FCC FACT SHEET*

Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System
Notice of Proposed Rulemaking - PS Docket No. 15-94

<u>Background</u>: Ensuring that alerts issued over the Emergency Alert System (EAS) are accessible to as many people as possible has long been a Commission priority. While entities that originate alerts currently are able to issue EAS alert audio and visual messages in any language (or combination of languages), very few EAS messages are sent in languages other than English.

This Notice of Proposed Rulemaking seeks to remove technical and logistical barriers associated with the translation of EAS alerts by proposing and seeking comment on a multilingual alert processing approach through which pre-scripted (or "template") alert messages that have been pre-translated into non-English languages and prerecorded audio files can be initiated by alert originators for distribution to the public by the TV and radio broadcasters, cable service providers, and other "EAS Participant" services that make up the EAS public alert distribution system.

What the Proposed Template Alert Processing Mechanism Would Do:

- Make issuing multilingual EAS alerts much simpler and more accessible for alert originators, which should lead to increased multilingual alert issuance.
- Create template alert scripts that would be pre-translated into the 13 most commonly spoken non-English languages in the United States (based on U.S. Census data) Spanish, Chinese, Tagalog, Vietnamese, Arabic, French, Korean, Russian, Haitian Creole, German, Hindi, Portuguese, and Italian as well as in English. These pre-translated template-based scripts and audio files would be produced by the Commission, and would be pre-installed in the EAS equipment operated by EAS Participants.
- Seek comment on the feasibility of developing and implementing American Sign Language (ASL) versions of the template alerts, including how ASL translations of the template script would be processed and displayed.
- Establish a process through which alert originators can initiate template alerts, which EAS Participants that participate in state and local EAS alerting would be required to transmit on their channel(s) in the template language that corresponds to the programming content of such channel(s). The Notice of Proposed Rulemaking also seeks comment on whether to require EAS Participants to issue the template alert only in the language that corresponds to the programming content of their channel(s), or whether they should also be able to include additional languages.

^{*} This document is being released as part of a "permit-but-disclose" proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in PS Docket No. 15-94, which may be accessed via the Electronic Comment Filing System (https://www.fcc.gov/ecfs/). Before filing, participants should familiarize themselves with the Commission's *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission's meeting. *See* 47 CFR § 1.1200 *et seq*.

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

In the Matter of	
Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System) PS Docket No. 15-94
NOTICE OF PROPOS	SED RULEMAKING*
Adopted: []	Released: []
Comment Date: 30 days after publication in the Fe Reply Comment Date: 60 days after publication in	
By the Commission:	
TABLE OF O	CONTENTS
Heading	Paragraph #
I. INTRODUCTION	1
II. BACKGROUND	3
	3
	6
	11
III. DISCUSSION	
A. Feasibility of Multilingual Template Alerts in	14 EAS

V. PROCEDURAL MATTERS......43

APPENDIX A – Initial Regulatory Flexibility Analysis

INTRODUCTION

I.

In this Notice of Proposed Rulemaking, we seek comment on measures to promote the accessibility of the Emergency Alert System (EAS) for people who speak a primary language other than English. The EAS is used to distribute tens of thousands of warnings to the public every year, providing critical notice of emergencies ranging from severe weather events, such as tornados and hurricanes, to natural disasters, such as tsunamis and wildfires, to civil emergencies, such as AMBER alerts and law enforcement warnings. These warnings – the vast majority of which are issued only in the English

^{*} This document is being released as part of a "permit-but-disclose" proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in PS Docket No. 15-94, which may be accessed via the Electronic Comment Filing System (https://www.fcc.gov/ecfs/). Before filing, participants should familiarize themselves with the Commission's ex parte rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission's meeting. See 47 CFR § 1.1200 et seq.

language – can and do prevent property damages, injuries, and loss of life. Ensuring that alerts issued over the EAS are accessible to as many people as possible has long been a Commission priority, including those whose primary language is not English. According to U.S. Census data over 26 million people in the United States report that they do not speak English very well or at all. While alert originators currently have the ability to issue EAS alert audio and visual messages in any language (or combination of languages), very few EAS messages are sent in languages other than English.

2. This Notice of Proposed Rulemaking seeks to remove technical and logistical barriers associated with EAS alert translation by proposing and seeking comment on a simplified multilingual alert processing approach for EAS alerts through which pre-scripted (or "template") alerts that have been pre-translated into non-English languages can be initiated by alert originators for distribution to the public by the TV and radio broadcasters, cable service providers, and other services that make up the EAS public alert distribution system. By largely eliminating translation difficulties currently associated with issuing multilingual EAS alerts, this model potentially should make issuing multilingual EAS alerts simpler and more accessible for alert originators, which should lead to increased multilingual alert issuance. Such outcome would enable access to EAS alerts by people who do not speak English as a primary language, the vast majority of whom would be accessing an EAS alert for the first time.

II. BACKGROUND

A. EAS Architecture

3. The EAS is a national public warning system through which TV and radio broadcasters, cable systems, and other service providers ("EAS Participants")² deliver alerts to the public to warn them of impending emergencies and dangers to life and property.³ The primary purpose of the EAS is to furnish the President with "the capability to provide immediate communications and information to the

¹ U.S. Census Bureau, American Community Survey: Selected Social Characteristics in the United States, Table DP02, "Language Spoken at Home: Speak English less than 'very well'" (2022: ACS 1-Year Estimates Data Profiles), https://data.census.gov/cedsci/table?q=DP02 (last visited Dec. 12, 2023). These data sources show that over 69 million people in the United States primarily speak languages other than English at home, including over 42 million whose primary language is Spanish and 27 million who primarily speak other languages. Of those groups, nearly 17 million Spanish speakers and over 9 million speakers of other languages report that they do not speak English very well or at all.

² The Commission's rules currently define EAS Participants as analog radio broadcast stations, including AM, FM, and Low-power FM stations; digital audio broadcasting stations, including digital AM, FM, and Low-power FM stations; Class A television and Low-power TV stations; digital television broadcast stations, including digital Class A and digital Low-power TV stations; analog cable systems; digital 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).

³ 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, ET Docket No. 04-296, 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. 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).

general public at the National, State and Local Area levels during periods of national emergency." The common usage of the EAS, however, is to distribute alerts issued by state and local governments, as well as by the National Weather Service (NWS) to the public. While EAS Participants are required to broadcast presidential alerts (and certain test alerts designed to ensure the EAS is functioning properly), they participate in broadcasting state and local EAS alerts voluntarily. The Commission, the Federal Emergency Management Agency (FEMA), and the NWS implement the EAS at the federal level.

4. The EAS distributes messages in one of two ways. The first method is through a broadcast-based, hierarchical alert message distribution system in which an alert message originator (such as State Governor's offices, state and county emergency management authorities, Public Safety Answering Points, state and county fire departments, National Weather Service, etc.) at the local, state or national level encodes (or arranges to have encoded) a message in the EAS Protocol.⁸ The alert is then

⁴ 47 CFR § 11.1. Under the part 11 rules, national activation of the EAS for a presidential alert message, initiated by the transmission of an Emergency Action Notification (EAN) event code, is designed to provide the President the capability to transmit an alert message (in particular, an audio alert message) to the American public within ten minutes from any location at any time and 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).

⁵ See, e.g., 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, Third Further Notice of Proposed Rulemaking, 26 FCC Rcd 8149, 8152-53, para. 3 (2011) (Third Further Notice of Proposed Rulemaking).

⁶ 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. The Commission has noted previously that its authority to require participation in the EAS primarily emanates from Sections 1, 4(i) and (n), 303(r), and 706 of the Communications Act. See, e.g., Fifth Report and Order, 27 FCC Rcd at 643-4, para. 2; Review of the Emergency Alert System, Notice of Proposed Rulemaking, 19 FCC Rcd 15775, 15778-79, paras. 10-11 (2004). In addition, various other statutory provisions grant authority to regulate participation in EAS, including section 624(g) of the Act and others. We believe that sections 1, 4, 303, 335, 624, 706, and 713 of the Act, 47 U.S.C. §§ 151, 154, 303, 335, 544, 606, 613, provide ample authority for the proposals in this Notice of Proposed Rulemaking.

⁷ 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 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; Memorandum, Presidential Communications with the General Public During Periods of National Emergency, The White House (Sept. 15, 1995) (1995 Presidential Statement); and Public Alert and Warning System, Exec. Order No. 13407, 71 Fed. Reg. 36975 (June 26, 2006).

⁸ The EAS protocol provides very basic information about the emergency involved. *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, only baseband audio and limited data modulated into baseband audio can be sent. The preamble, header codes and EOM codes are modulated into baseband audible tones using the audio frequency-shift keying (AFSK) modulation scheme and combined with the Attention Signal and audio message for transmission to the public; EAS decoders in EAS Participant facilities monitoring that transmission demodulate the header codes to determine with the alert is valid and programmed for rebroadcast. Specifically, the EAS decoder is activated by receiving the EAS protocol preamble codes plus header codes, which are repeated three times consecutively at the start of an EAS message transmission. The EAS decoder uses bit-by-bit comparison for error detection to ensure

broadcast from 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. This process of EAS alert distribution among EAS Participants is often referred as the "daisy chain" distribution architecture. Because this EAS architecture has been in place since the inception of the EAS, it is often referred to as the "legacy EAS." The second method of distribution is an IP-based process. Specifically, since June 30, 2012, authorized emergency alert authorities have been able to distribute EAS alerts over the Internet to EAS Participants (who in turn deliver the alert to the public) by formatting those alerts in the Common Alerting Protocol (CAP) and delivering those alerts through the FEMA-administered Integrated Public Alert and Warning System (IPAWS). This process for distributing alerts to EAS Participants represents the "CAP-based" EAS. Both the legacy and CAP-based EAS architectures are designed so that EAS Participants deliver to the public the alert content they receive from the EAS sources they monitor. Further, the EAS architecture and equipment is designed to operate automatically, without any intervention from the EAS Participant, both to minimize the risk of operator error and to facilitate EAS operation at unattended stations.

5. Although CAP and legacy EAS messages both convey alert information, the content, capacities, and distribution methodologies of each differ. Legacy EAS alerts are constructed in accordance with the EAS Protocol, and are baseband audio alerts that include pre-defined data codes (which define the alert and are modulated into audible tones) and an audio message that are transmitted in the audio carrier of the EAS Participant's transmission. ¹² The visual message automatically generated from these codes conveys very basic information concerning the alert (the sender, the type of emergency, its location, and the valid time period of the alert). ¹³ By contrast, CAP essentially represents a digital envelope in which data is packaged according to predetermined fields and packetized for transmission

that at least two of the three match. Depending upon the nature of the alert message, this three-time transmission (or "burst") is followed by a two-tone Attention Signal (8 seconds in duration), which functions as an audio alert to listeners and viewers that an emergency message follows. The Attention Signal is followed by an audio message. At the end of this message, the preamble plus end of message code is transmitted three consecutive times to signal to the EAS decoder that the alert message is terminated and to return to regular programming. See 47 CFR § 11.31.

⁹ In the legacy EAS, when an EAS Participant broadcasts an alert message, the message is received not only by that EAS Participant's local audience but also by downstream EAS Participants that monitor the transmission, following a matrix of monitoring assignments set forth in State EAS Plans. The applicable State EAS Plan assigns each EAS Participant alert sources from which it is required to monitor alert messages that they may transmit. The EAS Participant uses specialized EAS equipment to decode the header codes in each alert message it receives and, if the alert is in a category and geographic location relevant to that entity, it will rebroadcast the alert. That rebroadcast, in turn, is received not only by that entity's audience by also by additional downstream EAS Participants that monitor it. This process of checking and rebroadcasting the alert will be repeated until all affected EAS Participants in the relevant geographic area have received the alert and delivered it to the public. 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 § 11.21. These monitoring pathways are set forth in State EAS Plans administered by State Emergency Communications Committees. *See* 47 CFR § 11.21.

¹⁰ See 47 CFR § 11.56; see also Fifth Report and Order, 27 FCC Rcd at 644-45, para. 4.

¹¹ 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, 1822-23, paras. 103-104 (1994) (subsequent history omitted) (1994 Report and Order).

¹² See supra note 9.

