

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

In the Matter of)	
)	
Authorizing Permissive Use of the “Next)	GN Docket No. 16-142
Generation” Broadcast Television Standard)	

**COMMENTS OF THE PUBLIC BROADCASTING SERVICE,
CORPORATION FOR PUBLIC BROADCASTING, AND
AMERICA’S PUBLIC TELEVISION STATIONS**

The Public Broadcasting Service (“PBS”),¹ Corporation for Public Broadcasting (“CPB”),² and America’s Public Television Stations (“APTS”)³ (collectively, “PTV”) welcome the opportunity to submit these comments in response to the Commission’s Further Notice of Proposed Rulemaking regarding the recent authorization of rules for the voluntary rollout of the “Next Generation” broadcast television transmission standard (“Next Gen” or “ATSC 3.0”).⁴ In these comments, PTV urges the Commission to: (1) exempt noncommercial educational licensees as a class from the local simulcasting requirement given the unique public service

¹ PBS, with its 350 member stations across the country, offers all Americans the opportunity to explore new ideas and new worlds through television and online content. Each month, PBS reaches nearly 100 million people through television and nearly 30 million people online, inviting them to experience the worlds of science, history, nature, and public affairs; to hear diverse viewpoints; and to take front row seats to world-class drama and performances.

² CPB is a private, non-profit corporation created and authorized by the Public Broadcasting Act of 1967 to facilitate and promote a national system of public telecommunications. Pursuant to its authority, CPB has provided millions of dollars in grant monies for support and development of public broadcasting stations and programming.

³ APTS is a non-profit organization whose membership comprises the licensees of nearly all of the nation’s CPB-qualified noncommercial educational television stations. The APTS mission is to support the continued growth and development of a strong and financially sound noncommercial television service for the American public.

⁴ *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 9930 (Nov. 20, 2017) (“hereinafter “Order and Further Notice”).

mission of these licensees and the unique challenges they would face in finding simulcasting partners; and (2) allow public broadcasters with no simulcast partner—especially rural, remote, and isolated stations—the option of using vacant in-band channels as temporary host facilities to assist with the transition to the ATSC 3.0 standard.

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Introduction and Executive Summary

PTV enthusiastically supports the Commission's authorization of the Next Gen broadcast television standard, which has the potential to deliver many public service benefits to viewers. PTV also appreciates that the Commission implemented a streamlined "one-step" process for reviewing and approving licenses for simulcasting programming in ATSC 1.0 and 3.0 formats.

Nonetheless, PTV remains concerned that the current regulatory framework risks leaving many public television stations behind. PTV therefore urges the Commission to adjust its rules to ensure that these stations are well-positioned to implement ATSC 3.0 service as soon as they determine that it is in their communities' best interest. The most significant and meaningful step would be to grant public television stations an exemption from the local simulcasting requirement. Public television stations have developed very differently over the past 60 years from their commercial counterparts, and they would be disproportionately burdened by an inflexible one-size-fits-all regulatory approach. Most notably, must-carry rights for noncommercial educational licensees are not connected to Designated Market Areas ("DMAs"). As such, public television stations and their associated transmission facilities are often not sited near commercial stations, which tend to be clustered together. These geographic differences make simulcasting difficult, if not impossible, for many public television stations. A simulcast exemption also is appropriate because public television stations, which have a statutory mandate to serve all citizens of the United States and which derive more of their revenue from individual donations than any other source, will only transition to the ATSC 3.0 standard after ensuring that their viewers will not be left behind. The unique mission, structure, governance, finances, history, geographic layout, and regulatory treatment of noncommercial educational licensees warrant this different treatment. Finally, while far from a panacea, PTV asks that the

Commission allow broadcasters to use vacant in-band channels to serve as temporary host facilities for programming in ATSC 1.0 or 3.0 formats. Although this solution will not work for all stations, some rural, remote, and isolated public television stations would have significant interest in using these vacant channels to effectuate their transition to ATSC 3.0.

Recognizing the unique challenges of public television and tailoring the Next Gen rules accordingly would greatly serve the public interest. As PTV has previously noted, Next Gen television will allow public television stations to better serve the interests of their local communities in a variety of areas. These enhancements extend well beyond the obvious benefit of audio and visual enhancements to programming. They include:

- improving interactive educational content to underserved children, such as the distribution of integrated games and other immersive learning materials through over-the-air broadcast television. These materials, which are currently inaccessible to viewers who lack broadband Internet connections, are grounded in research demonstrating measurable gains when children engage with content across platforms;⁵
- advancing public safety through robust emergency alerting and first responder public safety services, potentially including geo-targeted evacuation routes and weather maps, and the ability to “wake up” receiver devices when emergency alerts are transmitted overnight;
- bolstering accessibility for both hearing and visually impaired viewers by, for example, enabling stations to transmit closed sign language alongside their broadcasts and

⁵ Comments of the Public Broadcasting Service, Corporation for Public Broadcasting, and America’s Public Television Stations, GN Docket No. 16-142 (filed May 9, 2017) (“PTV Comments”), Appendix A.

significantly enhance their video description service offerings through the use of surround and immersive audio mix; and

- editorially enhancing public television content. Producers of news and documentary programs, for example, would be able to offer longer versions of interviews that viewers can download over-the-air, as well as provide interactive elements such as maps and integrate locally-produced content.

