

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

In the Matter of

Amendment of Part 73,                   FO Docket No. 91-301  
Subpart G, of the Commission's      FO Docket No. 91-171  
Rules Regarding the  
Emergency Broadcast System

#### MEMORANDUM OPINION AND ORDER

Adopted: October 4, 1995;           Released: October 23, 1995

By the Commission:

#### I. INTRODUCTION

1. In this Memorandum Opinion and Order (Order) we address issues raised in petitions for reconsideration of the *Report and Order* in this proceeding concerning the replacement of the Emergency Broadcast System (EBS) with a new Emergency Alert System (EAS).<sup>1</sup> We deny petitions to include standards for the Radio Broadcast Data System (RBDS) in the EAS rules. We deny the petition to prohibit cable systems from overriding broadcast stations during EAS tests and alerts. We grant the petition to extend the time requirement for installation and operation of EAS equipment. Finally, we grant the petition to clarify the language of some of the EAS rules.

#### II. BACKGROUND

2. On November 10, 1994, we adopted a *Report and Order and Further Notice of Proposed Rulemaking* that replaced the existing Emergency Broadcast System (EBS) with the new Emergency Alert System (EAS). By that action, we required broadcast stations and cable television systems to install and operate new equipment for national alerts and relaxed requirements for noncommercial educational Class D FM stations and low power television stations. We adopted a standard protocol and digital codes to facilitate the use of different technologies in the new EAS. We also streamlined procedures so that participants could work together effectively during emergencies. We requested further comments about the role of small cable systems and alternative video service providers in EAS. We will address these comments in a separate order.

3. We have received five petitions for reconsideration of the *Report and Order*. The petitioners are Data Broadcasting Corporation (DBC); Sage Alerting Systems, Inc. (Sage); Federal Signal Corporation (Federal Signal); Delco Electronics Corporation (Delco); and the National Association of Broadcasters (NAB).<sup>2</sup> We have also received five comments,<sup>3</sup> five oppositions to the petitions for reconsideration,<sup>4</sup> and three replies to the oppositions.<sup>5</sup>

#### III. DISCUSSION

4. The issues raised by the petitions fall into four general categories: a) the role of the Radio Broadcast Data System; b) overriding of broadcast signals on cable channels by the cable television system; c) extension of time to implement the new system by broadcasters; and d) clarification or revision of specific rules.

##### A. THE RADIO BROADCAST DATA SYSTEM (RBDS)

5. In the *Report and Order*, we encouraged FM broadcast stations to provide emergency warnings via subcarrier<sup>6</sup> using the RBDS.<sup>7</sup> We did not, however, require use of the RBDS.<sup>8</sup> We received four petitions for reconsideration re-

<sup>1</sup> Report and Order and Further Notice of Proposed Rule Making, FO Dockets 91-301 and 91-171, 10 FCC Rcd 1786 (1995) (*Report and Order*).

<sup>2</sup> In addition, the Society of Broadcast Engineers filed comments. These comments have no direct bearing on issues raised in the petitions for reconsideration. Comments on Petitions for Reconsideration and Request for Leave to File Out of Time, Society of Broadcast Engineers, June 15, 1995.

<sup>3</sup> The comments were submitted by Self Help for Hard of Hearing People (SHHH); the National Association for the Deaf (NAD); Television for All (TVFA); Telecommunications for the Deaf, Inc. (TDI); and the National Center for Law and Deafness. The comments requested changes to the adopted rules, but address, essentially, cable television issues. These will be addressed in a separate order, the Second Report and Order in this proceeding.

<sup>4</sup> The oppositions are from the National Association of Broadcasters, Data Broadcasting Corp.; TFT, Inc.; the National Cable Television Association, Inc.; and Time Warner Entertainment Company, L.P.

<sup>5</sup> Replies were submitted by the National Association of Broadcasters; Sage Alerting Systems, Inc.; and Data Broadcasting Corp.

<sup>6</sup> The use of FM subcarriers is authorized in Section 73.295 of the Commission's Rules, 47 C.F.R. § 73.295. Subcarriers are a part of the FM signal which can be separated out by special receivers. FM broadcasters are permitted to use FM subcarriers

for a multitude of services, such as data, facsimile, paging, etc.

<sup>7</sup> *Report and Order, supra* note 1, at 1804. The RBDS is a defined digital protocol for data that is transmitted on the subcarrier offset 57 kHz on either side of the main carrier of FM radio broadcast stations. The data transmitted can include emergency alerts that the public can receive, separate from the audio portion of the FM broadcast, with specially equipped radio sets. RBDS equipped receivers can search out and lock onto local emergency alert stations. Many have liquid crystal displays (LCD) for text messages. The receivers can be put on standby and activated by special transmitted codes, much like pagers.

The United States RBDS Standard (National Radio Systems Committee 1993) was finalized and published January 8, 1993, by the National Radio Systems Committee (NRSC) and is sponsored by the Electronic Industries Association and the National Association of Broadcasters. It includes several data broadcast and data technologies. RBDS is available on several hundred FM stations in the U.S., covering more than 70 percent of the population and provides several diverse services such as radio paging, differential correction factors for the global positioning system (GPS) and background music. The RBDS technology requires the use of a special radio data receiver to receive the RBDS data or programming.

<sup>8</sup> EAS rules include a mandatory EAS protocol and code which is to be transmitted in-band and used for all EAS messages. The rules specifically require broadcast stations and cable

lated to the use of the RBDS in the EAS. Three petitioners ask that we adopt rules specifying the technical standards to further the use of the RBDS in the EAS, and one petitioner opposes the use of RBDS.<sup>9</sup>

6. Sage, Federal Signal, and Delco request that the Commission include specific language in the EAS Rules prescribing standards for use of the RBDS for EAS alerting.<sup>10</sup> All three commenters make, essentially, the same request. Specifically, they ask the Commission to require that FM stations using RBDS for EAS purposes: a) incorporate specific alarm codes specified in the RBDS standard; b) transmit identification codes to identify the operating area of the station and its individual station code; and, c) transmit special codes to permit RBDS receivers to synchronize with FM stations transmitting emergency warnings.<sup>11</sup> They also propose amending Part 73 of the FCC's rules to allow for an increase in the percent of FM station modulation from subcarriers<sup>12</sup> and an increase in total radio modulation<sup>13</sup> when FM broadcasters use RBDS for EAS warnings. One commenter, Nutmeg Broadcasting Co. (Nutmeg), argues that RBDS should be allowed as an alternative, and that standards should be prescribed for it, because digital transmissions in the audio portion of the FM signal, as specified in the EAS rules, are not friendly to programming and are subject to interference in rural areas.<sup>14</sup>

7. A fourth petitioner, DBC, opposes the use of RBDS and requests that we retract our encouragement of RBDS use. DBC provides a data service that makes available stock market information, news from DOW Jones, and sports scores and information to subscribers who use hand-held receivers or personal computers to monitor DBC's data services. DBC provides this service on an FM subcarrier. DBC leases use of the subcarrier from FM stations. It claims that use of two subcarriers by the same station will degrade reception of its data by subscribers. DBC asks us either not to encourage RBDS use or to limit the percent of station modulation contributed by RBDS to two percent.

