying and logging messages with state and local event codes.

C. EAS Testing

48. Current Part 11 rules require broadcast stations and cable systems to retransmit the Required Monthly Test ("RMT") within 15 minutes of receipt of the RMT message.[109] In the *NPRM*, we proposed to amend Part 11 to increase the time for retransmitting RMTs to 60 minutes from the time of receipt of the RMTs.[110] We tentatively concluded that a longer relay window for RMTs would ease scheduling difficulties for all EAS participants without negatively affecting EAS test procedures.

49. Commenters overwhelmingly support increasing the relay window to 60 minutes, noting that it will provide additional flexibility to insert the RMT message into the program schedule without disruption.[111] Only one commenter opposes this proposal, arguing that a 60-minute relay window would

[109] *See* 47 C.F.R. §§ 11.51(l), 11.52(e)(2) and 11.61(a)(1)(v).

[110] *NPRM*, 16 FCC Rcd at 7262.

[111] NAB Comments at 6; NCTA Comments at 8; Named StBAs Comments at 13-14; WSAB/WA SECC Comments at 12; Cox Comments at 7; Ohio EMA Comments at 4; Salem Comments at 1-2; Gorman Comments at 2.

not be a meaningful test of the EAS because it would not simulate a true emergency.[112] We will adopt the proposal to increase the time for retransmitting RMTs from 15 minutes to 60 minutes from the time of receipt of the RMTs. We agree with the majority of commenters that a longer relay window will provide EAS participants more flexibility and reduce the risk of program disruptions. Moreover, we do not believe that increasing the relay window for RMTs will compromise the ability of the EAS to deliver a real EAS message in a timely manner.

50. One commenter suggests decreasing the relay window for RMTs to five minutes "based on the observed tendency to put it off until it's too late,"[113] and another commenter suggests eliminating the requirement to relay the RMT altogether.[114] We conclude that it would not be in the public interest to decrease the relay window for RMTs. In this regard, there is no evidence in the record demonstrating that EAS participants have a tendency to put off relaying RMTs until it is too late. Additionally, we do not think that the public interest would be served by eliminating the requirement to relay the RMT altogether. As SBE points out, the RMT is the only test EAS participants conduct to verify their ability to relay an EAN, and it has not been shown that the requirement to relay the RMT is unduly burdensome.[115]

D. Modulation Level of EAS Codes

51. In the *NPRM*, we proposed to reduce the minimum required modulation level of EAS codes from 80% to 50% of full channel modulation limits.[116] SBE had requested this change, asserting that in most cases the tone insertion equipment must be inserted after station processing to attain the required modulation level and that this situation is "adverse to acceptable engineering practice."

52. In its comments, SBE states that shortly after the adoption of the Part 11 rules, it became clear that the composition of the EAS tones generally prohibited achieving the prescribed 80% modulation requirement in the vast majority of broadcast installations due to the reaction of audio processing and modulation control equipment.[117] SBE recommends that rather than stating a minimum modulation level of 50% as proposed in the *NPRM*, the Commission should require that the modulation level of EAS codes be at the maximum possible level, but in no case less than 50%. SBE maintains that this change will bring the Part 11 rules into alignment with the technical limitations of the equipment involved. Of the other commenters that addressed this issue, only RadioShack Corporation ("RadioShack") objects to reducing the modulation level of EAS codes.[118] According to RadioShack, reducing the modulation level to 50% would diminish the ability of consumers living in fringe areas to receive EAS alerts on their consumer weather radios. In its reply comments, SBE clarifies that the proposed change will not reduce the existing modulation percentage but will simply bring the Commission rules into alignment with the actual modulation levels used by broadcasters. Thus, SBE

[112] Tharp Comments at 1-2.

[113] Heskett Comments at 1.

[114] Seven Ranges Comments at 5.

[115] SBE Reply Comments at 8.

[116] *NPRM*, 16 FCC Rcd at 7262.

[117] SBE Comments at 1-2.

[118] RadioShack Comments at 5.

asserts that the proposed change will not compromise the ability of existing consumer weather radios to receive EAS alerts.

53. We will amend Part 11 to require that the modulation level of EAS codes be at the maximum possible level, but in no case less than 50% of full channel modulation limits. This amendment will bring the Part 11 rules into alignment with the actual modulation levels currently obtainable by broadcasters. Because this amendment simply conforms the Part 11 rules with current practice, we are satisfied that it will not reduce the ability of consumer weather radios to receive EAS alerts.

E. Protocol for Text Transmission

54. In the *NPRM*, we invited comment on SBE's request that we amend the Part 11 rules to include a specific protocol for text transmission.[119] According to SBE, a protocol for text transmission would enable broadcasters and cable operators to make greater use of already formatted text messages in order to provide more detailed disaster information and updates. SBE suggested that text information could be transmitted immediately following the existing EAS message format, using the existing Audio Frequency Shift Keying ("AFSK") technique. We noted, however, that we had no information or data to support the addition of text messaging to the EAS system using the AFSK technique or any other scheme and that we were aware of no comprehensive field tests that have been conducted to show the viability of different text formats. As an alternative to SBE's suggestion, we sought comment on whether we should add a local event code (TXT) that can be used as an indicator that textual information will be transmitted after the End of Message code. We observed that this alternative would allow for the testing of different textual formats and could eventually lead to an industry standard.

55. We will not adopt a specific EAS text transmission protocol at this time. The general consensus among the commenters is that further study and evaluation of text transmission techniques and additional data on the cost and feasibility of adding text processing to existing EAS equipment are needed before the Commission can adopt a text transmission protocol.[120] Even SBE now advocates additional study of the matter with the goal of creating a widely supported technical standard.[121] We agree that further study and field testing of text transmission methodologies is needed before a specific text protocol can be adopted. Furthermore, we believe that the costs and feasibility of upgrading existing EAS equipment to add text messaging capability must be carefully evaluated. We note that there is presently no information in the record on which to base such an evaluation. In addition, we share the concern raised by NCTA that the adoption of a text protocol may require modification of the standard developed by the cable industry for digital EAS alerts.[122] Accordingly, we will not take action on this matter herein. We encourage the broadcast and cable industries to work with state and local EAS authorities, the hearing impaired community and other interested parties to evaluate different text transmission techniques and develop an industry standard for EAS text transmission.

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[119] *NPRM*, 16 FCC Rcd at 7263.

[120] NAB Comments at 3-4; Named StBAs Comments at 14; WSAB/WA SECC Comments at 13; NCTA Comments at 9; Cox Comments at 5; NWS Comments at 8; RadioShack Comments at 6; Thunder Eagle Comments at 14-15; Named StBAs Reply Comments at 7.

[121] SBE Comments at 5; SBE Reply Comments at 7.

[122] NCTA Comments at 9.

56. We also decline to add a TXT event code to be used for evaluating different text formats and text transmission techniques. A number of commenters support addition of the TXT event code.[123] However, we note that addition of the TXT code would necessitate adoption of a protocol for determining when a text transmission has ended. There is insufficient information in the record to permit adoption of such a protocol at this time.

F. Carriage of Audio of Presidential Messages from Non-EAS Sources

57. The *NPRM* sought comment on SBE's request that in the case of a national EAS alert, broadcast stations be permitted to air the President's voice message from a source other than the EAS source from which the alert was received.[124] In support of this request, SBE stated that most broadcast stations are equipped with high audio quality network connections, whereas the audio received on an EAS decoder may be of questionable quality. SBE also expressed concern that severe video to audio synchronization problems may occur if a television station chooses to air the video of the President from the station's network feed, but is required to air the audio portion of the President's message from the EAS source which provided the activation.

58. We will amend Part 11 to permit broadcast stations to override the EAS audio feed during a national EAS alert and substitute an audio feed of the President's message from another source. Commenters point out that the quality of the EAS audio feed is far inferior to the high quality audio network connections available to most broadcast stations[125] and that it may be difficult or impossible for television stations to synchronize the EAS audio feed with their video feeds.[126] We agree with commenters that the public interest will be served by amending Part 11 to allow broadcast stations to provide the highest quality audio available to them during a national emergency. Because National Primary broadcast stations will still be required to relay all national EAS messages in accordance with Section 11.51 of the Rules,[127] this amendment will not compromise the integrity of the EAS system or prevent those broadcast stations that do not have access to alternative audio feeds from transmitting presidential EAS messages to the public.

59. One commenter cautions that we must ensure that lengthy delays do not result because broadcast stations are waiting for audio feeds from alternative sources.[128] We emphasize that broadcast stations may not delay the transmission of national EAS messages in order to substitute alternative audio feeds. Rather, broadcast stations must continue to transmit all national EAS messages immediately upon receipt.[129]

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[123] Named StBAs Comments at 14; WSAB/WA SECC Comments at 13; Cox Comments at 5; Thunder Eagle Comments at 15.

[124] *NPRM*, 16 FCC Rcd at 7264.

[125] SBE Comments at 6; Named StBAs Comments at 16; Cox Comments at 6-7; and WSAB/WA SECC Comments at 14.

[126] SBE Comments at 6; Cox Comments at 6.

[127] 47 C.F.R. § 11.51.

[128] Ohio EMA Comments at 5.

[129] *See* 47 C.F.R. §§ 11.44(c), 11.51(k)(2) and 11.51(l).

G. Use of Common EAS Equipment by "Key" Broadcast Stations and Cable Systems

60. Under the Part 11 rules, broadcast stations that are co-owned and co-located with a combined studio and cable systems that are co-owned and co-located with a combined control facility are permitted to use a common set of EAS equipment to comply with the EAS rules.[130] In the *NPRM*, we sought comment on a suggestion by SBE that the Commission amend Part 11 to provide that where more than one of the co-owned and co-located broadcast stations or cable systems are designated as "key" stations or systems,[131] the common EAS equipment must be configured such that the EAS message of one key station or system is either simulcast or relayed by the remaining key station(s) or system(s).[132] In support of this request, SBE stated that since EAS equipment does not provide for the relay of a message originated by itself, co-located key stations that do not simulcast program originations must originate tests and alerts separately. When the same EAS message is originated on co-located key stations at different times, two apparently separate messages for the same event circulate through the EAS relay web, and automated, unattended, or manned stations set to automatic will air both messages.

