

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Closed Captioning of Video Programming:)	CG Docket No. 05-231
)	
Telecommunications for the Deaf and Hard of Hearing, Inc.)	PRM11CG
)	
Petition for Rulemaking)	

**NATIONAL ASSOCIATION OF
BROADCASTERS**

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EXECUTIVE SUMMARY

The National Association of Broadcasters (NAB) strongly supports increasing accessibility of broadcast content to all individuals, including those deaf and hard-of-hearing. For this reason, the industry is continuously investing in technology to improve captioning. Additionally, we are committed to implementing the quality best practices that the broadcasters and video programming providers and distributors proactively brought to the Commission to improve accessibility.

Because of strong leadership in Congress, the FCC, and the video industry, great progress has been made in video accessibility in recent years. Much of this progress flows from the atmosphere fostered by the FCC's efforts to provide balanced, realistic captioning rules. To this end, NAB applauds the FCC's effort in this proceeding to both develop a full record of the current state of captioning and reasonable rules to facilitate feasible solutions. Continuing to facilitate discussion and communication amongst stakeholders, not arbitrary regulation, is the best path to improve the quality of captioning.

As explained below, some of the technical proposals (delaying video feeds, requiring fade outs, etc.) suggested in this proceeding are more likely to harm than improve the viewer captioning experience. Because of technical problems, they will likely exacerbate latency issues. Worse yet, they would delay video delivery of potentially life-saving emergency information. NAB submits that the better approach is for the Commission to collaborate with stakeholders to work toward *correcting* synchronicity and completeness issues.

NAB opposes the proposed regulations for captioning formatting, including importing definitions for live and near-live from its IP Captioning Order into the televised environment. These definitions are overly restrictive, and unnecessarily intrude upon the ability of licensees to use commercially reasonable judgment to determine the timeframe and manner by which content can be edited and displayed to viewers. We ask that the Commission allow the best practices to take effect before attempting to further regulate the quality of captioning. As for the monitoring of equipment, as codified in the February 2014 *Quality Order*, broadcasters routinely monitor their equipment, and encoder outages are a rarity. Additional regulation is unnecessary.

NAB strongly believes that the Commission should maintain the existing captioning exemptions as they stand. Technology has not yet generally improved the methods for creating captions, and broadcasters are hard at work on automated solutions. The cost of captioning can be prohibitive and may discourage the airing of programming expressly covered by the exemptions, which provide strong public interest benefits. The Commission's justifications for the exemptions when they were originally created still apply. At this time, eliminating any of the exemptions would be premature.

Finally, the Commission should refrain from regulating emerging technologies, including the captioning of 3D and 4k programming. The Commission should not dictate how captions look on individual screens because CEA-708 provides consumers with complete control over advanced display features to fit individual preferences. Currently, there is no technology to transmit 3D or 4k signals via over-the-air broadcasting. There is little 3D television programming being produced, and technical standards do not exist. Regarding 4k, the technology is in the early stages of

development, and technical standards have not yet been developed. NAB is actively working with standards organizations to ensure that all consumers have access to captions.

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**COMMENTS OF
THE NATIONAL ASSOCIATION OF BROADCASTERS**

I. INTRODUCTION

The National Association of Broadcasters (NAB)¹ submits these comments in response to the Commission’s *Further Notice* in the above-captioned proceeding.²

Over sixteen years have passed since the FCC adopted closed captioning rules to implement Section 713 of the Communications Act, 47 U.S.C. § 613, dealing with Video Programming Accessibility. Consistent with the statute and its legislative history, the Commission established a timetable for increasing the amount of captioned programming on television.³ At that time the Commission also recognized that the

¹ NAB is a nonprofit trade association that advocates on behalf of local radio and television stations and broadcast networks before Congress, the FCC and other federal agencies, and the courts.

² Closed Captioning of Video Programming, Telecommunications for the Deaf and Hard of Hearing Inc., Petition for Rulemaking, Further Notice of Proposed Rulemaking, 29 FCC Rcd. 2221 (Feb. 2014) (*Further Notice*).

³ See H.R. Report 104-458, 104th Cong. 2nd Sess. (1995) at 182 (“Conference Report”). (“...the Commission shall establish reasonable timetables and exceptions for

rules sought to provide “a fair balance between the interests of persons with hearing disabilities and video programming interests.”⁴ Especially in light of the passage of the Twenty-First Century Communications and Video Accessibility Act (CVAA),⁵ and the recently-adopted closed caption quality standards,⁶ we urge the Commission to ensure that this careful balance is maintained.

Overall, great progress has been made in video accessibility since passage of the CVAA.⁷ Both at the FCC and throughout the television industry, there has been significant progress to implement the vision of the CVAA. Broadcasters understand the desire of persons with hearing disabilities to have full and accurate access to video programming. For this reason, the industry is continuously investing in technology to improve captioning. Additionally, we are committed to implementing the quality best practices that broadcasters, along with other video programming providers and

implementing this section. Such schedules should not be economically burdensome on program providers, distributors or the owners of such programs.”).

⁴ Closed Captioning and Video Description of Video Programming, *Order On Reconsideration*, MM Docket No. 95-176, 13 FCC Rcd. 19973, ¶ 15 (1998) (“*Reconsideration Order*”).

⁵ Pub. L. No. 111-260, 124 Stat. 2751 (2010) (as codified in various sections of Title 47 of the United States Code). The law was enacted on Oct. 8, 2010 (S. 3304, 111th Cong.). See also Amendment of Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-265, 124 Stat. 2795 (2010), also enacted on Oct. 8, 2010, to make technical corrections to the CVAA and the CVAA’s amendments to the Communications Act of 1934.

