

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Accessible Emergency Information, and Apparatus)
Requirements for Emergency Information and)
Video Description: Implementation of the) MB Docket No. 12-107
Twenty-First Century Communications and)
Video Accessibility Act of 2010)

**JOINT PETITION FOR EXTENSION OF WAIVER OF THE
AMERICAN COUNCIL OF THE BLIND, THE AMERICAN FOUNDATION FOR THE BLIND, AND THE
NATIONAL ASSOCIATION OF BROADCASTERS**

I. Introduction and Summary

Pursuant to 47 C.F.R. §§ 1.3 and 14.5, the American Council of the Blind (ACB),¹ the American Foundation for the Blind (AFB),² and the National Association of Broadcasters (NAB)³ (collectively, Petitioners) respectfully request an extension of the Commission’s existing waiver of the requirement that broadcasters aurally describe visual but non-textual emergency information.⁴ Petitioners continue to support the aim of the Twenty-First Century

¹ The American Council of the Blind is a leading national nonprofit organization that represents the interests of blind and visually impaired people throughout the United States, with tens of thousands of members from across the country who belong to more than 70 state and special interest affiliates.

² The American Foundation for the Blind removes barriers, creates solutions, and expands possibilities so people with vision loss can achieve their full potential.

³ NAB is a nonprofit trade association that advocates on behalf of local radio and television stations and broadcast networks before Congress, the Federal Communications Commission and other federal agencies, and the courts.

⁴ 47 C.F.R. § 79.2(b)(2)(ii); *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010, Video Description: Implementation of Twenty-First Century Communications and Video Accessibility Act of 2010, Petitions for Waiver*, MB Docket Nos. 1-107 and 11-43, Memorandum Opinion and Order, 30 FCC Rcd 5012 (2015) (2015 Waiver Order); *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of*

Communications and Video Accessibility Act of 2010 to enhance the ability of individuals who are blind or visually impaired, or deaf or hard of hearing, to access video programming.⁵ Television broadcasters have fulfilled this commitment by implementing relevant best practices,⁶ coordinating with the Commission on educational outreach and surpassing minimum requirements and deadlines for improving programming access,⁷ among other measures. Broadcasters take pride in their efforts to provide accessible news, entertainment and emergency information to Americans who are blind or visually impaired.

Unfortunately, Petitioners remain unable to identify a workable solution to the compliance obligations of Section 79.2(b)(2)(ii) despite the 18-month period of exploration and collaboration provided by the current waiver.⁸ Petitioners have worked diligently with both internal and external potential developers of a solution, but unfortunately, no technical solution exists for aurally describing dynamic visual images in emergency crawls that can be integrated into the current broadcasting system. Developers remain stymied by the problem of how to generate an audible crawl when the software used to automatically create dynamic images, unlike text-based information, do not contain text files that can be

2010, MB Docket No. 12-107, Memorandum Opinion and Order, 31 FCC Rcd 12540 (2016) (2016 Waiver Extension Order).

⁵ Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260, 124 Stat. 2751 (2010) (CVAA); H.R. Rep. No. 111-563, 111th Cong., 2d Sess. at 19 (2010); S. Rep. No. 111-386, 111th Cong., 2d Sess., at 1, (2010); 47 C.F.R. § 79.3.

⁶ 47 C.F.R. § 79.1(k) (Closed Captioning of Televised Video Programming Best Practices).

⁷ *Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Report to Congress, 29 FCC Rcd 8011, 8019 (2014) (noting that television stations frequently exceed the required threshold for the hours of programming that must be video described).

⁸ 2016 Waiver Extension Order, 31 FCC Rcd at 12544; *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, MB Docket No. 12-107, Joint Petition for Extension of Limited Waiver (Sep. 2, 2016) (2016 Joint Waiver Extension Petition).

converted into speech. Petitioners thus request extension of the current 18-month waiver of this obligation, which expires on May 26, 2018, for an additional five-year period.

This approach will allow time for industry to transition from the current broadcasting system to technologies with greater potential for integrating a technical solution that will enable broadcasters to aurally describe visual emergency information. A further extension would also be consistent with a recently approved recommendation of the Commission's Disability Advisory Committee (DAC), which called for an extension of the current waiver for a period of five years.⁹ Finally, notwithstanding a further extension, broadcasters, accessibility advocates and other stakeholders will continue to work toward the development of a technical solution that is applicable to current broadcast technology.