61. We will not adopt SBE's suggestion concerning co-owned, co-located key stations and systems. Several commenters endorse this suggestion, asserting that there is a potential for confusion when the same EAS message is originated on co-located key stations at different times.[133] However, as we noted in the *NPRM*, we have not received any reports of specific instances of the problem described by SBE.[134] Further, none of the commenters in this proceeding cite specific instances where this problem has occurred.[135] In addition, we have no information as to how many co-owned, co-located key stations and systems there currently are. We also note that one EAS equipment manufacturer indicates that adoption of SBE's suggestion would necessitate a major redesign effort with respect to its equipment and estimates that the per unit cost to modify existing hardware and software to incorporate this feature might exceed $500.[136] Given that it is unclear from the record before us whether or to what extent the problem described by SBE exists, we are unwilling to require potentially costly modifications to EAS equipment. Instead, if this problem does arise, we think that a better approach would be for broadcast stations and cable systems to work with their SECCs and LECCs to explore less costly alternatives, e.g., by taking steps to ensure that two or more co-owned, co-located stations or systems are not designated in state and local EAS plans as key stations or systems.

H. EAN Network

62. In the *NPRM*, we proposed to delete those portions of the Part 11 rules that reference the now-defunct Emergency Action Notification ("EAN") network and its participants.[137] Previously, the

[130] *See* 47 C.F.R. §§ 11.51(j) and 11.52(c).

[131] "Key" stations and systems are broadcast stations and cable systems that are designated as state or local primary EAS sources in their EAS plan and thus are monitored by other stations and systems in their EAS area.

[132] *NPRM*, 16 FCC Rcd at 7263-64.

[133] Named StBAs Comments at 15; WSAB/WA SECC Comments at 13, Ohio EMA Comments at 5.

[134] *NPRM*, 16 FCC Rcd at 7264.

[135] Ohio EMA reports that the State of Ohio has not experienced this problem. Ohio EMA Comments at 5.

[136] TFT Comments at 10.

[137] *NPRM*, 16 FCC Rcd at 7264-65.

EAN network was one of two networks used to distribute national emergency messages from the federal government.[138] It consisted of a dedicated communications service connecting industry networks, wire services and common carriers with government activation points. FEMA phased out the EAN network in 1995 in accordance with a presidential directive.[139]

63. The two parties which commented on this issue both support our proposal.[140] Accordingly, we will amend Part 11 as proposed in the *NPRM* to eliminate all references to the EAN network and its participants.

I. International High Frequency Stations

64. The *NPRM* proposed to amend Part 11 of the Rules to eliminate the requirement that international HF broadcast stations purchase and install EAS equipment.[141] The *NPRM* also proposed to delete Section 11.54(b)(9) of the Rules, which requires international HF broadcast stations to cease broadcasting immediately upon receipt of a national-level EAS message and remain off the air until they receive an EAS message terminating the activation.[142] We noted that in 1996, after concluding that the technical and political concerns which gave rise to the requirements of Section 11.54(b)(9) are no longer relevant, Commission staff granted a request by the National Association of Shortwave Broadcasters, Inc. to exempt all FCC licensed international HF broadcast stations from the requirement to purchase and install EAS equipment.[143]

65. Ohio EMA, the only commenter which addressed this issue, concurs with our proposals.[144] Therefore, for the reasons set forth in the *NPRM*, we will amend Part 11 as proposed in the *NPRM* to eliminate the requirement that international HF broadcast stations purchase and install EAS equipment and to delete Section 11.54(b)(9).

J. Waiver Requests

66. Several parties filed comments seeking waivers of the EAS rules. The Public Broadcasters, a group of public universities, public broadcasters and government or non-profit entities operating noncommercial educational radio and television stations, seek permanent waivers of the requirement to install EAS equipment for satellite/repeater stations which rebroadcast 100% of the

[138] The other network used to distribute national level messages is the Primary Entry Point ("PEP") system, which was originally developed to serve as a backup to the EAN network. The PEP system consists of a nationwide network of broadcast stations designated as National Primary sources that are connected with government activation points. 47 C.F.R. § 11.14(b).

[139] Memorandum from President William J. Clinton to James L. Witt, Director, Federal Emergency Management Agency (September 15, 1995).

[140] Named StBAs Comments at 16; Ohio EMA Comments at 5.

[141] *NPRM*, 16 FCC Rcd at 7265.

[142] 47 C.F.R. § 11.54(b)(9).

[143] Letter to Douglas W. Garlinger, Chairman, EAS Compliance Committee, National Association of Shortwave Broadcasters, Inc., from Arlan K. van Doorn, Deputy Chief, Compliance and Information Bureau, Federal Communications Commission (December 20, 1996).

[144] Ohio EMA Comments at 5.

programming of their lead or hub station.[145] The Public Broadcasters note that under the old EBS rules, the Commission permitted licensees of broadcast station transmitters located at different geographic points but programmed from a common studio point to use only one set of EBS equipment upon a showing that one set of equipment could meet the requirements and intent of the EBS rules.[146] The Commission staff has granted permanent waivers of the requirement to install EAS equipment for satellite/repeater stations that rebroadcast 100% of the programming of their hub station and are located in the same local EAS area as the hub station, but has granted only temporary waivers where the satellite/repeater stations are outside the hub station's local EAS area.[147] The Public Broadcasters argue that these temporary waivers should be made permanent because they can comply with the requirements and intent of the EAS rules without incurring the additional costs and burdens of installing EAS equipment at each of the satellite/repeater stations. The Public Broadcasters assert that satellite/repeater stations which simulcast 100% of their hub station's programming comply with the requirement that broadcast stations participate in national EAS alerts because national EAS alerts carried by a hub station are automatically retransmitted over the satellite/repeater stations. They further assert that they should not be required to install EAS equipment at each of the satellite/repeater locations for the sole purpose of transmitting state and local EAS alerts because participation in state and local EAS activities is voluntary under the EAS rules. None of the commenters addressed the Public Broadcasters' waiver request.

67. We will amend the Part 11 rules to exempt satellite/repeater stations which rebroadcast 100% of the programming of their hub station from the requirement to install EAS equipment. Specifically, we will consider the use of a single set of EAS equipment at a hub station (or common studio/control point where there is no hub station) to satisfy the EAS obligations of the satellite/repeater stations which rebroadcast 100% of the hub station's programming. This exemption will apply to existing satellite/repeater stations and any proposed new satellite/repeater stations. As the Public Broadcasters point out, the satellite/repeater stations will comply with the requirement to transmit all national EAS alerts because all national alerts will be passed through from the hub station. In addition, we acknowledge that it may be unnecessarily burdensome for the governmental and educational institutions operating these satellite/repeater stations to incur the substantial cost of installing EAS equipment at each such satellite/repeater station for the sole purpose of being able to transmit state and local EAS alerts, which are voluntary under our rules. Furthermore, only a small number of broadcast stations will be eligible for this exemption.[148] We emphasize, however, that if any of the satellite/repeater stations start originating any of their own programming, they will be required to install EAS equipment. Finally, we note that some models of EAS equipment have the capability to monitor the assigned EAS sources for more than one local EAS area, i.e., a hub station may have the capability to monitor the

[145] Public Broadcasters Comments at 4-8.

[146] Public Broadcasters Comments at 3 (citing *Louisiana Association of Broadcasters*, 57 FCC 2d 648, 651 (1976)).

[147] On February 16, 2001, the Public Broadcasters filed a joint request for a permanent waiver of the requirement to install EAS equipment for certain satellite/repeater stations which rebroadcast 100% of their hub station's programming. By letter dated April 19, 2001, the Commission staff denied this request, stating that changes of this magnitude are best addressed in a rulemaking proceeding so that all interested parties may have the opportunity to comment. Letter from Joseph P. Casey, Chief, Technical and Public Safety Division, Enforcement Bureau, Federal Communications Commission, to Christine J. Newcomb, Dow, Lohnes & Albertson (April 19, 2001).

[148] Commission records indicate that there are approximately 100 satellite/repeater stations which currently have temporary waivers of the EAS rules and thus would be eligible for the exemption.

assigned EAS sources of some or all of its satellite stations in addition to its own sources. Where this capability exists, we strongly encourage the hub station to voluntarily transmit at least the most serious local emergency alerts (e.g., tornado warnings) over its entire network of satellite stations to help ensure widespread dissemination of vital emergency information to the affected community or communities.

68. Two commenters seek waivers or other relief involving the use of EAS decoders. NCTA, Telecommunications for the Deaf, Inc. and the National Association for the Deaf (jointly, "NCTA/TDI/NAD") seek a waiver which would allow cable systems serving fewer than 5,000 subscribers per headend to comply with the EAS rules by installing a decoder only, rather than both an encoder and a decoder.[149] Cable systems serving fewer than 5,000 subscribers are required to install encoders and decoders by October 1, 2002.[150] NCTA/TDI/NAD assert that purchasing equipment without encoding capability will allow for significant cost savings to these small cable systems. NCTA/TDI/NAD acknowledge that their waiver request assumes that EAS decoders will become available.

69. Media Access Project ("MAP") requests a temporary blanket waiver of the requirement that low power FM ("LPFM") stations install FCC-certified EAS decoders or, alternatively, suggests that the Commission could authorize LPFM stations to install non-FCC-certified decoders or change the certification criteria for EAS decoders.[151] Under the EAS rules, LPFM stations are only required to install certified decoders, not the combined encoder/decoder units which full power stations are required to install.[152] MAP states that when the Commission adopted the requirement that LPFM stations install certified decoders, it acknowledged that certified decoders were not currently available, but assumed that they would become available at a cost similar to non-certified decoders.[153] However, MAP states that certified decoders are still not available and that such decoders are unlikely to become available because adding a memory function in order to achieve certification would be expensive and therefore unobtainable for limited budget LPFM stations. MAP also indicates that estimates have placed the cost of a certified decoder at or near the cost of a combined encoder/decoder unit.

70. The Commission staff issued a public notice on November 30, 2001 to solicit supplemental comment on the requests of NCTA/TDI/NAD and MAP.[154] Eighteen parties submitted comments in response to the public notice.[155] Four equipment manufacturers, HollyAnne Corporation ("HollyAnne"), Sage Alerting Systems, Inc. ("Sage"), TFT and Vela Research, L.P. ("Vela"), address our request for specific comment on the future availability of FCC-certified decoders. These commenters confirm that there are currently no FCC-certified decoder-only units available. HollyAnne and Sage both submit that it is unlikely that low-cost, FCC-certified decoders will become available.[156] HollyAnne states

[149] NCTA/TDI/NAD Comments at 2-3.

[150] 47 C.F.R. § 11.11(a).

[151] Media Access Project Comments at 1-2.

[152] 47 C.F.R. § 11.11(b).

[153] *Creation of a Low Power Radio Service*, 15 FCC Rcd 2205, 2282 (2000).