8. The National Association of Broadcasters (NAB) opposed the Sage, Federal Signal, and Delco petitions and argued against prescribing standards for RBDS.<sup>15</sup> NAB asserts that RBDS is a voluntary standard and that incorporating the current version into our rules would inhibit the development and refinement of the standard.<sup>16</sup> NAB further asserts that modifications to FM technical

standards for modulation are beyond the scope of this proceeding.<sup>17</sup> NAB also suggests that DBC's assertion that interference will result when RBDS is used at levels contributing more than two percent of modulation is not supported by sufficient data.<sup>18</sup> In response to NAB's comments, DBC reasserted its original arguments and requested that we warn FM broadcasters of the potential of interference from RBDS use.<sup>19</sup> DBC states that subcarrier issues are relevant because we have encouraged the use of RBDS for EAS.<sup>20</sup>

9. Sage argues that RBDS operation is compatible with operation on the subcarrier used by DBC and that any degradation in the service provided by DBC resulting from RBDS operations is caused by poor design of DBC's receivers.<sup>21</sup> Sage also disagrees with NAB's position that incorporation of RBDS standards into our rules will make refinement of them more cumbersome for the National Radio Systems Committee (NRSC), arguing that the best way to establish a uniform implementation of RBDS within EAS is to prescribe standards.<sup>22</sup>

10. *Decision.* We decline to incorporate standards for RBDS in the Commission's Rules or to change our recommendation for its optional use in the EAS for several reasons.

11. First, the new EAS does not require the use of RBDS. Indeed, standardization of RBDS for other uses is beyond the scope of this proceeding. RBDS is one of many possible systems that a broadcaster can use. Thus, we have no reason to set standards for a system that is only optional. Second, the RBDS is developing successfully as a voluntary standard. For example, Sage states that it "has already installed a fully operational, modernized RBDS-based Emergency Alert System in the entire State of New Jersey, and in Parts of Texas and is now installing such a system in the San Francisco Bay area."<sup>23</sup> We see no reason for regulatory intervention in this developmental process. Third, incorporating standards for RBDS in our rules would have the effect of slowing technological advances and innovation in RBDS. Moreover, because substantive changes to our rules requires notice and comment, changes to the standard might be difficult and time-consuming.

12. In addition to the reasons set forth above, there are two other factors that we have considered in deciding not to incorporate RBDS standards into our rules. The Com-

systems to have EAS equipment capable of performing certain alerting and notification functions by means of those codes. 47 C.F.R. 11.31.

<sup>9</sup> Sage Alerting Systems, Inc. (Sage), Delco Electronics Corp (Delco), and Federal Signal Corporation (Federal Signal) filed petitions for reconsideration supporting the use of RBDS and requesting that the Commission incorporate specific standards for the use of RBDS in the EAS. Data Broadcasting Corporation (DBC) filed a petition for reconsideration opposing the use of RBDS and asking that we remove any recommendation for the use of RBDS in the EAS from the text of the Report and Order.

<sup>10</sup> Petition For Reconsideration, Sage Alerting Systems, Inc., January 25, 1995, at 4-10. Petition for Reconsideration, Delco Electronics Corp., January 25, 1995, at 4. Petition for Reconsideration of the FCC Report and Order No. 94-288 Relating to FO Docket 91-301 and 91-71, Federal Signal Corporation, January 25, 1995, at 2.

<sup>11</sup> Sage Petition for Reconsideration, *Id.* at 4-10.

<sup>12</sup> The maximum currently authorized is 20 percent; the petitioners would increase this to 25 percent. See 47 C.F.R. § 73.319(d)(2).

<sup>13</sup> The maximum currently authorized is 110 percent; the petitioners would increase this to 115 percent. See 47 C.F.R. § 73.1570(b)(2).

<sup>14</sup> Comments, Nutmeg Broadcasting Co., January 25, 1995.

<sup>15</sup> Comments on Petitions for Reconsideration, National Association of Broadcasters, February 23, 1995, at 3-5.

<sup>16</sup> *Id.* at 5.

<sup>17</sup> *Id.* at 6.

<sup>18</sup> *Id.* at 6.

<sup>19</sup> Reply to National Association of Broadcasters Comments on Petitions for Reconsideration, Data Broadcasting Corporation, March 6, 1995.

<sup>20</sup> *Id.* at 3.

<sup>21</sup> Sage Alerting Systems, Inc.'s Reply Comments to Comments and Oppositions to Petitions for Reconsideration's of Report and Order FCC 94-228, February 27, 1995, para. 3.

<sup>22</sup> *Id.* at para. 11.

<sup>23</sup> *Id.* at para. 1.

mission is committed to permit FM broadcast station licensees maximum flexibility to operate their subsidiary communications services. In 1986, the Commission adopted rules that permit the use of any type of modulation in the subsidiary services and do not restrict the type of service that a station may offer. See, e.g., *Report and Order, In the Matter of Review of Technical and Operational Regulations of Part 73, Subparts B, C, and H, FM Broadcast Stations*, FCC 86-211, MM Docket 85-325 (1986): As Sage says with reference to a "theoretical dual front-end RBDS receiver," "If such a receiver is viable in the market place it will succeed and if it is not correct for the market it will perish."<sup>24</sup> Should modifications of our technical rules in the FM Broadcast Service become necessary to allow evolution of the RBDS, that is best left to a separate proceeding. We believe that fundamental issues concerning the use of FM subcarriers are beyond the scope of this proceeding.<sup>25</sup>

13. As mentioned above, DBC opposes the use of RBDS, asserting that it will interfere with their data transmissions on a different subcarrier. FM broadcasters may use their subcarriers for a variety of subsidiary communications services without additional authorization. 47 C.F.R. § 73.293. As long as the licensee retains control over the material broadcast on the subcarrier, the provision of a subsidiary communications service is a contractual one between the broadcaster and the provider of the material transmitted. See 47 C.F.R. § 73.295. It follows that any impairment of the service provided by the broadcaster to the material provider (lessee) as a result of the broadcaster transmitting other subsidiary communications services should be resolved through the contractual arrangement. Informing FM broadcasters of the potential for interference to those who lease their subcarriers from addition of RBDS, and any devaluation of the subcarrier as a result, is in the interest of the lessees, and the responsibility is best left to the lessees of the subcarriers. The use of this spectrum should be left to negotiation between parties who have an economic interest in its use. Questions of receiver design are best left to the engineers and managers of the lessees as a factor in their business strategy.

14. Accordingly, we deny DBC's petition to retract our endorsement of encouraging the use of RBDS in the EAS. We deny the petitions of Sage, Delco, and Federal Systems to incorporate RBDS standards in the Rules and to modify the FM Broadcast technical rules.

## B. CABLE TELEVISION OVERRIDE

15. The *Report and Order*, in implementing the Cable Communications Policy Act of 1984,<sup>26</sup> imposes a new requirement on cable television systems that they participate in the EAS. See 47 U.S.C. § 544(g). Our Rules require that they "provide a video interruption and an audio EAS message on all channels."<sup>27</sup> This is described in the *Report and Order* as an "all channel audio message override" and "momentary video interrupts of short duration on all channels."<sup>28</sup> Audio override refers to the replacement of audio messages with emergency audio information.<sup>29</sup> Video interrupt refers to "displacement of the television picture with a black, blank or flashing screen for short periods."<sup>30</sup>

16. NAB, in its petition,<sup>31</sup> asserts that requiring or permitting cable preemption of broadcast signals for EAS is a violation of Section 111(c)(3) of the Copyright Act<sup>32</sup> and of Section 614(b)(3)(A) and (B) of the Communications Act.<sup>33</sup> It argues that our rules violate the compulsory copyright licensing provision that provides that an infringement occurs "if the content of the particular program . . . or any commercial advertising or station announcements transmitted by the primary transmitter . . . is in any way willfully altered by the cable systems through changes, deletions, or additions, . . ." 17 U.S.C. § 111(c)(3).<sup>34</sup> NAB further argues that the EAS rules violate the must carry provisions, which provide that when a cable operator carries a local station, it must carry the primary audio and video in their entirety and may not delete programming unless required by our rules. 47 C.F.R. § 76.62, 47 U.S.C. § 534(b)(3). The NAB also calls for us to void local franchise agreements which provide for deletion of broadcast programming.<sup>34</sup>