⁶ See *Further Notice*, ¶ 15.

⁷ Section 202(b) of the CVAA requires the FCC to implement regulations requiring closed captioning of video programming delivered using Internet Protocol (IP) that previously was published or exhibited on television with captions. Section 203 expands the number of devices that are required to be capable of decoding and displaying closed captioning, video description and emergency information.

distributors, proactively brought to the Commission, as a constructive solution to improve accessibility.⁸

NAB applauds the FCC's effort in this proceeding to both develop a full record of the current state of captioning and to create reasonable rules upon which all stakeholders can construct feasible solutions. NAB submits that continuing to facilitate discussion and communication amongst stakeholders is the best path to improve the quality of captioning. Ultimately, the global solution for captioning must come from new technologies and the FCC should focus on ways to promote improved captioning technology. Below we address the specific issues raised in the *Further Notice*.

II. THE COMMISSION'S PROPOSED TECHNICAL SOLUTIONS FOR LIVE CAPTIONING DELIVERY WILL NOT IMPROVE THE VIEWER EXPERIENCE

The Commission seeks comment on a number of "technical solutions" for improving the delivery of live captioning, including requiring advance delivery of audio; notifying the captioner that the audio feed will be ending; fading out the program to add seconds to the last scene; and allowing captions to be placed both during programming and during commercials.⁹ However, as detailed below, these "solutions" will not lead to improved captioning.

A. Requiring Delay of Real Time Video Feed Will Not Improve Captioning Quality

Intentionally requiring a delay of real-time video programming is not an acceptable technical solution for synchronicity or other quality issues associated with live-captioning. Particularly with respect to emergency information, such as the location of tornadoes, flash floods and hurricanes (where information is often supplemented with

⁸ See 47 C.F.R. § 79.1(k) (codification of the captioning best practices).

⁹ *Further Notice*, ¶¶ 131-132.

graphic information), every second matters.”¹⁰ Live video information, such as street-by-street visual storm tracking information, can be critical during times of emergencies. As this email to KLKN-TV in Lincoln, Nebraska in May of this year shows, delay of video could even be life-threatening:

-----Original Message-----

From: Gloria Roth

Sent: Monday, May 12, 2014 8:32 AM

To: weather@klkntv.com

Subject: Tornado damage

Thank you for helping to save my son's life last night! He was milking cows in the barn while watching your weather cast and saw that we were in the line of the storm. If he wouldn't have been watching, he would've been in the part of the barn that the tornado took. Thankfully, he was alert and took cover in the milking parlor just in time. He says he saw the tornado coming towards the barn right before it hit. If you want pictures, let me know how to send them.

Tornadoes and other severe weather emergencies do not follow television station or captioners' established timetables; they can occur at any time of the day or night.

Moreover, information provided during emergencies is accessible under the FCC's established rules.¹¹ In short, as a policy matter, requiring video delay is not in the public interest and could intrude on important newsroom judgments.

From a technical standpoint, dissecting the audio feed from the video stream for live-captioning will not ensure that the captions will be synchronized. On the contrary, it is more likely to exacerbate latency issues. While captions are derived from the program audio, the caption data is carried within the program video of a broadcast

¹⁰ See e.g., Emily Le Coz, *Tupelo Residents Say Weatherman Saved Their Lives*, Clarion Ledger (May 4, 2014), available at <http://www.clarionledger.com/story/news/2014/05/04/tupelo-residents-say-weatherman-saved-lives/8707515/>.

¹¹ See 47 C.F.R. § 79.2.

signal. And, because of differences in how digital video and digital audio are encoded, decoded and processed in a broadcast plant, keeping program audio and video synchronized is already difficult.¹² Intentionally delaying the video would cause the audio to get further out of sync with the video resulting, most likely, in the captions becoming even more out of sync with the video.

Even if stations implemented video delay, yet another problem is that the amount of delay in the live caption process is not fixed. It may vary based on the transmission time of the audio to the caption service provider, the speed of the real-time captioner and the transit time of the caption data back to the broadcaster's caption encoder. Broadcasters, at best, would only be able to guess at how many seconds to delay the signal. Thus, introducing delay in the video would add an additional variable in the video, audio and captioning processing that would most likely create more latency challenges than exist today.

Another technical issue created when the audio and video feeds are separated is the lack of any practical method to ensure proper caption placement if the audio and video are not contemporaneous. Placement is an "essential" component of quality captioning under the recent *Quality Order*.¹³

¹² See e.g., EE Design How-To-Audio-Video Synchronization, *available at* http://www.eetimes.com/document.asp?doc_id=1274841 (last visited July 7, 2014) (describing how each digital, audio, and video component in the chain, from production to reception, imposes degrees of unequal latency).

¹³ Closed Captioning of Video Programming, Telecommunications for the Deaf and Hard of Hearing Inc., Petition for Rulemaking, Report and Order, 29 FCC Rcd. 2221, ¶ 27 (Feb. 2014) (*Quality Order*) ("[w]e believe that *each* of these four components is *essential* to ensure that video programming is fully accessible to people who are deaf and hard of hearing" (emphasis added)).