[154] Public Notice, DA 01-2775 (released November 30, 2001).

[155] A list of the parties which submitted comments on the public notice, and the abbreviations by which they are referred to in this document, is set forth in Appendix A.

[156] HollyAnne Supplemental Comments at 1; Sage Supplemental Comments at 1.

that if it produced and certified an EAS decoder, it does not anticipate any reduction in cost because of the technology it uses in the manufacture of its encoder/decoder.[157] Sage indicates that the market represented by LPFM stations is too small to warrant significant investment by existing or new EAS vendors of certified decoders.[158] TFT states that it has no current plans to certify a decoder only unit because only minimal savings would be realized from removing the encoder from its certified encoder/decoder unit and still complying with the certification requirements for decoders.[159] However, TFT notes that it currently manufacturers a low-cost, non-certified decoder, the TFT Safety 1st, for the commercial and industrial markets not subject to Part 11 requirements. The TFT Safety 1st is not compliant with the Part 11 requirements for EAS decoders because it does not have a digital input and does not have the ability to record and store the last ten message header codes received.[160] TFT urges the Commission to relax the certification standards for EAS decoders because that will permit the manufacture of low-cost decoder-only units.[161] Vela, a manufacturing partner of TFT, acknowledges that the TFT Safety 1st lacks two of the capabilities to make it fully certifiable under the Part 11 requirements for EAS decoders.[162] However, Vela states that when the TFT Safety 1st is combined with Vela's EAS controller components, Vela and TFT are able to provide a fully compliant decoder-only solution for the cable market. Vela states that if the Commission authorizes small cable systems to comply with the EAS rules by installing a decoder only, it plans to submit this decoder-only system for certification in the first quarter of 2002. Vela maintains that the cost savings to small cable systems of this decoder-only system will be significant. By eliminating the encoder function, Vela asserts that an EAS decoder-only system can reduce the cost by 64% over what a cable operator would spend for an encoder/decoder unit.

71. After reviewing the supplemental comments, we conclude that the public interest will be served by amending the Part 11 rules to permit cable systems serving fewer than 5,000 subscribers to use an FCC-certified decoder, if such a device becomes available by October 1, 2002, in lieu of an encoder/decoder unit. If FCC-certified decoders are not available by the October 1, 2002 compliance deadline, cable systems serving fewer than 5,000 subscribers will continue to be required to comply with the EAS rules by installing an encoder/decoder unit. We agree with the American Cable Association ("ACA") that authorizing the use of decoder-only units will, to the extent that such decoders may become available at a lower price than encoder/decoder units, benefit the public by reducing costs for small cable systems in meeting the October 1, 2002 compliance deadline.[163] Similarly, we agree with the Wireless Communications Association International, Inc. ("WCA") that permitting small wireless cable operators to use decoder-only units, to the extent that such decoders may become available at a lower price than encoder/decoder units, will serve the public interest.[164] Accordingly, we will extend this policy to wireless cable systems serving fewer than 5,000 subscribers as requested by WCA.

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[157] HollyAnne Supplemental Comments at 1.

[158] Sage Supplemental Comments at 1.

[159] TFT Supplemental Comments at 4.

[160] *Id.* at 5.

[161] *Id.* at 6-7.

[162] Vela Supplemental Comments at 2.

[163] ACA Supplemental Comments at 1.

[164] WCA Supplemental Comments at 1.

72. We agree with SBE that it is important that EAS decoders have the capability to store and forward EAS messages or to automatically pass through EAS messages.[165] Accordingly, we will not relax the certification requirements for EAS decoders. In order to receive FCC certification, EAS decoders will be required to satisfy all of the existing requirements for decoders set forth in Section 11.33 of the Rules.[166] Small cable systems which opt to install decoder-only units will not be able to originate EAS messages or generate RWTs. However, these small cable systems will still be able to pass through EAS messages and accomplish Required Weekly Testing by forwarding a received RWT. Thus, we do not believe that permitting small cable systems to install decoder-only units will compromise or diminish the EAS system.

73. Although ACA supports a policy of allowing small cable systems to install decoder-only units, it asserts that such a policy should not interfere with the financial hardship waiver process available to small cable systems.[167] According to ACA, even with a decoder-only option, hundreds of small cable systems will face serious financial hardship unless case-by-case relief is granted. We clarify that the Commission will continue to grant waivers of the EAS rules to small cable systems on a case-by-case basis upon a showing of financial hardship. The waiver request must contain at least the following information: (1) justification for the waiver, with reference to the particular rule sections for which a waiver is sought; (2) information about the financial status of the requesting entity, such as a balance sheet and income statement for the two previous years (audited, if possible); (3) the number of other entities that serve the requesting entity's coverage area and that have or are expected to install EAS equipment; and (4) the likelihood (such as proximity or frequency) of hazardous risks to the requesting entity's audience.[168] We emphasize, however, that any financial hardship waivers granted to small cable systems will not, as a general rule, be permanent waivers. In this regard, we note that Section 624(g) of the Communications Act of 1934, as amended, requires that cable systems be capable of providing EAS alerts to their subscribers.[169]

74. With respect to LPFM stations, a number of parties that filed comments in response to the public notice urge us to temporarily or permanently exempt LPFM stations from the requirement to install FCC-certified decoders or to authorize LPFM stations to install uncertified decoders.[170] Among other things, these commenters assert that low-cost, FCC-certified decoders have not become available as anticipated by the Commission in the LPFM proceeding because the number of authorized LPFM stations

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[165] SBE Supplemental Comments at 4.

[166] 47 C.F.R. § 11.33.

[167] ACA Supplemental Comments at 1.

[168] *Second Report and Order*, 12 FCC Rcd at 15513, n. 59.

[169] 47 U.S.C. § 544(g). Section 624(g) provides that "each cable operator shall comply with such standards as the Commission shall prescribe to ensure that viewers of video programming on cable systems are afforded the same emergency information as is afforded by the emergency broadcasting system pursuant to Commission regulations ...."

[170] CCB Supplemental Comments at 1; Prometheus Supplemental Comments at 2; Christian Witness Supplemental Comments at 1; KURC Supplemental Comments at 1; Saunders Supplemental Comments at 1; Newport Supplemental Comments at 1; Bowles Supplemental Comments at 1.

is currently too small to create sufficient demand for the manufacture of such devices.[171] By contrast, two LPFM applicants assert that they have allocated funds to purchase a combined encoder/decoder unit.[172]

75. In the LPFM proceeding, the Commission concluded that LPFM stations should be required to participate in EAS by installing EAS decoders only, rather than combined encoder/decoder units.[173] We reasoned that this modified EAS requirement would balance the cost of compliance, the ability of LPFM stations to meet that cost, and the needs of the listening public to be alerted in emergency situations. While we anticipated that FCC-certified decoders would become available for under $1,000 in the near future, we stated that if certified decoder equipment is not available when the first LPFM stations go on the air, we can grant a temporary exemption for LPFM stations until such time as it is reasonably available.[174] As of December 31, 2001, the Commission staff had granted 174 construction permits for LPFM stations and a number of LPFM stations have begun operating. However, certified EAS decoders have not reached the market as quickly as we expected. Therefore, as stated in the LPFM proceeding, we will grant a temporary exemption to LPFM licensees of the requirement to install FCC-certified decoders. Specifically, we will amend the Part 11 rules to provide that LPFM stations need not install EAS decoders until one year after the Commission publishes in the Federal Register a public notice indicating that at least one EAS decoder has been certified.

K. Other Matters

76. In paragraph 32 of the *NPRM*, we stated that we did not propose to adopt various other changes to the EAS rules suggested by NWS and SBE because they appear to be either unnecessary or not in the public interest, but we nevertheless invited interested parties to comment on these suggestions.[175] Although most of these suggested changes did not generate any comments, a few commenters addressed SBE's suggestions to replace the Required Monthly Test with a Required Quarterly Test,[176] make the two-tone Attention Signal optional,[177] and add the Evacuation Immediate (EVI) event code to the list of national event codes for which we require immediate retransmission.[178] Notably, SBE now recommends that these three suggestions not be adopted.[179] After reviewing the comments, we continue to believe that these and the other suggested changes referenced in paragraph 32 of the *NPRM* are unnecessary or not in the public interest and therefore we will not adopt them. We note,

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[171] CCB Supplemental Comments at 2; Prometheus Supplemental Comments at 2.

[172] Lexington Calvary Supplemental Comments at 1; Viernstein Supplemental Comments at 1.

[173] 15 FCC Rcd at 2280.

[174] *Id.* at 2282.

[175] *NPRM*, 16 FCC Rcd at 7266.

[176] Two commenters argue that the monthly tests are not a burden to EAS participants and therefore should remain in place. Named StBAs Comments at 17; WSAB/WA SECC Comments at 14.

[177] Two commenters assert that making the attention signal optional would decrease the effectiveness of EAS at the risk of public safety. Named StBAs Comments at 17; WSAB/WA SECC Comments at 14. Two commenters support making the attention signal optional. Ohio EMA Comments at 5; Seven Ranges Comments at 15.

[178] Two commenters support adding the EVI code to the list of event codes for which retransmission is required. WSAB/WA SECC Comments at 15; Ohio EMA Comments at 5.

[179] SBE Comments at 3; SBE Reply Comments at 9.

in this regard, that the frequency of the RMT has not been shown to be a burden to EAS participants; that the two-tone Attention Signal continues to serve the important purpose of alerting the public that an emergency warning message is about to be issued; and that the transmission of state and local event codes, such as the EVI code, is entirely voluntary under the EAS rules.

77. NAB requests that we reexamine our policy on selective overrides in light of the changes to the EAS rules proposed in this proceeding.[180] In 1994, in response to concerns that a cable system's EAS message could override more detailed emergency information provided by a local broadcast station, we authorized voluntary selective overrides by modifying the EAS rules to provide that a cable system, upon written agreement with a broadcast station, may elect not to override the programming of a broadcast station carrying news or weather related emergency information with state and local EAS messages.[181] In 1998, we denied NAB's request that we mandate selective overrides, concluding that in certain circumstances cable systems may be better suited to provide necessary emergency information to local communities.[182] NAB asserts that the new event and location codes adopted in this proceeding, when combined with live news coverage, will enable local broadcast stations to provide more useful and in-depth emergency information than that which might be generated by a cable operator.[183] NCTA disagrees, arguing that the adoption of new event and location codes provides no basis for reexamination of the selective override policy.[184] We conclude that nothing in the record of this proceeding alters our previous decision that local facts and circumstances, not a federal mandate, should determine whether selective overrides will serve the public interest.[185]

78. NAB and several other commenters urge the Commission to take steps to resolve the Quad Dimension, Inc. ("QDI") EAS patent issue by, for example, seeking a blanket patent license or subsidizing broadcasters for the cost of individual patent licenses.[186] QDI claims to hold a patent on the technology used in EAS equipment and has asked broadcasters to sign patent licensing agreements and pay patent licensing fees to QDI. We note, however, that NWS disputes QDI's patent claim and that the U.S. Patent and Trademark Office has not yet issued a final determination on the claim. Moreover, it is not clear from the record what steps NAB or other groups of broadcasters have taken themselves to secure a blanket patent license. In any event, this issue is beyond the scope of this proceeding.

