

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

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

REPORT AND ORDER

Adopted: July 6, 2016

Released: July 11, 2016

By the Commission: Commissioner O’Rielly approving in part, dissenting in part and issuing a statement.

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I. INTRODUCTION

1. In this Order, we revise the Federal Communications Commission’s (Commission or FCC) Emergency Alert System (EAS) rules<sup>1</sup> to add three new EAS event codes, covering extreme wind and storm surges, as well as revise the territorial boundaries of the geographic location codes for two offshore marine areas. We initiated this proceeding in response to a request from the National Weather Service (NWS) of the National Oceanic and Atmospheric Administration (NOAA) that the Commission adopt these revisions to harmonize the EAS with the NWS’s weather radio system.<sup>2</sup> Virtually all commenters supported adoption of the new alert codes and code revisions.<sup>3</sup>

<sup>1</sup> 47 CFR pt. 11.

<sup>2</sup> See Letter from David B. Caldwell, Director, Office of Climate, Water, and Weather Services, National Weather Service, NOAA, to Marlene H. Dortch, Secretary, FCC, EB Docket No. 04-296 (filed Aug. 4, 2011; refiled July 16, 2014) (NWS 2011 Request). NWS renewed its 2011 request and added a request to adopt the storm surge event codes in November 2013. See Letter from Christopher S. Strager, Acting Director, Office of Climate, Water, and Weather Services, National Weather Service, NOAA, to Marlene H. Dortch, Secretary, FCC, EB Docket No. 04-296 (filed Nov. 15, 2013; refiled July 16, 2014) (NWS Consolidated Request). NWS subsequently renewed and supplemented its requests on August 15, 2014, in three separate comment filings. See National Weather Service,

(continued...)

## II. BACKGROUND

2. The EAS is a national public warning system through which broadcasters, cable systems, and other service providers (EAS Participants)<sup>4</sup> deliver alerts to the public to warn them of impending emergencies and dangers to life and property.<sup>5</sup> The primary purpose of the EAS is to provide the President with “the capability to provide immediate communications and information to the general public at the national, state and local levels during periods of national emergency.”<sup>6</sup> The EAS also is used by state and local governments, as well as the NWS, to distribute alerts.<sup>7</sup> According to NWS, about 90 percent of all EAS activations are generated by NWS and relate to short-term weather events.<sup>8</sup> The Commission, the Federal Emergency Management Agency (FEMA), and NWS implement the EAS at the federal level.<sup>9</sup> The EAS is a broadcast-based, hierarchical alert message distribution system through

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Comments, EB Docket No. 04-296 (all three filed separately on Aug. 15, 2014) (NWS 2014 Comments). NWS filed a more extensive description of its request to revise geographic location codes 75 and 77 in a 2015 letter filing. See Letter from Timothy J. Schott, Meteorologist, Office of Climate, Water, and Weather Services, National Weather Service, NOAA, EB Docket No. 04-296 (filed February 19, 2015) (NWS February 2015 *Ex Parte* Letter). In response, we initiated the *NWS NPRM*, which sought comment on these proposed revisions. See *Amendment of Part 11 of the Commission’s Rules Regarding the Emergency Alert System*, Notice of Proposed Rulemaking, 30 FCC Rcd 7467 (2015) (*NWS NPRM*).

<sup>3</sup> Thirteen comments addressing the issues raised in the *NWS NPRM* were received in dockets PSHSB Docket No. 15-94 and EB Docket No. 04-296. One commenter, EAS equipment manufacturer, TFT, Inc. (TFT), reportedly went out of business subsequent to the commencement of the comment cycle. See, e.g., Paul McLane, TFT’s Doors Are Shut; Future Unclear (Sept. 8, 2015), <http://www.radioworld.com/article/tfts-doors-are-shut-future-unclear/277026>. The Commission has not received any requests from EAS Participants, formerly TFT customers, to waive any rules as a result of TFT’s operating status, and will consider TFT’s comments on their merits.

<sup>4</sup> The Commission’s rules define EAS Participants as radio broadcast stations, including AM, FM, and low-power FM stations; Class A television and low-power TV stations; digital television stations, cable systems; wireline video systems; wireless cable systems; direct broadcast satellite service providers; and digital audio radio service providers. See 47 CFR § 11.11(a).

<sup>5</sup> See *Review of the Emergency Alert System; Independent Spanish Broadcasters Association, The Office of Communication of the United Church of Christ, Inc., and the Minority Media and Telecommunications Council, Petition for Immediate Relief*, Fifth Report and Order, 27 FCC Rcd 642, 646, para. 6 (2012) (*Fifth Report and Order*). A more detailed history of the EAS is summarized in the *First Notice of Proposed Rulemaking* in this docket. See *Review of the Emergency Alert System*, Notice of Proposed Rulemaking, 19 FCC Rcd 15775, 15776-77, paras 6-8 (2004). In addition, an overview of the present organization and functioning of the EAS system is included in the *Second Report and Order*. See *Review of the Emergency Alert System; Independent Spanish Broadcasters Association, The Office of Communication of the United Church of Christ, Inc., and the Minority Media and Telecommunications Council, Petition for Immediate Relief*, Second Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 13275, 13280-83, paras. 11-14 (2007) (*Second Report and Order*).

<sup>6</sup> 47 CFR § 11.1. National activation of the EAS for a Presidential alert message is initiated by the transmission of an Emergency Action Notification (EAN) event code and is designed to provide the President the capability to transmit an alert message (in particular, an audio alert message) to the public within ten minutes from any location at any time. The EAN must take priority over any other alert message and preempt other alert messages in progress. See, e.g., *Review of the Emergency Alert System*, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 18625, 18628, para. 8 (2005) (*First Report and Order and Further Notice of Proposed Rulemaking*). See also, e.g., 47 CFR §§ 11.33(a)(11), 11.51(m), (n).

<sup>7</sup> EAS Participants are required to broadcast Presidential alerts; they participate in broadcasting state and local EAS alerts on a voluntary basis. See 47 CFR § 11.55(a). See also *First Report and Order and Further Notice of Proposed Rule Making*, 20 FCC Rcd at 18628, para. 8.

<sup>8</sup> See NWS Fact Sheet, “NOAA’s National Weather Service (NWS) and the Emergency Alert System” (Jan. 2014), [http://www.nws.noaa.gov/os/dissemination/EAS\\_factsheet.pdf](http://www.nws.noaa.gov/os/dissemination/EAS_factsheet.pdf).

<sup>9</sup> The respective roles of the Commission, FEMA, and NWS are defined in a series of Executive documents. See 1981 State and Local Emergency Broadcasting System (EBS) Memorandum of Understanding Among the Federal

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which an alert message originator at the local, state or national level encodes (or arranges to have encoded) a message in the EAS Protocol, which provides basic information about the emergency involved.<sup>10</sup> The message is then broadcast by one or more EAS Participants and subsequently relayed from one station to another until all affected EAS Participants have received the alert and delivered it to the public.<sup>11</sup> This process of EAS alert distribution among EAS Participants is often referred to as the “daisy chain” distribution architecture.<sup>12</sup>

3. The EAS Protocol utilizes fixed codes to identify various aspects of the alert. Of particular relevance to this Order, the EAS Protocol utilizes a three-character “event code” to describe the nature of the alert (e.g., “TOR” signifies tornado).<sup>13</sup> The EAS Protocol identifies “National” event codes, such as the EAN and National Periodic Test (NPT), which EAS Participants use as part of required Presidential alerts and tests, and “State and Local” event codes, such as TOR, which EAS Participants use when they deliver weather and other voluntary alerts.<sup>14</sup> In addition, the EAS Protocol utilizes six-digit numerical location codes to identify the geographic area(s) to which the alert applies.<sup>15</sup> Unlike the state and territory geographic location codes, which are based on an American National Standards Institute (ANSI) standard,<sup>16</sup> the codes assigned to the offshore marine areas were created by the NWS and adopted by the Commission in 2002 at NWS’s request, following notice and opportunity for public comment.<sup>17</sup>

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Emergency Management Agency (FEMA), Federal Communications Commission (FCC), the National Oceanic and Atmospheric Administration (NOAA), and the National Industry Advisory Committee (NIAC), reprinted as Appendix K to Partnership for Public Warning Report 2004-1, *The Emergency Alert System (EAS): An Assessment; Assignment of National Security and Emergency Preparedness Telecommunications Functions*, Exec. Order No. 12472, 49 Fed. Reg. 13471 (April 3, 1984); Memorandum, Presidential Communications with the General Public During Periods of National Emergency, The White House (Sept. 15, 1995).

<sup>10</sup> See 47 CFR § 11.31. Under this protocol, an EAS alert uses a four-part message: (1) preamble and EAS header codes (which contain information regarding the identity of the sender, the type of emergency, its location, and the valid time period of the alert); (2) audio attention signal; (3) audio message, if included by the alert originator; and (4) preamble and “end of message” (EOM) codes. See *id.* § 11.31(a). Although the EAS Protocol specifies that the message can be audio, video, or text, in practice, only audio is sent.

<sup>11</sup> The EAS Protocol is identical to the Specific Area Message Encoding (SAME) digital protocol used by NWS for weather alerts. See *Independent Spanish Broadcasters Association, the Office of Communication of the United Church of Christ, Inc., and the Minority Media and Telecommunications Council, Petition for Immediate Relief; Randy Gehman Petition for Rulemaking*, Third Further Notice of Proposed Rulemaking, 26 FCC Rcd 8149, 8154, para. 5 (2011). Accordingly, in this Order, we use “EAS Protocol” and “SAME” interchangeably when referring to the protocols used for over-the-air EAS transmission.

<sup>12</sup> At the national level, EAS message distribution starts at Primary Entry Point (PEP) stations, which are a group of geographically diverse, high-power radio stations designated and tasked by FEMA to transmit “Presidential Level” messages initiated by FEMA. See *Fifth Report and Order*, 27 FCC Rcd at 646-47, para. 7. At the state level, state governors and state and local emergency operations managers activate the EAS by utilizing state-designated EAS entry points – specifically, State Primary stations and “State Relay” stations. See 47 CFR § 11.20. State Relay stations relay both national and state emergency messages to local areas. See 47 CFR § 11.18(d).

<sup>13</sup> See 47 CFR § 11.31(c), (e).

<sup>14</sup> See 47 CFR § 11.31(e).