Turning to practicalities of workflow, it is not feasible to advance audio and delay video in a live or near-live environment. This would also make it impractical to signal to a captioner that a programming is ending. For example, news production (whether nightly news or news magazines) is by its nature inherently fluid, and is designed to be responsive to breaking events and updated information. The timing from whence an anchor may be “throwing” from the desktop to packaged material, to a live scene, to commercial breaks is often not formalized; thus, it is not possible to “advance the audio” by a few seconds, because the concurrent video, and the breaks between programming and interstitials or commercials, has not yet been designated. The same is true when covering sports or other live events such as inaugurations, breaking national news, etc. For these reasons, a requirement to advance audio feeds will severely impair the ability to deliver timely and accurate news.

B. Fade Out Requirements Will Not Improve Captions And Will Create Consumer Confusion

Requiring video programmers to add a fade-out (or still shot) in video programming also would exacerbate synchronicity problems, and will not improve captioning quality.¹⁴ As discussed above, there is no uniformity to latency issues. Thus, requiring broadcast feeds to employ a “few second delay” on each end of programming, including advertisements, would mean that broadcast feeds with no latency issues would unnecessarily be dark for several seconds or minutes per hour. This is not insignificant.

Such a requirement would add both significant programming and advertiser costs. Setting aside inventory for “dark time,” during which no video would be able to be

¹⁴ *Further Notice*, ¶ 132.

displayed on a television, would potentially lead to a significant loss of programming and/or advertising revenue. Moreover, “black screens,” in which neither captioning nor video or audio were present would lead to significant consumer confusion and annoyance.¹⁵ In all likelihood, consumers will change channels if no video programming is present. This purported solution would be highly disruptive to the video marketplace. We therefore strongly urge the Commission to refrain from any requirement to employ a video fade.

C. Current Television Receivers Cannot Simultaneously Display Two Sets Of Captions

The Commission seeks additional information on technical solutions to minimize live caption “cut off,” including “allowing captions remaining at the end of a program’s audio to be placed in a location of the screen during the subsequent advertisement (or program) in a manner that does not overlap with the captions on that advertisement or program.”¹⁶ From a technical standpoint, two sets of captions cannot be displayed on today’s receivers. CEA-608 and 708 never contemplated that a decoder device would be required to decode more than one caption data stream at a time. There is no caption decoder device known to NAB in the marketplace today that could accomplish this. It would take a number of years to modify the CEA standards to require decoding and display of multiple caption streams and to get those new receivers into consumers’ hands.

In addition, there are numerous program workflow and distribution issues associated with making this approach work. Often a program and its interstitials

¹⁵ Further, such a requirement could pose technical difficulties for devices consumers rely heavily upon to watch video programming, such as Digital Video Recorders (DVRs).

¹⁶ *Further Notice*, ¶ 132.

(advertisements, promotions, etc.) do not originate from the same source. For example, a national network program might contain a locally inserted advertisement. Because the caption data is carried in the video, when video from the advertisement comes on the TV screen, the caption data from the previous program is no longer available. Currently, there is no practical way to consistently preserve and display captions from a previous program during transitions.

Rather than attempting to shoehorn interim solutions that cannot solve the underlying technical problems, NAB submits that the Commission should collaborate with industry to work toward *correcting* synchronicity and completeness issues. At the time of the negotiations for the best practices for captioning quality, NAB and NCTA pledged, on an annual basis, to sit down with all stakeholders to address numerous captioning issues, including the complex technical matters.¹⁷ We renew our pledge here. All parties must recognize that these issues are difficult and may require long term solutions. Broadcasters, however, are committed to addressing synchronicity issues to improve the viewer experience.

III. THE COMMISSION SHOULD NOT UNDULY BURDEN THE VIDEO PROGRAMMING INDUSTRY WITH OVERLY RESTRICTIVE CAPTIONING REQUIREMENTS

The Commission asks a series of questions about importing its definitions in the IP Captioning Order for live and near-live programming for purposes of televised programming, and also asks about establishing rules for requiring captions to be pre-

¹⁷ See Letter from Diane B. Burnstein, NCTA, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 05-231 (Feb. 6, 2014) (discussing that any concerns could be raised in the annual meeting industry has committed to sponsor).

recorded or re-fed.¹⁸ NAB opposes adoption of the proposed regulations for caption formatting. The definitions are overly restrictive and intrude on editorial discretion by unnecessarily dictating the method and timing by which captions are created.

While it is appropriate for parties that choose, as part of their quality best practices, to use best efforts to utilize pre-recorded captions where possible,¹⁹ it is entirely another matter for the Commission to require that a licensee determine (and then somehow justify through recordkeeping) whether it could have theoretically sent a program to be captioned at some time prior to airing.²⁰ Such a rule would restrict the commercially reasonable judgment of licensees to determine the timeframe and manner by which content can be both edited and displayed to its viewers. As precisely articulated in the video programmer best practices, which the Commission accepted and codified in the February 2014 *Quality Order*, there are numerous reasons why a program may be held until the program airs with live-captions, including:

- (1) a programmer's production is completed too close to initial air time to be captioned offline or may require editorial changes up to airtime (e.g., news content, reality shows),
- (2) a program is delivered late,
- (3) there are technical problems with the caption file;
- (4) last minute changes that must be made to the later network feeds (e.g., when shown in a later time zone) due to unforeseen circumstances,
- (5) there are proprietary or confidentially considerations, or
- (6) video programming networks or channels with a high proportion of live or topical time-sensitive programming, but also some pre-recorded programs, use real-time captioning for all content (including pre-recorded programs) to allow for immediate captioning of events or breaking news stories that interrupt scheduled programming. The video programmer will make reasonable efforts to employ live display captioning instead of real-time captioning for prerecorded programs if the complete program can be delivered to the caption service provider in sufficient time prior to airing. 47 C.F.R. § 79.1(k)(1)(C).