II. Background

The CVAA requires that emergency information broadcast on television must be accessible to individuals who are blind or visually impaired.¹⁰ Broadcasters are required to aurally describe visual emergency information in a manner that conveys the critical details concerning an emergency. To fulfill this requirement for text-based emergency information that is aired during non-news programming, such as in a crawl, the Commission mandated the use of a secondary audio stream (SAP) to distribute the information aurally.¹¹ The Commission clarified that this obligation also applied to visual information, such as radar

⁹ *Recommendation of the Disability Advisory Committee, Best Practices for Graphical Emergency Alerts*, (adopted Feb. 28, 2018) (DAC Recommendation), https://transition.fcc.gov/Daily_Releases/Daily_Business/2018/db0316/DOC-349762A1.pdf.

¹⁰ 47 U.S.C. § 613(g)(2).

¹¹ *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010, Video Description: Implementation of Twenty-First Century Communications and Video Accessibility Act of 2010*, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd 4871 (2013).

maps and other moving graphics.¹² The original effective date for this requirement was May 26, 2015.

Subsequently, the Commission granted two limited temporary waivers of this obligation regarding visual information, given the substantial technical hurdles to broadcasters' compliance.¹³ Unlike text-based information, the software used to automatically create dynamic images does not contain text files that can be converted into speech, and in turn, used to create an audible crawl.¹⁴ And despite our best efforts to work with all known potential developers of a solution to this problem, a viable technical solution remained unavailable, making it impossible for broadcasters to comply with this obligation by the appointed deadlines.¹⁵ We noted that, absent a waiver, broadcasters may have been forced to remove maps and other graphic images from their news alerts, to avoid the risk of Commission enforcement. Petitioners also demonstrated that waiving this obligation would serve the public interest because compliance would have been unduly burdensome and no reasonable alternative existed.¹⁶

The Commission agreed, finding good cause to waive the requirement until May 26, 2018.¹⁷ The Commission acknowledged the challenges to creating a technical solution, and

¹² *Id.* at 4880-81.

¹³ 2015 Waiver Order, 30 FCC Rcd at 5012 (granting waiver to November 26, 2016); 2016 Waiver Extension Order, 31 FCC Rcd at 12542 (granting extension to May 26, 2018).

¹⁴ 2016 Joint Waiver Extension Petition at 4.

¹⁵ *Id.* at 5. The Commission conditioned the extension on a requirement that Petitioners submit a status report on efforts to develop a technical solution to the Media Bureau and Consumer and Governmental Affairs Bureaus by November 22, 2017. *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010, Video Description: Implementation of Twenty-First Century Communications and Video Accessibility Act of 2010*, Status Report, MB Docket No. 12-107 (Nov. 22, 2017) (2017 Status Report).

¹⁶ *Id.* at 6-7.

¹⁷ 2016 Waiver Extension Order, 31 FCC Rcd at 12544.

stated that an extension would allow Petitioners to continue working toward a long-term, automated solution, which it deemed preferable to a manual solution that would be unduly burdensome and complex.¹⁸ The Commission also stated that the emergency information presented in radar maps and other moving images may be duplicative of the information conveyed in an accompanying crawl that is aurally described on the SAP channel, limiting the number of instances where describing the visual image is necessary.¹⁹ Petitioners had explained that broadcasters typically provide maps to improve clarity, not to convey separate information about an emergency.²⁰ Finally, the Commission noted that a further extension would allow the DAC time to consider the issue.²¹

III. A Long-Term Waiver of the Audible Crawl Rule is Justified and Would Serve the Public Interest

Since the Commission granted the current waiver, Petitioners have faithfully worked toward the development of a technical solution that would enable broadcasters to aurally describe visual emergency information aired during non-news programming. Internally, we have engaged senior engineers, television group executives and other station staff who are responsible for weather information and captioning services. Externally, we have reached out to the major vendors of accessibility services and weather information, including the Weather Company. However, all known potential developers of a solution remain thwarted by the problem of automatically creating descriptions for dynamic images that are produced by software that does not contain text files that can be converted into speech. And none of

¹⁸ *Id.* at 12544.

¹⁹ *Id.*

²⁰ 2016 Joint Waiver Extension Petition at 5.

²¹ 2016 Waiver Extension Order, 31 FCC Rcd at 12543.

these parties can point to any technical solution that may be applied in the near term in the current broadcasting system.