¹³ See supra note 9.

over various IP-based mediums, such as the Internet. ¹⁴ CAP alerts can relay a variety of information, such as audio, video and data files, URL links to streaming audio and/or video, and enhanced text to generate visual crawls that are more informative than the basic alert parameters contained in the EAS header codes. Any data contained in a CAP-formatted message beyond the EAS header codes and audio message, such as enhanced text or video files, however, can be utilized locally by the EAS Participant that receives it, but cannot be converted into the EAS protocol and thus cannot be distributed via the "daisy chain" process. ¹⁵ For example, CAP allows for inclusion of enhanced text, which EAS Participants providing video services are required to use to generate the visual crawl for the alert that their audiences see, but that text is not included in the legacy (audio) version of the alert that they retransmit. ¹⁶

B. Multilingual Alerting in EAS

- 6. By design, the EAS has always enabled alert originators to issue alerts in multiple languages. For legacy-based EAS alerts, EAS Participants basically pass through the audio message as received, irrespective of the language in which the alert originator chose to create it. However, the EAS rules also have always allowed EAS Participants that provide non-English language programming to transmit state and local "EAS announcements in the primary language of the EAS Participant." In the former case, the alert originator handles translation and issues the translated audio to the EAS Participants, who in turn, transmit it to their audiences. In the latter case, the non-English language EAS Participant does not automatically pass through alerts, but rather, manually translates the audio of the received alert into the EAS Participant's language (and translated the visual message, if the EAS Participant elects to translate both), and then retransmits the alert substituting its translated audio for the received audio. In each case, time constraints apply, both due to the practical need to alert the public ahead of the impending emergency, and the 15-minute window in which EAS Participants must relay state and local EAS alerts. 18
- 7. The implementation of CAP alerting in 2012 provided alert originators with new capabilities for issuing multilingual alerts. CAP provides alert originators with the capability to provide both enhanced text concerning an emergency condition (such as where to seek shelter) and multiple translations of such text. The ECIG Implementation Guide, developed by the EAS-CAP Industry Group, or ECIG a coalition of Emergency Alert System equipment, software and service providers sets forth

5

¹⁴ CAP is an open, interoperable standard developed by the Organization for the Advancement of Structured Information Standards (OASIS), and incorporates a language developed and widely used for web documents. *See* 47 CFR § 11.56; *see also Fifth Report and Order*, 27 FCC Rcd at 648-49, paras. 10-11.

¹⁵ EAS Participants are required to convert CAP-formatted EAS messages into messages that comply with the EAS protocol requirements, following the procedures for such conversion set forth in the EAS-CAP Industry Group (ECIG) document entitled "ECIG Recommendations For a CAP EAS Implementation Guide" (ECIG Implementation Guide). *See* 47 CFR § 11.56 (referencing Organization for the Advancement of Structured Information Standards (OASIS) Common Alerting Protocol Version 1.2 (July 1, 2010), and the ECIG Implementation Guide (this document is available on ECIG's web site at: http://eas-cap.org/documents.htm) (last visited Nov. 17, 2023). The ECIG Implementation Guide sets forth guidelines for CAP-enabled EAS equipment to process multilingual text and audio contained in CAP alerts.

¹⁶ See, e.g., 47 CFR § 11.51(d), (g)(3), (h)(3), (j)(2). The AFSK modulation scheme used with the legacy EAS converts data into audible tones at a rate of 520.83 bits per second (equating to 65.1 characters per second). See 47 CFR § 11.31(a). Including more data than the EAS header codes that define the alert becomes incrementally impractical due to the increased chances for dropped bits (that would prevent validation of the data), and the length of the audible tones into which they are converted (which are repeated three times in legacy transmissions to validate the alert).

¹⁷ See, e.g., 47 CFR §§ 11.55(c)(3) and (d)(2). In the case of CAP-formatted messages, visual crawls also may include enhanced text data in translated languages, if such data is included in the CAP message.

¹⁸ See, 47 CFR § 11.51(n).

the procedures that EAS Participants must follow for processing and converting CAP-formatted EAS alerts into EAS protocol-compliant alerts for transmission over the legacy EAS.¹⁹ Among other things, the ECIG Implementation Guide provides procedures for alert originators to distribute multilingual alerts (i) including translated audio files or URL links to streaming translated audio in the CAP alert, or (ii) by selecting translation of the enhanced text provided in the alert into non-English language audio using Text-to-Speech (TTS) software, if the applicable non-English language TTS is configured in the EAS Participant's EAS device and the EAS Participant agrees to translate the alert.²⁰ Visual crawls also may include enhanced text data in English and translated languages, if such data is included in the CAP message by the alert originator.²¹

8. For its part, beyond facilitating the capabilities described above, the Commission has sought comment on how to better enable multilingual alerting in EAS throughout its development, ²² tasked bodies with examining multilingual alerting, ²³ issued occasional guidance on multilingual alerting, ²⁴ and has conducted a multilingual alerting workshop to develop ideas and share information on multilingual strategies. ²⁵ In 2016, the Commission addressed a petition seeking to enable certain multilingual capabilities via EAS that could have required EAS Participants to manually translate emergency information, among other things. ²⁶ The Commission denied the petition's specific requests,

¹⁹ See 47 CFR § 11.56.

²⁰ See ECIG Implementation Guide, § 3.7. The EAS device is the equipment that decodes and encodes alerts in conformance with the EAS rules.

²¹ See 47 CFR § 11.51(d), (g)(3), (h)(3), (j)(2). As explained in the ECIG Implementation Guide, the visual crawl associated with any EAS alert is limited to 1,800 characters in total. See ECIG Implementation Guide, § 3.6.4.4.

²² See, e.g., Review of the Emergency Alert System, EB Docket No. 04-296, Notice of Proposed Rulemaking, Docket No. 04-296, 19 FCC Rcd 15775 (2004); Review of the Emergency Alert System, EB Docket No. 04-296, First Report and Order and Further Notice of Proposed Rulemaking, FCC 05-191 (2005); 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, EB Docket No. 04-296, Second Report and Order and Further Notice of Proposed Rulemaking, FCC 07-109 (2007); Public Safety and Homeland Security Bureau Seeks Informal Comment Regarding Revisions to the FCC's Part 11 Rules Governing the Emergency Alert System Pending Adoption of the Common Alerting Protocol by the Federal Emergency Management Agency, Public Notice, 25 FCC Rcd 2845 (PSHSB 2010).

²³ See, e.g., FCC, Communications Security, Reliability, and Interoperability (CSRIC) III, Working Group 5A CAP Introduction Final Report, (Sept. 2010), https://www.fcc.gov/pshs/docs/csric/CSRIC%205A%20Working%20Group.pdf (finding that widespread adoption of CAP would not only advance the EAS, but would ensure all Americans, including those with disabilities or non-English speaking individuals would have access to emergency information). See also FCC, CSRIC V, Working Group 3 Emergency Alert System Final Report—Multilingual Alerting Recommendations (Sept. 2016), https://transition.fcc.gov/bureaus/pshs/advisory/csric5/WG3 MultiAlert 091416.docx; FCC, Intergovernmental Advisory Committee (IAC), Advisory Recommendation No: 2019-5 In the Matter of Multilingual Emergency Alerting, (Nov. 7, 2019), https://docs.fcc.gov/public/attachments/DOC-360696A3.pdf (recommending best practices for (i) incorporating multilingual alerts into states' emergency communications and response plans, and (ii) events that trigger alerts (and implicate the nexus between alerting procedures and state/local emergency response procedures required under the National Incident Management System (NIMS)).

²⁴ See, e.g., Public Safety and Homeland Security Bureau, Multilingual Alerting for the Emergency Alert System and Wireless Emergency Alerts, https://www.fcc.gov/MultilingualAlerting EAS-WEA.

²⁵ See Public Safety and Homeland Security Bureau, *Multilingual Alerting Workshop* (June 28, 2019), https://www.fcc.gov/news-events/events/2019/06/multilingual-alerting-workshop.

²⁶ 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,

agreeing with the majority of commenters in the record that "alert originators are best positioned to effect multilingual alerting, since station operators simply pass down the EAS message as received within the allotted two minute timeframe and, by and large, do not have the necessary capabilities and/or time to translate or originate that alert in another language."²⁷ The Commission did, however, adopt reporting rules applied to EAS Participants and State Emergency Communications Committees (SECCs)²⁸ designed to inform and update the Commission on state and local EAS alerting activities.²⁹ Specifically, the Commission required EAS Participants to summarize their multilingual EAS alerting activities to their respective SECCs, and required each SECC, in turn, to summarize the EAS Participant reports they received in a report to the Commission that summarized the overall multilingual EAS efforts by EAS Participants in the state.³⁰ The Commission required EAS Participants to notify their SECCs and the Bureau of any material changes to the information they initially reported.³¹

- 9. On balance, the multilingual reports submitted to the Commission in 2018 indicate sparse or isolated, localized efforts to relay multilingual alerts in a few states. In this regard, we note that Minnesota uses the Public Broadcasting Service (PBS) to provide emergency alerting in four languages.³² Harris County, Texas, has three major Spanish language stations, each with a Translation Room where alerts are translated in real-time by certified translators.³³ The Translation Rooms also include American Sign Language (ASL) interpreters.³⁴ In North Carolina, UNC-TV is part of the PBS system and during emergency events, they receive live broadcasts from the Governor and other state public safety officials.³⁵ These messages are carried on a web stream with captions in English and Spanish, which are made available to the other stations in North Carolina for broadcast. The Florida State Emergency Management Office has the ability to issue EAS alerts in English, Spanish and Creole. The National Weather Service issues some weather alerts in Spanish in selected regions.
- 10. Data associated with the 2023 Nationwide EAS Test,³⁶ which is still under review, suggests that there are a range of non-English languages that are spoken on a primary basis in EAS Participant service areas across the country. Nationwide tests of the EAS are periodically conducted by FEMA in coordination with the Commission to ensure that distribution of the presidential alert, functioning of the EAS, and understanding of their roles in the EAS by EAS Participants is consistent

Petition for Immediate Relief Randy Gehman Petition for Rulemaking, 31 FCC Rcd 2414, Order (2016) (2016 Multilingual EAS Order).

²⁷ 2016 Multilingual EAS Order, 31 FCC Rcd 2425, para. 20.

²⁸ SECCs administer the State EAS Plans that govern EAS distribution within each state and territory. *See* 47 CFR § 11.21.

²⁹ 2016 Multilingual EAS Order, 31 FCC Rcd 2426, para. 22 (codified at 47 CFR § 11.21(d)-(f)).

³⁰ See 47 CFR § 11.21(d), (e).

³¹ See 47 CFR § 11.21(f).

³² See FCC, IAC, Advisory Recommendation No: 2019-5 In the Matter of Multilingual Emergency Alerting, (Nov. 7, 2019), https://docs.fcc.gov/public/attachments/DOC-360696A3.pdf at 9 and 12.

³³ *Id.* at 12 and 18.

³⁴ *Id.* at 12, 14-15, and 20.

³⁵ *Id.* at 13.

³⁶ See Public Safety and Homeland Security Bureau Announces Nationwide Tests of the Emergency Alert System (EAS) and Wireless Emergency Alerts (WEA) on October 4, 2023, PS Docket Nos. 15-91, 15-94, Public Notice, DA 23-653 (PSHSB 2023); Public Safety and Homeland Security Bureau Opens the EAS Test Reporting System for Filings, PS Docket No. 15-94, Public Notice, PS Docket No. 15-94, Public Notice, DA 23-1 (PSHSB 2023).

with State EAS Plans and the Commission's EAS rules.³⁷ EAS Participants are required to report certain data to the Commission both annually and following such tests,³⁸ and the Commission uses such reported test results to evaluate alert distribution, EAS functionality, and EAS Participant performance.³⁹ Among other things, EAS Participants can optionally report the primary languages in their service areas.⁴⁰ Although the Bureau is still reviewing the 2023 Nationwide Test results, preliminary findings suggest that English and Spanish were the two languages most commonly reported to be spoken within EAS Participants' service areas,⁴¹ while several other non-English languages were reported in smaller numbers.⁴² Preliminary 2023 Nationwide Test results reveal that approximately 2% of EAS participants reported transmitting the alert in Spanish. An additional 0.1% of alerts were reportedly transmitted in other languages including Chinese.

C. 2023 WEA Accessibility Order

11. Recently, the Commission adopted rules requiring Participating CMS Providers to support multilingual WEA through the use of alert messages that have been pre-translated into the 13 most commonly spoken non-English languages in the United States (based on U.S. Census data) – Spanish, Chinese, Tagalog, Vietnamese, Arabic, French, Korean, Russian, Haitian Creole, German, Hindi, Portuguese, and Italian – as well as in English and ASL.⁴³ These pre-translated alerts, referred to as "templates," will be pre-installed and stored on the end user's mobile device.⁴⁴ Where an alerting authority chooses to send a multilingual alert message, the WEA-capable mobile device must be able to extract and display the relevant template in the subscriber's default language, if available.⁴⁵ If the default language for a WEA-capable mobile device is set to a language that is not among those supported by templates, the WEA-capable device must present the English-language version of the alert.⁴⁶ As

³⁷ See, e.g., Letter from Ward Hagood, Engineering Manager, Testing and Evaluation, IPAWS Program Office, National Continuity Programs, Department of Homeland Security – FEMA, to Marlene H. Dortch, Office of the Secretary, Federal Communications Commission (Aug. 2, 2023) (on file in PS Docket No. 15-91 et al., describing goals of 2023 nationwide EAS and WEA tests) https://www.fcc.gov/ecfs/document/1080115722424/1. See also Public Safety and Homeland Security Bureau Updates Guidance for Filing State Emergency Alert System (EAS) Plans and Monitoring Assignment Amendments in the Alert Reporting System (ARS), PS Docket No. 15-94, Public Notice, DA 23-482 (PSHSB 2023).