17. Time Warner Entertainment Company (Time Warner) in its opposition argues that selective override equipment, which would allow the Emergency Action Notification (EAN) to be put on selected channels rather than the entire system, is prohibitively expensive and would make many existing override systems obsolete.<sup>35</sup> It also states that not overriding broadcasters' signals would deprive out-of-area and superstation network viewers of local EAS alert information.<sup>36</sup> Time Warner urges that we have already resolved the copyright and must-carry issues in our decision, *Total Television of Amarillo*, 65 F.C.C. 2d 242 (1977), where we ruled that the must carry provisions of then Section 76.55 of the Rules were not intended to prohibit tests of a local emergency alert system which overrode audio and visual signals.<sup>37</sup> Time Warner also asserts that the copyright provisions relied on by NAB were, according to the legislative history of the Copyright Act, intended primarily to prevent cable television system oper-

<sup>24</sup> *Id.* at para. 12.

<sup>25</sup> The National Radio Systems Committee's (NRSC) High Speed Data Committee plans field and laboratory testing this year on high speed data subcarrier technology. Additionally, the NRSC's Digital Audio Broadcasting subcommittee and the Electronic Industry Association's Digital Audio subcommittee are currently testing digital audio systems. Because of the impact of existing subcarrier regulations on these new technologies, we will be conducting a comprehensive examination of rules prescribing FM technical parameters.

<sup>26</sup> Pub. L. No. 98-549, 98 Stat. 2780 (1984).

<sup>27</sup> 47 C.F.R. § 11.51(g)(2).

<sup>28</sup> *Report and Order*, *supra* note 1, ¶60, at 1807.

<sup>29</sup> *Id.* at 1807 n.66.

<sup>30</sup> *Id.*

<sup>31</sup> Petition for Partial Reconsideration, National Association of Broadcasters, Washington, D.C., January 27, 1995, at 10-14.

<sup>32</sup> 17 U.S.C. § 111(c)(3).

<sup>33</sup> 47 U.S.C. § 534(b)(3)(A)(B).

<sup>34</sup> Petition for Partial Reconsideration, *supra* note NAB31, at 13.

<sup>35</sup> Opposition to Petition for Partial Reconsideration, Time Warner Entertainment Company, L.P., Washington, D.C., February 23, 1995, at 2-4.

<sup>36</sup> *Id.* at 5-6.

<sup>37</sup> *Id.* at 6-7.

ators from modifying broadcast programming for their own gain by clipping out the broadcast commercials and replacing them with their own.<sup>38</sup>

18. The National Cable Television Association, Inc., and the Cable Telecommunications Association, Inc., (NCTA) oppose NAB's petition on the grounds that the Commission has already fully considered the matter and the NAB cannot raise it on reconsideration.<sup>39</sup> NCTA further asserts that we have already examined the relationship between the Copyright Act and our jurisdiction over cable television programming and decided that the Copyright Act imposes no barriers to our adoption of rules that further communications policy objectives,<sup>40</sup> citing our program exclusivity decision.<sup>41</sup> NCTA also takes the position that the issues related to the must carry provisions were resolved in *Total Television of Amarillo, supra*.<sup>42</sup> NCTA agrees with Time Warner that selective override equipment would be too costly.<sup>43</sup>

19. NAB responds that *Total Television of Amarillo* has been superseded by the Cable Act.<sup>44</sup> It reasserts that the language of the Copyright Act is statutory and neither vague nor ambiguous, and, therefore, the legislative history is irrelevant.

20. *Decision: Copyright Act.* When we adopted our current program exclusivity rules, claims were made that it was outside of our jurisdiction to require deletion of programs from broadcast signals carried on cable television systems because of the compulsory licensing scheme of the Copyright Act.<sup>45</sup> We examined the issue in light of the court decisions and the legislative history of the Copyright Act, and we concluded that the Copyright Act bars only those "rules that are inconsistent with the basic arrangement" of that legislation.<sup>46</sup> We also concluded that, "Congress was aware that there is close interplay between communications policy and the intellectual property issues addressed in the Copyright Act . . . . Apart from the basic compulsory license scheme, however, Congress did not statutorily define the boundaries of intellectual property issues and communications policy concerns."<sup>47</sup> This analysis was supported on appeal by the U.S. Court of Appeals for the District of Columbia Circuit, which stated that, "[i]nsofar as they apply to cable television, the 1976 Congress did not imagine copyright law and communications law to be two islands, separated by an impassible sea. Rather, Congress was aware of the close interplay between

copyright and communications law, and knew that the FCC would have a role to play in determining the scope of compulsory licensing.<sup>48</sup>

21. In requiring cable systems to provide a video interruption and an audio EAS message on all channels, we are implementing the intent of Congress as expressed in the Cable Act that "viewers of video programming on cable systems are afforded the same emergency information as is afforded by the emergency broadcasting system." 47 U.S.C. § 544(g).<sup>49</sup> In accordance with the Congressional directive, the EAS rules require that cable systems transmit a visual EAS message on at least one channel. 47 C.F.R. § 11.51(g)(3). Cable systems must also provide video interruption and an audio EAS message on all channels. The audio message must also state which channel is carrying the visual message. 47 C.F.R. § 11.51(g)(2). By requiring interruption of the video signal with an audio message and directing the viewer to the visual information, the *Report and Order* makes cable systems provide emergency information in an essentially similar fashion as television stations did under the emergency broadcast system, thus fulfilling the statutory mandate.

22. Moreover, we have determined that the EAS requirement for interruption of the broadcast retransmission does not conflict with the interests that the Copyright Act is designed to protect. The legislative history's analysis of Section 111(c)(3) of the Copyright Act entitled "Commercial Substitution," indicates that Section 111(c)(3) is intended to prevent substitution of advertising or insertion of additional advertising into the broadcast program.<sup>50</sup> As the House Report explains, "[i]n the Committee's view any willful deletion, substitution, or insertion of commercial advertisements of any nature by the cable system, or changes in the program content of the primary transmission, significantly alters the basic nature of the cable retransmission, service and makes its function similar to that of a broadcaster."<sup>51</sup> The legislative history makes it plain that the language of Section 111(c)(3) that refers to deletions means removal of commercial messages or program content for the purpose of insertion of the cable system's own commercial messages by the cable system. The EAS requirement for interruption of the broadcast retransmission is consistent with the Copyright Act. Nothing in the EAS rules would permit changes, deletions, or

<sup>38</sup> *Id.* at 7.

<sup>39</sup> Opposition to Petition for Partial Reconsideration, National Cable Television Association, Inc., and the Cable Telecommunications Association, Inc., Washington, D.C., February 23, 1995.

<sup>40</sup> *Id.* at 3-4.

<sup>41</sup> Amendment of Parts 73 and 76 of the Commission's Rules relating to program exclusivity in the cable and broadcast industries, Report and Order, 3 FCC Rcd 5299, 5320 (1988) (*Exclusivity Order*), *aff'd* United Video, Inc. v. FCC, 890 F.2d 1173 (D.C. Cir. 1989).

<sup>42</sup> NCTA Opposition, *supra* note 39, at 4.

<sup>43</sup> *Id.* at 5.