The Commission also tasked the DAC with considering this issue.²² During the past year, the DAC Video Programming Committee spent considerable time exploring possible approaches. As part of this effort, the Committee was briefed by the Director of Technology and Operations for a local network affiliate station, who described the process for producing emergency crawls. The Committee also heard from the leader of a technology start-up firm that provides services to the blind through the Google Glass platform and works on technology at the cross-section of artificial intelligence (AI) and accessibility.

ACB provided additional analysis and research into possible solutions, engaging leading software and hardware developers of accessible media content and AI frameworks for the sensing and description of visual content. This effort has confirmed open source software frameworks currently under development by research institutions and tech companies. As described in the 2017 Status Report, the University of California at Berkeley has developed one such platform that allows for image recognition to occur by taking scannable images and finding comparable images stored in the cloud, creating a knowable positive identification of the current image and enabling tagging across a wide network of fixed and mobile computers.²³ This process allows for platforms to learn on their own, expanding the universe of tagged images in the cloud through crowd-sourcing. Companies including Facebook, Microsoft and Apple already use such an AI-based approach for static images in some of their systems and services.²⁴

²² Disability Advisory Committee Charter, https://apps.fcc.gov/edocs_public/attachmatch/DOC-343689A1.pdf.

²³ 2017 Status Report at 6.

²⁴ *Id.* at 7.

However, while such assistive technologies are readily available for fixed images, the scanning of multiple captured images taken from a live, dynamic video feed and sequencing them with more detailed descriptions has not yet been fully realized. Such an approach relies on significant amounts of data storage in the cloud, high bandwidth for fast processing, and low latency for fast response times, not yet sufficiently available in the existing broadcasting system. Moreover, no system currently exists for tagging and placing live images into a script of descriptive text that could then pass through a text-to-speech engine, as used in the current broadcasting system. Although observers are optimistic that a proof of concept for an application programming interface (API) that takes in live video and provides real-time aural description could be created at some point, current broadcasting systems are not capable of overlaying such an API.

That said, Petitioners understand that future generations of broadcast technology, such as ATSC 3.0 may be able to deploy applications capable of describing graphic video content, although implementation may not be possible in the foreseeable future. Even the application of existing web-based frameworks is still primitive, requiring years of data input capable of providing any reasonable degree of certainty that relevant emergency images could be adequately described.

Accordingly, Petitioners respectfully request a long-term extension of the current waiver of 47 C.F.R. § 79.2(b)(2)(ii) for an additional five years. Approval of Petitioners' request is warranted for several reasons. First, as discussed, no technology exists for automatically converting radar maps and other moving graphics into text, and in turn, audible crawls. Furthermore, no such technology is expected to be developed in the near-term that can be applied in the broadcasting system in use today. Broadcasters have encouraged potential developers of a solution to tackle the problem, but little progress has

been made to date. Broadcasters simply have no control over the creation of such a solution, and no way to ensure compliance by the current deadline of May 26, 2018.

While research efforts have demonstrated capabilities to develop AI frameworks able to decipher video images and create textual descriptions, such frameworks exist exclusively on complex machine learning networks that are incapable of being plugged into existing broadcast systems. There is no foreseeable pathway toward adopting such frameworks within existing broadcast settings that could reach scale over the next five years.

Second, as the Commission has previously noted, the critical details about an emergency that are conveyed by a radar map or other visual images are typically duplicative of the text in accompanying crawls, which are already aurally described.²⁵ Broadcasters nearly always display radar maps only to clarify or reinforce the verbal message being delivered, rather than to provide separate information.²⁶ The Commission thus found that, “if the critical information provided in radar maps is duplicative of the information provided in a crawl and merely provides additional clarity, no automated solution is necessary.”²⁷ Petitioners submit that further delaying the obligation to aurally describe non-textual information will not cause consumers harm while an automated solution is developed.

Third, broadcasters remain concerned that retaining the current deadline for compliance with the audible crawl rule will force local news teams to remove maps and other graphics from news alerts, rather than trying to implement complex workarounds to manually describe graphics during a breaking news moment.²⁸ The Commission addressed

²⁵ 2016 Waiver Extension Order, 31 FCC Rcd at 12544.

²⁶ Joint Comments of the Named State Broadcasters Association, MB Docket Nos. 12-107 and 11-43, at 4-5, (Apr. 13, 2015).

²⁷ 2016 Waiver Extension Order 31 FCC Rcd at 12544.