¹⁸ *Further Notice*, ¶¶ 134-35.

¹⁹ *See* 47 C.F.R. § 79.1(k)(1)(C).

²⁰ *Further Notice*, ¶ 134.

There are commercial considerations that cannot be eliminated by regulatory mandate. As one can see from the best practices, video programmers have affirmatively pledged to make reasonable efforts to utilize both pre-recorded captions, and in the case of live-captioning, make reasonable efforts to employ live display captioning where possible.

Arbitrary attempts to delineate between programming that is live or near-live, be it 2 or 24 hours, is not appropriate for live television. It may be that part of the program is received ahead of airing. It may be for purposes of live, breaking or updated news, not all pre-recorded programming (*e.g.*, a segment of a news magazine) makes it to air.

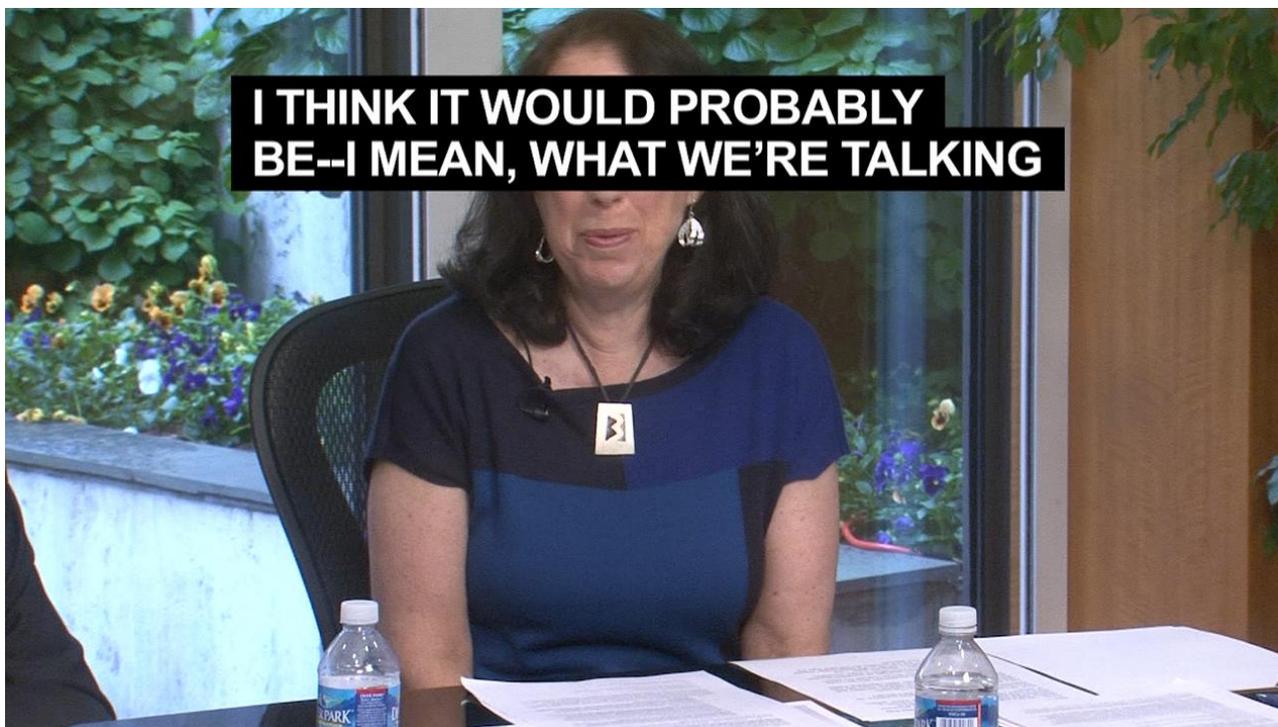
Importantly, for purposes of captioning synchronization, video programming distributors (VPDs) cannot readily send pre-recorded segments to be captioned ahead of the live-captioned segments. Often the pre-recorded segments are completed too close to air time to send the segment out for captioning. Also, there is no practical method for intermixing real-time caption data with pre-recorded caption files as a program airs, especially in the local broadcast station environment. This would require manual switching, on the fly, between inputs on a local station's caption encoder; such capability does not currently exist. Additionally, it is unclear what effect such a switch in the caption data stream would have on decoders and could likely lead to garbled captions appearing on consumers' TV receivers.

Moreover, VPDs cannot control the timing of return of captioned product from captioning vendors. We therefore strenuously disagree some commenters' theoretical assertion that because programming performed and recorded less than 24 for hours prior to airing *could* be captioned, it therefore should be required to be captioned in

significantly shorter timeframes, i.e., 1-2 hours.²¹ Such assertions are on their face wholly impractical in today's pre-recorded commercial captioning environment.

As NAB's own recent experience in securing captioning services demonstrated, timeframes must be both practical and flexible to allow programmers to correct for unforeseen issues. On April 28, 2014, NAB taped a 49 minute instructional webinar on the Commission's Enhanced Electronic Newsroom Technique (ENT) rules. The next day copy was provided to a major captioning vendor. Over a week passed, and many requests for the video, before NAB received the video back (with captions). We immediately reviewed the copy and noticed that due to the size of the font, the captions were obscuring the participants of the webinar (thereby not adhering to the quality tenant of placement as required by the Commission's February 2014 *Quality Order*). See 47 C.F.R. § 79.1(j)(2)(iv). Below is a screen shot of the original captions as provided to NAB:

²¹ *Further Notice*, ¶134.