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[180] NAB Comments at 13-15.

[181] *Second Report and Order*, 12 FCC Rcd at 15521. *See* 47 C.F.R. § 11.51(g)(4).

[182] *Amendment of Part 73, Subpart G, of the Commission's Rules Regarding the Emergency Broadcast System, Third Report and Order*, FO Docket Nos. 91-171/91-301, 14 FCC Rcd 1273, 1282-83 (1998) ("*Third Report and Order*").

[183] NAB Comments at 14.

[184] NCTA Reply Comments at 2-3. NCTA also points out that according to NAB's own estimate, the cost to cable systems of implementing mandatory selective override would range from $10,000 to 15,000 per system. *Id.* at 3 (citing NAB Comments at 14).

[185] *Third Report and Order*, 14 FCC Rcd at 1282.

[186] NAB Comments at 11-13; Seven Ranges Comments at 11-13; Named StBAs Reply Comments at 8-9; SBE Reply Comments at 9.

79. Several commenters request that we redefine four of the county subdivision codes identified by the "P" portion of the six-digit "PSSCCC" location code.[187] The "P" portion of the location code is optional and allows the message originator to divide a county into nine sections to further pinpoint the affected portion of the county. Currently, the county subdivisions are defined as follows: 0 = all or an unspecified portion of a county; 1 = Northwest; 2 = North Central; 3 = Northeast; 4 = West Central; 5 = Central; 6 = East Central; 7 = Southwest; 8 = South Central; and 9 = Southeast.[188] According to the commenters, this subdivision scheme does not work well within irregularly shaped counties. The commenters therefore recommend that we drop the "central" from the North Central, West Central, East Central and South Central codes so that each of these codes simply states its root compass direction. We agree that this minor change will permit a more orderly and logical use of the county subdivision scheme and we will revise the rules accordingly. Because we are simply revising the definitions of the codes, not the actual codes, this revision will not require any modification to existing equipment.

80. Thunder Eagle complains that, as a matter of policy, NWS will not encode an alert message for more than six hours or reissue an alert message after the initial six-hour period, even though the message may actually have a valid time period of greater than six hours.[189] Thunder Eagle requests that we amend the Part 11 rules to specifically require either (a) that the valid time period indicate the actual duration of the alert, or (b) that the issuing agency reissue the alert message at the end of every six-hour period for which a previously issued alert is still in effect. We will not amend the rules as requested by Thunder Eagle. We think that this is a matter best left to the discretion of NWS and other agencies that issue EAS alerts.

81. SBE requests that we specifically apply the EAS protocol and standards specified in the Part 11 rules to other radio services, such as amateur radio services (Part 97) and land mobile radio services (Part 90), which have recently begun to transmit EAS and NWR-SAME messages.[190] This proposal is beyond the scope of the instant proceeding and will not be considered here.

82. Finally, we are revising the Part 11 rules to make a few non-substantive and editorial amendments.

IV. CONCLUSION

83. In this *Report and Order*, we revise the technical and operational requirements for the EAS. In particular, we adopt new event codes and location codes to be used in transmitting EAS alerts to the public during state and local emergencies. Broadcast stations and cable systems will be permitted to upgrade their existing EAS equipment to include the new event and location codes on a voluntary basis until the equipment is replaced. Thus, the rules we are adopting in this proceeding will promote public safety by enhancing the performance and capabilities of EAS without imposing additional costs or burdens on broadcast stations and cable systems that may discourage their voluntary participation in state and local EAS activities.

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[187] WSAB/WA SECC Comments at 16-17; SBE Comments at 13-14; NWS Reply Comments at 2.

[188] *See* 47 C.F.R. § 11.31(c).

[189] Thunder Eagle Comments at 2-3. For example, Thunder Eagle states that although Hurricane Watches and Warnings regularly last for 24 to 48 hour periods, NWS will not encode a Hurricane Watch or Warning alert message for more than six hours or reissue the alert after the initial six-hour period.

[190] SBE Reply Comments at 12-13.

V. PROCEDURAL MATTERS

84. Final Regulatory Flexibility Analysis. As required by the Regulatory Flexibility Act, *see* 5 U.S.C. § 604, the Commission has prepared a Final Regulatory Flexibility Analysis of the possible impact on small entities of the rule changes contained in this *Report and Order*. The Final Regulatory Flexibility Analysis is set forth in Appendix C. The Commission's Consumer Information Bureau, Reference Information Center, will send a copy of this *Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

85. Final Paperwork Reduction Act of 1995 Analysis. This *Report and Order* does not contain any new or modified information collection. Therefore, it is not subject to the requirements for a paperwork reduction analysis, and the Commission has not performed one.

VI. ORDERING CLAUSES

86. According, IT IS ORDERED that pursuant to the authority contained in Sections 1, 4(i) and (o), 303(r), 624(g) and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (o), 303(r), 554(g) and 606, that Part 11 of the Commission's Rules, 47 C.F.R. Part 11, IS AMENDED as set forth in Appendix B, effective 30 days after publication of this *Report and Order* in the Federal Register.

87. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, shall send a copy of this *Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with the Regulatory Flexibility Act.

88. IT IS FURTHER ORDERED that this proceeding IS TERMINATED.

89. For additional information on this proceeding, please contact the FCC Enforcement Bureau, Technical and Public Safety Division, at (202) 418-1160.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton
Acting Secretary

APPENDIX A

List of Commenting Parties

Comments:

1. Susan M. Collins, Member, United States Senate (Collins)
2. Connecticut Broadcasters Association Emergency Communications Committee (CBA/EAS)
3. Cox Broadcasting, Inc. (Cox)
4. Dallas/Fort Worth Area Radio Managers (ARMS)
5. Central Michigan University, Idaho State Board of Education (Boise State University), Iowa Public Broadcasting Board, Kent State University, Maine Public Broadcasting Corporation, Nebraska Educational Telecommunications Commission, Nevada Public Radio Corporation, Inc., Rocky Mountain Public Broadcasting Network, Inc., Sistema Universitario Ana G. Mendez, Inc., the Board of Supervisors of Louisiana State University and Agricultural and Mechanical College, University of Oklahoma, University of Wyoming, Washington State University, West Central Illinois Educational Telecommunications Corporation, and WSKG Public Telecommunications Council (Public Broadcasters)
6. Martin Frost, Member, United States Congress (Frost)
7. Greater Metropolitan Washington Area Amber Plan (DC AMBER Taskforce)
8. Gene Heskett
9. KPVI-TV
10. Nick Lampson, Billy Tauzin, Bill Pascrell, Jr., Martin Frost, Dale Kildee, Connie Morella, Ken Bentsen, Michael Capuano, John Shimkus, Mark Green, Julia Carson, Mike Ross, Mark Foley, Sheila Jackson-Lee, Bud Cramer, Doug Ose, Ben Gilman, Sam Farr, Sivestre Reyes, Ellen Tauscher, Melissa Hart, Bob Schaffer, John Tanner, Steve Largent, Lloyd Doggett, Patsy Mink, Jim Ryun, Peter Visclosky, Christopher Smith, Fred Upton, Joe Barton, Ed Whitfield, Jose Serrano, Chip Pickering, Donald Payne, James Greenwood, Edward Markey, Steve Rothman and Diana Degette, Members, United States Congress (39 Members of Congress)
11. Multiplex One, Inc.
12. Named State Broadcasters Associations (Named StBAs)
13. National Association of Broadcasters (NAB)
14. National Cable & Telecommunications Association (NCTA)
15. National Center for Missing and Exploited Children (NCMEC)
16. National Weather Service (NWS)
17. Oklahoma Amber Plan Committee (OAPC)
18. RadioShack Corporation (RadioShack)
19. Salem Communications Corporation (Salem)
20. Van H. Schallenberg (Schallenberg)
21. Seven Ranges Radio Co., Inc. (Seven Ranges)
22. Small Business in Telecommunications (SBT)
23. Society of Broadcast Engineers, Inc. (SBE)
24. James C. Tharp (Tharp)
25. Thunder Eagle, Inc. (Thunder Eagle)
26. Washington State Association of Broadcasters and Washington State Emergency Communications Committee (WSAB/WA SECC)

Reply comments, late-filed comments and ex parte comments:

1. James Gorman (Gorman)
2. Nick Lampson, Member, United States Congress (Lampson)
3. Arthur J. Martin (Martin)
4. Media Access Project (MAP)
5. NCTA
6. National Cable Television Association, Telecommunications for the Deaf, Inc. and National Association for the Deaf (NCTA/TDI/NAD)
7. Named StBAs
8. NWS
9. Ohio Emergency Management Agency (Ohio EMA)
10. Range Telecommunications (Range)
11. RadioShack
12. SBE
13. TFT, Inc. (TFT)
14. Tharp
15. Thunder Eagle

Supplemental comments submitted in response to November 30, 2001 Public Notice:

1. American Cable Association (ACA)
2. Dr. Kenneth W. Bowles (Bowles)
3. Christian Community Broadcasters (CCB)
4. Christian Witness, Inc. (Christian Witness)
5. HollyAnne Corporation (HollyAnne)
6. Brad Johnson (Johnson)
7. KURC-LP (KURC)
8. Lexington Calvary Chapel (Lexington Calvary)
9. Newport Musical Arts Association (Newport)
10. Prometheus Radio Project (Prometheus)
11. SBE
12. Sage Alerting Systems, Inc. (Sage)
13. Paul B. Saunders (Saunders)
14. Joseph Steinberger (Steinberger)
15. TFT
16. Vela Research L.P. (Vela)
17. Reverend Karl R. Viernstein (Viernstein)
18. Wireless Communications Association International, Inc. (WCA)

APPENDIX B

RULES CHANGES

Part 11 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

PART 11 – EMERGENCY ALERT SYSTEM (EAS)

1. The authority citation for Part 11 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i) and (o), 303(r), 544(g) and 606.