³⁸ 47 CFR § 11.61(a)(3)(iv).

³⁹ See, e.g., FCC, PSHSB, Report: August 11, 2021 Nationwide EAS Test (Dec. 2021), https://docs.fcc.gov/public/attachments/DOC-378861A1.pdf.

⁴⁰ See 47 CFR § 11.61(a)(3)(iv)(A).

⁴¹ Approximately 95% of EAS Participants reported English as the primary language in their service area, with roughly 4.4% reporting either both English and Spanish, or Spanish only as the primary languages in their service areas.

⁴² 18 other languages were reported as primary languages in EAS Participant service areas, including Russian, Chinese, Korean, Samoan, Navajo, Portuguese, Polish, Vietnamese, Creole, French, Hebrew, Hindi, Arabic, Amharic, Somali, Yup'ik/Cup'ik and Inupiaq/Yup'ik.

⁴³ See Wireless Emergency Alerts, Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System, PS Docket Nos. 15-91 and 15-94, Third Report and Order, FCC 23-88 (Oct. 20, 2023) (WEA Accessibility Order).

⁴⁴ See WEA Accessibility Order, para. 19.

⁴⁵ See 47 CFR § 10.500(e).

⁴⁶ WEA Accessibility Order, paras. 21-25. The Commission directed the Public Safety and Homeland Security Bureau (Bureau) to develop the specific implementation parameters for template-based multilingual alerting, including the alert messages that would be supported via a template; whether the English version of the alert should

described below, we explore whether we can leverage templates to support multilingual EAS as well.

III. DISCUSSION

- 12. In furtherance of the Commission's continued emphasis on improving the accessibility of alerts,⁴⁷ we seek comment on additional measures to promote multilingual EAS. As the Commission observed in 2016, when it required reporting of multilingual activities as updates to State EAS Plans, "[t]o the extent that the reports suggest that [those who do not have a proficiency in English] are not receiving critical emergency information, the Commission . . . can assess, if appropriate, what further steps should be taken."⁴⁸ In light of the minimal issuance of EAS messages in languages other than English, we believe it is now appropriate to take further steps to promote multilingual alerting.
- 13. Accordingly, as detailed below, we seek comment on the efficacy and feasibility of distributing multilingual EAS messages in the form of brief, pre-scripted (or "template") alerts in Spanish, Chinese, Tagalog, Vietnamese, Arabic, French, Korean, Russian, Haitian Creole, German, Hindi, Portuguese, and Italian, as well as in English. The template scripts (in all languages) would be stored in EAS devices, and the translated audio for each template would be provided as audio files or links to streaming audio. EAS Participants would be required to transmit template alerts using the template audio and script in the template language that correspond to the EAS Participants' primary language (i.e., the language of their programming content); where the EAS Participant offers multiple channels, it would transmit on such channels the template audio and script in the template language that corresponds to the language of such channels.

A. Feasibility of Multilingual Template Alerts in EAS

14. Current CAP-Based Multilingual Approach. As an initial matter, we observe that the ECIG Implementation Guide provides a process through which alert originators can specify distribution of their alerts in multiple languages, and EAS Participants can elect to distribute – or not distribute – the alert in those languages.⁴⁹ Under those procedures, the alert originator specifies in its CAP alert instructions the language in which it desires the alert to be transmitted to the public, and the EAS device then will process and transmit the alert in those languages if (i) the language is the EAS Participant's "primary" or "secondary" language that the EAS Participant has programmed its EAS device to process and transmit, and (ii) an audio file containing the translated audio or URL link to streaming translated audio is supplied by the alert originator, or TTS in that language has been configured in the EAS device.⁵⁰ If the device is programmed to relay the primary language and secondary languages, the alert can be relayed in multiple languages as a single alert, provided the combined audio does not exceed 2 minutes and the combined visual crawl characters do not exceed 1,800 characters (including the required header code information).⁵¹ In those instances where the message cannot meet the 2-minute and/or 1,800 character limit, only the "primary" language is transmitted to the public as a self-contained alert – the "secondary" languages are transmitted after the original alert's End-of-Message codes (which terminates the alert) have run (i.e., after the alert is over, at which point, the additional languages are essentially being aired as regular programming (i.e., no EAS header codes; no Attention signal; and no EOM codes –

be displayed in addition to the multilingual version of the alert, and whether templates can be customizable to incorporate event-specific information; and the costs and timeline of supporting additional languages beyond the 13 languages, as well as English and ASL, already adopted in template form. *See id.*, para. 21.

⁴⁷ See supra paras. 5-6.

⁴⁸ 2016 Multilingual EAS Order at para. 27; see also para. 23.

⁴⁹ ECIG Implementation Guide, § 3.7.

⁵⁰ ECIG Implementation Guide, § 3.7.

⁵¹ ECIG Implementation Guide, § 3.7.

just a visual crawl and audio)).⁵² In either case, if translated audio for each language is not supplied or linked by the alert originator, TTS would be used, if TTS capable of verbalizing the language selected is configured in the EAS device.⁵³ These procedures allow alert originators to effectively request transmission of alerts in non-English languages, but leave the decision as to which, if any, non-English language in which the alert will be transmitted to the EAS Participant (which it effects through programing its EAS device).

- 15. Multilingual template alert processing. We propose to implement and require transmission of multilingual template EAS alerts in Spanish, Chinese, Tagalog, Vietnamese, Arabic, French, Korean, Russian, Haitian Creole, German, Hindi, Portuguese, and Italian, as well as in English. We propose that alert originators would initiate the template alert in legacy or CAP like any other EAS alert, using the applicable template event code. We propose that a new template-specific event code would be added to the EAS protocol for each template alert type (earthquake, wildfire, etc.). ⁵⁴ The EAS device would use that event code to render that template (earthquake, wildfire, etc.) using the stored template text (for the visual crawl) and stored or linked audio in the languages that correspond to the language of the EAS Participant's programming content.
- 16. We propose to require EAS Participants to transmit alerts in the language of the program content they transmit in instances where the alert originator elects to issue an alert using a template event code and the EAS Participant's programming content⁵⁵ is in one of the 13 proposed non-English template languages; the EAS Participant would transmit the alert using the English language template script and stored or linked audio, if the EAS Participant's programming content is in English or in a non-English language that is not one of the proposed non-English template languages.⁵⁶ This requirement would apply to each channel of programming provided by the EAS Participant. Accordingly, EAS Participants that provide multiple channels of programming would be required to ensure that for template alerts received, they transmit that alert on each channel they offer using the template audio and script language that corresponds to the programming content delivered over such channel. For example, a cable service that offers channels with English and Spanish language programming, would transmit the template alert on the Spanish language channels using the Spanish language audio and script associated with that template event code, and would transmit the template alert on English language channels using the English language audio and script associated with that template event code.⁵⁷
- 17. Because multilingual alerts are likely to apply only to discrete geographic areas, and satellite providers transmit over nationwide footprints, we propose that DBS and SDARS providers would not be subject to these requirements, except that if a template is developed for the nationwide National Periodic Test (NPT) alert, DBS and SDARS providers would be required to overlay the NPT template

⁵² ECIG Implementation Guide, § 3.7.

⁵³ ECIG Implementation Guide, § 3.7.

⁵⁴ For example, if a template alert for earthquakes was added, there would be two earthquake event codes in the EAS Protocol: the existing earthquake event code that would be processed under existing rules, and the template earthquake event code, which would be processed under the specific template processing model described herein.

⁵⁵ For music-oriented radio stations, the station's primary language would be the language its announcements and spoken communications.

⁵⁶ We are not proposing to mandate carriage of state and local alerts, we are proposing only that if the EAS Participant relays state and local alerts, it must relay template alerts as proposed herein. EAS Participants must of course relay alerts categorized as national alerts, thus, if a template were developed for the NPT or RMT, EAS Participants would be required to process those using the multilingual template processing requirements.

⁵⁷ Cable systems that use force tuning presumably could present the template audio and script as combined, which in this example, would be English and Spanish language audio and text, but could include other languages, if the system provided channels offering non-English and non-Spanish language programming.

English language audio and scroll on all channels.

- 18. We seek comment on the foregoing construct generally, and more specifically with respect to the various alerting elements involved below. We observe that while EAS Participants would be required to transmit the template alert on a given channel using the template audio and script language that corresponds to the programming content of that channel, they may also include template audio and script in languages that do not correspond to the programming content. Thus, for example, a station that broadcasts Spanish-language programming would be required to transmit the template alert using the Spanish-language audio and script associated with that template event code, but could, if it elected to, also transmit the English audio and script for that template alert code (as discussed below, the Spanish and English audio and scripts could be combined into a single alert). In all events, the alert originator need not identify the specific languages in which they desire to have the template issued, because the template would be transmitted to the public by EAS Participants in the template language that matches their programming (and possibly other language, if the EAS Participant so elected).
- 19. Should EAS Participants be allowed to transmit template alerts on channels in languages that do not correspond to the programming content offered on that channel? Or, to reduce the potential programming interruption, should we require EAS Participants to transmit templates only in the language that corresponds to their programming content (e.g., the Spanish language template would be transmitted on channels carrying Spanish language programs)? Should English be the default language in cases where the program content is in a non-English language that is not one of the proposed 13 non-English template languages? In cases where the EAS Participant's programming content is in one of the proposed 13 non-English template languages, should EAS Participants be required to transmit the template alert using both the non-English language and English audio and script for that template event code (i.e., as a combined alert), assuming the combined version meets the 2-minute and 1,800 character thresholds described above (or if the combined alert does not meet the 2-minute and 1,800 character thresholds, transmitting the non-English template audio and script as a single alert, and transmitting the English audio and script directly after the non-English version of the alert is completed)?
- 20. We also seek comment on whether additional languages to the 13 non-English languages specified above could and should be supported through this construct. Are there technical impediments to multichannel video programming providers, including DBS and SADRS providers, overlaying differing audio and script messages on different channels? Could these providers instead combine template audio and scripts in different languages into a single alert with template audio and script in different languages (but not exceeding the 2-minute limit for audio messages or the 1,800 character limits for the scroll) that could be transmitted like any other alert? Seeing as the audio associated with a template alert received in legacy format would be discarded by the EAS device (which would use the stored or linked template audio appropriate to the EAS Participant's programming content), is the 2-minute limit on alert audio relevant to how each EAS Participant processes a template alert?⁵⁸ Would it be necessary to increase the existing 2-minute for template alerts to accommodate transmission of template alerts that combine multiple languages? Could the 1,800 character limit also be increased for such purpose?
- 21. Should alert originators be able to request transmitting the template alert in one or more of the proposed 13 non-English template languages and/or English similar to how this capability is facilitated in the ECIG Implementation Guide multilingual procedures? For example, alert originators could initiate the template alert in CAP like any other EAS alert, using the applicable template event code. In the CAP instructions, the alert originator could identify the template language(s) in which it would like the alert to be transmitted. The EAS device would use that event code to render that template (earthquake, wildfire, etc.) using the stored template text and stored or linked audio in the languages (i) requested by the alert originator that (ii) correspond to the "primary" and "secondary" languages it is

⁵⁸ See 47 CFR § 11.33(a)(9). The 2-minute limit is the time period at which point the EAS device will automatically end the alert and switch back to regular programming.

programmed to process. Under this construct, EAS Participants would be required to program into their EAS device the language of their programming content as their "primary" language and then could elect to program other template languages in which they are willing to transmit the template alert as "secondary" languages – meaning they would only be required to transmit the template in their primary programming language, but could voluntarily include other template languages. EAS Participants that provide multiple channels of programming would need to be able to program their EAS devices so that channels carrying non-English language programming were assigned as "primary" languages the template language that matches their programming content. The CAP-based template alert would be converted into an EAS protocol-compliant alert for transmission to the public just like any other CAP EAS alert, using the appropriate template event code. Because the EAS Protocol lacks any mechanism to specify or request a template language (including English), the EAS device receiving a template alert in legacy format would broadcast the alert using the script and audio that corresponds to whichever language is programmed as its "primary" language. ⁵⁹ We seek comment on this approach.