NAB, like most broadcast facilities, has no ability to adjust or correct placement of captions, and therefore had to send the video file back to the captioners for resizing.²² Turnaround time was more than 24 hours. Thus, it is not unreasonable to infer that a similarly situated broadcast facility (e.g, a medium or small market station) requesting the captioning of a pre-recorded one hour program (e.g., a 44 minute public affairs program without commercials) from a large captioning vendor could also experience either a delay in original delivery or a delay due to caption file corrections.

This example shows the impracticality of prescribing unduly and unnecessarily restrictive definitions and timeframes for televised captions. We urge the Commission instead to (1) allow the quality best practices to take effect, and (2) allow sufficient time to pass for a comprehensive examination to determine whether all elements of the best

²² The caption file contained almost no spelling errors or omissions and there was no issue with synchronicity. The webinar was made available to television stations as part of an ongoing educational campaign on enhanced ENT.

practices have improved the quality of closed captioning before considering additional regulations.

Finally, the Commission should not impose any requirements for re-feeding of captions (or re-captioning requirements). Given the costs currently associated with captioning (generally \$100-120 per hour for real-time captioning and generally three times higher per hour for pre-recorded programming), any requirements to re-caption programs could be prohibitively expensive at this time. Collectively, the video programming industry is working with the captioning and technology industries to improve the quality of the viewer experience, including through voice recognition software, advances in IP technology, etc. However, until such time as automation in the workflow processes can be achieved, captioning is still highly labor-intensive, expensive and dependent on very small supply (around 500 of highly-skilled steno captioners and voice writers). The demands on captioners, web vendors, broadcasters, video programming distributors and others in the small ecosystem will remain severely constrained for the near future. We caution the Commission not to impose unrealistic burdens for quality via a re-feed requirement.

IV. IN LIGHT OF ROUTINE BROADCASTER EQUIPMENT MONITORING AND ENCODER RELIABILITY, OUTAGE REPORTING REQUIREMENTS ARE UNNECESSARY

As codified in the *Quality Order*, video programmers are already required to maintain their equipment to ensure that captioning associated with video programming reaches the consumer intact.²³ Additionally, video programmers have agreed in the captioning Best Practices to (1) periodic checks of offline captions on prerecorded

²³ See 47 C.F.R. § 79.1(C)(2).

programs to determine the presence of captions; (2) real-time monitoring of program streams at point of origin (e.g., master control) for the presence of captions; (3) spot checks of accuracy (within 30 days following a notification of a pattern or trend of complaints from the Commission); and (4) verification of performance requirements (e.g., periodic spot checks of captioned programming).²⁴

As a practical matter, broadcasters routinely monitor equipment in the broadcast facility, including captioning encoder equipment and video feeds. Stations also have customer information contacts posted on their websites to respond to immediate inquiries. It is not necessary for the Commission to define the appropriate interval for an engineer or station personnel to perform captioning equipment checks.

Moreover, captioning encoder equipment is, for the most part, fairly robust, and does not fail, except in exceedingly rare instances.²⁵ Thus, the Commission's proposal to require outage notification and reporting requirements for equipment failure appears to be a solution in search of a problem.²⁶ Should the Commission require website or reporting requirements, it should appropriately limit those requirements that last for more than 24 hours. Any on-air notification requirements (such as text or crawls) also should be limited only to those facilities that have the capability to generate such textual information.

²⁴ See 47 C.F.R. § 79.1(k)(1)(ii)(C)(iii).

²⁵ Many broadcasters have installed equipment that can alert a station engineer or other personnel to the presence or absence of caption data in a program stream allowing station personnel to trouble shoot the problem and take appropriate corrective action.

²⁶ *Further Notice*, ¶¶ 141-142.

V. THE COMMISSION SHOULD NOT ELIMINATE CAPTIONING EXEMPTIONS AT THIS TIME

The Consumer Groups assert that “modern technology” and a reduced cost of captioning support elimination of the self-implementing captioning exemptions.²⁷ Unfortunately, however, technology and the cost of captioning have not yet materially changed. Although there have been some advances in voice writing technology, overall strides in captioning technology have not materially modified (1) how captions are created; (2) the human capital necessary to create captions; and (3) the cost associated with captions. Until an automated captioning solution is invented – a technology that broadcasters and many others are actively developing – the exemptions are still necessary to maintain programming created in the public interest. The Commission has no basis for removing exemptions and unduly burdening program providers with captioning requirements offering little benefit to consumers.

Captioning services still cost anywhere from generally \$100-120 per hour for real-time captioning and generally three times more per hour to caption pre-recorded programming. It remains true that those video programmers with the most resources, content, and negotiating power employ the best quality captioners at the best possible price. Medium-sized and small broadcasters lack the resources or volume of programming to negotiate rate discounts or attract the attention of the best captioners. To eliminate the exemptions would offset the carefully crafted balance between the need for captioning programming and the potential for hindering the production and distribution of programming.²⁸ As discussed above in Section III, there continues to be

²⁷ *Further Notice*, ¶ 159 (discussing the Consumer Groups’ 2011 Petition).

²⁸ *See Reconsideration Order*, ¶ 15.

a finite pool of qualified stenocaptioners and voice writers, approximately 500. In light of the challenges broadcasters face in providing captions for televised and Internet protocol programming not already exempted, the Commission should decline at this time to eliminate any exemption from the captioning rules. Below we discuss the individual exemptions and the need to maintain each self-implementing exemption.