2. Section 11.11 is amended by revising the three tables in paragraph (a) and revising paragraph (b) to read as follows:

§ 11.11 The Emergency Alert System (EAS)

(a) ***

BROADCAST STATIONS

EAS Requirement	AM & FM	TV	FM CLASS D	LPTV [FN 1]	LPFM [FN4]	CLASS A TV
Two-tone encoder [FN2] [FN3]	Y	Y	N	N	N	Y
EAS decoder	Y 1/1/97	Y 1/1/97	Y 1/1/97	Y 1/1/97	Y	Y
EAS encoder	Y 1/1/97	Y 1/1/97	N	N	N	Y
Audio message	Y 1/1/97	Y 1/1/97	Y 1/1/97	Y 1/1/97	Y	Y
Video message	N/A	Y 1/1/97	N/A	Y 1/1/97	N/A	Y

[FN1] LPTV stations that operate as television broadcast translator stations are exempt from the requirement to have EAS equipment.
[FN2] Effective July 1, 1995, the two-tone signal must be 8-25 seconds.
[FN3] Effective January 1, 1998, the two-tone signal may only be used to provide audio alerts to audiences before EAS emergency messages and the required monthly tests.
[FN4] LPFM stations must install a decoder within one year after the FCC publishes in the Federal Register a public notice indicating that at least one decoder has been certified by the FCC.

CABLE SYSTEMS

A. Cable systems serving fewer than 5,000 subscribers from a headend must either provide the National level EAS message on all programmed channels--including the required testing--by October 1, 2002, or comply with the following EAS requirements. All other cable systems must comply with B.

B. EAS Equipment Requirement	System size and effective dates		
	≥ 10,000 subscribers	≥5,000 but < 10,000 subscribers	< 5,000 subscribers
Two-tone signal from storage device [FN1]	Y 12/31/98	Y 10/1/02	Y 10/1/02
EAS decoder	Y 12/31/98	Y 10/1/02	Y 10/1/02
EAS encoder [FN2]	Y 12/31/98	Y 10/1/02	Y 10/1/02
Audio and Video EAS Message on all channels	Y 12/31/98	Y 10/1/02	N
Video interrupt and audio alert message on all channels;[FN3] Audio and Video EAS message on at least one channel	N	N	Y 10/1/02

[FN1] Two-tone signal is only used to provide an audio alert to audience before EAS emergency messages and required monthly test. The two-tone signal must be 8-25 seconds in duration.
[FN2] Cable systems serving <5,000 subscribers are permitted to operate without an EAS encoder if they install an FCC-certified decoder.
[FN3] The Video interrupt must cause all channels that carry programming to flash for the duration of the EAS emergency message. The audio alert must give the channel where the EAS messages are carried and be repeated for the duration of the EAS message.
NOTE: Programmed channels do not include channels used for the transmission of data such as interactive games.

WIRELESS CABLE SYSTEMS (MDS/MMDS/ITFS STATIONS)

A. Wireless cable systems serving fewer than 5,000 subscribers from a single transmission site must either provide the National level EAS message on all programmed channels--including the required testing--by October 1, 2002, or comply with the following EAS requirements. All other wireless cable systems must comply with B.

B. EAS Equipment Requirement	System size and effective dates	
	≥ 5,000 subscribers	< 5,000 subscribers
EAS decoder	Y 10/1/02	Y 10/1/02
EAS encoder [FN1] [FN2]	Y 10/1/02	Y 10/1/02
Audio and Video EAS Message on all channels	Y 10/1/02	N
Video interrupt and audio alert message on all channels;[FN3] Audio and Video EAS message on at least one channel	N	Y 10/1/02

[FN1] Two-tone signal is only used to provide an audio alert to audience before EAS emergency messages and required monthly test. The two-tone signal must be 8-25 seconds in duration.
[FN2] Wireless cable systems serving <5,000 subscribers are permitted to operate without an EAS encoder if they install an FCC-certified decoder.
[FN 3] The Video interrupt must cause all channels that carry programming to flash for the duration of the EAS emergency message. The audio alert must give the channel where the EAS messages are carried and be repeated for the duration of the EAS message.
NOTE: Programmed channels do not include channels used for the transmission of data services such as Internet.

(b) Class D non-commercial educational FM stations as defined in § 73.506, LPFM stations as defined in §§ 73.811 and 73.853, and LPTV stations as defined in § 74.701(f) are not required to comply

with § 11.32. LPTV stations that operate as television broadcast translator stations, as defined in § 74.701(b) of this chapter, are not required to comply with the requirements of this part. FM broadcast booster stations as defined in § 74.1201(f) of this chapter and FM translator stations as defined in § 74.1201(a) of this chapter which entirely rebroadcast the programming of other local FM broadcast stations are not required to comply with the requirements of this part. International broadcast stations as defined in § 73.701 of this chapter are not required to comply with the requirements of this part. Broadcast stations that operate as satellites or repeaters of a hub station (or common studio or control point if there is no hub station) and rebroadcast 100% of the programming of the hub station (or common studio or control point) may satisfy the requirements of this part through the use of a single set of EAS equipment at the hub station (or common studio or control point) which complies with §§ 11.32 and 11.33 of this part.

* * * * *

3. Section 11.14 is amended by revising the heading and text to read as follows:

§ 11.14 Primary Entry Point (PEP) System.

The PEP system is a nationwide network of broadcast stations and other entities connected with government activation points. It is used to distribute the EAN, EAT and EAS national test messages, and other EAS messages.

4. Section 11.16 is amended by revising the introductory text to read as follows:

§ 11.16 National Control Point Procedures.

The National Control Point Procedures are written instructions issued by the FCC to national level EAS control points. The procedures are divided into sections as follows:

* * * * *

5. Section 11.31 is amended by revising paragraphs (c), (d), (e) and (f) as follows:

§ 11.31 EAS Protocol

* * * * *

(c) The EAS protocol, including any codes, must not be amended, extended or abridged without FCC authorization. The EAS protocol and message format are specified in the following representation.

Examples are provided in FCC Public Notices.

[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJJHHMM-LLLLLLLL-
(one second pause)
[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJJHHMM-LLLLLLLL-
(one second pause)
[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJJHHMM-LLLLLLLL-
(at least a one second pause)
(transmission of 8 to 25 seconds of Attention Signal)
(transmission of audio, video or text messages)
(at least a one second pause)
[PREAMBLE]NNNN
(one second pause)
[PREAMBLE]NNNN
(one second pause)
[PREAMBLE]NNNN
(at least one second pause)

[PREAMBLE] This is a consecutive string of bits (sixteen bytes of AB hexadecimal [8 bit byte 10101011]) sent to clear the system, set AGC and set asynchronous decoder clocking cycles. The preamble must be transmitted before each header and End Of Message code.
ZCZC- This is the identifier, sent as ASCII characters ZCZC to indicate the start of ASCII code.
ORG- This is the Originator code and indicates who originally initiated the activation of the EAS. These codes are specified in paragraph (d) of this section.
EEE- This is the Event code and indicates the nature of the EAS activation. The codes are specified in paragraph (e) of this section. The Event codes must be compatible with the codes used by the NWS Weather Radio Specific Area Message Encoder (WRSAME).
PSSCCC- This is the Location code and indicates the geographic area affected by the EAS alert. There may be 31 Location codes in an EAS alert. The Location code uses the Federal Information Processing Standard (FIPS) numbers as described by the U.S. Department of Commerce in National Institute of Standards and Technology publication FIPS PUB 6-4. Each state is assigned an SS number as specified in paragraph (f) of this section. Each county and some cities are assigned a CCC number. A CCC number of 000 refers to an entire State or Territory. P defines county subdivisions as follows: 0 = all or an unspecified portion of a county, 1 = Northwest, 2 = North, 3 = Northeast, 4 = West, 5 = Central, 6 = East, 7 = Southwest, 8 = South, 9 = Southeast. Other numbers may be designated later for special applications. The use of county subdivisions will probably be rare and generally for oddly shaped or unusually large counties. Any subdivisions must be defined and agreed to by the local officials prior to use.
+TTTT- This indicates the valid time period of a message in 15 minute segments up to one hour and then in 30 minute segments beyond one hour; i.e., +0015, +0030, +0045, +0100, +0430 and +0600.
JJJHHMM- This is the day in Julian Calendar days (JJJ) of the year and the time in hours and minutes (HHMM) when the message was initially released by the originator using 24 hour Universal Coordinated Time (UTC).
LLLLLLLL- This is the identification of the broadcast station, cable system, MDS/MMDS/ITFS station, NWS office, etc., transmitting or retransmitting the message. These codes will be automatically affixed to all outgoing messages by the EAS encoder.
NNNN- This is the End of Message (EOM) code sent as a string of four ASCII N characters.

(d) The only originator codes are:

Originator	ORG Code
Broadcast station or cable system	EAS
Civil authorities	CIV
National Weather Service	WXR
Primary Entry Point System	PEP

(e) The following Event (EEE) codes are presently authorized:

Nature of Activation	Event Codes
National Codes (Required):	
Emergency Action Notification (National only)	EAN
Emergency Action Termination (National only)	EAT
National Information Center	NIC
National Periodic Test	NPT
Required Monthly Test	RMT
Required Weekly Test	RWT
State and Local Codes (Optional):	
Administrative Message	ADR
Avalanche Warning	AVW[1]
Avalanche Watch	AVA[1]
Blizzard Warning	BZW
Child Abduction Emergency	CAE[1]
Civil Danger Warning	CDW[1]
Civil Emergency Message	CEM
Coastal Flood Warning	CFW[1]
Coastal Flood Watch	CFA[1]
Dust Storm Warning	DSW[1]
Earthquake Warning	EQW[1]
Evacuation Immediate	EVI
Fire Warning	FRW[1]
Flash Flood Warning	FFW
Flash Flood Watch	FFA
Flash Flood Statement	FFS
Flood Warning	FLW
Flood Watch	FLA
Flood Statement	FLS
Hazardous Materials Warning	HMW[1]
High Wind Warning	HWW
High Wind Watch	HWA
Hurricane Warning	HUW
Hurricane Watch	HUA
Hurricane Statement	HLS
Law Enforcement Warning	LEW[1]

Local Area Emergency	LAE[1]
Network Message Notification	NMN[1]
911 Telephone Outage Emergency	TOE[1]
Nuclear Power Plant Warning	NUW[1]
Practice/Demo Warning	DMO
Radiological Hazard Warning	RHW[1]
Severe Thunderstorm Warning	SVR
Severe Thunderstorm Watch	SVA
Severe Weather Statement	SVS
Shelter in Place Warning	SPW[1]
Special Marine Warning	SMW[1]
Special Weather Statement	SPS
Tornado Warning	TOR
Tornado Watch	TOA
Tropical Storm Warning	TRW[1]
Tropical Storm Watch	TRA[1]
Tsunami Warning	TSW
Tsunami Watch	TSA
Volcano Warning	VOW[1]
Winter Storm Warning	WSW
Winter Storm Watch	WSA

[1]Effective [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER], broadcast stations, cable systems and wireless cable systems may upgrade their existing EAS equipment to add these event codes on a voluntary basis until the equipment is replaced. All models of EAS equipment manufactured after August 1, 2003 must be capable of receiving and transmitting these event codes. Broadcast stations, cable systems and wireless cable systems which replace their EAS equipment after February 1, 2004 must install equipment that is capable of receiving and transmitting these event codes.