- that the EAS already uses a pre-scripted visual message generated for EAS alerts, we observe that the EAS already uses a pre-scripted visual message for National Periodic Test (NPT) alerts received in legacy EAS format, and this approach suggests that multilingual templates with pre-scripted visual messages are feasible. For example, the NPT script states: "This is a nationwide test of the Emergency Alert System, issued by the Federal Emergency Management Agency, covering the United States from [time] until [time]. This is only a test. No action is required by the public. In "from [time] until [time] portion of the text is derived from the alert's release date/time and valid time period header codes. It appears viable to use a similar approach with pre-scripted text messages in non-English languages that would correspond to template event codes. First, as discussed further below, because providing audio translations (in pre-recorded audio files or links to streaming audio) that include location and time parameters is impractical, and reliable TTS for all template languages may not be available, one approach for the visual scroll would be to make template scripts that are static and provide only general information (e.g., "A wildfire alert has been issued for your area. Please contact local authorities or check local news sources for more information."). In this case, the entirety of the script message could be scrolled (subject to any character generation limitations) and matching translated audio could be provided.
- 23. We seek comment on the feasibility and efficacy of this approach. Could generalized text lacking location and applicable time frames effectively warn the public of an impending emergency? Would transmitting such generalized alerts actually cause confusion to the public, particularly given the large geographic service areas associated with full-power broadcast stations?⁶³ Would including a URL address (e.g., www.moreinfo.com), if feasible, where template alert audiences could obtain additional and more specific information make the generalized script approach more effective and reduce any potential

⁵⁹ Thus, for example, if a template alert were received in legacy form with Spanish language, the EAS device receiving that alert would process that alert like any EAS alert: first it would check IPAWS for a CAP version of that alert per the CAP prioritization requirement; then, if no CAP version was available, it would broadcast that alert anew using (i) the template script and audio that correspond to the template event code in the received legacyformatted alert (the audio of the received legacy-based template alert would be discarded), (ii) in the EAS device's "primary" language.

⁶⁰ See 47 CFR § 11.51(d)(3)(iii).

⁶¹ See 47 CFR § 11.51(d)(3)(iii).

⁶² See 47 CFR § 11.51(d)(3)(iii) (cross-referencing 47 CFR § 11.31(c)).

⁶³ The service areas and resolvable signal of full-power broadcast stations can span multiple states, thus, an alert that indicates that "a wildfire alert has been issued for your area" that was issued for a single county in Virginia might be received in upper New York State, with audiences throughout wondering whether the wildfire is a danger to their immediate areas.

for confusion?⁶⁴ Alternatively, could the location and applicable time periods be conveyed in English? For example, could the visual messages for non-English language template alerts contain expressions of time using digit numbers (typically with A.M. or P.M. included) and locations in English, both of which the EAS device can provide?

- We seek comment on which approach(s) could be feasibly and practically implemented in EAS devices. We observe, for example, that having variable information in the script could significantly impact the audio. As explained below, generating matching audio for fixed scripts involves only installing prerecorded audio files or links to streaming audio for each such script on the EAS device. Generating audio for scripts with variable information would effectively require use of TTS to capture each variation, but it is unclear whether cost-effective non-English language TTS reliable and accurate enough for emergency warning purposes is available at this time.⁶⁵ The number of characters in a script also impact how it can be processed using the two-minute/1,800 character limits for audio and text. We seek comment on the interplay of these factors including the relative costs involved in implementing fixed scripts versus variable scripts. We also observe that visual scrolls in EAS Participant systems are typically generated by processing systems downstream from the EAS device. Are the character generators used in existing downstream processing systems of broadcasters and cable systems capable of generating the character and punctuation sets for all 13 of the proposed template languages? If not, what modifications to downstream processing systems would be required to reliably scroll all 13 languages, and what costs would be implicated in such modifications? Assuming that all template scripts were stored on the EAS device, would initiating and posting template alerts present any technical issues for **IPAWS?**
- ASL to communicate as their native language. We seek comment on the feasibility of developing and implementing ASL files for template alerts. Could video files of qualified ASL signers signing the template script for each template event type would be developed and stored in the EAS device? Would ASL be processed like any other non-English language? How would the ASL be displayed? Would the potential variation in specific details of the alert (like applicable times, and location information), if included in the template version, present impediments to conveying the alert in ASL? If scripts were fixed, such that there would only be as many as there were template event types (earthquake, wildfire, etc.), how much memory capacity would be required (on average) to store, for example, 16 template ASL video files? Is sufficient spare memory capacity available in EAS device models in deployment today to accommodate such ASL file storage, or could these be stored in an external hard drive or thumb drive connected to the EAS device? In cases where the alerts are no longer static, are there ways to insert

⁶⁶ See State of Rhode Island, Commission on the Deaf and Hard of Hearing, "American Sign Language," https://cdhh.ri.gov/information-referral/american-sign-language.php (last visited Dec. 13, 2023). ASL is the third most commonly used language in the United States after English and Spanish. *Id*.

⁶⁴ See Comments of Telecommunications for the Deaf and Hard of Hearing, Inc., et al. PS Docket No. 15-94, at 2-4 (filed Mar. 11, 2022) (recommending inclusion of hyperlink in EAS visual crawl for further information on an actual emergency to improve availability of details for individuals who are deaf and hard of hearing).

⁶⁵ See infra para. 27.

⁶⁷ The Commission has some rules regarding the accessibility of EAS alerts to individuals with disabilities. The visual message must be displayed at the top of the screen or where it will not interfere with other visual messages, in a manner (e.g., font size, color, contrast, location, and speed) that is readily readable and understandable, in a manner that does not contain overlapping lines of EAS text or extend beyond the viewable display (except for video crawls that intentionally scroll on and off of the screen), and in full at least once during any EAS message. 47 CFR § 11.51(d)(1). The audio portion of an EAS message must play in full at least once during any EAS message. *Id.* § 11.51(d)(2).

fillable video-based information using artificial intelligence driven technologies?⁶⁸ Would the ASL be identical for non-English language script (i.e., no variation based on the template language script and audio with which it is being transmitted)?

- Template Audio. We propose that audio matching the template script would be prerecorded for each template, in all proposed 13 non-English languages as well as English; EAS Participants could download and store the prerecorded audio files for the language(s) of their programming content, and any other languages they wish to include in their template alerts, in their EAS device. What memory requirements would apply to storing prerecorded audio files for each template? For example, assuming the audio length did not exceed 30 seconds and there were 16 template audio files for each of the 13 proposed template languages, in addition to the English language version (for a total of 224 audio files), how much memory would be required to store such files? Is spare memory capacity sufficient to accommodate such storage available in EAS device models in deployment today, or could such files be stored on an external hard drive or thumb drive connected to the EAS device? Could a given template script be conveyed in a single audio version for each of the proposed 13 non-English languages? For example, there is no single "Chinese" language, but rather a multitude of dialects, such as Mandarin and Cantonese. What mechanism would be practical and efficient for the Commission to employ in identifying specific dialects in which to prerecord the audio messages? Which of the proposed 13 non-English languages might require development of dialect-specific audio? Prerecorded audio also could be made available via a URL link provided in a CAP-formatted alert. Because such a URL reference cannot be conveyed in a legacy-formatted alert, the relevant template alert audio would have to be stored on all EAS devices, or the URL addresses would need to be determined and relaved to EAS devices as software updates. We seek comment on the relative merits of using linked audio versus stored audio.
- We propose to use static, pre-recorded audio messages for use in connection with template-based alerts. While TTS functionality developed for each template alert and language could be used in theory, and is one of the mechanisms for generating audio in the ECIG Implementation Guide's multilingual alerting procedures, 69 we have concerns regarding the reliability of TTS for the template languages we propose to use for pre-scripted translations. We seek comment on whether TTS is available or could be developed in the 13 non-English template languages that would be sufficiently reliable and accurate to use in generating the audio portion of a multilingual template alert from its fixed script. Would inclusion of specific identifying alert elements – such as time periods, affected area names, and originating source of the alert – have any appreciable impact on the feasibility and reliability of using TTS to generate template audio for any of the 13 template non-English languages and the English language version? Would integrating the presumably limited TTS functionality required to verbalize the template scripts require anything more than software changes to the installed base of EAS devices? Would using existing TTS solutions or TTS developed specifically to verbalize the information in the template scripts be less costly to implement in EAS devices than storing audio files in the EAS device or providing links to streaming audio (assuming a source(s) for the streaming audio is operated independently from EAS Participants)? Could the installed base of EAS device models in use today be updated for either approach? Is streaming template audio from an external source an efficient and more cost-effective alternative to storing audio files on the EAS device? Would transport latencies create significant delays in completing these streaming sessions?
- 28. Simulcasting. Simulcasting configurations typically involve a single program stream that is transmitted from one source with remote (repeater) stations rebroadcasting 100% of that program stream. In these configurations, the EAS alert is overlaid onto the program stream at the originating

⁶⁸ See, e.g., Sign-Speak, Inc., "Real Time ASL Translation," https://www.sign-speak.com (last visited Dec. 13, 2023) (using AI to develop avatars that interpret ASL to English and English to ASL).

⁶⁹ ECIG Implementation Guide, § 3.7. The TTS audio is generated from the enhanced text provided in the CAP instructions. *See id.* In the template case, the TTS audio would be generated from the template script.

source facilities – the remote (repeater) stations do not have EAS devices at their locations. Because the geographic areas in which the remote (repeater) stations are located often are not the same as the geographic area of the originating source of the program stream (wherein EAS is overlaid onto the program stream) – meaning EAS alerts issued for the originating source's county may not apply to the county in which the remote (repeater) station is located – the originating source typically only relays national alerts, and statewide alerts (if the originating source and remote (repeater) stations are all located in the same state). Given that multilingual alerting is highly location-specific, would it be useful to limit use of multilingual templates in these configurations to those issued nationally or on a statewide basis (where all counties are affected), assuming any template would ever be issued on such a basis?

- 29. Changes to Standards and Equipment. We seek comment on whether changes would be required to any IPAWS instructions or the ECIG Implementation Guide to facilitate the template alert processing approach described above. We also seek comment on what changes would be required to EAS devices and downstream or upstream processing systems to implement the template alert approach described above. What would be the costs of any such changes?
- 30. Integrating Consumer Choice Into Multilingual Template Alerting. As indicated above, EAS Participant transmissions typically are not processable by the end user devices that receive them. Thus, the template alert processing approach relies on alert originators and EAS Participants, who presumably both know the public segments they serve, to choose the template language version that is appropriate to their audiences. We seek comment on whether and how template alerting in EAS could be augmented, in transmission or presentation over EAS Participant platforms, to provide end users with an ability to choose which template version language they experience individually. Could template alerts be transmitted on secondary channels and processed in accordance with end user preferences by compatible end user devices? Could cable systems transmit the template version(s) of an alert on force tuned channels and provide subscribers the choice of which version they would be force-tuned to in the set-top-box Graphic User Interface menus?

B. Composition of Template Alerts

31. In the *WEA Accessibility Order*, we directed the Public Safety and Homeland Security Bureau (Bureau) to propose and seek comment on a set of emergency alert messages for support via multilingual templates. As part of this process, the Commission directed the Bureau to seek comment on which messages are most commonly used by alerting authorities, as well as those which may be most time-sensitive and thus critical for immediate comprehension. We seek comment on whether we should follow this approach for identifying which messages should be made available as EAS template alerts, and whether the Bureau should establish a process for ongoing updates to such templates as appropriate. We also seek comment on whether the WEA templates should be used, in whole or in part, in EAS, if feasible.

C. Assessing the Benefits and Costs

32. Benefits. As a general matter, improving access to alert information by people whose primary language is not English provides significant public safety benefits and is in the public interest. Our general findings concerning the benefits of improving accessibility to WEA alerts in different languages in the WEA Accessibility Order, which focused on template alert issuance to commercial mobile service end users, seems relevant in this regard. In that item, the Commission found significant benefits arising from enhancing language support through a template-based approach. The enhanced language support makes alerts comprehensible for some language communities for the first time, which helps to keep these vulnerable communities safer during disasters, and incentivizes emergency managers

⁷⁰ WEA Accessibility Order, para. 21.

⁷¹ WEA Accessibility Order, para. 21.

to become authorized by FEMA to distribute CAP-formatted alerts using IPAWS.⁷²

- 33. These general benefits are not specific to CMS architecture, and it seems reasonable to expect similar benefits in the EAS context. While the multilingual benefits of template alerting in EAS may to some extent hinge upon EAS Participants agreeing to transmit template alert languages other than their programmed primary language, the template processing approach described above where the alert content and processing options are fully transparent to the EAS Participant and installed in their EAS devices for automated processing should make it easier for EAS Participants to confidently do so. To the extent that the template alert processing approach described above increases participation by EAS Participants and emergency managers in getting multilingual template alerts out to the communities that might otherwise not have any understandable warning of an impending emergency situation, there will be an incremental increase in lives saved, injuries prevented, and reductions in the cost of deploying first responders. Such result is expected because the template alerts proposed above would, for those alerts suitable to be relayed in pre-scripted template form, be prepared by the Commission, thus, removing the burden of translation from alert originators.
- 34. The expected benefits from the template alert processing approach described above include prevention of property damages, injuries, and loss of life. These benefits are expected to affect over 26 million people in the United States who report that they do not speak English very well or at all. A significant percentage of this group of individuals would benefit from accessing alerts in their primary language. Those who communicate in non-English languages are at risk of not understanding alert information that could otherwise prevent property damage, injuries, and deaths. Reduced confusion and increased trust in EAS through the enhanced language support also increase the likelihood that the public will follow alert instructions in the future.
- 35. While it is difficult to quantify the precise dollar value of improvements to the public's safety, life, and health, ⁷⁴ making EAS alerts more accessible to people that might not otherwise understand their warning information or have alternate sources of such information in their primary language, would likely yield significant benefits to preservation of life and property in the event of such emergencies. ⁷⁵ There is great value in improved public safety for reducing the risk of avoidable deaths and injuries by better informing the public of pending emergencies. ⁷⁶ We seek comment on our assessment of the benefits and the potential for measuring those benefits.
 - 36. Costs. Without knowing precisely what changes would be required in EAS devices and

⁷³ U.S. Census Bureau, American Community Survey: Selected Social Characteristics in the United States, Table DP02, "Language Spoken at Home: Speak English less than 'very well'" (2022: ACS 1-Year Estimates Data Profiles), https://data.census.gov/cedsci/table?q=DP02 (last visited Dec. 12, 2023).