<sup>15</sup> See 47 CFR § 11.31(c), (f).

<sup>16</sup> ANSI INCITS 31.2009 (“Information Technology – Identification of Counties and Equivalent Entities of the United States, its Possessions, and Insular Areas”). See 47 CFR § 11.31(c).

<sup>17</sup> See *Amendment of Part 11 of the Commission’s Rules Regarding the Emergency Alert System*, Report and Order, 17 FCC Rcd 4055, 4070, para. 36 (2002) (*2002 Report and Order*). See also NWS February 2015 *Ex Parte* Letter.

### III. DISCUSSION

#### A. Proposed EAS Event Codes

4. NWS requested that the Commission add a new “Extreme Wind Warning” (EWW) event code to provide the public with advance notice of the onset of extreme sustained surface winds (greater than or equal to 115 miles per hour) associated with a major land-falling hurricane (category 3 or higher).<sup>18</sup> According to NWS, no other existing EAS event code is adequate or acceptable to activate the EAS for an extreme wind warning associated with a hurricane.<sup>19</sup> NWS explained that although it began using the EWW code for its weather alert radio system warnings in 2007, EAS Participants were “reluctant to add and relay the new [e]vent [c]ode via the EAS, fearing FCC adverse action without addition of the new EWW Event Code to the Part 11 [rules].”<sup>20</sup>

5. NWS also requested that the Commission add two new event codes covering storm surges: “Storm Surge Watch” (SSA) and “Storm Surge Warning” (SSW).<sup>21</sup> NWS indicated that the “Storm Surge Watch/Warning will be issued when there is a significant risk of life-threatening inundation from rising water moving inland from the ocean.”<sup>22</sup> According to NWS, in the event of a storm surge, a watch would be issued 48 hours in advance of the event taking place and a warning would be issued 36 hours in advance of the event, and will help to mitigate damage from storm surge, the leading cause of death in tropical cyclones.<sup>23</sup>

6. In support of its request, NWS observed that, according to the National Hurricane Center (NHC), “storm surge losses in the hundreds or thousands of lives have occurred in every coastal state from Texas to South Carolina, and in some states north of there.”<sup>24</sup> NWS explained that “[w]hile the threatening winds of a hurricane are important, most deaths from tropical cyclones result from storm surge.”<sup>25</sup> NWS further explained that current hurricane event codes are insufficient, and that issuing storm surge watch/warning conditions is supported by both NHC and FEMA, as well as the government meteorological services of other nations, such as Environment Canada, and the World Meteorological Organization.<sup>26</sup>

7. We proposed adding both the extreme wind warning and storm surge event codes to Section 11.31(e) of the Commission’s rules, thus authorizing their use by EAS Participants.<sup>27</sup> Among other things, we considered whether not adopting such revisions would risk unnecessary harm to the public, a risk inconsistent with our statutory mission of “promoting the safety of life and property through

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<sup>18</sup> See *NWS NPRM*, 30 FCC Rcd at 7470, para. 4 (citing NWS 2011 Request at 1-2).

<sup>19</sup> See *id.* (citing NWS 2011 Request at 3). NWS observed, for example, that use of the “Tornado Warning” (TOR) event code to warn of high winds associated with Hurricane Charley in 2004 had caused confusion among the public. See *id.* As the *NWS NPRM* noted, the existing event codes related to hurricanes (*i.e.*, HUW for Hurricane Warning, HUA for Hurricane Watch, and HLS for Hurricane Statement) apply generally to the hurricane event itself, and are not specifically tailored to warn of extreme sustained surface winds associated with a Category 3 (or greater) hurricane. See *id.* (citing HURRICANE PREPAREDNESS - WATCHES & WARNINGS, NATIONAL WEATHER SERVICE, NATIONAL HURRICANE CENTER, <http://www.nhc.noaa.gov/prepare/wwa.php> (last visited Feb. 24, 2016)).

<sup>20</sup> *Id.* (citing NWS 2011 Request at 2-3).

<sup>21</sup> See *id.* at para. 5.

<sup>22</sup> *Id.* (citing NWS 2011 Request at Attachment B).

<sup>23</sup> See *id.* (citing NWS Consolidated Request at Attachment B).

<sup>24</sup> *Id.* at para. 6 (citing NWS Consolidated Request at 2).

<sup>25</sup> *Id.* (citing NWS Consolidated Request at Attachment B).

<sup>26</sup> See *NWS NPRM*, 30 FCC Rcd at 7470-71, para. 6 (citing NWS Consolidated Request at Attachment B).

<sup>27</sup> See *NWS NPRM*, 30 FCC Rcd at 7471, para. 7.

the use of wire and radio communication.”<sup>28</sup> We tentatively concluded that the event codes NWS proposed could promote public safety by saving lives and reducing the potential for injuries and damage to property, and we sought comment on this tentative conclusion.<sup>29</sup>

8. We also sought comment on whether the addition of the EWW, SSA, and SSW event codes would promote the public interest by enabling the public to deal more effectively with emergency situations, and, if so, how the specificity added by use of the codes would assist the public in these regards.<sup>30</sup> We asked, for example, whether the addition of these weather-related event codes would address the potential for confusion or incorrect guidance that might otherwise result from the continued use of the TOR event code.<sup>31</sup> Citing various data explicating the dangers to safety of life and property posed by hurricane high winds and storm surges, we stated our belief that the addition of EWW, SSA and SSW to the event codes in Section 11.31(e) of the rules would serve the public interest by providing more specific information regarding the emergency event.<sup>32</sup> We sought comment on that analysis.<sup>33</sup> We observed that survey data conducted and supplied by NWS indicated that broadcasters, emergency management offices and federal agencies supported the need to establish specific EAS warning alerts for these conditions, and we invited these entities in particular to submit their updated views on these issues.<sup>34</sup>

9. We also sought comment on the costs for implementing the proposed event codes.<sup>35</sup> NWS had stated that the additional costs associated with these new event codes would be minimal and generally could be effected through a firmware and/or software update.<sup>36</sup> We observed that filings made subsequent to NWS’s submissions by several EAS equipment manufacturers seemed to confirm NWS’s contentions.<sup>37</sup> We noted that one EAS equipment manufacturer, Sage Alerting Systems, Inc. (Sage), had indicated that one of its EAS device models in the field could no longer support software updates and, therefore, presumably could not be updated with the proposed event codes.<sup>38</sup> We sought comment on how this might affect the adoption of these additional event codes and to what extent this device model is being used by EAS Participants.<sup>39</sup>

10. The majority of comments that specifically addressed this issue supported adoption of the new event codes and the revisions to the existing location codes.<sup>40</sup> The National Association of

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<sup>28</sup> *Id.* (citing 47 U.S.C. § 1).

<sup>29</sup> *See id.*

<sup>30</sup> *See id.* at para. 8.

<sup>31</sup> *See id.*

<sup>32</sup> *See NWS NPRM*, 30 FCC Rcd at 7471-72, para. 9.

<sup>33</sup> *See id.*

<sup>34</sup> *See id.* (citing NWS Consolidated Request at Attachment B).

<sup>35</sup> *See NWS NPRM*, 30 FCC Rcd at 7472-73, para. 10.

<sup>36</sup> *See id.* (citing NWS Consolidated Request at Attachment A).

<sup>37</sup> *See id.* (citing Letter from Michael Maginity, EAS Engineering Manager, Trilithic Inc. to Marlene H. Dortch, Secretary, FCC, EB Docket 04-296 (filed Feb. 6, 2015) (Trilithic *Ex Parte* Letter); Letter from Ed Czarnecki, Senior Director of Strategic Development & Global Government Affairs for Monroe Electronics, Inc., to Marlene H. Dortch, Secretary, FCC, EB Docket No. 04-296, at 1 (filed Feb. 13, 2015) (Monroe *Ex Parte* Letter); and Letter from Harold Price, President, Sage Alerting Systems, Inc., to Marlene H. Dortch, Secretary, FCC, EB Docket No. 04-296, at 2 (filed Feb. 11, 2015) (“Sage *Ex Parte* Letter”).

<sup>38</sup> *See NWS NPRM*, 30 FCC Rcd at 7473, para. 11 (citing Sage *Ex Parte* Letter).

<sup>39</sup> *See id.*

<sup>40</sup> *See, e.g.*, Mary Helen Goodloe-Murphy, Radio Hatteras (WHDX-FM, WHDZ-FM), Comments at 1 (Radio Hatteras Comments) (“The board of directors of Radio Hatteras, WHDX-FM and WHDZ-FM, recommends that the

Broadcasters (NAB), for example, stated, “As NWS has explained, the additional specificity provided by these new codes should improve public safety by enabling emergency managers to more accurately trigger and target EAS alerts, reducing the risk of public confusion during an emergency situation.”<sup>41</sup> AT&T Services, Inc. (AT&T), agreed that adoption of the new event codes and location code revisions would “promote the public interest by helping the public and emergency officials better respond to local safety threats.”<sup>42</sup>

11. EAS equipment manufacturer, TFT, opposed adoption of these new hurricane-related weather alerts on grounds that the public would not be able to discern the differences between these weather events and the existing, general hurricane alert.<sup>43</sup> Specifically, TFT argued, “[w]hen threatened by these weather-related events, the public will not take time to contemplate the various differences in possible actions but will seek the most immediate action for the general category of the threat.”<sup>44</sup>

12. *Decision.* We grant NWS’s request and revise Section 11.31 of the EAS rules to add the EWW, SSA and SSW event codes to the EAS Protocol.<sup>45</sup> As we observed in the *NWS NPRM*, there is considerable data attesting to the dangers posed to life and property by both high winds and, in particular, storm surges, associated with hurricanes.<sup>46</sup> While the EAS Protocol currently contains event codes covering hurricanes, these codes only generally warn of an impending hurricane – they do not specifically cover extreme high winds associated with a Category 3 or higher hurricane or storm surges associated with a hurricane.<sup>47</sup> The record demonstrates that existing event codes contained in the EAS Protocol are not adequate substitutes for the adoption of the EWW, SSA and SSW event codes.<sup>48</sup> As NWS has observed, for example, use of the TOR event code during prior hurricanes led to confusion among the public and the dissemination of incorrect risk-avoidance advice.<sup>49</sup> Monroe County Florida Emergency Management observes that “[c]oastal residents may know or have an anticipated expectation regarding the impact of flood warnings which may be due in part to wind, tide, or heavy rain[, and] that anticipation

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commission approve the National Weather Service’s request to add EAS event codes covering extreme wind and storm surges.”); Vince Kalson, Monroe County Florida Emergency Management, Comments, EB Docket 04-296 (filed Aug. 10, 2015) at 1 (Monroe County Florida Emergency Management Comments) (“[W]e believe coastal counties as well as many inland counties along the gulf and east coast will benefit greatly from the adoption of the additional EAS.”). *See also* Dena Mahan, Comments, EB Docket 04-296 (filed Aug. 10, 2015) at 1; Anthony Puccio, Florida Department of Transportation, Comments, EB Docket 04-296 (filed Aug. 10, 2015) at 1; Jeff Rubin, PhD, CEM, Comments at 1; Michael Dion, Comments at 1; Scott Spratt, Comments at 1; AT&T Services, Inc., Comments at 2 (AT&T Comments); The National Association of Broadcasters, Comments at 1-2 (NAB Comments). Only TFT opposed adoption of the new event codes and location code revisions. *See infra* para. 11. One other party, individual, H. Michael Mogil, also opposed adoption of the new event codes, but was silent on the proposed location code revisions. *See* H. Michael Mogil, Comments, EB Docket 04-296 (filed Aug. 10, 2015) at 1-2.