A. Late Night Programming

Late night programming generally refers to video programming aired between 2:00 and 6:00 a.m. local time. This programming is often compiled from a variety of sources, including local programmers and infomercials. The audience for programs shown during this hour is very low, and correspondingly, advertising revenue from these hours is miniscule.

The Commission has previously recognized that the costs of captioning late night programs outweighs the benefits.²⁹ Many stations do not broadcast their own content at all during those hours, and instead offer access to others via leased access, syndication or other arrangements. Many of the programs are produced by entities with no affiliation with the broadcaster, and would have to be live captioned or captioned as prerecorded programming. Given the costs of captioning, eliminating the exemption would likely eliminate much of the programming aired during these hours because the costs of captioning outweighs advertising revenue.

²⁹ See Closed Captioning and Video Description of Video Programming, Implementation of Section 305 of the Telecommunications Act of 1996, Video Programming Accessibility, Report and Order, 13 FCC Rcd. 3272, ¶ 155 (1997) (1997 Closed Captioning Report and Order), recon. granted in part, *Order on Reconsideration*, 13 FCC Rcd. 19973 (1998).

Broadcasters are committed to continue to pass-through captions when delivered, and some late night programming currently contains captioning. But, elimination of the exemption will require broadcasters to expend scarce resources to caption programming watched by very few or eliminate programming that may be serving niche audiences. This cost is not outweighed by the benefits of captioning late night programming. We urge the Commission to retain the exemption.

B. Commercial and Political Advertising

The Commission should not eliminate the exemption for commercial advertising and political advertising. Broadcasters air thousands of commercials every week. Many of them are received on a rolling basis right before a program airs. The vast majority are for durations of 30 seconds or less. A requirement to caption commercial advertisements would likely force broadcasters to dedicate an employee solely to managing the captioning and organization of commercials at a cost to other station services.

If an advertiser decided not to caption its commercial, or delivered video programming without captions intact, the obligation could fall to broadcasters to comply with the obligation. Broadcasters would be forced to send the advertisements to a third-party captioner, or hire a real-time captioner to caption the content as it airs. It is expensive to caption 30 second commercials,³⁰ and any delay would create significant problems if advertisements are not ready by their contractually agreed airtime.

Broadcasters could be forced to pay on both ends, first to caption, and second to make-

³⁰ As a general matter, a captioner will charge for an entire 30 or 60 minute time increment for captioning services, irrespective of the fact that a limited amount of 30 or 60 second commercials are the only video programming that needs captioning.

good, if any commercial breaches an agreed-upon contract due to delay or another reason. Broadcasters will also lack the rights or licenses to modify many commercials. The Commission must recognize these real-world considerations.

If a broadcaster had to pay for real-time captioning solely for commercials it would be forced to employ a real-time captioner 24/7, at great expense, for captions of ancillary content. The inherent delay in real-time captioning also would mean that the captions on commercials likely would run over to the regularly-scheduled programming, creating confusion for consumers and violating the Commission's recently adopted caption quality rules.

While many national advertisers already caption their advertisements, local advertisers often produce commercials on a very small budget, and cannot afford even the extra few hundred dollars to caption their content. If the Commission adopts burdensome obligations that apply to video programmers, but not their advertising competitors, advertisers are likely to move their advertising dollars where the burden does not apply (e.g., online). The Commission must ensure it does not create a harmful competitive imbalance through regulation.

The FCC correctly determined that advertising is ancillary to the main programming content, which was the focus of Section 713.³¹ Broadcasters agree that any business would be smart to caption its commercials to ensure the message is received by all consumers. However, eliminating the exemption would place an unfair burden on broadcasters, as they have little control over the timing or quality of commercial captions, or over the content. Given the thousands of commercials

³¹ 1997 *Closed Captioning Report and Order*, ¶ 152.

produced nationwide every week, it is unlikely that captions can be quickly created by the limited number of captioners with the requisite quality. Realistically, the infrastructure does not exist to meet this obligation, and the Commission cannot rely on promises of future growth in captioners to occur. Instead, the best, and only realistic option for commercial captioning is the invention of an automated captioning solution.

A captioning obligation on political advertisements raises all the issues of commercial advertising, plus additional First Amendment issues. The FCC's requirement could be seen as preventing certain candidates that are not well-funded from access to the airwaves, especially local candidates.³²

As noted above, modern technology has not yet changed general captioning methods, and the cost of captioning could be burdensome on both commercial and political advertisers. These so-called "changes" are not sufficient to remove the exemptions.

C. Locally Produced and Distributed Non-News Programming With No Repeat Value

The arguments discussed in Sections A and B also apply to locally produced and distributed non-news programming. This type of programming, which includes local parades, high school sports, local talk shows or community theater, for example, is

³² Section 315 of the Communications Act ensures federal candidates reasonable access to television broadcast facilities. Candidates and/or their agencies routinely provide copy of their ads shortly before air-time (thus not allowing sufficient time for a station to add captions to the video file). Additionally, given that some political buyers can be reluctant to provide required political file information, it seems likely that some candidates or issue advertisers may fail to caption their advertisements. Were the Commission to require advertisements to be captioned, including federal candidate advertisements, it should make clear that it is incumbent upon the advertiser (including federal candidates), as part of their reasonable access provide stations with captioned material.

created by organizations with small operating budgets, but has significant local public interest benefits. The Commission should not discourage local broadcasters from serving local interests, such as by airing town halls on school funding or covering other community forums and events, by removing the current exemption.³³ While accessibility is important to broadcasters, the costs associated with broadcasting such events cannot be overlooked. As this content is unlikely to be repeated, there is no possibility that the expense of captioning could be amortized over multiple showings. The Commission properly decided that this type of programming should be exempt in its original order.³⁴ The exemption is in the public interest, benefits local viewers by encouraging stations to air local programming, and should be retained.