<sup>44</sup> National Association of Broadcasters Reply to Oppositions to Petition for Partial Consideration, March 6, 1995, at 6.

<sup>45</sup> Exclusivity Report and Order, *supra* note 41 at 5320.

<sup>46</sup> *Id.* at 5320-5321.

<sup>47</sup> *Id.* at 5321.

<sup>48</sup> United Video, Inc. v. F.C.C., 890 F.2d 1173, 1184 (D.C. Cir. 1989).

<sup>49</sup> "Notwithstanding any such rule, regulation, or order, 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 the Commission regulations in subpart G of part 73, title 47, Code of Federal Regulations." 47 U.S.C. § 544(g).

<sup>50</sup> H.R. Rep. No. 1476, 94th Cong., 2d Sess., at 93-94, *reprinted in* 1976 U.S. Code Cong. & Admin. News 5659, 5708. "The House amendment struck out all of the Senate bill after the enacting clause and inserted a substitute text." H.R. Conf. Rep. No. 1733, 94th Cong., 2d Sess., at 69, *reprinted in* 1976 U.S. Code Cong. & Admin. News 5659, 5810. (The conference adopted a substitute for the House amendment and the original Senate bill.)

<sup>51</sup> *Id.*

additions to the broadcast signal being retransmitted for the commercial advantage of the cable system. Rather, the sole purpose is to further public safety.

23. NAB, however, cites the language of the House Report, referring to the cable system acting like a broadcaster, as a reason why interruption should not be allowed.<sup>52</sup> NAB argues, therefore, that cable systems should be permitted only to override the audio and interrupt the video on channels that are not retransmitting broadcast signals. We disagree. Under EBS, broadcasters must override the audio and interrupt the video of all channels. Therefore, we believe that permitting cable systems to override the audio and interrupt the video on all channels, including those transmitting broadcast signals is necessary to make the function of the cable system "similar to that of a broadcaster" for emergency alert purposes, as mandated by Congress. The requirement of the EAS for interruption of retransmission of broadcast signals is necessary to fulfill the mandate that cable operators comply with standards to insure that all cable subscribers get the same emergency information as broadcast viewers receive.

24. *Decision. Must Carry.* We also do not believe that our EAS requirement for interruption of broadcast signals conflicts with our must carry rules. The must carry provisions at issue state: "Cable operators shall carry the entirety of the program schedule of any television station carried unless carriage of specific programming is prohibited . . . ." 47 C.F.R. § 76.62(a). Also, "[e]ach commercial broadcast station carried pursuant to § 76.56 shall include in its entirety the primary video, accompanying audio . . . ." 47 C.F.R. § 76.62(e). In reaching this conclusion we have reviewed our previous decision on a similar question in *Total Television of Amarillo*. In that case we addressed the request of a cable television system operator for a waiver of the provision that requires certain local broadcast signals to be carried on the cable system "without material degradation in quality and that the programs broadcast must be carried in full, without deletion or alteration of any portion."<sup>53</sup> The waiver was requested so that the cable system could conduct 30 second tests of its emergency alert system at 3:00 PM on the last Friday of each month.<sup>54</sup> We ruled that it was not the intent of the must carry rules to prohibit such emergency transmissions and that a waiver was not necessary:

We conclude that the public benefit of insuring an operational emergency alert system outweighs the possible harm done by momentarily interrupting the broadcast signals carried by the cable television system. Accordingly, as long as the tests are no longer than 60 seconds, occur at regularly scheduled intervals, and are uniform in their interruption of all broadcast signals carried on the cable television sys-

tem Total Television and all similarly situated systems may proceed with the development of such emergency alert systems without further Commission authorization.<sup>55</sup>

25. We acknowledge that the must carry provisions in effect at the time of *Total Television of Amarillo* were ruled unconstitutional in *Quincy Cable TV v. FCC*, 768 F. 2d 1434 (1985). The Cable Act of 1992, however, mandated that the Commission adopt must carry rules, and we have adopted must carry rules accordingly.<sup>56</sup> Our current must carry rules are essentially the same as the rules in effect at the time of our *Total Television of Amarillo* decision. Specifically, they require that the cable system "carry the entirety of the program schedule of any television station carried unless carriage of specific programming is prohibited," 47 C.F.R. § 76.62(a), and "include in its entirety the primary video, accompanying audio, . . . ." 47 C.F.R. § 76.62(e). These must carry provisions apply to programming as a whole and ensure that none of its constituent parts audio or video, as a whole, are deleted. The must carry provisions do not address the audio override or video interruption for purposes of emergency alerting. We conclude, therefore, that our analysis in *Total Television of Amarillo* is still valid, and we reject NAB's assertion that the must carry rules preclude audio override or video interruption. Further, given this analysis, NAB's request that we invalidate individual agreements between cable operators and franchisors such as those envisioned in *Total Television of Amarillo* is inapt, and we deny the petition of NAB to delete the audio override and video interrupt provisions of our rules.

#### C. TIME EXTENSION FOR EAS IMPLEMENTATION

26. In the *Report and Order* we required broadcasters to install the new EAS equipment and have it fully operational by July 1, 1996.<sup>57</sup> NAB asks that we consider whether our implementation of the EAS by broadcasters should be delayed until July 1, 1997.

27. NAB states that, if an extension of time were granted, manufacturers would have more equipment available before the stations were required to have it. It asserts that the broadcasters would benefit from the economies of scale in production of EAS equipment and would not be compelled to seek waivers of the requirement due to equipment shortages. NAB also states that the extension would allow stations in financial difficulty more flexibility in budgeting for the equipment.<sup>58</sup>

28. TFT, Inc., opposes any delay in implementation of the EAS. TFT argues that waiting any longer for EAS implementation would put lives and property at unnecessary risk because weekly EBS testing causes audiences to

<sup>52</sup> Reply to Opposition, *supra* note NANOPP44, at 9.

<sup>53</sup> The must carry rules in effect at the time were ruled unconstitutional. The current must carry rules were enacted under a mandate of Congress, 47 U.S.C. § 534, and were drafted to pass constitutional muster in light of the prior court decision.

<sup>54</sup> *Total Television of Amarillo* at 242.

<sup>55</sup> *Id.* at 242-243.

<sup>56</sup> The history of the must carry rules was reviewed in the legislative history to the Cable Act. The Committee shows concern about what it terms our refusal to appeal the *Quincy* decision. Then it goes on to say, "The Committee strongly

supports reinstatement of the must carry requirements." See S. Rep. No. 92, 102d Cong., 2d Sess. at 38 - 41, reprinted in 1992 U.S. Code Cong. & Admin. News 1133, 1171-1174. *Id.* at 41, 1992 USCCAN at 1174. Section 4 of the Cable Act added Section 614 to the Communications Act and codified must carry rules. See 47 U.S.C. § 534.

<sup>57</sup> *Report and Order*, *supra* note 1, at 1845.

<sup>58</sup> Petition for Partial Reconsideration, *supra* note NAB31, at 7-9.

ignore actual alerts<sup>59</sup> and because it would delay development of consumer alerting devices designed to be activated by the EAS alert.<sup>60</sup> It states that, based upon its survey of broadcasters before the 1994 NAB Convention, a one year delay could cost each broadcaster \$5,200 more to operate the EBS than the EAS "in loss of revenue during the lengthy weekly test, training of personnel, record keeping activities, and maintenance and repair of EBS equipment."<sup>61</sup> Further, TFT states that equipment will be available in time for the EAS phase-in, and any delay would increase costs due to storage expenses for the manufacturer.