<sup>41</sup> NAB Comments at 1-2 (*citing* NWS 2011 Request and NWS 2014 Comments 1-3).

<sup>42</sup> AT&T Comments at 2.

<sup>43</sup> *See* TFT Comments at 2-4. *See also* H. Michael Mogil, Comments, EB Docket 04-296 (filed Aug. 10, 2015) at 1-2.

<sup>44</sup> TFT Comments at 3.

<sup>45</sup> *See* 47 CFR § 11.31(e).

<sup>46</sup> *See, e.g., NWS NPRM*, 30 FCC Rcd at 7471-72, paras. 8-9.

<sup>47</sup> *See NWS NPRM*, 30 FCC Rcd at 7470, para. 4 (*citing* 47 CFR § 11.31; HURRICANE PREPAREDNESS - WATCHES & WARNINGS, <http://www.nhc.noaa.gov/prepare/wwa.php> (last visited Feb. 24, 2016)).

<sup>48</sup> *See, e.g., NWS NPRM*, 30 FCC Rcd at 7470-72, paras. 6-9.

<sup>49</sup> *See, e.g., NWS NPRM*, 30 FCC Rcd at 7471, para. 8 (*citing* NWS 2011 Request at 3).

can be confused unless the wording used is completely different as proposed.”<sup>50</sup> We do not find that the public interest would be served by relying on inadequate warnings that might provide incorrect or even opposite remedial advice to the public. Based on the record before us and the subject matter expertise of the NWS, we conclude that adoption of the event codes proposed by the NWS will improve the function of the EAS, enhance safety of life and property, and therefore is in the public interest.

13. We do not find TFT’s arguments against adoption of the new event codes persuasive. The dangers posed by hurricane-induced extreme high winds and storm surges are well established,<sup>51</sup> and the record in this proceeding establishes a need and desire for adoption of these codes to better address such dangers. NAB, for example, states that “[e]xplicit codes for storm surges and warnings would better reflect their rapid development and movement than the existing codes for a flood watch or warning, or other water-related situations.”<sup>52</sup> Radio Hatteras states that “[t]he addition of EWW, SSA and SSW codes would significantly enhance public safety in coastal regions”<sup>53</sup> TFT’s objection that the public will not appreciate the nuances between the specific dangers posed by extreme winds and storm surges caused by a hurricane and the dangers posed generally by the hurricane itself has no support in the record. Monroe County Florida Emergency Management, for example, contends that “[s]tudies show, the public is more likely to follow protective action recommendation, such as evacuations or shelter in place, or limit travel, if the directives are clearly and concisely communicated to them.”<sup>54</sup> Moreover, the NWS indicates that having the new codes become effective in the summer of 2016 will provide the NWS sufficient time to conduct outreach and education to on the meaning of these new codes before the NWS begins to issue alerts using these codes for the 2017 hurricane season.<sup>55</sup> The outreach and education that NWS intends to conduct will include a public education campaign, including “public service announcements over NWR; NWS News Releases; official NWS Service Change Notifications; advertising on NWS web sites; updates to official preparedness brochures and pamphlets; briefings to emergency managers; presentations at federal, state and local hurricane conferences; concurrent outreach and partnering efforts with FEMA; and extensive community outreach efforts by the NWS Warning Coordination Meteorologist in every Weather Forecast Office impacted by tropical cyclones.”<sup>56</sup>

## **B. Proposed Geographic Location Code Revisions**

14. NWS also requested that the Commission revise the areas defined in the geographic location codes identified in Section 11.31(f) of the EAS rules as location codes 75 and 77,<sup>57</sup> which cover offshore marine areas.<sup>58</sup> Specifically, NWS indicated that it has changed the end point it uses for generating weather alerts for both of these areas from Bonita Beach, Florida, to Ocean Reef, Florida, and, accordingly, requested that the area covered by location code 75 be changed to “Western North Atlantic Ocean, and along U.S. East Coast, south of Currituck Beach Light, NC, following the coastline to Ocean Reef, FL, including the Caribbean,” and that the area covered by location code 77 be changed to “Gulf of

<sup>50</sup> Monroe County Florida Emergency Management Comments at 1. *See also* NAB Comments at 2-3.

<sup>51</sup> *See, e.g., NWS NPRM*, 30 FCC Rcd at 7471-72, paras. 8-9.

<sup>52</sup> NAB Comments at 2.

<sup>53</sup> Radio Hatteras Comments at 1. *See also* Monroe County Florida Emergency Management Comments at 1.

<sup>54</sup> Monroe County Florida Emergency Management Comments at 1. As Monroe County Florida Emergency Management further concluded, “it is foreseeable that there is a great need to distinguish and much value to residents in providing detailed public information regarding flooding versus surge events.” *Id.*

<sup>55</sup> *See* Letter from Timothy J. Schott, Meteorologist, NWS Analyze, Forecast and Support Office, National Weather Service, NOAA, PS Docket No. 15-94 (filed Dec. 14, 2015) at 1-2 (NWS Dec. 14 *Ex Parte* Letter).

<sup>56</sup> *Id.*

<sup>57</sup> *See* 47 CFR § 11.31(f).

<sup>58</sup> *See NWS NPRM*, 30 FCC Rcd at 7473-74, para. 13 (*citing* NWS 2011 Request at 1; NWS Consolidated Request at 1).

Mexico, and along the U.S. Gulf Coast from the Mexican border to Ocean Reef, FL.”<sup>59</sup> NWS stated that harmonizing the definitions for these areas in the EAS rules to match those used by the NWS would alleviate potential confusion among broadcasters, the emergency management community and the maritime commerce community that issue and monitor alerts for these areas.<sup>60</sup> NWS again noted that it had checked with several EAS encoder/decoder manufacturers, and was informed that the cost and time to make the requested change would be nominal.<sup>61</sup>

15. In the *NWS NPRM*, we proposed revising Section 11.31 of our rules to adopt the definitional changes for location codes 75 and 77 requested by NWS.<sup>62</sup> We observed that these location codes are used with the Special Marine Warning (SMW) event code, among others, and thus are vital to maintaining the efficiency of marine operations and safety of vessels and their crews.<sup>63</sup> We further observed that failure to harmonize the definitions in the EAS rules to match those used by NWS potentially could result in confusion among EAS Participants, the emergency management community and the maritime commerce community in a major hurricane corridor of the United States.<sup>64</sup>

16. We sought comment on our proposal to revise the geographic descriptions for location codes 75 and 77.<sup>65</sup> We asked whether such action would prevent or ameliorate potential confusion among those who use these codes, and, enhance the efficiency of marine operations and safety of vessels and their crews, and otherwise benefit the public.<sup>66</sup> We also asked about the costs for making these changes and whether there are any EAS device models deployed by EAS Participants located in coastal geographic areas that could not be updated to reflect these revisions.<sup>67</sup>

17. Finally, we proposed revising footnote 1 of Section 11.31 to delete the reference to a past deadline and to clarify that the numbers assigned to the offshore marine areas listed in the table of geographic areas in Section 11.31(f), while consistent with the format of the state and territory location codes derived from the ANSI standard from which all other EAS location codes are derived, are not a product of that standard, but rather were assigned by the NWS.<sup>68</sup>

18. Only two commenters, AT&T and TFT, specifically addressed the proposed geographic code revisions. AT&T stated generally that adoption of the location code revisions would “promote the

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<sup>59</sup> See *NWS NPRM*, 30 FCC Rcd at 7473-74, para. 13 (citing NWS 2011 Request at 1). Currently, the marine area defined for location code 75 covers “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,” while location code 77 covers “Gulf of Mexico, and along the U.S. Gulf Coast from the Mexican border to Bonita Beach, FL.” See 47 CFR § 11.31(f).

<sup>60</sup> See *id.*

<sup>61</sup> See *id.* As the *NWS NPRM* explained, submissions by EAS equipment manufacturers subsequent to NWS’s filings suggested that these changes can be implemented by EAS Participants via software downloads with minimal effort. See *supra* note 37.

<sup>62</sup> See *NWS NPRM*, 30 FCC Rcd at 7474, para. 14.

<sup>63</sup> See *id.* (citing *2002 Report and Order*, 17 FCC Rcd at 4070, para. 36; National Oceanic and Atmospheric Administration, National Weather Service, *A Mariner’s Guide to Marine Weather Services Coastal, Offshore and High Seas*, NOAA PA 98054, [http://www.nws.noaa.gov/os/brochures/marinersguide\\_coastal.htm](http://www.nws.noaa.gov/os/brochures/marinersguide_coastal.htm) (last visited Feb. 24, 2016)).

<sup>64</sup> See *id.* (citing NWS 2011 Request at 1).

<sup>65</sup> See *NWS NPRM*, 30 FCC Rcd at 7475, para. 16.