(f) The State, Territory and Offshore (Marine Area) FIPS number codes (SS) are as follows. County FIPS numbers (CCC) are contained in the State EAS Mapbook.

State	FIPS#
AL	01
AK	02
AZ	04
AR	05
CA	06
CO	08
CT	09
DE	10
DC	11
FL	12
GA	13
HI	15
ID	16
IL	17
IN	18

IA	19
KS	20
KY	21
LA	22
ME	23
MD	24
MA	25
MI	26
MN	27
MS	28
MO	29
MT	30
NE	31
NV	32
NH	33
NH	33
NJ	34
NM	35
NY	36
NC	37
ND	38
OH	39
OK	40
OR	41
PA	42
RI	44
SC	45
SD	46
TN	47
TX	48
UT	49
VT	50
VA	51
WA	53
WV	54
WI	55
WY	56

Terr.	FIPS#
AS	60
FM	64
GU	66
MH	68
MH	68
PR	72
PW	70
UM	74
VI	78

Offshore (Marine Areas)[1]	FIPS#
Eastern North Pacific Ocean, and along U.S. West Coast from Canadian border to Mexican border	57
North Pacific Ocean near Alaska, and along Alaska coastline, including the Bering Sea and the Gulf of Alaska	58
Central Pacific Ocean, including Hawaiian waters	59
South Central Pacific Ocean, including American Samoa waters	61
Western Pacific Ocean, including Mariana Island waters	65
Western North Atlantic Ocean, and along U.S. East Coast, from Canadian border south to Currituck Beach Light, N.C.	73
Western North Atlantic Ocean, and along U.S. East Coast, south of Currituck Beach Light, N.C., following the coastline into Gulf of Mexico to Bonita Beach, FL., including the Caribbean	75
Gulf of Mexico, and along the U.S. Gulf Coast from the Mexican border to Bonita Beach, FL.	77
Lake Superior	91
Lake Michigan	92
Lake Huron	93
Lake St. Clair	94
Lake Erie	96
Lake Ontario	97
St. Lawrence River above St. Regis	98

[1]Effective [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER], broadcast stations, cable systems and wireless cable systems may upgrade their existing EAS equipment to add these marine area location codes on a voluntary basis until the equipment is replaced. All models of EAS equipment manufactured after August 1, 2003 must be capable of receiving and transmitting these marine area location codes. Broadcast stations, cable systems and wireless cable systems which replace their EAS equipment after February 1, 2004 must install equipment that is capable of receiving and transmitting these location codes.

6. Section 11.33 is amended by revising paragraphs (a)(3)(ii) and (a)(4) to read as follows:

§ 11.33 EAS Decoder

(a) * * *

(3) ***

(ii) Store at least ten preselected event and originator header codes, in addition to the seven mandatory event/originator codes for tests and national activations, and store any preselected location codes for comparison with incoming header codes. A non-preselected header code that is manually transmitted must be stored for comparison with later incoming header codes. The header codes of the last ten received valid messages which still have valid time periods must be stored for comparison with the incoming valid header codes for later messages. These last received header codes will be deleted from storage as their valid time periods expire.

(4) Display and logging. A visual message shall be developed from any valid header codes for tests and national activations and any preselected header codes received. The message shall include the Originator, Event, Location, the valid time period of the message and the local time the message was transmitted. The message shall be in the primary language of the broadcast station or cable system and be fully displayed on the decoder and readable in normal light and darkness. All existing and new models of EAS decoders manufactured after August 1, 2003 must provide a means to permit the selective

display and logging of EAS messages containing header codes for state and local EAS events. Effective [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER], broadcast stations, cable systems and wireless cable systems may upgrade their decoders on an optional basis to include a selective display and logging capability for EAS messages containing header codes for state and local events. Broadcast stations, cable systems and wireless cable systems which replace their decoders after February 1, 2004 must install decoders that provide a means to permit the selective display and logging of EAS messages containing header codes for state and local EAS events.

* * * * *

7. Section 11.34 is amended by adding new paragraphs (f) and (g) to read as follows:

§ 11.34 Acceptability of the equipment.

* * * * *

(f) Modifications to existing authorized EAS decoders, encoders or combined units necessary to implement the new EAS codes specified in § 11.31 and to implement the selective displaying and logging feature specified in § 11.33(a)(4) will be considered Class I permissive changes that do not require a new application for and grant of equipment certification under Part 2, Subpart J of this chapter.

(g) All existing and new models of EAS encoders, decoders and combined units manufactured after August 1, 2003 must be capable of generating and detecting the new EAS codes specified in § 11.31 in order to be certified under Part 2, Subpart J of this chapter. All existing and new models of EAS decoders and combined units manufactured after August 1, 2003 must have the selective displaying and logging capability specified in § 11.33(a)(4) in order to be certified under Part 2, Subpart J of this chapter.

8. Section 11.42 is amended by revising the first sentence of paragraph (c) to read as follows:

§ 11.42 Participation by communications common carriers.

* * * * *

(c) During a National level EAS Test, common carriers which have facilities in place may, without charge, connect an originating source from the nearest exchange to a selected Test Center and then to any participating radio networks, television networks and cable networks and program suppliers. * * *

* * * * *

9. Section 11.43 is revised to read as follows:

§ 11.43 National level participation.

Entities that wish to voluntarily participate in the national level EAS may submit a written request to the Chief, Technical and Public Safety Division, Enforcement Bureau.

10. Section 11.51 is amended by revising paragraphs (f), (k)(2) and (l) to read as follows:

§ 11.51 EAS Code and Attention Signal Transmission requirements.

* * * * *

(f) Broadcast station equipment generating the EAS codes and the Attention Signal shall modulate a broadcast station transmitter so that the signal broadcast to other broadcast stations and cable systems and wireless cable systems alerts them that the EAS is being activated or tested at the National, State or Local Area level. The minimum level of modulation for EAS codes, measured at peak modulation levels using the internal calibration output required in § 11.32(a)(4) of this part, shall modulate the transmitter at the maximum possible level, but in no case less than 50% of full channel modulation limits. Measured at peak modulation levels, each of the Attention Signal tones shall be calibrated separately to modulate the transmitter at no less than 40%. These two calibrated modulation levels shall have values that are within 1 dB of each other.

* * * * *

(k) * * *

(2) Manual interrupt of programming and transmission of EAS messages may be used. EAS messages with the EAN Event code must be transmitted immediately and Monthly EAS test messages within 60 minutes. All actions must be logged and include the minimum information required for EAS video messages.

(l) Broadcast stations and cable systems and wireless cable systems may employ a minimum delay feature, not to exceed 15 minutes, for automatic interruption of EAS codes. However, this may not be used for the EAN event which must be transmitted immediately. The delay time for an RMT message may not exceed 60 minutes.

* * * * *

11. Section 11.52 is amended by revising paragraph (e)(2) to read as follows:

§ 11.52 EAS Code and Attention Signal Monitoring requirements.

* * * * *

(e) * * *

(2) Manual interrupt of programming and transmission of EAS messages may be used. EAS messages with the EAN Event code must be transmitted immediately and Monthly EAS test messages within 60 minutes. All actions must be logged and recorded. Decoders must be programmed for the EAN and EAT Event header codes for National level emergencies and the RMT and RWT Event header codes for required monthly and weekly tests, with the appropriate accompanying State and State/county location codes.

12. Section 11.53 is amended by revising paragraphs (a) and (c) to read as follows:

§ 11.53 Dissemination of Emergency Action Notification.

* * * * *

(a) National Level. The EAN is issued by the White House. The EAN message is sent from a government origination point to broadcast stations and other entities participating in the PEP system. It is then disseminated via:

(1) Radio and television broadcast stations.

(2) Cable systems and wireless cable systems.

(3) Other entities voluntarily participating in EAS.

* * * * *

(c) Broadcast stations must, prior to commencing routine operation or originating any emissions under program test, equipment test, experimental, or other authorizations, determine whether the EAS has been activated by monitoring the assigned EAS sources.

13. Section 11.54 is amended by revising paragraph (b) and adding a new paragraph (e) to read as follows:

§ 11.54 EAS operation during a National Level emergency.

* * * * *

(b) Immediately upon receipt of an EAN message, broadcast stations and cable systems and wireless cable systems must:

(1) Monitor the two EAS sources assigned in the State or Local Area plan or FCC Mapbook for any further instructions.

(2) Discontinue normal programming and follow the transmission procedures in the appropriate section of the EAS Operating Handbook. Announcements may be made in the same language as the primary language of the station.

(i) Key EAS sources (National Primary (NP), Local Primary (LP), State Primary (SP), State Relay (SR) and Participating National (PN) sources) follow the transmission procedures and make the announcements in the National Level Instructions of the EAS Operating Handbook.

(ii) Non-participating National (NN) sources follow the transmission procedures and make the sign-off announcement in the EAS Operating Handbook's National Level Instructions section for NN sources. After the sign-off announcement, NN sources are required to remove their carriers from the air and monitor for the Emergency Action Termination message. NN sources using automatic interrupt under § 11.51(k)(1) of this part, must transmit the header codes, Attention Signal, sign-off announcement and EOM code after receiving the appropriate EAS header codes for a national emergency.

(3) After completing the above transmission procedures, key EAS and Participating National sources must transmit a common emergency message until receipt of the Emergency Action Termination Message. Message priorities are specified in § 11.44 of this part. If LP or SR sources of a Local Area cannot provide an emergency message feed, any source in the Local Area may elect to provide a message feed. This should be done in an organized manner as designated in State and Local Area EAS Plans.