29. In reply NAB argues that cost savings from the EAS will not accrue until well after it has been fully implemented.<sup>62</sup> They also state that nothing in their request will put lives at risk because it does not preclude stations from implementing the system before the regulatory deadline.<sup>63</sup>

30. It is in the interest of public safety to move forward with implementation of the EAS. We do find some merit, however, in the argument that until recently the precise timing and details of the equipment requirements had not been specified, and, therefore, broadcasters could not budget for purchase of the equipment. Also, because of technical issues pending on reconsideration, manufacturers could not obtain certification of their equipment and begin production. In light of the technical adjustments and clarifications to the rules made below and to allow implementation to occur in a later budget year, we will delay the implementation date of the EAS for broadcasters to January 1, 1997. We encourage all broadcasters and cable television systems to proceed with implementation of the EAS as expeditiously as possible.

#### D. RULE CLARIFICATIONS

31. In its Petition, the NAB proposed several minor and incidental technical rule changes.<sup>64</sup> The following is a discussion and our decision on each proposed change.

32. NAB points out that Section 11.33(a)(9) of the Rules, which requires that the EAS decoder automatically reset if it receives an EAS message but no End-Of-Message code (EOM) after a preset interval of not less than two minutes, is ambiguous because an EAS message is defined to include an EOM.<sup>65</sup> Our intention was to preclude the problem which NAB wishes to avoid the EAS decoder forcing a break in programming, producing dead air during automated operation and not resetting. Therefore, we are revising Section 11.33(a)(9) of the rules to require decoders to be able to reset automatically if an EAS header code is received, but an EOM is not received after the preset interval of not less than two minutes.

33. Sections 11.32(a)(6) and 11.33(a)(6) of the Rules state that data and codes stored in an encoder or decoder must be retained even if power is removed. NAB recommends indefinite data retention which would preclude the use of battery backup. NAB states battery backup is too suscept-

ible to failure and requires some standard for the duration of retention, which has not been set by the Commission.<sup>66</sup> We do not agree with this recommendation. The rules do not specify how the data retention mechanism should work, only that it must exist. Several technologies could be used; there is no need to specify one. We believe that this decision is best left to the manufacturers. While battery backup is more vulnerable to data loss than nonvolatile integrated circuit chips, we do not believe it to be a serious enough problem to require our intervention into the competitive process between manufacturers. We deny the petition on this point.

34. NAB points out that Section 11.33(a)(5) of the Rules states that a decoder must show it has been activated when one of the three conditions listed occurs. It advises that, "The Commission's apparent intent in Section 11.33(a)(5) would better be described by revising the introductory paragraph to read 'Indicators. EAS decoders must have distinct aural or visual means to separately indicate each of the following conditions: . . .'"<sup>67</sup> Our intention was for the EAS decoder to have an indicator for each of these conditions. We, therefore, revise Section 11.33(a)(9) as recommended by NAB. Also, NAB recommends making the cross reference in this section to Section 11.52(d) more specific by changing it to Section 11.52(d)(2).<sup>68</sup> We adopt this recommendation also.

35. Finally, NAB points out an incongruity in that Section 11.34(c) of the Rules requires that the equipment authorization for combined encoder/decoder units is notification, but that units that are either encoders or decoders must be certified.<sup>69</sup> This is an inadvertent inconsistency; we are modifying the rules to require that all encoders and decoders must be certified. Further, we will begin to accept applications for certification of EAS equipment 14 days after these rules are adopted. Applications will be processed beginning thirty days after publication of the Rules in the Federal Register. This will ensure that all EAS manufacturers have an equal opportunity to obtain prompt certification for their EAS products.

36. The Commission has received numerous informal questions and requests for minor clarifications or corrections of the rules. We are making clarifications and corrections requested to the extent that the changes requested do not involve substantive changes to the decisions made in the *Report and Order*. Specific rule corrections are discussed in Appendix 1 and the text of the changes is in Appendix 2.

37. We have received several informal requests to expand our specifications for data input and output connections in Sections 11.32(a)(2) and 11.33(a)(1). Additionally, Sage requests that we provide the specifications for a non-proprietary interface protocol for EAS encoders and decoders to properly communicate with character generators at television stations and cable systems.<sup>70</sup> In the *Report and Order*, we only specified a 1200 baud data rate and a standard RS-232C protocol. We did this because we believe that it

<sup>59</sup> Opposition to Petition for Partial Reconsideration, TFT, Inc., Santa Clara, California, February 23, 1995, at 2-3.

<sup>60</sup> *Id.* at 3.

<sup>61</sup> *Id.* at 2.

<sup>62</sup> Reply to Opposition, *supra* note 44, 2-3.

<sup>63</sup> *Id.* at 3.

<sup>64</sup> Petition for Partial Reconsideration, *supra* note 34, at 16.

<sup>65</sup> *Id.* at 16-17.

<sup>66</sup> *Id.* at 18.

<sup>67</sup> *Id.* at 19.

<sup>68</sup> *Id.*

<sup>69</sup> *Id.* at 20.

<sup>70</sup> See, e.g., Petition for Reconsideration, Sage Alerting Systems, Inc., January 25, 1995, at 12 - 14.

will promote the innovative design of EAS equipment.<sup>71</sup> Because our intention is to ensure that the EAS devices have a standard interface with other digital devices, such as an output printer or an input computer and to leave the particulars of the design up to the manufacturer we decline to expand the specifications for data input and output connections or to define an interface protocol.

38. We have been informally asked to explain differences between the EAS protocols of Section 11.31 and the WRSAME protocols promulgated by the National Weather Service (NWS). The original NWS WRSAME code structure did not contain sufficient information to serve the EAS adequately and so we added other information to the codes. The NWS has updated its WRSAME code structure to match EAS and take advantage of the added information. Also, they are in the process of refitting their older WRSAME units to accommodate the updated EAS/WRSAME protocol. There should be no discrepancy now between the WRSAME and EAS protocols. Further, it is our intention to keep the two code structures identical to provide for complete interoperability. We are making no changes to the EAS protocol now.

39. We are clarifying the programming, transmission, and reception of the mandatory preselected EAN (Emergency Action Notification), EAT (Emergency Action Termination), RMT (Required Monthly Test) and RWT (Required Weekly Test) event codes as follows. Under Section 11.51(k), encoders must use the FIPS (Federal Information Processing) location codes for the state and counties in the broadcast station or cable system service area when transmitting header codes with EAN, EAT, and RMT event codes. Encoders must use, at a minimum, the FIPS code for the city and state of license of the broadcast station or the cable franchise community of a cable system when transmitting header codes with RWT event codes. There are two originators, EAN and PEP (Primary Entry Point), for the EAN and EAT event codes, and two originators, EAS and CIV (Civil Authorities), for the RMT and RWT event codes, for a total of eight mandated codes. Section 11.52(e) requires broadcast stations and cable systems to interrupt programming if header codes with EAN, EAT, or RMT event codes, not RWT, are received. Necessarily, decoders must be preprogrammed to accept these eight event/originator codes automatically with any possible combination of location codes that are pertinent to the receiving station's coverage area or cable system's community. The EAS Operating Handbook contains the examples for the above situations.

40. We have been asked to explain the reason for not including specific events that may occur during man-made emergencies in Section 11.31. We have identified only the general category of Civil Emergency Message (CEM). There is are many uses for the EAS, and it is not possible to anticipate all man-made emergency situations. We will update the national disaster codes as they are implemented by NWS and other responsible agencies.