<sup>66</sup> See *id.*

<sup>67</sup> See *id.*

<sup>68</sup> See *id.*

public interest by helping the public and emergency officials better respond to local safety threats.”<sup>69</sup> TFT opposed adoption of the geographic code revisions on grounds that “their use is quite limited,” and that the “inconsistencies in the descriptions of these areas will not be meaningful to the public.”<sup>70</sup>

19. *Decision.* We grant NWS’s request and change the defined areas identified in Section 11.31(f) of the EAS rules for location codes 75 and 77 to “Western North Atlantic Ocean, and along U.S. East Coast, south of Currituck Beach Light, NC, following the coastline to Ocean Reef, FL, including the Caribbean,” and “Gulf of Mexico, and along the U.S. Gulf Coast from the Mexican border to Ocean Reef, FL,” respectively. These definitional changes amount to minor modifications to location definitions created and used by the NWS.<sup>71</sup> Further, harmonizing the Part 11 definitions for these locations with those used by the NWS is necessary to ensure that the SMW and other marine-specific alerts reach their intended audiences. Such action also should eliminate any potential for confusion that might otherwise exist among EAS Participants, the emergency management community and the maritime commerce community in the event that the EAS rules and NWS used different location definitions. We also observe that EAS equipment manufacturers have confirmed that these changes can be implemented by EAS Participants via software downloads with minimal effort.<sup>72</sup>

20. We do not find TFT’s arguments against adoption of the new location codes persuasive. Whether these codes are widely used or not, we do not see what public interest would be served by allowing continued disharmony between the EAS definitions and those used by the NWS, particularly as these could lead to marine alerts not reaching their intended audiences as well as confusion among the maritime users operating in these geographic areas, potentially placing the safety of vessels and their crews at risk. Further, EAS Participants may install and utilize the revised codes as they deem fit, and we find that the EAS Participants that actually use these codes are best situated to determine whether use of the revised location codes is necessary and meaningful to the areas they serve.

21. Finally, we also revise footnote 1 of Section 11.31 to delete the reference to the past deadline and to clarify that the numbers assigned to the offshore marine areas listed in the table of geographic areas in Section 11.31(f), while consistent with the ANSI standard, are not a product of that standard, but rather were assigned by the NWS. No party commented on that proposed change, which in any event, is largely administrative in nature. We conclude that harmonizing the definitions in the EAS with those used by the NWS will eliminate the potential for needless confusion among EAS Participants, the emergency management community and the maritime commerce community as to the geographic application of these codes, and maintain the efficiency of marine operations and safety of vessels and their crews.

### C. Cost Benefit Analysis

22. We observe that although EAS equipment manufacturers must make the new event and locations codes available to all EAS Participants, these manufacturers have indicated in the record that the codes can be implemented by EAS Participants via minimally burdensome and low cost software downloads.<sup>73</sup> Trilithic, for example, indicates that “[t]he modifications are minimal and there would be no cost passed onto our customers.”<sup>74</sup> Monroe indicates that the event codes could be implemented in its EAS device models through a software update, “downloaded by users from Monroe’s secure site, and applied to each EAS device by the user, with basic instructions provided by Monroe or its Digital Alert

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<sup>69</sup> AT&T Comments at 2.

<sup>70</sup> TFT Comments at 4.

<sup>71</sup> See *NWS NPRM*, 30 FCC Rcd at 7474, para. 14.

<sup>72</sup> See *supra* note 37.

<sup>73</sup> See *supra* note 37; *infra* note 55.

<sup>74</sup> Trilithic *Ex Parte* Letter.

Systems subsidiary.”<sup>75</sup> Sage indicates that end users could implement the proposed event codes by “downloading the current settings file, using our settings editor to add new event codes, and uploading the settings file,”<sup>76</sup> which Sage further estimates would take “10 minute or less processes on a per-ENDEC basis” with no cost other than labor.<sup>77</sup> Further, use of these codes is not mandatory for EAS Participants; EAS Participants are free to implement them if and when they see fit, thus reducing the overall costs to EAS Participants even further. While some currently deployed legacy EAS device models may not be capable of being updated to accommodate these codes, we observe that any such equipment already is required to be replaced to accommodate the recently adopted NPT event code and “000000” geographic code for national testing no later than July 30, 2016, thus, no EAS Participant will be faced with the cost of obtaining new EAS equipment simply to use the new event codes and geographic locations code revisions adopted in this item.<sup>78</sup>

23. Based on the record, we anticipate that the only cost to EAS Participants who elect to install these new event codes and geographic location code revisions will be whatever labor cost is involved in downloading the software patches into their devices and associated clerical work.<sup>79</sup> We further anticipate that such installation would not on average take more than one hour.<sup>80</sup> However, even using a worst case cost figure of \$125.00 per device – which figure represents the labor cost estimate approved by the Office of Management and Budget for an EAS Participant to fill out the Commission’s online reporting form for EAS National Tests at a total time expenditure of *five* hours<sup>81</sup> – the cost of implementing these codes are far exceeded by the benefits they provide. At a per-unit cost of \$125.00, even if all EAS Participants elected to implement these codes (an unlikely event in areas not prone to hurricanes), the aggregate cost of adopting these new codes would be approximately \$3.5 million.<sup>82</sup>

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<sup>75</sup> Monroe *Ex Parte* Letter at 1.

<sup>76</sup> Sage *Ex Parte* Letter at 1.

<sup>77</sup> Sage *Ex Parte* Letter at 2. In the *NWS NPRM*, we noted that Sage indicated that one of its EAS device models is no longer supported by software updates and therefore cannot be updated to incorporate some of the codes. See *NWS NPRM*, 30 FCC Rcd at 7473, para. 11 (*citing* Sage *Ex Parte* Letter). Sage also indicated that lack of software support also means this device model cannot be updated to process the National Periodic Test (NPT) event code for nationwide EAS tests and the “000000” national location code. See Sage *Ex Parte* Letter at 2. Because all EAS Participants’ EAS equipment must be capable of processing the NPT and “000000” national location code by July 30, 2016, the Sage device model in issue will have to be replaced by that date, and the replacement equipment should be capable of processing the codes adopted in this item. See *Review of the Emergency Alert System*, Sixth Report and Order, 30 FCC Rcd 6520 (2015) (*EAS Sixth Report and Order*); *Review of the Emergency Alert System*, 80 Fed. Reg. 37167 (June 30, 2015). Sage *Ex Parte* Letter at 2. .

<sup>78</sup> In the *NWS NPRM*, we noted that Sage indicated that one of its EAS device models is no longer supported by software updates and therefore cannot be updated to incorporate some of the codes. See *NWS NPRM*, 30 FCC Rcd at 7473, para. 11 (*citing* Sage *Ex Parte* Letter). Sage also indicated that lack of software support also means this device model cannot be updated to process the National Periodic Test (NPT) event code for nationwide EAS tests and the “000000” national location code. See Sage *Ex Parte* Letter at 2. Because all EAS Participants’ EAS equipment must be capable of processing the NPT and “000000” national location code by July 30, 2016, the Sage device model in issue will have to be replaced by that date, and the replacement equipment should be capable of processing the codes adopted in this item. See *Review of the Emergency Alert System*, Sixth Report and Order, 30 FCC Rcd 6520 (2015) (*EAS Sixth Report and Order*); *Review of the Emergency Alert System*, 80 Fed. Reg. 37167 (June 30, 2015).

<sup>79</sup> See *infra* para. 22.

<sup>80</sup> See, e.g., Sage *Ex Parte* Letter at 2; Trilithic *Ex Parte* Letter.

<sup>81</sup> See Public Information Collections Approved by the Office of Management and Budget (OMB), 76 Fed. Reg. 68756-01 (Nov. 7, 2011).

<sup>82</sup> The approximately 28,058 broadcasters and cable headends in the U.S. comprise the bulk of EAS Participants. See FCC, Broadcast Station Totals as of December 31, 2015, [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-337189A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-337189A1.pdf) (stating that there were 20,922 broadcaster stations in the United States as of the end of 2015, not

24. With respect to benefits, we have proposed that the benchmark for measuring these types of expected benefits should be the value of a statistical life (VSL), currently estimated at \$9.1 million.<sup>83</sup> Accordingly, the value of this risk reduction to the public, measured in terms of expected lives saved, is at least \$9.1 million, which far exceeds the one-time, highly conservative \$3.5 million aggregated cost estimate if each and every EAS Participant across the U.S. elected to implement these new codes and code revisions. Furthermore, this expected benefit is a conservative valuation because the EAS is likely to save more than just one life in the event of a storm surge or extreme high winds caused by a Category 3 or higher hurricane, will accrue annually, and does not include the benefits associated with reducing injuries and associated medical costs, mitigating property damage, and minimizing the disruption of our national economy. Accordingly, we conclude that the minor burdens associated with adopting these codes will be more than offset by the benefits to public safety that will accrue from the introduction of these new codes into the EAS alerting framework.

#### D. Implementation Schedule

25. In the *NWS NPRM*, we proposed that EAS equipment manufacturers integrate the new event codes and location code revisions into equipment yet to be manufactured or sold, and make necessary software upgrades available to EAS Participants no later than six months from the effective date of any rules adopted as a result of the *NWS NPRM*.<sup>84</sup> We also indicated that we would encourage State Emergency Coordination Committees (SECCs) to update their state and local EAS plans and to take any other steps necessary to ensure the smooth implementation of these new codes within their states (e.g., by encouraging key sources which relay EAS messages to obtain the upgrades promptly).<sup>85</sup> We asked whether these measures would help ensure that all EAS Participants have the capability of updating their EAS equipment and of delivering alerts using these new codes to the public, such that the alert is successfully distributed throughout the EAS distribution relay chain.<sup>86</sup> We also asked whether it would be helpful if, for an interim transitional period, NWS issued any alert that uses one of the new event codes concurrent with an alert that uses the current event code.<sup>87</sup> We asked whether it would be reasonable to

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including FM, VHF and UHF translators); *see also* The Number of Cable Headends in the United States, STATISTA.COM (2014), <http://www.statista.com/statistics/186996/number-of-cable-headends-in-the-united-states-since-1998/> (stating that in 2011 there were 7,136 cable headends in the United States). Thus, at the OMB approved rate of \$125 an hour, one hours work would total an aggregate cost of no more than \$3,507,250 (i.e., 28,058 x \$125 = \$3,507,250) for implementation by all EAS Participants – which is highly conservative considering that only a fraction of EAS Participants are located in areas affected by these weather alerts, and thus likely to implement these codes. Although TFT indicated that the cost to install these codes in two of their legacy – i.e., non-CAP enabled – device models would entail not just labor but also a \$215 per-unit charge for a replacement EPROM, it was the only EAS equipment manufacturer to assert hardware costs, and those costs are indeterminate given TFT’s apparent defunct status. *See* TFT Comments at 3-4.