(4) The Standby Script shall be used until emergency messages are available. The text of the Standby Script is in the EAS Operating Handbook's section for Participating sources.

(5) TV broadcast stations shall display an appropriate EAS slide and then transmit all EAS announcements visually and aurally as specified in § 73.1250(h) of this chapter.

(6) Cable systems and wireless cable systems shall transmit all EAS announcements visually and aurally as specified in § 11.51(g) and (h) of this part.

(7) Announcements may be made in the same language as the primary language of the station.

(8) Broadcast stations may transmit their call letters and cable systems and wireless cable systems may transmit the names of the communities they serve during an EAS activation. State and Local Area identifications must be given as provided in State and Local Area EAS plans.

(9) All broadcast stations and cable systems and wireless cable systems operating and identified with a particular EAS Local Area must transmit a common national emergency message until receipt of the Emergency Action Termination.

(10) Broadcast stations, except those holding an EAS Non-participating National Authorization letter, are exempt from complying with § 73.62 and § 73.1560 of this chapter (operating power maintenance) while operating under this part.

(11) National Primary (NP) sources must operate under the procedures in the National Control Point Procedures.

(12) The time of receipt of the EAN and Emergency Action Termination messages shall be entered by broadcast stations in their logs (as specified in § 73.1820 and § 73.1840 of this chapter), by cable systems in their records (as specified in § 76.305 of this chapter), and by subject wireless cable systems in their records (as specified in § 21.304 of this chapter).

* * * * *

(e) During a national level EAS emergency, broadcast stations may transmit in lieu of the EAS audio feed an audio feed of the President's voice message from an alternative source, such as a broadcast network audio feed.

14. Section 11.55 is amended by revising paragraphs (c)(4) and (c)(7) to read as follows:

§ 11.55 EAS operation during a State or Local Area emergency.

* * * * *

(c) * * *

(4) Broadcast stations, cable systems and wireless cable systems participating in the State or Local Area EAS must discontinue normal programming and follow the procedures in the State and Local Area plans. Television stations must comply with § 11.54(b)(5) and cable systems and wireless cable systems must comply with § 11.54(b)(6). Broadcast stations providing foreign language programming shall comply with § 11.54(b)(7) of this part.

* * * * *

(7) The times of the above EAS actions must be entered in the broadcast station, cable system or wireless cable system records as specified in § 11.54(b)(12) of this part.

* * * * *

15. Section 11.61 is revised to read as follows:

§ 11.61 Tests of EAS procedures.

(a) Tests shall be made at regular intervals as indicated below. Additional tests may be performed anytime. EAS activations and special tests may be performed in lieu of required tests as specified in paragraph (a)(4) of this section. All tests will conform with the procedures in the EAS Operating Handbook.

(1) Required Monthly Tests of the EAS header codes, Attention Signal, Test Script and EOM code.

(i) Effective January 1, 1997, AM, FM and TV stations.

(ii) Effective October 1, 2002, cable systems with fewer than 5,000 subscribers per headend.

(iii) Effective December 31, 1998, cable systems with 10,000 or more subscribers; and effective October 1, 2002, cable systems serving 5,000 or more, but less than 10,000 subscribers per headend.

(iv) Effective October 1, 2002, all wireless cable systems.

(v) Tests in odd numbered months shall occur between 8:30 a.m. and local sunset. Tests in even numbered months shall occur between local sunset and 8:30 a.m. They will originate from Local or State Primary sources. The time and script content will be developed by State Emergency Communications Committees in cooperation with affected broadcast stations, cable systems, wireless cable systems, and other participants. Script content may be in the primary language of the broadcast station or cable system. These monthly tests must be transmitted within 60 minutes of receipt by broadcast stations and cable systems and wireless cable systems in an EAS Local Area or State. Class D non-commercial educational FM and LPTV stations are required to transmit only the test script.

(2) Required Weekly Tests:

(i) EAS Header Codes and EOM Codes:

(A) Effective January 1, 1997, AM, FM and TV stations must conduct tests of the EAS header and EOM codes at least once a week at random days and times.

(B) Effective December 31, 1998, cable systems with 10,000 or more subscribers per headend must conduct tests of the EAS header and EOM codes at least once a week at random days and times on all programmed channels:

(C) Effective October 1, 2002, cable systems serving fewer than 5,000 subscribers per headend must conduct tests of the EAS header and EOM codes at least once a week at random days and times on at least one programmed channel.

(D) Effective October 1, 2002, the following cable systems and wireless cable systems must conduct tests of the EAS header and EOM codes at least once a week at random days and times on all programmed channels:

(*1*) Cable systems serving 5,000 or more, but less than 10,000 subscribers per headend; and,

(*2*) Wireless cable systems with 5,000 or more subscribers.

(E) Effective October 1, 2002, the following cable systems and wireless cable systems must conduct tests of the EAS header and EOM codes at least once a week at random days and times on at least one programmed channel:

(*1*) Cable systems with fewer than 5,000 subscribers per headend; and,

(*2*) Wireless cable systems with fewer than 5,000 subscribers.

(ii) Class D non-commercial educational FM and LPTV stations are not required to transmit this test but must log receipt.

(iii) The EAS weekly test is not required during the week that a monthly test is conducted.

(iv) TV stations, cable television systems and wireless cable systems are not required to transmit a video message when transmitting the required weekly test.

(3) Periodic National Tests. National Primary (NP) sources shall participate in tests as appropriate. The FCC may request a report of these tests.

(4) EAS activations and special tests. The EAS may be activated for emergencies or special tests at the State or Local Area level by a broadcast station, cable system or wireless cable system instead of the monthly or weekly tests required by this section. To substitute for a monthly test, activation must include transmission of the EAS header codes, Attention Signal, emergency message and EOM code and comply with the visual message requirements in § 11.51. To substitute for the weekly test of the EAS header codes and EOM codes in paragraph (2)(i) of this section, activation must include transmission of the EAS header and EOM codes. Television stations and cable systems and wireless cable systems shall comply with the aural and visual message requirements in § 11.51 of this part. Special EAS tests at the State and Local Area levels may be conducted on daily basis following procedures in State and Local Area EAS plans.

(b) Entries shall be made in broadcast station and cable system and wireless cable system records as specified in § 11.54(b)(12) of this part.

16. Section 11.62 is removed.

APPENDIX C

FINAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act of 1980, as amended ("RFA"),[191] an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated into the *Notice of Proposed Rulemaking* ("*NPRM*") in EB Docket No. 01-66.[192] The Commission sought written public comments on the proposals in the *NPRM*, including comments on the IRFA. No comments were filed in direct response to the IRFA. This Final Regulatory Flexibility Analysis ("FRFA") conforms to the RFA.

A. Need for, and Objectives of, the Report and Order

This *Report and Order* amends the technical and operational requirements for the Emergency Alert System ("EAS"). Many of the amendments adopted in this *Report and Order* are intended to enhance the capabilities and performance of the EAS during state and local emergencies, which will promote public safety. In addition, the *Report and Order* amends the EAS rules to make compliance with the EAS requirements less burdensome for broadcast stations, cable systems and wireless cable systems. This *Report and Order* also eliminates rules which are obsolete or no longer needed.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

No comments were filed in direct response to the IRFA. The Commission, however, has considered the potential impact of the rules proposed in the *NPRM* on small entities and has reduced the compliance burden for broadcast stations and cable systems as discussed in paragraphs 48-53 and 66-75 of this *Report and Order*.

C. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.[193] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[194] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[195] A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any

[191] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) ("CWAAA"). Title II of the CWAAA is the Small Business Regulatory Fairness Enforcement Act of 1996.

[192] *Notice of Proposed Rulemaking, Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System*, 16 FCC Rcd 7255, 7271-76 (2001).

[193] 5 U.S.C. § 604(a)(3).

[194] 5 U.S.C. § 601(6).

[195] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

additional criteria established by the Small Business Administration ("SBA").[196] A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[197] Nationwide, as of 1992, there were approximately 275,801 small organizations.[198] "Small governmental jurisdiction"[199] generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."[200] As of 1992, there were approximately 85,006 such jurisdictions in the United States.[201] This number includes 38,978 counties, cities, and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.[202] The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (91 percent) are small entities.

Television and radio stations. The rules adopted in this *Report and Order* will apply to television broadcasting licensees and radio broadcasting licensees. The SBA defines a television broadcasting station that has $10.5 million or less in annual receipts as a small business.[203] Television broadcasting stations consist of establishments primarily engaged in broadcasting visual programs by television to the public, except cable and other pay television services.[204] Included in this industry are commercial, religious, educational, and other television stations.[205] Also included are establishments primarily engaged in television broadcasting and which produce taped television program materials.[206] Separate establishments primarily engaged in producing taped television program materials are classified under another NAICS code.[207] There were 1,509 television stations operating in the nation in 1992.[208] As of September 30, 2001, Commission records indicate that 1,686 television broadcasting stations were

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[196] Small Business Act, 15 U.S.C. § 632 (1996).

[197] 5 U.S.C. § 601(4).

[198] U.S. Department of Commerce, Bureau of the Census, 1992 Economic Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

[199] 47 C.F.R. § 1.1162.

[200] 5 U.S.C. § 601(5).

[201] U.S. Dept. of Commerce, Bureau of the Census, "1992 Census of Governments."

[202] *Id.*

[203] 13 C.F.R. § 121.201, NAICS code 513120.

[204] U.S. Department of Commerce, Bureau of the Census, Economics and Statistics Administration, 1992 Census of Transportation, Communications and Utilities, Establishment and Firm Size, Series UC92-S-1, Appendix A-9 (1995) ("1992 Census, Series UC92-S-1").

[205] *Id.*; *see* Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987), at 283, which describes "Television Broadcasting Stations" (SIC code 4833, now NAICS code 513120).

[206] 1992 Census, Series UC92-S-1, at Appendix A-9.

[207] *Id.*; formerly SIC code 7812 (Motion Picture and Video Tape Production); formerly SIC code 7922 (Theatrical Producers and Miscellaneous Theatrical Services) (producers of live radio and television programs).