²⁸ Joint Comments of Meredith Corp., Nexstar Broadcasting Group, and Raycom Media, Inc., MB Docket Nos. 12-107 and 11-43, at 1, (Apr. 10, 2015).

this issue in the 2016 Waiver Extension Order, where it found that any such manual approach would be unduly burdensome and less preferable than an automated process.²⁹ In particular, a manual system would be impractical for smaller stations that lack adequate staffing.³⁰ Broadcasters do not want to deprive blind or visually impaired viewers of critical information, or any viewers for that matter, but without a reasonable measure of certainty, they will not risk Commission enforcement.³¹ Extending the waiver will allow television stations to continue to provide such maps and graphics, and exercise their best efforts to describe such information, until a solution may be implemented.

Finally, extending the audible crawl rule waiver would serve the public interest.³² The Commission may waive its rules for good cause,³³ which can be demonstrated by special circumstances that justify a deviation from a particular rule,³⁴ such as where compliance would be unduly burdensome or a waiver applicant has no reasonable alternative.³⁵ As Petitioners have previously explained, broadcasters are unable to comply with the current deadline to aurally described radar maps and other dynamic images aired during non-news programming because no technical solution exists to enable this function. Moreover, no reasonable alternatives to compliance exist because any manual-based approach would be unduly burdensome and impractical. Requiring broadcasters to comply with this obligation in two months, or in the foreseeable future for that matter, would be impossible without an effective technical solution.

²⁹ 2016 Waiver Extension Order, 31 FCC Rcd at 12543-44.

³⁰ *Id.* at 12543.

³¹ Comments of Entravision Communications Corp., MB Docket Nos. 12-107 and 11-43, at 2 (Apr. 13, 2015).

³² 2016 Joint Waiver Extension Petition at 7.

³³ 47 C.F.R. § 1.3.

³⁴ *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

³⁵ *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969).

Petitioners are further concerned that, absent a waiver of this obligation, efforts to measure compliance under the CVAA would create a distraction from the greater need for broadcasters to refine the description of content covered under 47 C.F.R. § 79.2(b)(2)(i), which requires that emergency information provided visually during a regularly scheduled newscast, or newscast that interrupts regular programming, be made accessible to individuals who are blind or visually impaired. Petitioners are committed to launching educational efforts to advise broadcasters how to improve in this area.³⁶ Extending the audible crawl rule waiver would serve the public interest by allowing broadcasters and consumer advocates to focus their attention and efforts toward developing best practices that meet the needs of audience members.

Petitioners respectfully request an extension of the current waiver of Section 79.2(b)(2)(ii) for an additional five years. Importantly, granting this request would coincide with the findings and recommendation of the DAC, which spent a significant amount of time examining this issue over the past year. The DAC's research and consideration culminated in an overwhelming majority vote in favor of extending this waiver by an additional five years at its public meeting on February 28, 2018, following a lengthy, vigorous debate. The DAC found that no clear technical solution exists for describing dynamic images in a timely, reliable, and accurate manner that may be deployed across existing broadcasting systems.³⁷ The DAC also could not identify any instances where the critical details about an emergency conveyed by a dynamic image were not captured in an accompanying, aurally described text

³⁶ To that end, Petitioners have already initiated efforts with consumer experts and other stakeholders to organize a webcast in the coming months that will advise broadcasters on how to describe emergency situations effectively for blind and visually impaired viewers.

³⁷ DAC Recommendation, Finding No. 6.

crawl.³⁸ Therefore, the DAC recommended that the Commission extend the current waiver for an additional five years, to allow stakeholders to continue working toward a solution applicable in emerging broadcast systems, and on best practices for broadcasters' descriptions of both static and dynamic images regarding emergency situations.³⁹

IV. Conclusion

For the foregoing reasons, we respectfully request an extension of the current waiver of Section 79.2(b)(2)(ii) of the rules requiring broadcasters to aurally describe visual but non-textual emergency information, for an additional five years. During this period, Petitioners will further collaborate to identify solutions for a more accessible future generation of broadcast systems, and work toward improving the accessible presentation of emergency information.

Respectfully submitted,

Anthony Stephens
American Council of the Blind
1703 N. Eauregard Street Suite 420
Alexandria, VA 22311
Phone: (202) 467-5081

Mark Richert, Esq.
American Foundation for the Blind
1660 L Street, NW Suite 513
Washington, DC 20036
Phone: (202) 469-6833

Rick Kaplan
Larry Walke
National Association of Broadcasters
1771 N Street N.W.
Washington, D.C. 20036
Phone: (202) 429-5430

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³⁸ *Id.* at Finding No. 7.

³⁹ *Id.* at Recommendation Nos. 1-3.