<sup>83</sup> *See, e.g., Review of the Emergency Alert System*, Notice of Proposed Rulemaking, 29 FCC Rcd 8123, 8148, para. 50 (2014); Memorandum from Polly Trottenberg, Under Secretary for Policy, Office of the Secretary for Transportation, and Robert S. Rivkin, General Counsel, Department of Transportation, Guidance on Treatment of the Economic Value of a Statistical Life in U.S. Department of Transportation Analyses (Feb. 28, 2013), at 1, [http://www.dot.gov/sites/dot.gov/files/docs/VSL\\_Guidance\\_2013.pdf](http://www.dot.gov/sites/dot.gov/files/docs/VSL_Guidance_2013.pdf) (last visited Feb. 24, 2016).

<sup>84</sup> *See NWS NPRM*, 30 FCC Rcd at 7475, para. 17 (citing 47 CFR §§ 11.32(a), 11.33(a)).

<sup>85</sup> State Emergency Communications Committees, or SECCs are volunteer groups, generally comprised of state and local public safety officials, state broadcast associations and other stakeholders, who are responsible for drafting State EAS Plans. *See Amendment of Part 73, Subpart G, of the Commission’s Rules Regarding the Emergency Broadcast System*, Report and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 1786, 1834, paras. 131-32 (1994). State EAS Plans contain guidelines which must be followed by EAS Participants’ personnel, emergency officials, and NWS personnel to activate the EAS. *See* 47 CFR §11.21.

<sup>86</sup> *See NWS NPRM*, 30 FCC Rcd at 7475, para. 17.

<sup>87</sup> *See id.*

expect that all EAS Participants would voluntarily integrate the new codes within their systems no later than one year from the effective date of any such rules, such that one year would provide an adequate transition period for NWS to issue concurrent alerts.<sup>88</sup> Finally, we indicated our belief that enabling these codes within this timeframe would not unduly burden EAS Participants or EAS equipment manufacturers.<sup>89</sup>

26. Commenters generally agreed that EAS Participants could install the new codes within one year. AT&T contended that “it would be reasonable to expect that EAS Participants [would] voluntarily integrate the new codes within their systems by one year from the effective date of any rules adopting new codes.”<sup>90</sup> NAB indicated that one year “should be enough time for most broadcasters to [implement the codes], assuming EAS equipment manufacturers are able to make the needed software upgrades available in a timely manner.”<sup>91</sup> Cohen, Dippell and Everist, P.C., however, cautioned that “depending on the distribution of the legacy equipment in the broadcast area[, code installation] may require more than one year to implement throughout broadcast industry.”<sup>92</sup> The Broadcast Warning Working Group (BWWG) agreed with the 6-month timeline proposed for manufacturers, but recommend that “the Report and Order that will result from this Notice should specify a firm one-year timeline that would require EAS Participants to comply within that one-year period.”<sup>93</sup> Finally, two commenters, NAB and AT&T, supported NWS issuing alerts using both the new codes and existing codes for some transitional period while EAS Participants implement the new codes.<sup>94</sup>

27. *Decision.* We believe that the prompt deployment of alerts using these new codes is consistent with the safety of the public in affected areas. Accordingly, we require EAS equipment manufacturers to integrate these codes into equipment yet to be manufactured or sold, and make necessary software upgrades available to EAS Participants no later than six months from the effective date of the rule amendments adopted in this order. We observe that EAS equipment manufacturers already have confirmed that these code changes can be implemented fairly easily in the field, and no manufacturer has indicated that implementing such changes on the production line would present any difficulties or require any more time than six months.<sup>95</sup> We also allow EAS Participants to upgrade their existing EAS equipment to include the new event and location code revisions on a voluntary basis until their equipment is replaced. We observe that this approach is the same approach taken by the Commission the only other time that it adopted new event and location codes, and the record does not indicate that any problems arose as a result of that approach.<sup>96</sup>

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<sup>88</sup> *See id.*

<sup>89</sup> *See id.*

<sup>90</sup> AT&T Comments at 3.

<sup>91</sup> NAB Comments at 3-4.

<sup>92</sup> Donald G. Everist, Cohen, Dippell and Everist, P.C., Reply Comments at 2.

<sup>93</sup> Broadcast Warning Working Group, Comments at 1 (BWWG Comments). BWWG also observed that while these codes could not be installed in intermediary device configurations, such configurations already have to be replaced as a result of the adoption of the NPT event code for nationwide EAS tests and national location code (“000000”) in the *EAS Sixth Report and Order*. *See id.* at 2.

<sup>94</sup> *See* NAB Comments at 4 (supporting the proposal “that NWS use the new event codes concurrent with an existing code for a reasonable interim period”); AT&T Comments at 2-3 (supporting the proposal that NWS should “issue any alert that uses one of the new event codes concurrent with an alert that uses the current event code”).

<sup>95</sup> *See supra* note 37.

<sup>96</sup> *See 2002 Report and Order*, 17 FCC Rcd at 4061-62, para. 13 (“permit[ting] 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”); *see also id.* at 4070, para. 36 (adopting same approach for newly adopted location codes). Although the *2002 Report and Order* gave manufacturers approximately 18 months to implement the new event codes adopted therein, the record in this proceeding indicates that manufacturers can implement these new event codes and location code

(continued....)

28. We will not mandate installation of these codes, as requested by BWWG.<sup>97</sup> First, the event codes and location code revisions adopted in this item are germane to only a relatively small subset of EAS Participants located in areas affected by hurricane high winds and storm surges. We believe EAS Participants in these areas already are highly motivated to install and use these codes, as demonstrated by NWS's surveys.<sup>98</sup> Second, as indicated, this approach is consistent with the approach taken by the Commission the only other time it adopted event and location codes, and that time the Commission adopted codes that were germane to all EAS Participants.<sup>99</sup> Third, the use by EAS Participants of these codes, like all State and local event codes, is and has always been voluntary, and no commenter has presented any arguments as to why that should not continue to be the case.<sup>100</sup> As the Commission observed in adopting essentially the same approach to implementing new event and location codes in the *2002 Report and Order*, "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."<sup>101</sup>

29. Although we are not mandating that EAS Participants upgrade their existing EAS equipment to incorporate the new event codes and location code revisions, we will require EAS Participants who replace their EAS equipment after one year from the effective date of this Order to install EAS equipment that is capable of receiving and transmitting the new event codes and revised location codes. Thus, after this deadline, EAS Participants may not replace their existing EAS equipment with used equipment or older models of equipment that has not been upgraded to incorporate the new codes. This will ensure that all EAS Participants have the capability to receive and transmit the new codes when their EAS equipment is replaced. We observe that this approach is consistent with that taken by the Commission in the *2002 Report and Order*, and allows for a transition of deployed equipment that mirrors ordinary equipment replacement cycles for those EAS Participants that do not have an immediate need to install the new codes.<sup>102</sup>

30. With respect to transitioning to the new codes, NWS has indicated that it will not initiate alerts using any of the proposed codes until the 2017 Atlantic Hurricane season.<sup>103</sup> The NWS states that focusing on the 2017 Atlantic Hurricane season will allow the NWS to deploy the codes in a uniform manner, and will allow for an extensive public outreach program.<sup>104</sup> The 2017 Atlantic Hurricane season falls well outside of the six month deadline we adopt today for equipment yet to be manufactured or sold and the one year deadline we require for EAS Participants who replace their EAS equipment. Thus, EAS Participants will have sufficient time to install the codes or purchase compliant equipment in time for the NWS actual adoption of the codes. Because the NWS implementation dates for the proposed codes fall

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revisions expeditiously, and that it would be less costly to do so. *See, e.g., id.* at 4062-63, para. 15. We therefore conclude that six months is sufficient for these codes.

<sup>97</sup> *See* BWWG Comments at 1.

<sup>98</sup> We observe that user feedback and survey data compiled by NWS indicate a strong desire on the part of EAS Participants and other entities that relay NWS alert warnings to make these new codes operational. *See, e.g.,* NWS Consolidated Request, Attachments A, B.

<sup>99</sup> *See supra* note 95.

<sup>100</sup> *See, e.g.,* 47 CFR § 11.55(a) ("The EAS may be activated at the State and Local Area levels by EAS Participants at their discretion for day-to-day emergency situations posing a threat to life and property."); 47 CFR § 11.52(d)(5) ("The management of EAS Participants shall determine which header codes will automatically interrupt their programming for State and Local Area emergency situations affecting their audiences."). *See also First Report and Order and Further Notice of Proposed Rule Making*, 20 FCC Rcd at 18628, para. 8.

<sup>101</sup> *2002 Report and Order*, 17 FCC Rcd at 4062, para. 14.

<sup>102</sup> *See 2002 Report and Order*, 17 FCC Rcd at 4061-62, para. 13, 4070, para. 36.

<sup>103</sup> *See* NWS Dec. 14 *Ex Parte* Letter.

<sup>104</sup> *Id.*

outside of our deadlines, and because the NWS will only deploy the codes after an extensive education and outreach program, we believe that the NWS will be able to deliver the appropriate alerts to all recipients without the need for any transition period where it issues alerts using both codes. We also believe that the deadlines we adopt today are consistent with the NWS schedule, as any extra time between our deadline and the NWS's actual use of the codes in an alert will allow EAS equipment manufacturers and EAS Participants time to resolve any technical issues that may arise.

#### **IV. PROCEDURAL MATTERS**

##### **A. Accessible Formats**

31. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

##### **B. Regulatory Flexibility Analysis**

32. As required by the Regulatory Flexibility Act of 1980, see 5 U.S.C. § 603, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The FRFA is set forth in Appendix B.

##### **C. Paperwork Reduction Analysis**

33. This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).

##### **D. Congressional Review Act**

34. The Commission will send a copy of this Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act ("CRA"), see 5 U.S.C. § 801(a)(1)(A).

#### **V. ORDERING CLAUSES**

35. Accordingly, IT IS ORDERED that pursuant to Sections 1, 2, 4(i), 4(o), 301, 303(r), 303(v), 307, 309, 335, 403, 624(g), 706, and 715 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 154(o), 301, 303(r), 303(v), 307, 309, 335, 403, 544(g), 606, and 615, this Order IS ADOPTED.