[208] FCC News Release No. 31327 (January 13, 1993); 1992 Census, Series UC92-S-1, at Appendix A-9.

operating, approximately 1,298 of which are considered small businesses.[209] For 1992,[210] the number of television stations that produced less than $10.0 million in revenue was 1,155 establishments.[211]

The SBA defines a radio broadcasting station that has $5 million or less in annual receipts as a small business.[212] A radio broadcasting station is an establishment primarily engaged in broadcasting aural programs by radio to the public.[213] Included in this industry are commercial, religious, educational, and other radio stations.[214] Radio broadcasting stations, which primarily are engaged in radio broadcasting and which produce radio program materials are similarly included.[215] However, radio stations that are separate establishments and are primarily engaged in producing radio program material are classified under another NAICS code.[216] The 1992 Census indicates that 96 percent (5,861 of 6,127) of radio station establishments produced less than $5 million in revenue in 1992.[217] Commission records indicate that 11,334 individual radio stations were operating in 1992.[218] As of September 30, 2001, Commission records indicate that 13,012 radio stations were operating, approximately 12,550 of which are considered small businesses.[219]

Thus, the rules may affect approximately 1,686 full power television stations, approximately 1,298 of which are considered small businesses.[220] Additionally, the proposed rules may affect some 13,012 full power radio stations, approximately 12,550 of which are small businesses.[221] These estimates may overstate the number of small entities because the revenue figures on which they are based do not include or aggregate revenues from non- television or non-radio affiliated companies. There are also 2,212 low

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[209] FCC News Release, "Broadcast Station Totals as of September 30, 2001."

[210] A census to determine the estimated number of Communications establishments is performed every five years, in years ending with a "2" or "7." *See* 1992 Census, Series UC92-S-1, at III.

[211] The amount of $10 million was used to estimate the number of small business establishments because the relevant Census categories stopped at $9,999,999 and began at $10,000,000. No category for $10.5 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

[212] 13 C.F.R. § 121.201, NAICS codes 51311 and 51312.

[213] 1992 Census, Series UC92-S-1, at Appendix A-9.

[214] *Id.*

[215] *Id.*

[216] *Id.*

[217] The Census Bureau counts radio stations located at the same facility as one establishment. Therefore, each colocated AM/FM combination counts as one establishment.

[218] FCC News Release, No. 31327 (January 13, 1993).

[219] FCC News Release, "Broadcast Station Totals as of September 30, 2001."

[220] We use the 77% figure of TV stations operating at less than $10 million for 1992 and apply it to the 2001 total of 1,686 TV stations to arrive at 1,298 stations categorized as small businesses.

[221] We use the 95.65% figure of radio station establishments with less than $5 million revenue from data presented in the year 2001 estimate and apply it to the 13,012 individual station count to arrive at 12,550 individual stations categorized as small businesses.

power television ("LPTV") stations.[222] Given the nature of this service, we will presume that all LPTV licensees qualify as small entities under the SBA definition.

Cable systems. The rules adopted in this proceeding will also affect small cable entities. The SBA has developed a definition of small entities for "Cable and Other Program Distribution Services," which includes all such companies generating $11 million or less in revenue annually.[223] This definition includes cable system operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems, and subscription television services. According to Census Bureau data from 1992, there were 1,788 total cable and other program distribution services and 1,423 had less than $11 million in revenue.[224]

The Commission has developed its own definition of a "small cable system" for purposes of the EAS rules. Cable systems serving fewer than 10,000 subscribers per headend are considered small cable systems and are afforded varying degrees of relief from the EAS rules.[225] Based on our most recent information, we estimate that there are 8,552 cable systems that serve fewer than 10,000 subscribers per headend.[226] Consequently, we estimate that there are fewer than 8,552 small cable systems that may be affected by the rules adopted herein.

The Communications Act also contains a definition of a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000."[227] The Commission has determined that there are 67,700,000 subscribers in the United States.[228] Therefore, we found that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed $250 million in the aggregate.[229] Based on available data, we find that the number of cable operators serving 677,000 subscribers or less totals

[222] FCC News Release, "Broadcast Station Totals as of September 30, 2001."

[223] 13 C.F.R. § 121.201, NAICS codes 513210 and 513220.

[224] U.S. Department of Commerce, Bureau of the Census, 1992 Economic Census Industry and Enterprise Receipts Size Report, Table 2D, NAICS codes 513210 and 513220 (U.S. Bureau of the Census data under contract to the Office of Advocacy of the U.S. Small Business Administration).

[225] The Commission developed this definition based on its determination that requiring cable systems serving fewer than 10,000 subscribers to comply with the EAS rules immediately may have an adverse economic effect on their operations. *Second Report and Order*, 12 FCC Rcd at 15516-17. Cable systems serving between 5,000 and 10,000 subscribers per headend must install EAS equipment and provide audio and video EAS messages on all programmed channels by October 1, 2002. Cable systems serving fewer than 5,000 subscribers per headend must either provide the national level EAS message on all programmed channels or install EAS equipment and provide a video interrupt and audio alert on all programmed channels and EAS audio and video messages on at least one programmed channel by October 1, 2002. *See* 47 C.F.R. § 11.11.

[226] *Television and Cable Factbook*, Warren Publishing, Inc., at I-98 (2000).

[227] 47 U.S.C. § 543(m)(2).

[228] *See* FCC Announces New Subscriber Count for the Definition of Small Cable Operator, Public Notice DA 01-158 (January 24, 2001).

[229] 47 C.F.R. § 76.901(f).

1,450.[230] We do not request nor do we collect information concerning whether cable system operators are affiliated with entities whose gross annual revenues exceed $250,000,000,[231] and thus are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

Wireless cable systems. The rules adopted in this *Report and Order* will also apply to wireless cable systems, which include Multipoint Distribution Service and Multichannel Multipoint Distribution Service stations (collectively, "MDS") and Instructional Television Fixed Service ("ITFS") stations. The Commission has defined "small entity" for purposes of the auction of MDS frequencies as an entity that, together with its affiliates, has average gross annual revenues that are not more than $40 million for the preceding three calendar years.[232] This definition of small entity in the context of MDS auctions has been approved by the SBA.[233] The Commission completed its MDS auction in March 1996 for authorizations in 493 basic trading areas. Of 67 winning bidders, 61 qualified as small entities. At this time, we estimate that of the 61 small business MDS auction winners, 48 remain small business licensees.

MDS also includes licensees of stations authorized prior to the auction. As noted, the SBA has developed a definition of small entities for program distribution services, which includes all such companies generating $11 million or less in annual receipts.[234] This definition includes MDS and thus applies to MDS licensees that did not participate in the MDS auction. Information available to us indicates that there are approximately 392 incumbent MDS licensees that do not generate revenue in excess of $11 million annually. Therefore, we find that there are approximately 440 small MDS providers as defined by the SBA and the Commission's auction rules which may be affected by the rules adopted in this proceeding.

The SBA definition of small entities for program distribution services also appears to apply to ITFS.[235] There are presently 2,032 ITFS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in the definition of a small business.[236] However, we do not collect annual revenue data for ITFS licensees, and are not able to ascertain how many of the 100 non-educational licensees would be categorized as small under the SBA definition. Thus, we find that at least 1,932 ITFS are small businesses and may be affected by the rules adopted herein.

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[230] *See* FCC Announces New Subscriber Count for the Definition of Small Cable Operator, Public Notice DA 01-158 (January 24, 2001).

[231] We do receive such information on a case-by-case basis only if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to Section 76.901(f) of the Commission's Rules. *See* 47 C.F.R. § 76.990(b).

[232] 47 C.F.R. § 21.961(b)(1).

[233] *See Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589 (1995).

[234] 13 C.F.R. § 121.201, NAICS codes 523210 and 523220.

[235] *Id.*

[236] 5 U.S.C. § 601(3).

D. Description of Reporting, Recordkeeping, and Other Compliance Requirements

The rules adopted in this *Report and Order* impose no new reporting, recordkeeping or compliance requirements on broadcast stations and cable systems, including wireless cable systems. This *Report and Order* adopts a number of new EAS event codes and location codes which may be used by broadcast stations and cable systems that participate voluntarily in state and local EAS activities. Broadcast stations and cable systems will not be required to upgrade their existing EAS equipment to add these new event and location codes. Rather, they may upgrade their existing EAS equipment to add these new codes on a voluntary basis until the equipment is replaced. All existing and new models of EAS equipment manufactured after August 1, 2003 will be required to be capable of receiving and transmitting these new codes.

The *Report and Order* also makes revisions to the EAS rules which will reduce compliance burdens on broadcast stations and cable systems. The revised rules permit, but do not require, broadcast stations and cable systems to modify their existing EAS equipment to selectively display and log EAS messages that contain state and local event codes. This selectively displaying and logging feature will relieve broadcast stations and cable systems from the burden of logging unwanted EAS messages, e.g., messages that do not apply to their service area or messages concerning events which they have decided not to transmit. In addition, the revised rules increase the period within which broadcast stations and cable systems must retransmit the Required Monthly Test ("RMT") from 15 minutes to 60 minutes. This revision will provide broadcast stations and cable systems, including smaller stations and systems, more flexibility to insert the RMT message into their program schedules without disrupting programming. Additionally, the rules are revised to require that the modulation level of EAS codes be at the maximum possible level, but in no case less than 50% of full channel modulation limits. This revision brings the EAS rules into alignment with the modulation levels currently obtainable by broadcast stations.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.[237]

The *Report and Order* reduces compliance requirements for small entities by exempting satellite/repeater broadcast stations which rebroadcast 100% of the programming of their hub station from the requirement to install EAS equipment; authorizing cable systems and wireless cable systems serving fewer than 5,000 subscribers to meet the October 1, 2002 compliance deadline by installing certified EAS decoders, if such decoders become available, rather than both encoders and decoders; and delaying the requirement that LPFM stations install certified EAS decoders until one year after the Commission publishes in the Federal Register a public notice indicating that at least one decoder has been certified.

In adopting new event codes and location codes in this *Report and Order*, we took into account concerns raised by commenters that a requirement to update existing EAS equipment to add the new codes could impose a financial burden on some broadcast stations and cable systems, particularly smaller entities. We

[237] 5 U.S.C. § 603(c)(1) – (c)(4).

therefore declined to require broadcast stations and cable systems to upgrade existing EAS equipment to add the new codes. Instead, we opted to permit them to upgrade their existing equipment on a voluntary basis until the equipment is replaced. We believe that this approach promotes public safety by enhancing state and local EAS without imposing additional costs or burdens on broadcast stations and cable systems that may have the undesired effect of reducing voluntary participation in state and local EAS activities. In addition, we declined to adopt several other proposals, including a proposal to revise several existing event codes, due to concerns that they would impose substantial costs on broadcast stations and cable systems.

Report to Congress: The Commission will send a copy of this *Report and Order*, including this FRFA, in a report to Congress pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of this *Report and Order*, including the FRFA, to the Chief Counsel for Advocacy for the Small Business Administration. A copy of the *Report and Order* and FRFA (or summaries thereof) will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).