⁷² WEA Accessibility Order, para. 58.

⁷⁴ Resilient Networks, Report and Order, FCC 22-50, 2022 FCC Lexis 2186 at *54, para. 46 (2022) ("it would be impossible to quantify the precise financial value of these health and safety benefits") (Resilient Networks Order); Amendment of the Commission's Rules Regarding the Emergency Alert System, PS Docket 15-94, Report and Order, 33 FCC Rcd 7086, 7100, para. 34 (2018) (False Alerts Order) ("To provide an estimate of the value of the benefits of the rules we adopt today, we turn to the overall value of the EAS. Scholars agree that public safety in the United States has improved over the years because its early warning systems for recurring hazards such as lightning, floods, storms and heat waves are continually improving.").

⁷⁵ Amendment of the Commission's Rules Regarding the Emergency Alert System, PS Dockets 15-91, 15-94, Report and Order, 36 FCC Rcd 10694, 10701, para. 14 (2021) (improving alert messages improves the public's response to alerts, which will result in the public taking action faster in times of emergency, thus saving lives) (*NDAA Order*).

⁷⁶ Amendment of Part 11 of the Commission's Rules Regarding Emergency Alert System, PS Docket No. 15-94, Report and Order, 32 FCC Rcd 10812, 10825-26, para. 26 (2017) (discussing the value of improved public safety from alerting improvements) (*Blue Alerts Order*).

potentially involved in interconnected transmission processing systems, it is difficult to estimate the total costs of implementing template alert processing in EAS. We observe, however, that the Commission has implemented changes to EAS involving software changes to EAS devices, which seem relevant to estimating the costs of implementing multilingual templates. Most recently, in the *Comprehensible Alerts Order*, which adopted EAS header code changes as well as visual crawl script for the NPT code, the Commission estimated costs in line with the costs for EAS header code changes adopted in the 2016 *Weather Alerts Order* and the 2017 *Blue Alerts Order*. The Commission concluded in the *Weather Alerts Order* and the *Comprehensible Alerts Order* that the only costs to EAS Participants for installing the new event codes and EAS software, respectively, were the labor cost of downloading the software patches onto their devices and associated clerical work (the record indicated that the patches themselves would be provided free of charge). The *Blue Alerts Order* followed the same approach but also included relevant associated testing.

37. Assuming that template alert processing can be implemented via a regular software update patch that EAS Participants install in the normal course of business, 82 we would expect the costs of software installation, labor, and testing to install the patch likely would be similar to the industry-wide estimate for mandatory software updates in the *Comprehensible Alerts Order*. 83 The Commission estimates that software labor industry-wide would not exceed 5 hours of labor multiplied by 25,519 estimated broadcasters and cable head-ends, plus 1 SDARS provider and 2 DBS providers, 84 for a total of

⁷⁷ Amendment of Part 11 of the Commission's Rules Regarding Emergency Alert System, PS Docket No. 15-94, Report and Order, 37 FCC Rcd 11867, para. 59 (2022) (Comprehensible Alerts Order).

⁷⁸ Amendment of Part 11 of the Commission's Rules Regarding Emergency Alert System, PS Docket No. 15-94, Report and Order, 31 FCC Rcd 7915 (2016) (Weather Alerts Order).

⁷⁹ See Blue Alerts Order, 32 FCC Rcd at 10824, para. 25.

⁸⁰ Weather Alerts Order, 31 FCC Rcd at 7924, para. 23; Comprehensible Alerts Order, 37 FCC Rcd 11867, para. 59.

⁸¹ Blue Alerts Order, 32 FCC Rcd at 10824, para. 25.

⁸² See Comprehensible Alerts Order, 32 FCC Rcd 11867-68, para. 61 (finding with respect to the header code changes adopted in that item that "most EAS Participants will have sufficient time to avoid [] labor cost by downloading the required software changes together with their general software upgrades... most of which can be bundled with 'normally scheduled software releases' and performed at the same time...").

⁸³ Comprehensible Alerts Order, 32 FCC Rcd 11867-68, paras. 60-62 (estimating \$5 million in mandatory EAS Participant software costs industry-wide, including installation and testing costs).

⁸⁴ The figure 25,519 includes 21,380 broadcaster stations and 4,139 headends. With two direct broadcast satellite (DBS) providers and one satellite digital audio radio service (SDARS) provider, the total number of providers is 25,522. See Communications Marketplace Report, FCC 22-103, 2022 Communications Marketplace Report, at 128-29, paras. 186-87 (Dec. 30, 2022) (stating that Sirius XM is the only SDARS provider and DIRECTV and DISH Network are the only two DBS providers); Broadcast Station Totals as of December 31, 2023, Public Notice, DA 24-17 (rel. Jan. 8, 2024) (December 2023 Broadcast Station Totals PN), https://docs.fcc.gov/public/attachments/DA-24-17A1.pdf (stating that there were 33,428 broadcast stations in the United States as of Dec. 31, 2023, from which we subtract 12,048 FM translators and boosters, and VHF and UHF translators that do not originate programming, for a total number of affected broadcast stations of 21,392); S&P Global Market Intelligence, S&P Capital IQ Pro, U.S. MediaCensus, Operator Subscribers by Geography (last visited May 26, 2022) (stating that there were 4,139 cable headends in the United States). Per staff estimates, there are 3.915 unique Physical System Identifiers representing the approximate number of headends in the FCC Cable Operations & Licensing System. See FCC, Cable Operations & Licensing System (COALS) PSIDs and Carriage Election Notice (CEN) Contact, https://fccprod.servicenowservices.com/coals?id=coals_search_psid (last visited Dec. 11, 2023). Using the PSID figures, the estimated number of DBS providers, SDARS providers, broadcasters and cable head-ends is 25,295.

127,610 hours of software-related labor, a figure which is likely an over-estimate. ⁸⁵ Using an average hourly wage of \$60.07 for software and web developers, programmers, and testers, ⁸⁶ and factoring in a 45% markup of hourly wage for benefits, ⁸⁷ and a 5.5% inflation adjustment between 2022 and 2023, ⁸⁸ we estimate an hourly wage of \$91.89. ⁸⁹ Using these estimates of 5 hours labor time at a cost of \$91.89 per hour would result in a total labor cost to each EAS Participant for installing a software patch that configures the template mechanism in the EAS device of approximately \$460, and an aggregate labor cost of approximately \$12 million. ⁹⁰ We seek comment on whether this estimate is too high or too low, and we ask commenters to provide data supporting either our cost estimate or a different estimate.

- 38. We seek comment on the extent to which the changes required to implement the template alert processing approach described above could be implemented in a routine software update patch. Would a patch specific to the template mechanism (and not folded into a routine software update patch) be required, and at what cost to EAS Participants? How long would it take to develop, test and release such a patch? If existing EAS device models required adding memory capacity to enable in-device template audio file storage, could adding such memory be done in the field, and at what cost to EAS Participants? If TTS were used to generate the template audio from the script, would inclusion of the necessary TTS functionality require additional memory and at what cost? Are there any existing EAS device models in use in which implementing the template alert processing approach described above could not be effected using a software patch and instead would have to be replaced? What costs would be associated with such replacements? If changes would be required to transmission systems upstream or downstream from the EAS device, how long would those take to develop and implement, and at what cost to EAS Participants?⁹¹ Would changes be required to commercially available alert originating systems and software (e.g., Everbridge)? Are there more efficient and less burdensome alternatives that might achieve the same results?
- 39. Based on the foregoing, assuming the template alert processing approach described above can be implemented via a routine software update patch, and other costs (including memory requirements

⁸⁵ Comprehensible Alerts Order, 32 FCC Rcd 11867-68, para. 60. See also Blue Alerts Order, 32 FCC Rcd 10824, para. 25; Weather Alerts Order, 31 FCC Rcd 7924, para. 23; supra note 72 (observing that using current PSID figures to determine the number of cable head-ends lowers the total number of entities affected to 25,307, which would result in an aggregate total of 126,535 hours of software-related labor).

⁸⁶ Press Release, Bureau of Labor Statistics, National employment and wage data from the Occupational Employment Statistics survey by occupation, May 2022, at https://www.bls.gov/news.release/ocwage.t01.htm.

⁸⁷ According to the Bureau of Labor Statistics, as of March 2023, civilian wages and salaries averaged \$29.70/hour and benefits averaged \$13.36/hour. Total compensation therefore averaged \$29.70 + \$13.36 = \$43.07. See Press Release, Bureaus of Labor Statistics, Employer Costs for Employee Compensation – March 2023 (June 16, 2023), https://www.bls.gov/news.release/pdf/eccc.pdf. Using these figures, benefits constitute a markup of \$13.36/\$29.70 = 45%. We therefore markup wages by 45% to account for benefits.

⁸⁸ See Federal Reserve Bank of St. Louis, Average Hourly Earnings of All Employees, Total Private (CES0500000003], https://fred.stlouisfed.org/series/CES0500000003 (last visited Oct. 10, 2023) (Inflation Adjustment) (showing that according to Bureau of Labor Statistics data the average hourly private wage increased by 5.5% between May 2022 and August 2023).

⁸⁹ Note that $$91.89 = $60.07 \times 145\% \times 105.5\%$.

 $^{^{90}}$ We calculate the total cost as follows: $$91.89/hour \times 5 hours \times 25,522 broadcasters$, cable headends, and DBS and SDARS providers = \$11,726,083, which we round to \$12 million.

⁹¹ In the *Comprehensible Alerts Order*, for example, the Commission found that the changes it adopted could require set-top box replacements in some cases, but estimated that such costs would not exceed \$4.4 million. *See Comprehensible Alerts Order* at *81-85, para. 62 (*citing 2015 Sixth Report and Order*, 30 FCC Rcd at 6530, fn. 66; *Review of the Emergency Alert System*, EB Docket 04-296, Notice of Proposed Rulemaking, 29 FCC Rcd 8123, 8146, para. 46 (2014) (*Operational Issues NPRM*)).

or changes to upstream/downstream transmission) are relatively low, we would estimate that the total costs would be approximately \$12 million. If accurate, that would in our view be far outweighed by the overall benefits to public safety and the public interest described above. We recognize, however, that there potentially could be costs associated with adding memory capacity, firmware and/or other modifications to EAS devices, and changes potentially could be required to downstream transmission processing systems. It is also conceivable that there are some older EAS devices in use today that could not be updated or modified to enable template alert processing and transmission. We seek comment on all of these factors. We observe that the record in this proceeding will clarify these issues, and we will revise our cost assessments accordingly. We seek comment on our estimates and any implementation costs we have not expressly contemplated above. If commenters disagree with our assessments, we seek alternative estimates with supporting data and information.

D. Implementation

- 40. *ECIG Implementation Guide*. In the event that the template alert processing approach described above would necessitate revisions within or an amendment to the ECIG Implementation Guide to facilitate such processing, and how long would it take to effect any such changes?
- 41. *EAS Devices*. Assuming multilingual template alert text and audio can be integrated in EAS devices, and processing instructions can be implemented in such devices via software updates alone, how long would manufacturers require to develop, test and release such updates (and at what cost to EAS Participants)? If storage of template visual script and audio files in installed EAS device models were to require addition of memory capacity via firmware update or some other mechanism, how long would it take EAS Participants to acquire and install such memory capacity (and at what cost)? How much time likely would be required to implement a stored (audio and visual script) template alert mechanism?
- 42. *EAS Participant Transmission Systems*. Would implementing the template alert processing approach present any unique challenges or require modifications with respect to EAS Participant transmission processing systems upstream or downstream from the EAS device that would impact the time required for implementation?⁹²

IV. PROCEDURAL MATTERS

- 43. Paperwork Reduction Act. This Notice of Proposed Rulemaking may contain proposed new or modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on any information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, we seek specific comment on how we might "further reduce the information collection burden for small business concerns with fewer than 25 employees." 93
- 44. Regulatory Flexibility Act. The Regulatory Flexibility Act of 1980, as amended (RFA),⁹⁴ requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a

Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

⁹² For example, in the *Comprehensive Alerts Order*, the Commission provided cable operators with additional time relative to all other EAS Participant categories to comply with the required change to the text associated with the EAN event code due to software-related complexities associated with implementing such text in cable system processing equipment downstream from the EAS device. *See Comprehensive Alerts Order*, at paras. 48-53.

⁹³ 44 U.S.C. § 3506(c)(4).