36. IT IS FURTHER ORDERED that Part 11 of the Commission's rules, 47 CFR Part 11, IS AMENDED as set forth in Appendix A, and such rule amendments shall be effective thirty (30) days after publication of the rule amendments in the Federal Register.

37. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Order, including the Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

## APPENDIX A

## Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 C.F.R. Part 11 to read 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. Amend § 11.31 by revising paragraphs (e) and (f) to read as follows:

**§ 11.31 EAS protocol.**

\* \* \* \* \*

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

<b>Nature of activation</b>	<b>Event codes</b>
National Codes (Required):	
Emergency Action Notification (National only)	EAN.
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.
Avalanche Watch	AVA.
Blizzard Warning	BZW.

Child Abduction Emergency	CAE.
Civil Danger Warning	CDW.
Civil Emergency Message	CEM.
Coastal Flood Warning	CFW.
Coastal Flood Watch	CFA.
Dust Storm Warning	DSW.
Earthquake Warning	EQW.
Evacuation Immediate	EVI.
<b>Extreme Wind Warning</b>	<b>EWW.</b>
Fire Warning	FRW.
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.
High Wind Warning	HWW.
High Wind Watch	HWA.
Hurricane Warning	HUW.

Hurricane Watch	HUA.
Hurricane Statement	HLS.
Law Enforcement Warning	LEW.
Local Area Emergency	LAE.
Network Message Notification	NMN.
911 Telephone Outage Emergency	TOE.
Nuclear Power Plant Warning	NUW.
Practice/Demo Warning	DMO.
Radiological Hazard Warning	RHW.
Severe Thunderstorm Warning	SVR.
Severe Thunderstorm Watch	SVA.
Severe Weather Statement	SVS.
Shelter in Place Warning	SPW
Special Marine Warning	SMW.
Special Weather Statement	SPS.
<b>Storm Surge Watch</b>	<b>SSA.</b>
<b>Storm Surge Warning</b>	<b>SSW.</b>
Tornado Warning	TOR.
Tornado Watch	TOA.
Tropical Storm Warning	TRW.

Tropical Storm Watch	TRA.
Tsunami Warning	TSW.
Tsunami Watch	TSA.
Volcano Warning	VOW.
Winter Storm Warning	WSW.
Winter Storm Watch	WSA.

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

	ANSI#
All U.S.	000000
State:	
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
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.:	
AS	60
FM	64
GU	66
MH	68
MH	68
PR	72
PW	70
UM	74
	78
Offshore (Marine Areas) <sup>1</sup> :	
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	73

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Currituck Beach Light, N.C Western North Atlantic Ocean, and along U.S. East Coast, south of Currituck Beach Light, NC, following the coastline to Ocean Reef, FL, including the Caribbean Gulf of Mexico, and along the U.S. Gulf Coast from the Mexican border to Ocean Reef, FL	75
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

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<sup>1</sup> The numbers assigned to the offshore marine areas listed in this table are not described under the ANSI standard, but rather are numeric codes that were assigned by NWS.

\* \* \* \* \*

**APPENDIX B****Final Regulatory Flexibility Analysis**

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>1</sup> an Initial Regulatory Flexibility Analysis (IRFA) was included in the Notice of Proposed Rulemaking of this proceeding.<sup>2</sup> The Commission sought comments on the IRFA. Because the Order amends the Commission's rules, this Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

**A. Need for, and Objectives of, the Proposed Rules**

2. The Order adopts changes to the Commission's Part 11 rules governing the Emergency Alert System (EAS).<sup>3</sup> Specifically, the order adds three new EAS Event Codes, covering extreme wind ("Extreme Wind Warning") and storm surges ("Storm Surge Watch" and "Storm Surge Warning"), and revises the territorial boundaries of geographic location codes 75 and 77 used by the EAS. These rule revisions improve the capacity of the EAS to warn the public of impending threats to life and property, and ensure that the geographic definitions of location codes 75 and 77 utilized by the EAS are harmonized with those employed by the National Weather Service (NWS).

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

3. The Small Business Administration (SBA) filed no comments in this proceeding, and there were no other comments specifically addressed to the IRFA.

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

4. 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. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. 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 additional criteria established by the SBA.

5. *Small Businesses, Small Organizations, and Small Governmental Jurisdictions.* Our action may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards.<sup>4</sup> First, nationwide, there are a total of approximately 28.2 million small businesses, according to the SBA.<sup>5</sup> In addition, a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."<sup>6</sup> Nationwide, as of 2007, there were approximately 1,621,315 small organizations.<sup>7</sup> Finally, the term "small governmental jurisdiction" is defined generally as

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<sup>1</sup> See 5 U.S.C. § 603. The RFA, see 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

<sup>2</sup> See *Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System*, Notice of Proposed Rulemaking, 30 FCC Rcd. 7467, Appendix B (2015).

<sup>3</sup> See 47 CFR pt. 11.

<sup>4</sup> See 5 U.S.C. § 601(3)–(6).

<sup>5</sup> See SBA, Office of Advocacy, "Frequently Asked Questions," <http://web.sba.gov/faqs> (showing figures are from March 2014).

<sup>6</sup> 5 U.S.C. § 601(4).

<sup>7</sup> INDEPENDENT SECTOR, *THE NEW NONPROFIT ALMANAC & DESK REFERENCE* (2010).

“governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”<sup>8</sup> Census Bureau data for 2011 indicate that there were 89,476 local governmental jurisdictions in the United States.<sup>9</sup> We estimate that, of this total, as many as 88,506 entities may qualify as “small governmental jurisdictions.”<sup>10</sup> Thus, we estimate that most governmental jurisdictions are small.

6. *Television Broadcasting.* The SBA defines a television broadcasting station that has no more than \$38.5 million in annual receipts as a small business.<sup>11</sup> Business concerns included in this industry are those primarily engaged in broadcasting images together with sound.<sup>12</sup> These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public.<sup>13</sup> These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule.<sup>14</sup> Programming may originate in the station’s own studio, from an affiliated network, or from an external source.<sup>15</sup>

7. According to Commission staff review of the BIA Financial Network, Inc. Media Access Pro Television Database as of March 31, 2013, about 90 percent of an estimated 1,385 commercial television stations in the United States have revenues of \$38.5 million or less. Based on this data and the associated size standard, we conclude that the majority of such establishments are small. The Commission has estimated the number of licensed noncommercial educational (“NCE”) stations to be 396.<sup>16</sup> We do not have revenue estimates for NCE stations. These stations rely primarily on grants and contributions for their operations, so we will assume that all of these entities qualify as small businesses. In addition, there are approximately 567 licensed Class A stations, 2,227 licensed low power television (“LPTV”) stations, and 4,518 licensed TV translators.<sup>17</sup> Given the nature of these services, we will presume that all LPTV licensees qualify as small entities under the above SBA small business size

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<sup>8</sup> 5 U.S.C. § 601(5).

<sup>9</sup> U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2011, Table 427 (2007)

<sup>10</sup> The 2007 U.S. Census data for small governmental organizations are not presented based on the size of the population in each such organization. There were 89,476 small governmental organizations in 2007. If we assume that county, municipal, township and school district organizations are more likely than larger governmental organizations to have populations of 50,000 or less, the total of these organizations is 52,125. If we make the same assumption about special districts, and also assume that special districts are different from county, municipal, township, and school districts, in 2007 there were 37,381 special districts. Therefore, of the 89,476 small governmental organizations documented in 2007, as many as 88,506 may be considered small under the applicable standard. This data may overestimate the number of such organizations that have a population of 50,000 or less. U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES 2011, Tables 427, 426 (Data cited therein are from 2007).

<sup>11</sup> Television broadcasting stations with no more than \$38.5 million in annual receipts are considered a small business pursuant to the SBA’s standards. See U. S. SMALL BUSINESS ADMINISTRATION, TABLE OF SMALL BUSINESS SIZE STANDARDS, MATCHED TO NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM CODES (July 14, 2014), [https://www.sba.gov/sites/default/files/files/Size\\_Standards\\_Table.pdf](https://www.sba.gov/sites/default/files/files/Size_Standards_Table.pdf) (codified at 13 CFR § 121.201 (2015)).

<sup>12</sup> See 13 CFR § 121.201, NAICS Code 515120 (2015).

<sup>13</sup> *Id.*

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

<sup>15</sup> U.S. Census Bureau, 2007 NAICS Definitions, “515112 Radio Stations”; [http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=515112&search=2007 NAICS Search](http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=515112&search=2007%20NAICS%20Search).

<sup>16</sup> FCC, Broadcast Station Totals as of March 31, 2013 (*March 31, 2013 Broadcast Station Totals Press Release*), [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2013/db0412/DOC-320138A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0412/DOC-320138A1.pdf).

<sup>17</sup> See *March 31, 2013 Broadcast Station Totals Press Release*.

standard.

8. We note that in assessing whether a business entity qualifies as small under the above definition, business control affiliations must be included.<sup>18</sup> Our estimate, therefore, likely overstates the number of small entities affected by the proposed rules because the revenue figures on which this estimate is based do not include or aggregate revenues from affiliated companies.

9. In addition, an element of the definition of “small business” is that the entity not be dominant in its field of operation. The Commission is unable at this time and in this context to define or quantify the criteria that would establish whether a specific television station is dominant in its market of operation. Accordingly, the foregoing estimate of small businesses to which the rules may apply does not exclude any television stations from the definition of a small business on this basis and is therefore over-inclusive to that extent. An additional element of the definition of “small business” is that the entity must be independently owned and operated. It is difficult at times to assess these criteria in the context of media entities, and our estimates of small businesses to which they apply may be over-inclusive to this extent.

10. *Radio Stations.* This Economic Census category comprises establishments primarily engaged in broadcasting aural programs by radio to the public. Programming may originate in the station’s own studio, from an affiliated network, or from an external source.<sup>19</sup> The SBA defines a radio broadcasting entity that has \$38.5 million or less in annual receipts as a small business.<sup>20</sup> According to Commission staff review of the BIA Kelsey Inc. Media Access Radio Analyzer Database as of June 5, 2013, about 90 percent of the 11,340 of commercial radio stations in the United States have revenues of \$38.5 million or less. Therefore, the majority of such entities are small. The Commission has estimated the number of licensed noncommercial radio stations to be 3,917.<sup>21</sup> We do not have revenue data or revenue estimates for these stations. These stations rely primarily on grants and contributions for their operations, so we will assume that all of these entities qualify as small businesses. We note that in assessing whether a business entity qualifies as small under the above definition, business control affiliations must be included.<sup>22</sup> In addition, to be determined to be a “small business,” the entity may not be dominant in its field of operation.<sup>23</sup> We note that it is difficult at times to assess these criteria in the context of media entities, and our estimate of small businesses may therefore be over-inclusive.