41. We have been asked to explain the absence of a nationwide location code similar to the state-wide location codes. As is discussed in paragraph 130 of the *Report and Order*, National Primary (NP) EAS sources will be able to disseminate national alerts. After an analysis of the national alerting function of broadcast stations in conjunction with the Federal Emergency Management Agency, we have concluded that alerting the nation on a regional basis would be much more manageable and reliable but would retain effective and timely warning capability. The 30 NP sources will be able to transmit a digital signal with the EAN event code with up to 31 state location codes. In this way a group of several states can be activated for a regional emergency or several regional groups can be activated for a national emergency. We emphasize that broadcast stations and cable systems must pre-program their decoders to preselect the EAN event codes and location codes so that the mandate that all stations and systems be able to receive Presidential EAS messages is fulfilled.

42. We have received questions concerning the continued use of authenticator word lists to verify the authenticity of national EAN messages.<sup>72</sup> We perceive a security need for these authenticator lists for the immediate future and, therefore, will not change the adopted rule. The points made in the comments have merit, and, as the technology evolves the security need may no longer exist. We will consider a discontinuance of authenticators in the future once the EAS is fully operational and we have had an opportunity to reassess security needs.

43. Some petitions questioned the lack of an FCC mandatory standard for emergency text messages transmissions used in EAS alerts.<sup>73</sup> We allowed for text to be sent, in digital form, in lieu of or in addition to audio messages within an EAS message after the transmission of EAS headers.<sup>74</sup> We did not, however, specify any text standard. We do not believe that mandating a single standard would be appropriate for EAS in that we want to promote flexibility for the local stations and emergency agencies. While we recommend that the protocol and code standards set for EAS headers be used for ordinary text messages, we decline to mandate a standard.

## E. OTHER MATTERS

### Exemption for FM Translators

44. In its comments,<sup>75</sup> The Moody Bible Institute of Chicago (Moody) notes that the *Report and Order* exempts Class D FM stations and low power television stations (LPTV) from the requirement to have EAS encoders. Additionally, Moody notes that LPTV stations used strictly as translators are not required to meet EAS requirements at all. Moody requests a similar exemption for FM translators.<sup>76</sup> Moody apparently believes that the *Report and Order* requires FM translators to comply with the EAS

<sup>71</sup> *Report and Order*, *supra* note 1, at 1816.

<sup>72</sup> *See, e.g.*, Comments of Nutmeg Broadcasting, *supra* note 14.

<sup>73</sup> *See, e.g.*, Petition for Reconsideration, Sage Alerting Systems, Inc., January 25, 1995, at 12 - 14.

<sup>74</sup> *Report and Order*, *supra* note 1, at 1813.

<sup>75</sup> Comments of the Moody Bible Institute of Chicago, Washington, D.C., February 22, 1995.

<sup>76</sup> FM translator stations are defined in Section 74.1201 (a) of the Commission's Rules, 47 C.F.R. § 74.1201(a). They are used exclusively to rebroadcast the programming of FM broadcast stations: FM translators are not permitted to originate programming.

requirements because we specifically exempt LPTV stations used as translators from the requirement to have EAS equipment

45. We did not intend for FM translators to be subject to the EAS requirements. They were not included in the EBS and we did not propose in the Notice of Proposed Rulemaking (NPRM) in this proceeding to include them in the EAS. We agree with Moody that the Note to Section 11.11 of the Rules is confusing and we clarify it to specifically exclude FM translators from the EAS.

#### Federal Funding of EAS Conversion

46. NAB urges us to pursue with the Federal Emergency Management Agency (FEMA) funding for stations or individual state emergency plans to help defray the cost of implementing the EAS.<sup>77</sup> We shall make this a part of our discussions with FEMA. State and Local Involvement in EAS

47. NAB expresses concern that state and local officials might "abuse their power to initiate an EAS alert."<sup>78</sup> It urges us to adopt safeguards to insure that alerts are for genuine emergencies.<sup>79</sup> It further urges us to ensure that the digital capabilities which permit targeting of specific localities are used "fully and accurately" and that we work closely with state and local officials to accomplish an implementation of the EAS so that broadcast audiences are not "subjected to unnecessary interruptions of programming due to overzealous state/local officials."<sup>80</sup> Lastly, NAB asks us to review how the EAS is working and publish a report, within a year of the date the rules become effective for all mass media providers, on whether state and local officials have abused the system.<sup>81</sup>

48. It is of the utmost importance to us that all of the services and systems created by our rules function efficiently and effectively and in the manner in which they were intended. We are also very concerned whenever there is abuse of the rules. We fully intend to monitor the implementation of the EAS system and review its operation so that we may refine or revise it, if necessary, and to detect and correct any abuses of the system. The primary safeguard against abuse of the system is the prohibition against false or deceptive EAS transmissions, specifically, anything other than an actual emergency. 47 C.F.R. § 11.45. The secondary safeguard is the State and Local Area Plans. 47 C.F.R. § 11.21. These plans will be developed by the State Emergency Communications Committees (SECC) and Local Emergency Communications Committees (LECC) in coordination with Compliance and Information Bureau (CIB) staff. They will be implemented after review and approval by the Chief, CIB. As we stated in the *Report and Order*, "State and local plans will become even more important under EAS because they will specify which alerts will be transmitted by key EAS sources in a State and local area. . . . All authorized sources for initiating EAS alerts should be approved and included in the state and local plan. . . . Plans developed by the SECC, or LECCs must be reviewed by the FCC prior to implementation to ensure that they are consistent with national plans,

FCC regulations, and EAS operation."<sup>82</sup> We further stated, "As with the current system, local officials and in the case of cable, the designated franchising authority official, will have the ability to send emergency messages over the EAS with the recommendations and approval of the LECC, the SECC and the FCC."<sup>83</sup>

49. We shall clarify the language of Section 11.21 of the Rules to make explicit the requirement that only procedures included in the state and local plans will be followed in the EAS and that the plans must be approved by the Chief, CIB. CIB will monitor the implementation and functioning of the EAS and will publish a report on its functioning on or before July 1, 1998.

#### VHF and UHF Two-way

50. Sage additionally proposed that the Commission define a two-way EAS protocol.<sup>84</sup> We deny Sage's request primarily because it is outside the scope of this proceeding and there is not a sufficient record for the Commission to base an informed decision on. Further, Sage requests that the Commission act on its petition to allocate 8 communications frequencies in the 162-174 MHz and 406-420 MHz bands for the exclusive use of the EAS system. We will treat that request separately.

#### IV. CONCLUSION AND ORDERING CLAUSE

51. Accordingly, IT IS ORDERED that the petitions for reconsideration filed in this proceeding ARE GRANTED to extent indicated herein and are otherwise DENIED.

52. IT IS FURTHER ORDERED, pursuant to 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. Sections 151, 154(i) and (o), 303(r), 544(g), and 606, that Parts 0, 11 and 73 of the Commission's rules and regulations, 47 C.F.R. Parts 0, 11 and 73 ARE AMENDED as set forth in the attached Appendix 2. The rules will go into effect (30 days after publication of this Memorandum Opinion and Order in the Federal Register). The Commission will begin accepting applications for EAS equipment approval 14 days after release of this Memorandum Opinion and Order.

53. For further information, contact Frank Lucia, (202) 418-1220, Compliance and Information Bureau.

#### FEDERAL COMMUNICATIONS COMMISSION

William F. Caton,  
Acting Secretary

<sup>77</sup> Petition for Partial Reconsideration, *supra* note 31, at 9.

<sup>78</sup> *Id.* at 14.

<sup>79</sup> *Id.* at 15.

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> *Id.*, *supra* note 1, at 1835 (footnotes omitted).

<sup>83</sup> *Id.*, n.172 (emphasis added).