^{94 5} U.S.C. § 603. The RFA, 5 U.S.C. §§ 601–612, was amended by the Small Business Regulatory Enforcement

substantial number of small entities."⁹⁵ Accordingly, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning potential rule and policy changes contained in this *Notice of Proposed Rulemaking*. The IRFA is contained in Appendix B. Written public comments are requested on the IRFA. Comments must be filed by the deadlines for comments on the *Notice* indicated on the first page of this document and must have a separate and distinct heading designating them as responses to the IRFA.

- 45. Providing Accountability Through Transparency Act. Consistent with the Providing Accountability Through Transparency Act, Public Law 118-9, a summary of this document will be available on https://www.fcc.gov/proposed-rulemakings.
- Ex Parte Presentations Permit-But-Disclose. The proceeding this Notice of Proposed Rulemaking initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules. 96 Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.
- 47. Comment Filing Instructions. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).
 - Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: https://www.fcc.gov/ecfs.
 - Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.
 - Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
 - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701. U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street NE, Washington, D.C., 20554.

04

⁹⁵ 5 U.S.C. § 605(b).

⁹⁶ 47 CFR § 1.1200 et seq.

- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or
 messenger delivered filings. This is a temporary measure taken to help protect the health and
 safety of individuals, and to mitigate the transmission of COVID-19. See FCC Announces
 Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public
 Notice, 35 FCC Red 2788 (OMD 2020), https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy.
- 48. *People with Disabilities*. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to <u>fcc504@fcc.gov</u> or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice).
- 49. *Additional Information*. For additional information on this proceeding, contact David Munson, Attorney Advisor, Cybersecurity and Communications Reliability Division, Public Safety and Homeland Security Bureau at David.Munson@fcc.gov or 202-418-2921, or George Donato, Associate Division Chief, Cybersecurity and Communications Reliability Division, Public Safety and Homeland Security Bureau, at George.Donato@fcc.gov or 202-418-0729.

V. ORDERING CLAUSES

- 50. Accordingly, IT IS ORDERED, pursuant to sections 1, 2, 4(i), 4(n), 303, 335, 624(g), 706 and 713 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 154(n), 303, 335, 544(g), 606, 613,that this *Notice of Proposed Rulemaking* IS ADOPTED.
- 51. IT IS FURTHER ORDERED that, pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments on the *Notice of Proposed Rulemaking* on or before 30 days after publication in the Federal Register, and reply comments on or before 60 days after publication in the Federal Register.
- 52. IT IS FURTHER ORDERED that the Office of the Secretary, Reference Information Center, SHALL SEND a copy of this *Notice of Proposed Rulemaking*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch Secretary

APPENDIX A

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Notice of Proposed Rulemaking (*Notice*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Notice*. The Commission will send a copy of the *Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *Notice* and IRFA (or summaries thereof) will be published in the Federal Register.³

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

- 2. In the *Notice*, the Commission seeks comment on the efficacy and feasibility of implementing a process for distributing template-based EAS messages in the 13 most commonly spoken non-English languages (according to U.S. Census data) Spanish, Chinese, Tagalog, Vietnamese, Arabic, French, Korean, Russian, Haitian Creole, German, Hindi, Portuguese, and Italian as well as in English. The Commission proposes an approach for processing multilingual template EAS alerts that is fairly consistent with existing procedures for processing EAS alerts, and requests comment on specific relevant alerting elements, such as template-specific event codes, template script-based visual messages, and template audio. In a departure from existing procedures, however, the Commission also proposes that EAS Participants would be required to transmit the template alerts in the non-English or English template language corresponds to the programming content of their channel(s); EAS Participants that transmit on a nationwide basis) would transmit the template visual and audio messages on each channel in the language that corresponds to the programming content carried on such channel.
- 3. The Commission also evaluates and seeks comment on whether for EAS templates alerts, it should follow a similar approach to that followed in the *WEA Accessibility Order* where the Commission directed the Public Safety and Homeland Security Bureau (Bureau) to propose and seek comment on a set of emergency alert messages for support via templates in English, the 13 most commonly spoken languages in the U.S., and to seek comment on the most common messages used by alerting authorities, as well as the most time-sensitive messages which are likely critical for immediate comprehension.⁴ Lastly, the Commission explores and requests comment on implementation related matters, including revising or amending the ECIG Implementation Guide, time requirements for manufacturers to develop, test and release any necessary software updates, and whether a template-based alert processing model would present any unique challenges or require modification of EAS Participant transmission processing systems upstream or downstream from the EAS device that would affect implementation timeframes.

B. Legal Basis

4. The proposed action is authorized pursuant to: sections 1, 2, 4(i), 4(n), 303, 335, 624(g), 706 and 713 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 154(n),

¹ 5 U.S.C. § 603. The RFA, 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).

² 5 U.S.C. § 603(a).

³ See id.

⁴ Wireless Emergency Alerts, Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System, PS Docket Nos. 15-91 and 15-94, Third Report and Order, FCC 23-88 (2023) (WEA Accessibility Order).

303, 335, 544(g), 606, and 613.

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

- 5. 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 proposed rules, if adopted.⁵ 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.⁷ 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.⁸
- 6. There are small entities among the current EAS Participants, which include 17,521 radio broadcasters and 8,133 other participants, including television broadcasters, cable operators, satellite operators, and other businesses in the industry segments discussed below, that could be impacted by the changes proposed in today's *Notice*.9
- 7. Small Businesses, Small Organizations, and Small Governmental Jurisdictions. Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe, at the outset, three broad groups of small entities that could be directly affected herein. ¹⁰ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration's (SBA) Office of Advocacy, in general a small business is an independent business having fewer than 500 employees. ¹¹ These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses. ¹²
- 8. Next, the type of small entity described as a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field." The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations. ¹⁴ Nationwide, for tax year 2020, there

⁵ See id.

⁶ See id.

⁷ See id (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

⁸ 15 U.S.C. § 632.

⁹ See Report: August 11, 2021 Nationwide EAS Test, Federal Communications Commission Public Safety and Homeland Security Bureau, p. 7 (December 2021).

¹⁰ See 5 U.S.C. § 601(3)-(6).

¹¹ See SBA, Office of Advocacy, "What's New With Small Business?," https://advocacy.sba.gov/wpcontent/uploads/2023/03/Whats-New-Infographic-March-2023-508c.pdf. (Mar. 2023)

¹² *Id*.

¹³ See 5 U.S.C. § 601(4).

¹⁴ The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number of small organizations in this small entity description. See Annual Electronic Filing Requirement for Small Exempt

were approximately 447,689 small exempt organizations in the U.S. reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.¹⁵

9. Finally, the small entity described as a "small governmental jurisdiction" is defined generally as "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand." U.S. Census Bureau data from the 2017 Census of Governments¹⁷ indicate there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States. Of this number, there were 36,931 general purpose governments (county, municipal, and town or township²0) with populations of less than 50,000 and 12,040 special purpose governments—independent school districts²1 with enrollment populations of less than 50,000.²2 Accordingly, based on the 2017 U.S. Census of Governments data, we

Organizations – Form 990-N (e-Postcard), "Who must file," https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard. We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

¹⁵ See Exempt Organizations Business Master File Extract (EO BMF), "CSV Files by Region," https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf. The IRS Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for businesses for the tax year 2020 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (58,577), Region 2-Mid-Atlantic and Great Lakes Areas (175,272), and Region 3-Gulf Coast and Pacific Coast Areas (213,840) that includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico.

¹⁶ See 5 U.S.C. § 601(5).

¹⁷ See 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with "2" and "7". See also Census of Governments, https://www.census.gov/programs-surveys/cog/about.html.

¹⁸ See U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02], https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). See also tbl.2. CG1700ORG02 Table Notes Local Governments by Type and State 2017.

¹⁹ See id. at tbl.5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05], https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html. There were 2,105 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

²⁰ See id. at tbl.6. Subcounty General-Purpose Governments by Population-Size Group and State: 2017 [CG1700ORG06], https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html. There were 18,729 municipal and 16,097 town and township governments with populations less than 50,000.

²¹ See id. at tbl.10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2017 [CG1700ORG10], https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html. There were 12,040 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2017.

²² While the special purpose governments category also includes local special district governments, the 2017 Census of Governments data does not provide data aggregated based on population size for the special purpose governments category. Therefore, only data from independent school districts is included in the special purpose governments category.

estimate that at least 48,971 entities fall into the category of "small governmental jurisdictions." ²³

- 10. *Radio Stations*. This industry is comprised of "establishments primarily engaged in broadcasting aural programs by radio to the public."²⁴ Programming may originate in their own studio, from an affiliated network, or from external sources.²⁵ The SBA small business size standard for this industry classifies firms having \$41.5 million or less in annual receipts as small.²⁶ U.S. Census Bureau data for 2017 show that 2,963 firms operated in this industry during that year.²⁷ Of this number, 1,879 firms operated with revenue of less than \$25 million per year.²⁸ Based on this data and the SBA's small business size standard, we estimate a majority of such entities are small entities.
- 11. The Commission estimates that as of September 30, 2023, there were 4,452 licensed commercial AM radio stations and 6,670 licensed commercial FM radio stations, for a combined total of 11,122 commercial radio stations.²⁹ Of this total, 11,120 stations (or 99.98 %) had revenues of \$41.5 million or less in 2022, according to Commission staff review of the BIA Kelsey Inc. Media Access Pro Database (BIA) on October 4, 2023, and therefore these licensees qualify as small entities under the SBA definition. In addition, the Commission estimates that as of September 30, 2023, there were 4,263 licensed noncommercial (NCE) FM radio stations, 1,978 low power FM (LPFM) stations, and 8,928 FM translators and boosters.³⁰ The Commission however does not compile, and otherwise does not have access to financial information for these radio stations that would permit it to determine how many of these stations qualify as small entities under the SBA small business size standard. Nevertheless, given the SBA's large annual receipts threshold for this industry and the nature of radio station licensees, we presume that all of these entities qualify as small entities under the above SBA small business size standard.

We note, however, that in assessing whether a business concern qualifies as "small" under the

²³ This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,931) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations tbls. 5, 6 & 10.

²⁴ See U.S. Census Bureau, 2017 NAICS Definition, "515112 Radio Stations," https://www.census.gov/naics/?input=515112&year=2017&details=515112.

²⁵ *Id*

²⁶ See 13 CFR § 121.201, NAICS Code 515112 (as of 10/1/22 NAICS Code 516110).

²⁷ See U.S. Census Bureau, 2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEREVFIRM, NAICS Code 515112, https://data.census.gov/cedsci/table?y=2017&n=515112&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false. We note that the US Census Bureau withheld publication of the number of firms that operated for the entire year.

²⁸ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We note that the U.S. Census Bureau withheld publication of the number of firms that operated with sales/value of shipments/revenue in the individual categories for less than \$100,000, and \$100,000 to \$249,999 to avoid disclosing data for individual companies (see Cell Notes for the sales/value of shipments/revenue in these categories). Therefore, the number of firms with revenue that meet the SBA size standard would be higher that noted herein. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, *see* https://www.census.gov/glossary/#term ReceiptsRevenueServices.

²⁹ Broadcast Station Totals as of September 30, 2023, Public Notice, DA 23-921 (rel. Oct. 3, 2023) (October 2023 Broadcast Station Totals PN), https://docs.fcc.gov/public/attachments/DA-23-921A1.pdf.

³⁰ *Id*.

above definition, business (control) affiliations³¹ must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, another element of the definition of "small business" requires that an entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific radio or television broadcast station is dominant in its field of operation. Accordingly, the estimate of small businesses to which the rules may apply does not exclude any radio or television station from the definition of a small business on this basis and is therefore possibly over-inclusive. An additional element of the definition of "small business" is that the entity must be independently owned and operated. Because it is difficult to assess these criteria in the context of media entities, the estimate of small businesses to which the rules may apply does not exclude any radio or television station from the definition of a small business on this basis and similarly may be over-inclusive.

FM Stations are classified in the industry for Radio Stations.³² The Radio Stations industry comprises establishments primarily engaged in broadcasting aural programs by radio to the public.³³ Programming may originate in their own studio, from an affiliated network, or from external sources.³⁴ The SBA small business size standard for this industry classifies firms having \$41.5 million or less in annual receipts as small.³⁵ U.S. Census Bureau data for 2017 show that 2,963 firms operated during that year.³⁶ Of that number, 1,879 firms operated with revenue of less than \$25 million per year.³⁷ Therefore, based on the SBA's size standard we conclude that the majority of FM Translator stations and Low Power FM Stations are small. Additionally, according to Commission data, as of September 30, 2023, there were 8,928 FM Translator Stations and 1,978 Low Power FM licensed broadcast stations.³⁸ The Commission however does not compile and otherwise does not have access to information on the revenue of these stations that would permit it to determine how many of the stations would qualify as small entities. For purposes of this regulatory flexibility analysis, we presume the majority of these stations are small entities.

https://data.census.gov/cedsci/table?y=2017&n=515112&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePrevie w=false. We note that the US Census Bureau withheld publication of the number of firms that operated for the entire year.