11. The same SBA definition that applies to radio broadcast licensees would apply to low power FM (“LPMF”) stations. The SBA defines a radio broadcast station as a small business if such station has no more than \$38.5 million in annual receipts. Currently, there are approximately 864 licensed LPMF stations. Given the nature of these services, we will presume that all of these licensees qualify as small under the SBA definition.

12. *Wired Telecommunications Carriers.* This industry comprises establishments “primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications

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<sup>18</sup> “[Businesses] are affiliates of each other when one [business] controls or has the power to control the other, or a third party or parties controls or has the power to control both.” 13 CFR § 121.103(a)(1).

<sup>19</sup> U.S. Census Bureau, 2007 NAICS Definitions, “515112 Radio Stations”; [http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=515112&search=2007 NAICS Search](http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=515112&search=2007%20NAICS%20Search).

<sup>20</sup> See 13 CFR § 121.201, NAICS Code 515112.

<sup>21</sup> *March 31, 2013 Broadcast Station Totals Press Release.*

<sup>22</sup> “[Businesses] are affiliates of each other when one [business] controls or has the power to control the other or a third party or parties controls or has the power to control both.” 13 CFR § 121.103(a)(1).

<sup>23</sup> See 13 CFR § 121.102(b).

networks.”<sup>24</sup> Transmission facilities “may be based on a single technology or a combination of technologies.”<sup>25</sup> Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services.<sup>26</sup> By exception, “establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”<sup>27</sup> In this category, the SBA deems a wired telecommunications carrier to be small if it has 1,500 or fewer employees.<sup>28</sup> Census data for 2007 shows 3,188 firms in this category.<sup>29</sup> Of these, 3,144 had fewer than 1,000 employees.<sup>30</sup> On this basis, the Commission estimates that a substantial majority of the providers of wired telecommunications carriers are small.<sup>31</sup>

13. *Cable Television Distribution Services.* Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers, which was developed for small wireline businesses. This category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks.”<sup>32</sup> Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services.<sup>33</sup> The SBA has developed a small business size standard for this category, which is: all such businesses having 1,500 or fewer employees.<sup>34</sup> Census data for 2007 shows 3,188 firms in this category.<sup>35</sup> Of these, 3,144 had fewer than 1,000 employees.<sup>36</sup> Therefore, under this size standard, we estimate that the majority of these businesses can be considered small.

14. *Cable Companies and Systems (Rate Regulation).* The Commission has developed its

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<sup>24</sup> See U.S. Census Bureau, 2007 NAICS Definitions, 517110 Wired Telecommunications Carriers, [http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2007 NAICS Search](http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2007%20NAICS%20Search).

<sup>25</sup> *Id.*

<sup>26</sup> *See id.*

<sup>27</sup> *Id.*

<sup>28</sup> See 13 CFR § 121.201, NAICS Code 517110.

<sup>29</sup> See U.S. Census Bureau, American FactFinder, “Information: Subject Series – Estab and Firm Size: Employment Size of Establishments for the United States: 2007 – 2007 Economic Census,” NAICS code 517110; [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2007\\_US\\_51SSSZ5&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_51SSSZ5&prodType=table).

<sup>30</sup> *See id.*

<sup>31</sup> *Id.*

<sup>32</sup> *See supra* note 24.

<sup>33</sup> *See id.* Examples of this category are: broadband Internet service providers (*e.g.*, cable, DSL); local telephone carriers (wired); cable television distribution services; long-distance telephone carriers (wired); closed circuit television (“CCTV”) services; VoIP service providers, using own operated wired telecommunications infrastructure; direct-to-home satellite system (“DTH”) services; telecommunications carriers (wired); satellite television distribution systems; and multichannel multipoint distribution services (“MMDS”).

<sup>34</sup> *See supra* note 28.

<sup>35</sup> *See supra* note 29.

<sup>36</sup> *See id.*

own small business size standards for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers nationwide.<sup>37</sup> Industry data indicate that there are currently 4,600 active cable systems in the United States.<sup>38</sup> Of this total, all but nine cable operators nationwide are small under the 400,000-subscriber size standard.<sup>39</sup> In addition, under the Commission's rate regulation rules, a "small system" is a cable system serving 15,000 or fewer subscribers.<sup>40</sup> Current Commission records show 4,600 cable systems nationwide.<sup>41</sup> Of this total, 3,900 cable systems have fewer than 15,000 subscribers, and 700 systems have 15,000 or more subscribers, based on the same records.<sup>42</sup> Thus, under this standard as well, we estimate that most cable systems are small entities.

15. *Cable System Operators (Telecom Act Standard)*. The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, 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."<sup>43</sup> There are approximately 52,403,705 cable video subscribers in the United States today.<sup>44</sup> Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.<sup>45</sup> Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.<sup>46</sup> We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million.<sup>47</sup> Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million we 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.

16. *Broadband Radio Service and Educational Broadband Service*. Broadband Radio Service systems, previously referred to as Multipoint Distribution Service ("MDS") and Multichannel Multipoint Distribution Service ("MMDS") systems, and "wireless cable," transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service ("BRS") and Educational Broadband Service ("EBS") (previously referred to as the Instructional Television Fixed Service ("ITFS")).<sup>48</sup> In connection with the 1996 BRS auction, the

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<sup>37</sup> See 47 CFR § 76.901(e).

<sup>38</sup> The number of active, registered cable systems comes from the Commission's Cable Operations and Licensing System (COALS) database on August 15, 2015. See [www.fcc.gov/coals](http://www.fcc.gov/coals).

<sup>39</sup> See SNL KAGAN, <https://www.snl.com/Interactivex/TopCableMSOs.aspx>.

<sup>40</sup> See 47 CFR § 76.901(c).

<sup>41</sup> See *supra* note 38.

<sup>42</sup> See *supra* note 38.

<sup>43</sup> 47 U.S.C. § 543(m)(2); 47 CFR § 76.901(f), nn. 1-3.

<sup>44</sup> See SNL KAGAN, <https://www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx>.

<sup>45</sup> See 47 § C.F.R. 901(f), nn ff. 1, 2, and 3.

<sup>46</sup> See SNL KAGAN, <https://www.snl.com/Interactivex/TopCableMSOs.aspx>.

<sup>47</sup> The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission's rules. See 47 CFR § 76.901(f).

<sup>48</sup> *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*, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

Commission established a “small business” as an entity that had annual average gross revenues of no more than \$40 million in the previous three years.<sup>49</sup> The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (“BTAs”). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.<sup>50</sup> After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules. In 2009, the Commission conducted Auction 86, which resulted in the licensing of 78 authorizations in the BRS areas.<sup>51</sup> The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) will receive a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) will receive a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) will receive a 35 percent discount on its winning bid.<sup>52</sup> Auction 86 concluded in 2009 with the sale of 61 licenses.<sup>53</sup> Of the ten winning bidders, two bidders that claimed small business status won four licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

17. In addition, the SBA’s placement of Cable Television Distribution Services in the category of Wired Telecommunications Carriers is applicable to cable-based Educational Broadcasting Services. Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers, which was developed for small wireline businesses. This category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks.<sup>54</sup> Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services.<sup>55</sup> The SBA has developed a small business size standard for this category, which is: all such businesses having 1,500 or fewer employees.<sup>56</sup> Census data for 2007 shows 3,188 firms in this category.<sup>57</sup> Of these, 3,144 had fewer

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<sup>49</sup> *Id.* at 9670-73, paras. 190-92.

<sup>50</sup> 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard of 1500 or fewer employees.

<sup>51</sup> *Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009*, Public Notice, 24 FCC Rcd 8277 (WTB 2009).

<sup>52</sup> *Id.* at 8296, para. 73.

<sup>53</sup> *Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86*, Public Notice, 24 FCC Rcd 13572 (2009).

<sup>54</sup> *See supra* note 24.

<sup>55</sup> *See id.* Examples of this category are: broadband Internet service providers (*e.g.*, cable, DSL); local telephone carriers (wired); cable television distribution services; long-distance telephone carriers (wired); CCTV services; VoIP service providers, using own operated wired telecommunications infrastructure; DTH services; telecommunications carriers (wired); satellite television distribution systems; and MMDS.

<sup>56</sup> *See supra* note 28.

than 1,000 employees.<sup>58</sup> Therefore, under this size standard, we estimate that the majority of these businesses can be considered small. In addition to Census data, the Commission's internal records indicate that as of September 2014, there are 2,207 active EBS licenses.<sup>59</sup> The Commission estimates that of these 2,207 licenses, the majority are held by non-profit educational institutions and school districts, which are by statute defined as small businesses.<sup>60</sup>

18. *Wireless Telecommunications Carriers (except satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves.<sup>61</sup> Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services.<sup>62</sup> The appropriate size standard under SBA rules for the category "Wireless Telecommunications Carriers (except satellite)" is that a business is small if it has 1,500 or fewer employees.<sup>63</sup> Census data for 2007 show that there were 1,383 firms that operated for the entire year.<sup>64</sup> Of this total, 1,368 firms had employment of fewer than 1000 employees.<sup>65</sup> Thus under this category and the associated small business size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small.<sup>66</sup>

19. *Incumbent Local Exchange Carriers (Incumbent LECs)*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to incumbent local exchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. This category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks.<sup>67</sup> Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet

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<sup>57</sup> See *supra* note 29.

<sup>58</sup> See *id.*

<sup>59</sup> See

[http://wireless2.fcc.gov/UlsApp/UlsSearch/results.jsp;JSESSIONID\\_ULSSEARCH=wJ50JkbCQKvNWBjv1s0ZZWQQs1FnmNDjQwvSHsDG2FHSyGV6hdf!203694623!-701794836](http://wireless2.fcc.gov/UlsApp/UlsSearch/results.jsp;JSESSIONID_ULSSEARCH=wJ50JkbCQKvNWBjv1s0ZZWQQs1FnmNDjQwvSHsDG2FHSyGV6hdf!203694623!-701794836).