<sup>84</sup> Sage Petition for Reconsideration, *supra* note SAGE21, at 11.



## APPENDIX 1: RULE CLARIFICATIONS

The Commission has received numerous informal questions and requests for clarification or correction of the rules. We will provide interpretations and clarifications to the extent that the issues raised do not go beyond the scope of the report and order or make substantive changes to the decisions embodied in the Report and Order:

- Section 0.311(g) states that the our zip code is 20054. This is amended to be 20554.
- Section 11.11(b) states class D non-commercial FM and LPTV stations are not required to comply with Section 11.32. This is amended to state that they are not required to have or operate encoders which are defined in Section 11.32.
- Section 11.31(a)(1) states that EAS characters are seven bit ASCII. This is amended to state that an eighth null bit is included for transmission of a full eight-bit byte.
- Section 11.31(b) states that call signs that use a dash must instead use a backslash in the EAS header code. This is amended to specify that ASCII character 47 is the proper character for the backslash.
- Section 11.31(c) gives an example of the EAS protocol that has a minor typographical as printed in the Federal Register. This is corrected to replace a "+" sign with a "-" sign.
- Section 11.33(a)(3)(i) states that decoders must provide a means to record and store at least two minutes of audio or text messages. This is clarified to state that the audio or text storage can be internal or external to the decoder device. If no internal means for recording and storing is manufactured internal to the decoder, then some means to couple to an external device, such as an audio or digital jack connection, must be supplied on the decoder.
- Section 11.33(a)(3)(ii) states that decoders must provide a means to store a minimum of 10 preselected header codes. We clarify this rule to specify that the decoder must store ten preselected event and originator code combinations in addition to the eight mandatory code combinations of tests and national activations. Also, we specify that the decoder must store location codes pertaining to the broadcast station coverage areas or the cable system's community in addition to event and originator codes.
- Section 11.33(a)(11) states that header codes with an EAN Event code that is received by the two decoder audio inputs must be able to override all other EAS messages. This is amended to state that EAN Event codes received by any of the decoder audio inputs must override all other EAS messages, as it is possible that manufacturers may create decoders with more than two audio inputs.
- Section 11.33(b)(2) states that the tolerance of the two-tone frequencies in the decoder are 0.5 Hz above or below nominal. This is corrected to state the tolerance is 5 Hz.
- Section 11.51(b) states that broadcast stations may transmit only the EAS header and end-of-messages codes without the Attention Signal. This is amended

by adding a sentence stating that no Attention Signal is warranted if the EAS message does not contain audio programming, such as a Required Weekly Test.

- Signal 73.1250(h) refers to Section 11.51 of the EAS rules. This is amended to the more specific reference, Section 11.51(b).

## APPENDIX 2: RULE AMENDMENTS

Parts 0, 11, and 73 of Chapter I of Title 47 of the Code of Federal Regulations are amended as follows:

## Part 0 - COMMISSION ORGANIZATION

1. The authority citation for Part 0 continues to read as follows:

Authority: Secs. 5, 48 Stat. 1068, as amended; 47 U.S.C. 155.

2. Section 0.311 is amended by revising paragraph (g) to read as follows:

§ 0.311 Authority delegated.

\*\*\*\*\*

(g) The Chief, Compliance and Information Bureau is delegated authority to grant waivers of the requirements of Part 11 of this chapter to participants required to install, operate or test Emergency Alert System (EAS) equipment. The Chief, Compliance and Information Bureau is further authorized to delegate this authority. Waiver requests must be made in writing and forwarded to the FCC's EAS office 1919 M Street, NW Washington, DC 20554. Such requests must state the reason why the waiver is necessary and provide sufficient information such as, statements of fact regarding the financial status of the broadcast station, the number of other broadcast stations providing coverage in its service area or the likelihood of hazardous risks to justify a grant of the waiver.

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## Part 11 - EMERGENCY ALERT SYSTEM (EAS)

3. 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.

4. Section 11.11 is amended by revising paragraphs (a) and (b) to read as follows:

§ 11.11 The Emergency Alert System (EAS).

(a) The EAS is composed of broadcast networks; cable networks and program suppliers; AM, FM and TV broadcast stations; Low Power TV (LPTV) stations; cable systems; and other entities and industries operating on an organized

basis during emergencies at the National, State, or local levels. It requires that at a minimum all participants use a common EAS protocol, as defined in § 11.31, to send and receive emergency alerts in accordance with the effective dates in the following tables:

**TIMETABLE**

**BROADCAST STATIONS**

Requirement	Until 7/1/95	7/1/95	1/1/97	1/1/98
Two-tone encoder timing	20-25 seconds	8-25 seconds	8-25 seconds	8-25 seconds <sup>1</sup>
Two-tone decode timing	8-16 seconds required. 3-4 seconds optional.	All decoders at 3-4 seconds.	3-4 seconds	Two-tone decoder no longer used.
Digital decoder and encoder	Use is optional	Use is optional	Use is required	Use is required

**CABLE SYSTEMS**

Requirement	Until 7/1/97	7/1/97 <sup>2</sup>
Two-tone signal from storage device <sup>1</sup>	Use is optional, 8-25 seconds	Use is required, 8-25 seconds
Digital decoder and encoder	Use is optional	Use is required <sup>2</sup>

<sup>1</sup> Two-tone signal used only to provide audio alert to audience before EAS emergency messages and required monthly test.

<sup>2</sup> On this date, subject cable systems shall provide: (1) a video message on all channels or other alerting techniques to hearing impaired and deaf subscribers, (2) an audio message and video interruption on all channels, and (3) a video message on at least one channel to all subscribers.

**EAS TIMETABLE AND REQUIREMENTS**

**BROADCAST STATIONS**

Requirement	AM	FM	FM Class D	TV	LPTV <sup>1</sup>
Two-tone decoder (until 1/1/98)	Y	Y	Y	Y	Y
Two-tone encoder	Y	Y	N	Y	N
Digital decoder (1/1/97)	Y	Y	Y	Y	Y
Digital encoder (1/1/97)	Y	Y	N	Y	N
Audio message (1/1/97)	Y	Y	Y	Y	Y
Video message (1/1/97)				Y	Y

**CABLE SYSTEMS**

Requirement	
Two-tone decoder	N
Two-tone encoder	N
Digital decoder (7/1/97)	Y
Digital encoder (7/1/97)	Y
Audio message on all channels (7/1/97)	Y <sup>2</sup>
Video interruption on all channels, video message on one channel (7/1/97)	Y <sup>3</sup>

<sup>1</sup> LPTV stations that operate as television broadcast translator stations are exempt from the requirement to have EAS equipment.

<sup>2</sup> Shall transmit two-tone signal, but it may be from a storage device.

<sup>3</sup> Shall provide video on all channels or other alerting techniques to certified hearing impaired and deaf subscribers.

NOTE: Class D FM and low power TV stations are not required to have two-tone or digital encoders. LPTV stations that operate as television broadcast translator stations are exempt from the requirement to have EAS equipment. FM translator stations are exempt from the requirement to have EAS equipment.

(b) Class D non-commercial educational FM stations as defined in § 73.506 of this chapter and LPTV stations as defined in § 74.701(f) of this chapter are not required to have or operate EAS encoders as defined in § 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.

\*\*\*\*\*

5. Section 11.12 is revised to read as follows:

**§ 11.12 Two-tone Attention Signal encoder and decoder.**

Existing two-tone Attention Signal encoder and decoder equipment type accepted for use as Emergency Broadcast System equipment under Part 73 of this chapter may be used by broadcast stations until January 1, 1998, provided that such equipment meets the requirements of § 11.32(a)(9) and 11.33(b). Effective January 1, 1998, the two-tone Attention Signal decoder will no longer be required and the two-tone Attention Signal will be used to provide an audio alert.