³¹ "[Business concerns] are affiliates of each other when one concern 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 § 21.103(a)(1).

³² See U.S. Census Bureau, 2017 NAICS Definition, "515112 Radio Stations," https://www.census.gov/naics/?input=515112&year=2017&details=515112.

³³ *Id*.

³⁴ *Id*.

³⁵ See 13 CFR § 121.201, NAICS Code 515112 (as of 10/1/22 NAICS Code 516110).

³⁶ See U.S. Census Bureau, 2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEREVFIRM, NAICS Code 515112,

³⁷ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We note that the U.S. Census Bureau withheld publication of the number of firms that operated with sales/value of shipments/revenue in the individual categories for less than \$100,000, and \$100,000 to \$249,999 to avoid disclosing data for individual companies (see Cell Notes for the sales/value of shipments/revenue in these categories). Therefore, the number of firms with annual receipts that meet the SBA size standard would be higher that noted herein. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, *see* https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

³⁸ Broadcast Station Totals as of September 30, 2023, Public Notice, DA 23-921 (rel. Oct. 3, 2023) (October 2023 Broadcast Station Totals PN), https://docs.fcc.gov/public/attachments/DA-23-921A1.pdf.

- 13. *Television Broadcasting*. This industry is comprised of "establishments primarily engaged in broadcasting images together with sound."³⁹ These establishments operate television broadcast studios and facilities for the programming and transmission of programs to the public.⁴⁰ 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. Programming may originate in their own studio, from an affiliated network, or from external sources. The SBA small business size standard for this industry classifies businesses having \$41.5 million or less in annual receipts as small.⁴¹ 2017 U.S. Census Bureau data indicate that 744 firms in this industry operated for the entire year.⁴² Of that number, 657 firms had revenue of less than \$25,000,000.⁴³ Based on this data we estimate that the majority of television broadcasters are small entities under the SBA small business size standard.
- 14. As of September 30, 2023, there were 1,377 licensed commercial television stations. 44 Of this total, 1,258 stations (or 91.4%) had revenues of \$41.5 million or less in 2022, according to Commission staff review of the BIA Kelsey Inc. Media Access Pro Television Database (BIA) on October 4, 2023, and therefore these licensees qualify as small entities under the SBA definition. In addition, the Commission estimates as of September 30, 2023, there were 383 licensed noncommercial educational (NCE) television stations, 380 Class A TV stations, 1,889 LPTV stations and 3,127 TV translator stations. 45 The Commission, however, does not compile and otherwise does not have access to financial information for these television broadcast stations that would permit it to determine how many of these stations qualify as small entities under the SBA small business size standard. Nevertheless, given the SBA's large annual receipts threshold for this industry and the nature of these television station licensees, we presume that all of these entities qualify as small entities under the above SBA small business size standard.
- 15. Cable System Operators (Telecom Act Standard). The Communications Act of 1934, as amended, contains a size standard for a "small cable operator," which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than one 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."⁴⁶ For purposes of the Telecom Act Standard, the Commission determined that a cable system operator that serves fewer than 677,000 subscribers, either directly or through affiliates, will meet the definition of a small cable operator based on the cable subscriber count established in a 2001 Public

³⁹ See U.S. Census Bureau, 2017 NAICS Definition, "515120 Television Broadcasting," https://www.census.gov/naics/?input=515120&year=2017&details=515120.

⁴⁰ *Id*.

⁴¹ See 13 CFR § 121.201, NAICS Code 515120 (as of 10/1/22 NAICS Code 516120).

⁴² See U.S. Census Bureau, 2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEREVFIRM, NAICS Code 515120, https://data.census.gov/cedsci/table?y=2017&n=515120&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false.

⁴³ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, *see* https://www.census.gov/glossary/#term ReceiptsRevenueServices.

⁴⁴ Broadcast Station Totals as of September 30, 2023, Public Notice, DA 23-921 (rel. Oct. 3, 2023) (October 2023 Broadcast Station Totals PN), https://docs.fcc.gov/public/attachments/DA-23-921A1.pdf.

⁴⁵ *Id*.

⁴⁶ 47 U.S.C. § 543(m)(2).

Notice.⁴⁷ Based on industry data, only six cable system operators have more than 677,000 subscribers.⁴⁸ Accordingly, the Commission estimates that the majority of cable system operators are small under this size standard. We note however, that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million.⁴⁹ Therefore, 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. Cable Companies and Systems (Rate Regulation). The Commission has developed its own small business size standard 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. Based on industry data, there are about 420 cable companies in the U.S. 10 of these, only seven have more than 400,000 subscribers. In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers. Based on industry data, there are about 4,139 cable systems (headends) in the U.S. 14 of these, about 639 have more than 15,000 subscribers. Accordingly, the Commission estimates that the majority of cable companies and cable systems are small.
- 17. Satellite Telecommunications. This industry 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." Satellite telecommunications service providers include satellite and earth station operators. The SBA small business size standard for this industry classifies a business

⁴⁷ FCC Announces New Subscriber Count for the Definition of Small Cable Operator, Public Notice, 16 FCC Rcd 2225 (CSB 2001) (2001 Subscriber Count PN). In this Public Notice, the Commission determined that there were approximately 67.7 million cable subscribers in the United States at that time using the most reliable source publicly available. Id. We recognize that the number of cable subscribers changed since then and that the Commission has recently estimated the number of cable subscribers to traditional and telco cable operators to be approximately 49.8 million. See Communications Marketplace Report, GN Docket No. 22-203, 2022 WL 18110553 at 80, para. 218, Fig. II.E.1. (2022) (2022 Communications Marketplace Report). However, because the Commission has not issued a public notice subsequent to the 2001 Subscriber Count PN, the Commission still relies on the subscriber count threshold established by the 2001 Subscriber Count PN for purposes of this rule. See 47 CFR § 76.901(e)(1).

⁴⁸ S&P Global Market Intelligence, S&P Capital IQ Pro, *Top Cable MSOs 12/21Q* (last visited May 26, 2022); S&P Global Market Intelligence, Multichannel Video Subscriptions, Top 10 (April 2022).

⁴⁹ 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(e) of the Commission's rules. *See* 47 CFR § 76.910(b).

⁵⁰ 47 CFR § 76.901(d).

⁵¹ S&P Global Market Intelligence, S&P Capital IQ Pro, U.S. MediaCensus, *Operator Subscribers by Geography* (last visited May 26, 2022).

⁵² S&P Global Market Intelligence, S&P Capital IQ Pro, *Top Cable MSOs 12/21Q* (last visited May 26, 2022); S&P Global Market Intelligence, Multichannel Video Subscriptions, Top 10 (April 2022).

⁵³ 47 CFR § 76.901(c).

⁵⁴ S&P Global Market Intelligence, S&P Capital IQ Pro, U.S. MediaCensus, *Operator Subscribers by Geography* (last visited May 26, 2022).

⁵⁵ S&P Global Market Intelligence, S&P Capital IQ Pro, *Top Cable MSOs 12/21Q* (last visited May 26, 2022).

⁵⁶ See U.S. Census Bureau, 2017 NAICS Definition, "517410 Satellite Telecommunications," https://www.census.gov/naics/?input=517410&year=2017&details=517410.

with \$38.5 million or less in annual receipts as small.⁵⁷ U.S. Census Bureau data for 2017 show that 275 firms in this industry operated for the entire year.⁵⁸ Of this number, 242 firms had revenue of less than \$25 million.⁵⁹ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 65 providers that reported they were engaged in the provision of satellite telecommunications services.⁶⁰ Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees.⁶¹ Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

- 18. *All Other Telecommunications*. This industry is comprised of 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. Providers of Internet services (e.g. dial-up ISPs) or Voice over Internet Protocol (VoIP) services, via client-supplied telecommunications connections are also included in this industry. The SBA small business size standard for this industry classifies firms with annual receipts of \$35 million or less as small. U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year. Of those firms, 1,039 had revenue of less than \$25 million. Based on this data, the Commission estimates that the majority of "All Other Telecommunications" firms can be considered small.
- 19. Broadband Radio Service and Educational Broadband Service. Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel

⁵⁷ See 13 CFR § 121.201, NAICS Code 517410.

⁵⁸ See U.S. Census Bureau, 2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEREVFIRM, NAICS Code 517410, https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false.

⁵⁹ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, *see* https://www.census.gov/glossary/#term ReceiptsRevenueServices.

⁶⁰ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf.

⁶¹ *Id*.

⁶² See U.S. Census Bureau, 2017 NAICS Definition, "517919 All Other Telecommunications," https://www.census.gov/naics/?input=517919&year=2017&details=517919.

⁶³ *Id*.

⁶⁴ *Id*.

⁶⁵ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

⁶⁶ See U.S. Census Bureau, 2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEREVFIRM, NAICS Code 517919, https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false.

⁶⁷ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, *see* https://www.census.gov/glossary/#term ReceiptsRevenueServices.

Multipoint Distribution Service (MMDS) systems, and "wireless cable," fransmit 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)). Wireless cable operators that use spectrum in the BRS often supplemented with leased channels from the EBS, provide a competitive alternative to wired cable and other multichannel video programming distributors. Wireless cable programming to subscribers resembles cable television, but instead of coaxial cable, wireless cable uses microwave channels. To

- 20. In light of the use of wireless frequencies by BRS and EBS services, the closest industry with a SBA small business size standard applicable to these services is Wireless Telecommunications Carriers (*except* Satellite).⁷¹ The SBA small business size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁷² U.S. Census Bureau data for 2017 show that there were 2,893 firms that operated in this industry for the entire year.⁷³ Of this number, 2,837 firms employed fewer than 250 employees.⁷⁴ Thus under the SBA size standard, the Commission estimates that a majority of licensees in this industry can be considered small.
- 21. According to Commission data as December 2021, there were approximately 5,869 active BRS and EBS licenses. The Commission's small business size standards with respect to BRS involves eligibility for bidding credits and installment payments in the auction of licenses for these services. For the auction of BRS licenses, the Commission adopted criteria for three groups of small businesses. A very small business is an entity that, together with its affiliates and controlling interests, has average annual gross revenues exceed \$3 million and did not exceed \$15 million for the preceding three years, a small business is an entity that, together with its affiliates and controlling interests, has average gross revenues exceed \$15 million and did not exceed \$40 million for the preceding three years,

⁶⁸ The use of the term "wireless cable" does not imply that it constitutes cable television for statutory or regulatory purposes.

⁶⁹ See 47 CFR § 27.4; see also Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

⁷⁰ Generally, a wireless cable system may be described as a microwave station transmitting on a combination of BRS and EBS channels to numerous receivers with antennas, such as single-family residences, apartment complexes, hotels, educational institutions, business entities and governmental offices. The range of the transmission depends upon the transmitter power, the type of receiving antenna and the existence of a line-of-sight path between the transmitter or signal booster and the receiving antenna.

⁷¹ See U.S. Census Bureau, 2017 NAICS Definition, "517312 Wireless Telecommunications Carriers (except Satellite)," https://www.census.gov/naics/?input=517312&year=2017&details=517312.

⁷² See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁷³ See U.S. Census Bureau, 2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEEMPFIRM, NAICS Code 517312, https://data.census.gov/cedsci/table?y=2017&n=517312&tid=ECNSIZE2017.EC1700SIZEEMPFIRM&hidePreview=false.

⁷⁴ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁷⁵ Based on a FCC Universal Licensing System search on December 10, 2021, https://wireless2.fcc.gov/UlsApp/UlsSearch/searchAdvanced.jsp. Search parameters: Service Group = All, "Match only the following radio service(s)", Radio Service =BR, ED; Authorization Type = All; Status = Active. We note that the number of active licenses does not equate to the number of licensees. A licensee can have one or more licenses.

and an entrepreneur is an entity that, together with its affiliates and controlling interests, has average gross revenues not exceeding \$3 million for the preceding three years. ⁷⁶ Of the ten winning bidders for BRS licenses, two bidders claiming the small business status won 4 licenses, one bidder claiming the very small business status won three licenses and two bidders claiming entrepreneur status won six licenses. ⁷⁷ One of the winning bidders claiming a small business status classification in the BRS license auction has an active licenses as of December 2021. ⁷⁸

- 22. The Commission's small business size standards for EBS define a small business as an entity that, together with its affiliates, its controlling interests and the affiliates of its controlling interests, has average gross revenues that are not more than \$55 million for the preceding five (5) years, and a very small business is an entity that, together with its affiliates, its controlling interests and the affiliates of its controlling interests, has average gross revenues that are not more than \$20 million for the preceding five (5) years. In frequency bands where licenses were subject to auction, the Commission notes that as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Further, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated. Additionally, since the Commission does not collect data on the number of employees for licensees providing these services, at this time we are not able to estimate the number of licensees with active licenses that would qualify as small under the SBA's small business size standard.
- 23. Direct Broadcast Satellite ("DBS") Service. DBS service 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 included in the Wired Telecommunications Carriers industry which 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. Transmission facilities may be based on a single technology or 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. By exception, establishments providing satellite television

⁷⁶ See 47 CFR § 27.1218(a).