D. Interstitials, Promotional Announcements and Public Service Announcements

The Commission has properly determined that requiring interstitials,³⁵ promotional announcements and Public Service Announcements (PSAs) to be captioned would be overly burdensome. Broadcasters air hundreds of interstitials, promotional materials and PSAs every day. Particularly with respect to interstitials and promotions, these are often created moments before airing (e.g., a promotion for an upcoming news story occurring in 30 minutes). There is no feasible method to caption the vast majority of these short videos.

³³ The Commission has previously determined that “the centerpiece of localism is the communication between broadcasters and the members of the public that they are licensed to serve.” See *Broadcast Localism, Report on Broadcast Localism and Notice of Proposed Rulemaking*, 23 FCC Rcd. 1324 (2008).

³⁴ *1997 Closed Captioning Report and Order*, ¶ 158.

³⁵ Interstitials are small blurbs of video programming used as fillers between shows, for example, a 10 second video between two prime-time programs.

Interstitials and promotional materials, moreover, almost always involve the information portrayed visually in an effort to attract the consumer's attention. NAB agrees with the FCC where it found that "much of the information involved is displayed in visual form in the ordinary course as part of the process of trying to attract the viewer's attention to the announcements involved."³⁶ The entire audience, for example, learns that the next episode of "24" airs on Monday at 9:00 p.m. All viewers must turn in at 9:00 p.m. (or watch via another means, such as a DVR or online) to learn what happens.

The logistical issues surrounding creating captions for the hundreds of daily interstitials and promotional materials are immense. Beyond the prohibitive expense associated with a captioning obligation, the logistical burden of managing hundreds of short clips and their captions would engulf the resources of many broadcast stations.

The argument against eliminating the exemption is further supported by the short shelf-life of this material. A promotional or interstitial may only be used once, and is immediately outdated after it airs. There is no stand-alone economic value to interstitials and promotional materials. They are used to promote full-length video which is captioned. No consumers watch promotions or interstitials instead of the full-length video programming they promote.

PSAs should also be exempt. Donations typically fund PSAs, and PSAs seek to promote important causes, such as mental health awareness, the American Red Cross and local charities. Given that most production support for PSAs is donated by non-profit organizations, often with small budgets, captioning could be a barrier to promoting

³⁶ 1997 *Closed Captioning Report and Order*, ¶ 151.

important causes. PSAs generally create no revenue, and requiring broadcasters or third-parties to pay for captioning is likely to result in a chilling of PSA content. While we encourage those PSA partners that can afford to caption³⁷ to do so, the public interest is not served by eliminating this exemption. We therefore strongly urge the Commission to retain the exemption.

E. Channels With Revenue Under \$3,000,000 and Multicast Channels

The Commission has appropriately recognized that stations with revenue below \$3,000,000 are small stations.³⁸ These stations struggle to compete for viewers due to their limited resources, and cannot afford to caption, but they do pass through captions. New captioning requirements would burden small stations' efforts to produce valued local programming, including news, that serves local communities. The Commission should continue to recognize the burden that would result from a captioning obligation. Until an automated process is invented, stations with annual revenue below \$3,000,000 will struggle to devote resources to captioning.³⁹

Additionally, broadcasters now offer 5,511 channels, including multicast channels.⁴⁰ Many of these multicast channels offer foreign language programming, other programming targeted to minority audiences, which is not generally available otherwise. Despite the proliferation of channels, multicasting has yet to emerge as a

³⁷ NAB captions all of its in-house produced PSAs.

³⁸ See 47 C.F.R. § 79.1(d)(12).

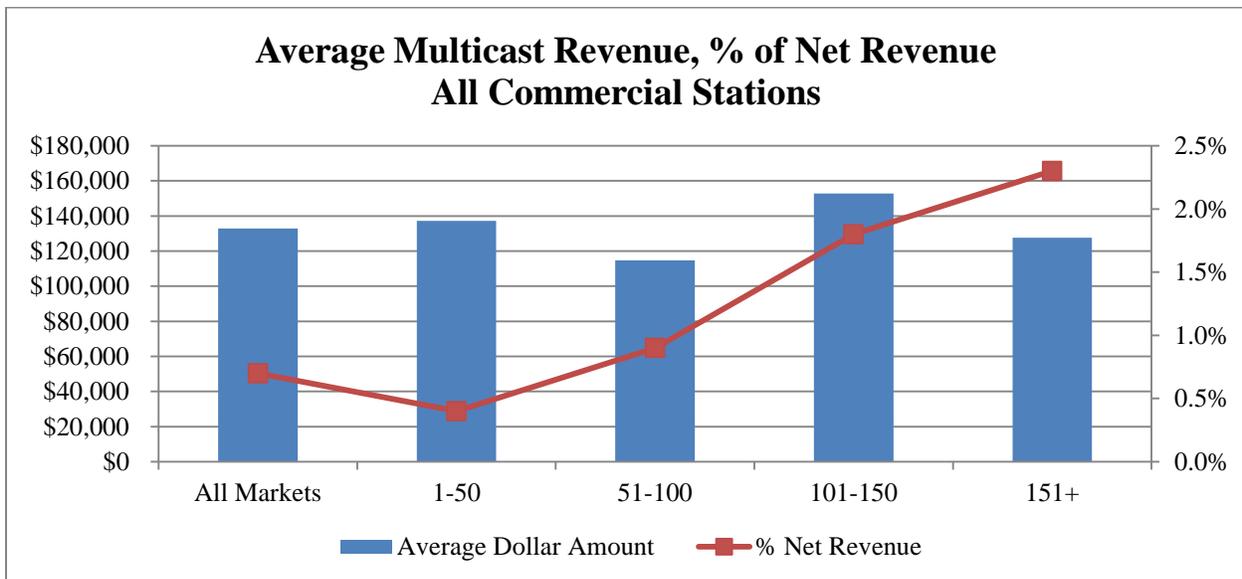
³⁹ Similarly, we urge the Commission to retain the exemption for captioning expenses in excess of 2% of gross revenue. See 47 C.F.R. § 79.1(d)(11).