6. Section 11.21 is amended by revising the introductory text to read as follows

**§ 11.21 State and Local Area Plans and FCC Mapbook.**

EAS plans contain guidelines which must be followed by broadcast personnel, emergency officials and NWS personnel to activate the EAS. The plans include the EAS header code and messages that will be transmitted by key EAS sources (NP, LP, SP, and SR). State and local plans may contain unique methods of EAS message distribution such as the use of RBDS. The plans must be reviewed and approved by the Chief, Compliance and Information Bureau prior to implementation to ensure that they are consistent with national plans, FCC regulations, and EAS operation.

\*\*\*\*\*

7. Section 11.31 is amended by revising paragraphs (a)(1), (b) and (c) to read as follows:

**§ 11.31 EAS protocol.**

(a) \* \* \*

(1) The Preamble and EAS Codes must use Audio Frequency Shift Keying at a rate of 520.83 bits per second to transmit the codes. Mark frequency is 2083.3 Hz and space frequency is 1562.5 Hz. Mark and space time must be 1.92 milliseconds. Characters are ASCII seven bit characters as defined in ANSI X3.4-1977 ending with an eighth null bit (either 0 or 1) to constitute a full eight-bit byte.

\*\*\*\*\*

(b) The ASCII dash and plus symbols are required and may not be used for any other purpose. Unused characters must be ASCII space characters. FM or TV call signs must use a backslash ASCII character number 47 (/) in lieu of a dash.

(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 also provided in the EAS Operating Handbook.

[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJHH-MM-LLLLLLLL-

(one second pause)

[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJHH-MM-LLLLLLLL-

(one second pause)

[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJHH-MM-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)

\*\*\*\*\*

8. Section 11.33 is amended by revising paragraphs (a)(3)(i), (a)(3)(ii), (a)(5), (a)(5)(ii), (a)(9), (a)(11) and (b)(2) to read as follows:

**§ 11.33 EAS Decoder.**

(a) \* \* \*

(3) \* \* \*

(i) Record and store, either internally or externally, at least two minutes of audio or text messages. A decoder manufactured without an internal means to record and store audio or text must be equipped with a means (such as an audio or digital jack connection) to couple to an external recording and storing device.

(ii) Store at least 10 preselected event and originator header codes, in addition to the eight 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 of later messages. These last received header codes will be deleted from storage as their valid time periods expire.

\*\*\*\*\*

(5) Indicators. EAS decoders must have a distinct and separate aural or visible means to indicate when any of the following conditions occurs:

(i) \* \* \*

(ii) Preprogrammed header codes, such as those selected in accordance with § 11.52(d)(2) are received.

\* \* \* \* \*

(9) Reset. There shall be a method to automatically or manually reset the decoder to the normal monitoring condition. Operators shall be able to select a time interval, not less than two minutes, in which the decoder would automatically reset if it received an EAS header code but not an end-of-message (EOM) code. Messages received with the EAN Event codes shall disable the reset function so that lengthy audio messages can be handled. The last message received with valid header codes shall be displayed as required by paragraph (a)(4) of this section before the decoder is reset.

\* \* \* \* \*

(11) header code with the EAN Event code specified in § 11.31(c) that is received through any of the audio inputs must override all other messages.

(b) \* \* \*

(2) Operation Bandwidth. The decoder circuitry shall not respond to tones which vary more than ±5 Hz from each of the frequencies, 853 Hz and 960 Hz.

\* \* \* \* \*

9. Section 11.34 is amended by revising paragraph (c) to read as follows:

§ 11.34 Acceptability of the equipment.

\* \* \* \* \*

(c) The functions of the EAS decoder, Attention Signal generator and receiver, and the EAS encoder specified in §§ 11.31, 11.32 and 11.33 may be combined and Certified as a single unit provided that the unit complies with all specifications in this rule section.

\* \* \* \* \*

10. A new Section 11.47 is added to read as follows:

§ 11.47 Optional use of other communications methods and systems.

(a) Broadcast stations may additionally transmit EAS messages through other communications means than the main audio channel. For example, on a voluntary basis, FM stations may use subcarriers to transmit the EAS codes including 57 kHz using the RBDS standard produced by the National Radio Systems Committee (NRSC) and television stations may use subsidiary communications services.

(b) Other technologies and public service providers, such as DBS, low earth orbiting satellites, etc., that wish to participate in the EAS may contact the FCC's EAS office or their State Emergency Communication Committee for information and guidance.h).

\* \* \* \* \*

11. Section 11.51 is amended by revising the third sentence of paragraph (a), adding a new sentence at the end of paragraph (b), revising paragraph (c), removing paragraphs (e) and (h), and redesignating the remaining paragraphs in alphabetical order to read as follows:

§ 11.51 EAS code and Attention Signal Transmission requirements.

(a) \* \* \* After January 1, 1998, the shortened Attention Signal may only be used as an audio alert signal and the EAS codes will become the minimum signalling requirement for National level messages and tests.

(b) \* \* \* No Attention Signal is warranted for EAS messages that do not contain audio programming, such as a Required Weekly Test. (c) Effective January 1, 1997, all radio and television stations shall transmit EAS messages in the main audio channel.

\* \* \* \* \*

12. Section 11.52 is amended by revising paragraph (a) to read as follows:

§ 11.52 EAS code and Attention Signal Monitoring requirements.

(a) Before January 1, 1998, broadcast stations must be capable of receiving the Attention Signal required by § 11.32(a)(9) and emergency messages of other broadcast stations during their hours of operation. Effective January 1, 1997, all broadcast stations must install and operate during their hours of operation, equipment capable of receiving and decoding, either automatically or manually, the EAS header codes, emergency messages and EOM code. The effective date for subject cable systems is July 1, 1997. NOTE: after January 1, 1998, the two-tone Attention Signal will not be used to actuate two-tone decoders but will be used as an aural alert signal.

\* \* \* \* \*

13. Section 11.61 is amended by revising paragraphs (a)(1)(i), (a)(2)(i), and (a)(2)(ii)(A) to read as follows:

§ 11.61 Tests of EAS procedures.

(a) \* \* \*

(1) \* \* \*

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

\* \* \* \* \*

(2) \* \* \*

(i) Attention Signal. Until January 1, 1997, broadcast stations must conduct tests of the Attention Signal and Test Script at least once a week at random days and times between 8:30 a.m. and local sunset. Class D non-commercial educational FM and LPTV stations do not need to transmit the Attention Signal. Script content can be in the primary language of the station.

(ii) \* \* \*

(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.

\* \* \* \* \*

#### Part 73 -- BROADCAST RADIO SERVICES

14. The authority citation for Part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 3

34.

15. Section 73.900 is amended by revising the third sentence to read as follows:

§ 73.900 Cross references.

\* \* \* Equipment type accepted for EBS use under the old Subpart G rules may continue to be used at broadcast stations until January 1, 1998, provided that it meets all applicable requirements of Part 11 of this chapter.

\* \* \* \* \*

16. Section 73.1250 is amended by revising the last sentence of paragraph (h) to read as follows:

§ 73.1250 Broadcasting emergency information.

\* \* \* \* \*

(h) \* \* \* However, when an emergency operation is being conducted under a national, State or Local Area Emergency Alert System (EAS) plan, emergency information shall be transmitted both aurally and visually unless only the EAS codes are transmitted as specified in § 11.51(b) of this chapter.