⁷⁷ See Federal Communications Commission, Economics and Analytics, Auctions, Auction 86: Broadband Radio Service, Summary, Reports, All Bidders, https://www.fcc.gov/sites/default/files/wireless/auctions/86/charts/86bidder.xls.

⁷⁸ Based on a FCC Universal Licensing System search on December 10, 2021, https://wireless2.fcc.gov/UlsApp/UlsSearch/searchAdvanced.jsp. Search parameters: Service Group = All, "Match only the following radio service(s)", Radio Service =BR; Authorization Type = All; Status = Active. We note that the number of active licenses does not equate to the number of licensees. A licensee can have one or more licenses.

⁷⁹ See 47 CFR § 27.1219(a).

⁸⁰ See U.S. Census Bureau, 2017 NAICS Definition, "517311 Wired Telecommunications Carriers," https://www.census.gov/naics/?input=517311&year=2017&details=517311.

⁸¹ *Id*.

⁸² See id. Included in this industry 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).

distribution services using facilities and infrastructure that they operate are included in this industry.⁸³

- 24. The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small. 4 U.S. Census Bureau data for 2017 show that 3,054 firms operated in this industry for the entire year. 5 Of this number, 2,964 firms operated with fewer than 250 employees. 6 Based on this data, the majority of firms in this industry can be considered small under the SBA small business size standard. According to Commission data however, only two entities provide DBS service DIRECTV (owned by AT&T) and DISH Network, which require a great deal of capital for operation. 5 DIRECTV and DISH Network both exceed the SBA size standard for classification as a small business. Therefore, we must conclude based on internally developed Commission data, in general DBS service is provided only by large firms.
- 25. Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment.⁸⁸ Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.⁸⁹ The SBA small business size standard for this industry classifies businesses having 1,250 employees or less as small.⁹⁰ U.S. Census Bureau data for 2017 show that there were 656 firms in this industry that operated for the entire year.⁹¹ Of this number, 624 firms had fewer than 250 employees.⁹² Thus, under the SBA size standard, the majority of firms in this industry can be considered small.

⁸³ *Id*.

⁸⁴ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁸⁵ See U.S. Census Bureau, 2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEEMPFIRM, NAICS Code 517311, https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFIRM&hidePreview=false

⁸⁶ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁸⁷ See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Eighteenth Report, Table III.A.5, 32 FCC Rcd 568, 595 (Jan. 17, 2017).

⁸⁸ See U.S. Census Bureau, 2017 NAICS Definition, "334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing," https://www.census.gov/naics/?input=334220&vear=2017&details=334220.

⁸⁹ *Id*.

⁹⁰ See 13 CFR § 121.201, NAICS Code 334220.

⁹¹ See U.S. Census Bureau, 2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEEMPFIRM, NAICS Code 334220, https://data.census.gov/cedsci/table?y=2017&n=334220&tid=ECNSIZE2017.EC1700SIZEEMPFIRM&hidePreview=false

⁹²*Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

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

- 26. The proposed rule changes in the *Notice*, if adopted, will impose new or modified reporting, recordkeeping or other compliance obligations on certain small, as well as other, entities required to distribute EAS alerts to the public (i.e., "EAS Participants"), and entities that manufacture EAS equipment. The changes likely would require EAS participants to acquire and/or update software, or modify equipment. Specifically, the Commission's proposals could require development and installation in existing EAS equipment Text-to-Speech (TTS) functionalities, audio files, video files, text files and additional memory capacity, displaying EAS messages in a secondary language when requested by an alert originator, using predefined and installed text, audio and video files, that likely would require EAS equipment manufacturers to develop software updates to implement such changes in deployed EAS equipment and EAS equipment in production. EAS Participants would have to acquire, and install such software updates in their EAS devices to enable the operational changes described above.
- 27. Without knowing precisely what changes would be required in EAS devices and potentially involved in interconnected transmission processing systems, it is difficult to estimate the total costs of implementing a template alert processing approach in EAS. However, based on the cost analyses discussed in the *Notice*, which expects the costs to implement a template-based alerting system model to be similar to the mandatory software updates costs discussed in the *Comprehensive Alerts Order*, the Commission estimates the total costs for implementing the template alert processing approach discussed in the *Notice* would be approximately \$12 million.⁹³ This estimate assumes that template alert processing approach described above can be implemented via a regular software update patch that EAS Participants install in the normal course of business, and is based upon the costs of software installation, labor, and testing required to install the patch developed in the prior proceedings involving similar actions. The estimated \$12 million cost includes five hours of software labor time industry-wide, which was multiplied by the 25,519 estimated broadcasters and cable head-ends, plus 2 DBS and 1 SDARS providers, resulting in 127,610 hours of software-related labor time.⁹⁴ The hourly wage was calculated using an average

⁹³ Amendment of Part 11 of the Commission's Rules Regarding Emergency Alert System, PS Docket No. 15-94, Report and Order, 37 FCC Rcd 11867, para. 59 (2022) (Comprehensible Alerts Order).

⁹⁴ The figure 25,519 includes 21,380 broadcaster stations and 4,139 headends. With two direct broadcast satellite (DBS) providers and one satellite digital audio radio service (SDARS) provider, the total number of providers is 25,522. See Communications Marketplace Report, FCC 22-103, 2022 Communications Marketplace Report, at 128-29, paras. 186-87 (Dec. 30, 2022) (stating that Sirius XM is the only SDARS provider and DIRECTV and DISH Network are the only two DBS providers); Broadcast Station Totals as of December 31, 2023, Public Notice, DA 24-17 (rel. Jan. 8, 2024) (December 2023 Broadcast Station Totals PN). https://docs.fcc.gov/public/attachments/DA-24-17A1.pdf (stating that there were 33,428 broadcast stations in the United States as of Dec. 31, 2023, from which we subtract 12,048 FM translators and boosters, and VHF and UHF translators that do not originate programming, for a total number of affected broadcast stations of 21,392); S&P Global Market Intelligence, S&P Capital IQ Pro, U.S. MediaCensus, Operator Subscribers by Geography (last visited May 26, 2022) (stating that there were 4,139 cable headends in the United States). (Per staff estimates, there are 3,915 unique Physical System Identifiers representing the approximate number of headends in the FCC Cable Operations & Licensing System. See FCC, Cable Operations & Licensing System (COALS) PSIDs and Carriage Election Notice (CEN) Contact, https://fccprod.servicenowservices.com/coals?id=coals_search_psid(last visited Dec. 11, 2023). (Using the PSID figures, the estimated number of DBS providers, SDARS providers, broadcasters and cable head-ends is 25,295.) This approach is consistent with prior EAS rule change implemented via software updates. See, e.g., Comprehensible Alerts Order, 32 FCC Rcd 11867-68, para, 60. See also Amendment of Part 11 of the Commission's Rules Regarding Emergency Alert System, PS Docket No. 15-94, Report and Order, 32 FCC Rcd 10812, 10824, para. 25 (2017) (Blue Alerts Order); Amendment of Part 11 of the Commission's Rules Regarding Emergency Alert System, PS Docket No. 15-94, Report and Order, 31 FCC Rcd 7915, 7924, para. 23 (2016) (Weather Alerts Order).

hourly wage of \$60.07 for software and web developers, programmers, and testers, ⁹⁵ and factoring in a 45% markup of hourly wage for benefits, ⁹⁶ and a 5.5% inflation adjustment between 2022 and 2023, ⁹⁷ resulting in an hourly wage of \$91.89. ⁹⁸ Based on the estimate of 5 hours labor time at a cost of \$91.89 per hour (which we round up to \$92 per hour), the total estimated labor cost for each EAS Participant to install a software patch that configures the template mechanism in the EAS device is \$460, and the aggregate labor cost of approximately \$12 million. ⁹⁹ In addition to the costs accounted for in our estimate, the Commission is mindful that small and other entities may incur other costs to add memory capacity and/or firmware to EAS devices, for downstream transmission processing system changes that may be required, and costs associated with older EAS devices currently in use that may not be able to be updated, or modified to incorporate a template-based alert processing model. Thus, our cost estimate may need to be adjusted.

28. To help the Commission more fully evaluate the cost of compliance for small entities if we were to adopt the proposed rule changes in the *Notice*, the Commission requested comments on the cost implications and cost estimates to implement these proposals, and asked whether there are more efficient and less burdensome alternatives that might achieve the same results, including alternatives specific to smaller entities. At this time the Commission is not currently in a position to determine whether, if adopted, the proposed changes will require small entities to hire attorneys, engineers, consultants, or other professionals to comply. Since small entities have had to implement similar types of changes in prior proceedings, we do not foresee a compliance obligation for these entities to implement a template-based alert processing model will impose a significant burden. However, the Commission expects the information we receive in comments including cost and benefit analyses, to help us identify and evaluate relevant matters for small entities, including compliance costs and other burdens that may result if the changes discussed in the *Notice* involving implementation of a template-based alert processing model were adopted.

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

29. 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 such small entities; (3) the use of performance, rather than design, standards; and (4) and exemption from

⁹⁵ Economic News Release, Bureau of Labor Statistics, National employment and wage data from the Occupational Employment Statistics survey by occupation, May 2022, at https://www.bls.gov/news.release/ocwage.t01.htm.

⁹⁶ According to the Bureau of Labor Statistics, as of March 2023, civilian wages and salaries averaged \$29.70/hour and benefits averaged \$13.36/hour. Total compensation therefore averaged \$29.70 + \$13.36 = \$43.07. See Press Release, Bureaus of Labor Statistics, Employer Costs for Employee Compensation – March 2023 (June 16, 2023), https://www.bls.gov/news.release/pdf/ecec.pdf. Using these figures, benefits constitute a markup of \$13.36/\$29.70 = 45%. We therefore markup wages by 45% to account for benefits.

⁹⁷ See Federal Reserve Bank of St. Louis, Average Hourly Earnings of All Employees, Total Private (CES0500000003], https://fred.stlouisfed.org/series/CES0500000003 (last visited Oct. 10, 2023) (Inflation Adjustment) (showing that according to Bureau of Labor Statistics data the average hourly private wage increased by 5.5% between May 2022 and August 2023).

⁹⁸ Note that $$91.89 = $60.07 \times 145\% \times 105.5\%$.

 $^{^{99}}$ 25,522 entities × 5 hours × \$91.89/hour = \$11,726,083, which we rounded to \$12 million.

coverage of the rule, or any part thereof, for such small entities."100

- In the *Notice*, the Commission's proposals on implementing multilingual template-based alerts in EAS are designed to minimize economic impacts for small entities. The multilingual template approach would entail installing pre-scripted "template" text files in up to 13 non-English languages, and English, along with matching audio files (or possibly URL links to remotely stored audio files or streaming audio), depending upon the EAS Participant's programming content. EAS Participants would be required to transmit template alerts in the language of their programming content, thus, if the only programming content offered by the EAS Participant is in English, that EAS Participant would need only install the English language script and audio file for each template alert adopted; an EAS Participant that offered multiple channels of programming content that included channels carrying programming content in, for example, English, Spanish, German and Creole would install the English, Spanish, German and Creole language scripts and audio files for each template alert adopted. The Commission expects that the operational, and EAS device changes required to implement the template system would entail installing a software update of the kind that is routinely installed by EAS Participants in the normal course of business, which is a another cost saving measure for small entities. The Commission also seeks comment on whether streaming template audio from an external source where the template messages would be produced by the Commission, would be a more efficient mechanism for generating the audio message. The template scripts and audio files would be produced by the Commission; small businesses would not be subject to the costs associated with translating the templates and instead would install pre-made templates via software update.
- 31. The Commission also sought comment on whether template alerts should be transmitted to the public consistent with the procedures in the ECIG Implementation Guide, and considered, if operationally and technically feasible, whether increasing the existing 2-minute limit for template alerts to accommodate multilingual alert combinations would be a sensible approach to facilitate multilingual alerting. Other template alert transmission alternatives considered by the Commission were: (1) whether to require small and other EAS Participants to transmit templates *only* in the language that corresponds to the language of the programming content of their channel(s), as a way of reducing the potential programming interruption; and (2) whether, where an EAS Participant's programming content is not in one of the proposed 13 non-English template languages, or English, the English language template script and audio should be transmitted on that channel.
- 32. Having data on the various issues the Commission has raised and requested comment on in the *Notice* relating to the technical feasibility, costs, benefits and the potential impact of any resulting EAS rule changes, particularly information specific to smaller entities, will assist with the Commission's evaluation of the economic impact on small entities, and help to determine if any rule changes are adopted, how to minimize any significant economic for small entities and identify any potential alternatives not already considered. The Commission expects to more fully consider the economic impact and alternatives for small entities following the review of comments and reply comments filed in response to the Notice. Moreover, the Commission's evaluation of the comments will shape the final alternatives it considers, the final conclusions it reaches, and the actions it ultimately takes in this proceeding to minimize any significant economic impact that may occur on small entities.
 - F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules
 - 33. None.

35

¹⁰⁰ 5 U.S.C. § 603(c)(1)-(4).