⁴⁰ This includes all channels, including full-power, Class A, and low power television stations. See, Justin Nielson, SNL Kagan, TV Stations Multiplatform Analysis 2014 (Mar. 12, 2014), *available at* <http://www.snk.com/interactivex/article.aspx?id=27207377&kpl=6>.

significant source of revenue for local stations. Requiring multicast channels to caption their content could engulf these channels' entire budgets. As shown below, the average multicast revenue in 2012 for all commercial stations, across all markets, was just \$132,798.

Multicast Revenue

Market Size	Multicast Revenue ⁴¹ 2012 Average Dollar Amount All Commercial Stations	% of Net Revenue ⁴²
All markets	\$132,798	0.7%
1-50	\$137,207	0.4%
51-100	\$114,784	0.9%
101-150	\$152,819	1.8%
151+	\$127,679	2.3%



⁴¹ Data derived from the 2013 NAB Television Financial Survey database. Multicast revenue is defined as any revenue that is derived directly from a station's subchannels.

⁴² Net revenues is defined as the total of gross advertising revenues, plus network compensation plus trade-outs and barter plus multicast revenue plus other broadcast related revenues minus agency and rep commissions.

The Commission properly determined that a captioning obligation could hinder development of specialized new programming,⁴³ and recognized that a significant amount of programming on multicast channels is already captioned.⁴⁴ Multicast channels must comply with the captioning obligation as soon as their revenue passes \$3,000,000 and they have the resources to do so. NAB believes that the \$3,000,000 revenue threshold is appropriate for both stations and multicast channels and ensures that the exemption is narrow. The Commission should decline to eliminate this exemption.

VI. THE COMMISSION SHOULD REFRAIN FROM REGULATING EMERGING TECHNOLOGIES AT THIS TIME

A. No Action Is Needed By the Commission Regarding CEA-708 Caption Display Features

CEA-708 specifies the encoding, data transport and decoding mechanisms for DTV closed captions. It also provides for so-called “advanced display features” including, for example, different font types, sizes and colors as well as background opacity and color. These advanced display features can be employed at the time the captions are authored or the appearance of the captions can be altered and customized by consumers on their DTV receiver.

It is important to note that, by virtue of their carriage in the DTV signal, closed captions *are* CEA-708 captions. Because consumers have complete control over the advanced display features, television program creators and producers generally do not request that caption service providers use different fonts or colors (with the possible

⁴³ *Further Notice*, ¶¶ 108.

⁴⁴ *Id.*

exception of italics and bold) when the captions are authored. This is because consumers can change the appearance of the captions to fit their viewing preferences.

It is unclear to NAB what action the Commission could take to effectively incentivize the creative decisions of program producers with respect to the appearance of closed captions. It does not seem practical for the Commission, for example, to forbid the use of the typical white text on black background or to require some specific font size, color or style when these parameters can be changed at will by viewers. By adopting a required set of display capabilities for closed caption decoders including all DTV receivers,⁴⁵ the Commission has already ensured that consumers can take advantage of the capabilities CEA-708 was intended to provide.

B. The Regulation of 3D and 4k Technology Is Premature

The Commission asked questions about captioning of evolving television technologies, specifically 3D TV and Ultra HDTV (including 4k and 8k video formats).⁴⁶ As an initial matter, there are no technologies currently employed for transmitting either 3D TV or Ultra HDTV via over-the-air (OTA) broadcasting. With respect to 3D TV, there is little or no 3D television programming produced and it is unclear, at this time, when or if technical standards for the OTA transmission of 3D programs will ever be developed or implemented. NAB noted that CEA did consider the issue of 3D closed captions as part of a revision to CEA-708, but that revision has not been approved.

With respect to Ultra HDTV, this technology is in its early stages of development. While 4k displays have reached the marketplace, the technical standards for 4k OTA broadcasts have not yet been developed for the United States. The Advanced

⁴⁵ *Further Notice*, ¶ 160.

⁴⁶ *Id.* at ¶¶ 166-68.

Television Systems Committee (ATSC) is currently developing a new standard for the next generation US television system, called ATSC 3.0, which will include 4k video. The ATSC 3.0 standard activity is scheduled to begin considering the encoding and transmission of closed captions in the fourth quarter of 2014, but it is not known at this time when that work will be completed. NAB will continue to work with the ATSC and other appropriate standards organizations to ensure that consumers will have access to closed captions with evolving television technologies.

VII. CONCLUSION

NAB pledges to continue to work together with our members, other industry sectors, the Commission, and the disability community to improve the viewer experience while watching captioned programming. At the present stage, the Commission can best serve the interests of the deaf and hard-of-hearing community by working with the industry to address remaining technical challenges, such as synchronicity, and resolve unexpected problems. The resources and efforts of all parties are better directed toward collaboratively improving captions via the quality best practices.

Respectfully submitted,



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