<sup>60</sup> The term "small entity" within SBREFA applies to small organizations (non-profits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. § 601(4)-(6).

<sup>61</sup> See U.S. Census Bureau, 2007 NAICS Definitions, 517210 Wired Telecommunications Carriers, [http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517210&search=2007 NAICS Search](http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517210&search=2007%20NAICS%20Search).

<sup>62</sup> See *id.*

<sup>63</sup> See 13 CFR § 121.201, NAICS code 517210.

<sup>64</sup> See U.S. Census Bureau, American FactFinder, "Information: Subject Series – Estab and Firm Size: Employment Size of Establishments for the United States: 2007 – 2007 Economic Census," NAICS code 517210; available at, [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2007\\_US\\_51SSSZ5&prodT ype=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_51SSSZ5&prodT ype=table).

<sup>65</sup> See *id.* Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with "1,000 employees or more."

<sup>66</sup> See *id.*

<sup>67</sup> See *supra* note 24.

services.<sup>68</sup> The SBA has developed a small business size standard for this category, which is: all such businesses having 1,500 or fewer employees.<sup>69</sup> Census data for 2007 shows 3,188 firms in this category.<sup>70</sup> Of these, 3,144 had fewer than 1,000 employees.<sup>71</sup> Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses.

20. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.”<sup>72</sup> The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.<sup>73</sup> We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

21. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. This category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks.”<sup>74</sup> Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services.<sup>75</sup> The SBA has developed a small business size standard for this category, which is: all such businesses having 1,500 or fewer employees.<sup>76</sup> Census data for 2007 shows 3,188 firms in this category.<sup>77</sup> Of these, 3,144 had fewer than 1,000 employees.<sup>78</sup> In addition, 17 carriers have reported that they are Shared-Tenant Service

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<sup>68</sup> See *id.* Examples of this category are: broadband Internet service providers (e.g., cable, DSL); local telephone carriers (wired); cable television distribution services; long-distance telephone carriers (wired); CCTV services; VoIP service providers, using own operated wired telecommunications infrastructure; DTH services; telecommunications carriers (wired); satellite television distribution systems; and MMDS.

<sup>69</sup> See *supra* note 28.

<sup>70</sup> See *supra* note 29.

<sup>71</sup> See *id.*

<sup>72</sup> 5 U.S.C. § 601(3).

<sup>73</sup> See Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” See 15 U.S.C. § 632(a); see also 5 U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. See 13 CFR § 121.102(b).

<sup>74</sup> See *supra* note 24.

<sup>75</sup> See *id.* Examples of this category are: broadband Internet service providers (e.g., cable, DSL); local telephone carriers (wired); cable television distribution services; long-distance telephone carriers (wired); CCTV services; VoIP service providers, using own operated wired telecommunications infrastructure; DTH services; telecommunications carriers (wired); satellite television distribution systems; and MMDS.

<sup>76</sup> See *supra* note 28.

<sup>77</sup> See *supra* note 29.

<sup>78</sup> See *id.*

Providers, and all 17 are estimated to have 1,500 or fewer employees.<sup>79</sup> In addition, 72 carriers have reported that they are Other Local Service Providers.<sup>80</sup> Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.<sup>81</sup> Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small.

22. *Satellite Telecommunications.* This category comprises firms “primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”<sup>82</sup> This category has a small business size standard of \$32.5 million or less in average annual receipts, under SBA rules.<sup>83</sup> For this category, Census Bureau data for 2007 show that there were a total of 512 firms that operated for the entire year.<sup>84</sup> Of this total, 482 firms had annual receipts of less than \$25 million.<sup>85</sup> Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

23. *Direct Broadcast Satellite (“DBS”) Service.* DBS is a nationally distributed subscription service that delivers video and audio programming via satellite to a small parabolic “dish” antenna at the subscriber’s location. DBS is now included in SBA’s economic census category “Wired Telecommunications Carriers.” This category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks.<sup>86</sup> Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services.<sup>87</sup> The SBA has developed a small business size standard for this category, which is: all such businesses having 1,500 or fewer employees.<sup>88</sup> Census data for 2007 shows 3,188 firms in this category.<sup>89</sup> Of these, 3,144 had fewer than 1,000 employees.<sup>90</sup> Based on that data, we conclude that the majority of

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<sup>79</sup> See Federal Communications Commission, *Trends in Telephone Service* (Sep. 2010) at Table 5.3, [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf) (last visited Feb. 24, 2016).

<sup>80</sup> See *id.*

<sup>81</sup> See *id.*

<sup>82</sup> See U.S. Census Bureau, 2007 NAICS Definitions, 517410 Wired Telecommunications Carriers, [http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517410&search=2007 NAICS Search](http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517410&search=2007%20NAICS%20Search).

<sup>83</sup> See 13 CFR § 121.201, NAICS code 517410.

<sup>84</sup> See U.S. Census Bureau, American FactFinder, “Information: Subject Series – Estab and Firm Size: Employment Size of Establishments for the United States: 2007 – 2007 Economic Census,” NAICS code 517410; available at, [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2007\\_US\\_51SSSZ5&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_51SSSZ5&prodType=table).

<sup>85</sup> See *id.*

<sup>86</sup> See *supra* note 24.

<sup>87</sup> See *id.* Examples of this category are: broadband Internet service providers (*e.g.*, cable, DSL); local telephone carriers (wired); cable television distribution services; long-distance telephone carriers (wired); CCTV services; VoIP service providers, using own operated wired telecommunications infrastructure; DTH services; telecommunications carriers (wired); satellite television distribution systems; and MMDS.

<sup>88</sup> See *supra* note 28.

<sup>89</sup> See *supra* note 29.

<sup>90</sup> See *id.*

wireline firms are small under the applicable standard. However, based on more recent data developed internally by the Commission, currently only two entities provide DBS service, which requires a great deal of capital for operation: DIRECTV and DISH Network.<sup>91</sup> Accordingly, we must conclude that internally developed Commission data are persuasive that in general DBS service is provided only by large firms.

24. *All Other Telecommunications.* This U.S. industry comprises establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry. The SBA has developed a small business size standard for “All Other Telecommunications,” which consists of all such firms with gross annual receipts of \$32.5 million or less.<sup>92</sup> For this category, census data for 2007 show that there were 2,383 firms that operated for the entire year.<sup>93</sup> Of those firms, a total of 2,346 had gross annual receipts of less than \$25 million. Thus, we estimate that the majority of All Other Telecommunications firms can be considered small.

**D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities**

25. None.

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

26. The RFA requires an agency to describe any significant, specifically small business alternatives that it has considered in reaching its proposed 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) and exemption from coverage of the rule, or any part thereof, for small entities.”<sup>94</sup>

27. The rule changes adopted in this Order implement certain EAS warning codes and location code definitional changes that are unique, and implemented by small entity and larger-sized regulated entities on a voluntary basis. Thus, the Order does not mandate burdens on regulated entities of any size. Moreover, the record in this proceeding indicates that the costs associated with voluntarily implementing the codes contained in the Order should be *de minimis* or non-existent.

28. *Report to Congress:* The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the

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<sup>91</sup> See *Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming*, Fifteenth Report, 28 FCC Rcd 10496, 10507, para. 27 (2013). As of June 2012, DIRECTV is the largest DBS operator and the second largest MVPD in the United States, serving 19.9 million subscribers. DISH Network is the second largest DBS operator and the third largest MVPD operator, serving 14 million subscribers. See *id.* at 10546, paras. 110-11.

<sup>92</sup> See 13 CFR § 121.201, NAICS code 517919.

<sup>93</sup> See U.S. Census Bureau, American FactFinder, “Information: Subject Series – Estab and Firm Size: Employment Size of Establishments for the United States: 2007 – 2007 Economic Census,” NAICS code 517919; available at, [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2007\\_US\\_51SSSZ5&prodTtype=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_51SSSZ5&prodTtype=table).

<sup>94</sup> 5 U.S.C. § 603(c)(1)-(c)(4).

Congressional Review Act. In addition, the Commission will send a copy of the Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Order and FRFA (or summaries thereof) will also be published in the Federal Register.

**STATEMENT OF  
COMMISSIONER MICHAEL O'RIELLY  
APPROVING IN PART, DISSENTING IN PART**

*Re: Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System, PS Docket No. 15-94, Report and Order*

Although I am not opposed to updating the weather event and geographic location Emergency Alert System (EAS) codes, I strongly dissent on what is presented as a cost-benefit analysis in this item. The Commission should be able to demonstrate that the benefits of the new burdens outweigh their relative costs. Sufficient analysis has not been done here. Instead, the Commission uses cost-benefit figures that it has used in other contexts, and these amounts are not reflective of the issues before us.

As for the calculation of costs, there appears to be no attempt to quantitatively estimate the additional costs to EAS equipment manufacturers that must integrate these codes into their devices. Even if the burdens are small, our action today will place costs on this industry, which are not taken into account. Instead the focus is on the cost to EAS participants that would need to update their equipment through software patches. The item states that installation should not take more than an hour, but the Commission uses a "worst case cost figure of \$125.00 per device," representing five hours of labor at \$25 an hour, for a total of approximately \$3.5 million. So where did this figure come from? This is the amount that the Office of Management and Budget has approved as the cost to an EAS participant filling out the Commission's online reporting form for EAS National tests. I am at a loss as to how this measurement equates to the circumstance at hand. The EAS participant will have to download the software and ensure there are no glitches, which is not equivalent to filing a report.

The bigger problem, however, is with the analysis on the benefits side. The item suggests that the expected benefit is the value of a statistical life, which borrows and abuses a broken Department of Transportation estimate of \$9.1 million. Once again, the item says that this estimation is likely to be conservative because these changes are expected to save more than just one life, will reduce injuries and mitigate property damage. But there is no showing that this item will actually produce any of these positive results or even there is a "high probability." Specifically, there is no evidence that the current hurricane and other severe weather codes have been insufficient in protecting life and property or that the updated marine location codes are regularly used. Without that, the benefits side of the ledger is essentially zero. Even assuming that lives could be saved with the new codes, the item oversells any value because participation with these new codes is completely voluntary.

So in the end, we have real costs being added to businesses and imaginary or hypothetical benefits. That's a losing equation, leaving us all wondering why is it so hard to get real work to be done on cost-benefit analysis. Therefore, I dissent on this portion of the item.