These exciting possibilities should not be curtailed by a regulatory framework that does not adequately account for the unique circumstances of public television.

Public television stations have a proud history of being at the forefront of new television technologies, and they are eager to begin making plans to deploy the myriad public service benefits of Next Gen television to their viewers. Many of these stations led the industry in the digital television transition by rapidly implementing numerous multicast channels, including gavel-to-gavel coverage of state legislatures, noncommercial multilingual programming, and Native American programming. Likewise, public television stations have been actively engaged from the start in exploring the possible benefits of Next Gen and in helping to shape the standard for its voluntary rollout.

I. The Commission Should Adopt a Simulcasting Exemption for Public Television Stations Given Their Unique Circumstances

PTV strongly encourages the Commission to exempt public television stations as a class from the local simulcasting requirement, just as it has done for LPTV and TV translator stations. An exemption will ease the significant—and sometimes insurmountable—burden of finding a suitable simulcast partner, further the public interest by allowing stations to deliver service upgrades as soon as their local communities are ready, and provide more certainty to encourage investment in equipment upgrades and educational content development.

Public television stations have unique, and often prohibitive, challenges in finding a transition partner with which to simulcast—particularly those stations in rural, remote, and isolated communities. While commercial broadcasters tend to be clustered together, the facilities of public stations have developed over decades to be geographically separate from these broadcasters and not situated centrally in DMAs. There are several reasons for this: (1) the Commission’s own cable carriage regulations; (2) stations’ core noncommercial mission of serving rural, remote, and isolated areas;⁶ (3) the fact that 16 statewide public television networks are licensed to state agencies or commissions and are tasked with serving their entire state regardless of DMA boundaries;⁷ and (4) most university licensees’ stations are co-located with the universities, which often are not near commercial station locations.

A local simulcasting requirement will preclude many public television stations from pursuing a transition to ATSC 3.0 and delivering its many public service benefits to viewers. Many stations, due to tower siting, would be effectively precluded from sharing facilities to simulcast and therefore excluded from serving their community with interactive educational children’s content, advanced accessibility features, and life-saving public safety functionality.⁸ These stations include, for instance: WIIQ, licensed to the Alabama Educational Television Commission, which is the only full power television broadcaster licensed to the community of

⁶ See, e.g., 47 C.F.R. § 76.55(b).

⁷ These statewide networks include Alabama, Arkansas, Georgia, Iowa, Idaho, Kentucky, Louisiana, Maryland, Mississippi, Nebraska, New Jersey, Oklahoma, South Carolina, South Dakota, Wisconsin, and West Virginia.

⁸ In its Order, the Commission states “We believe that the vast majority of broadcasters in today’s market should be able to find a simulcast partner that would enable them to qualify for expedited processing” Order and Further Notice, 32 FCC Rcd at 9948, para. 35. In a subsequent footnote, the Commission estimates that 20 percent of full power and class A stations are in markets where there is not at least one station that could serve as a simulcast host under the Commission’s expedited processing standard. *Id.* at n.104. PTV believes a disproportionate number of these stations are most likely public television stations given their geographically unique nature.

Demopolis, Alabama; KAWE, licensed to Northern Minnesota Public Television, which operates at the remote northern edge of Minnesota to serve the people of Bemidji; and WUNC, licensed to the University of North Carolina, which is located on the opposite side of Raleigh from all of the other local broadcast stations.⁹

The primary purpose of simulcasting, according to the Commission, is to avoid forcing viewers to either spend money on new equipment to receive ATSC 3.0 programming or go without television service.¹⁰ Exempting public television stations from the simulcast requirement will not diminish this critical objective. First, public television stations will not make the transition to ATSC 3.0 until it makes sense for their communities, consistent with their public service mission. Under the Public Broadcasting Act of 1967, PTV stations have a statutory mandate to provide service to “all citizens of the United States,” particularly “unserved and underserved audiences.”¹¹ Even with new technological developments, this mission remains at the core of public broadcasting’s work, which obliges stations to serve America’s smallest and most rural communities. Second, public television stations have a strong financial incentive for ensuring that viewers are able to continue receiving their broadcast signals. Unlike their commercial counterparts, public television stations rely on direct financial support from viewers. In fact, public television stations in 2016 received about one-third of their total revenue through individual viewer donations.¹²

⁹ See PTV Comments, Appendix A.

¹⁰ Order and Further Notice, 32 FCC Rcd at 9939, para. 16.

¹¹ 47 U.S.C. § 396(a)(6),(7).

¹² This financial information was obtained from the 2016 Station Activities Benchmarking Study (SABS) survey, which collects standard financial and operational information for all public television licensees. All CPB-supported TV grant recipients are required to complete the SABS survey.

PTV urges the Commission to allow local stations to decide whether, and when, to operate on a Next Gen only basis given the strong financial and mission-driven reasons for public television stations to ensure that viewers have access to programming. Public television stations will not transition to ATSC 3.0 without first undertaking a carefully coordinated, community-specific analysis to determine when it is appropriate and in the local community's best interests to transition. Public television stations, in consultation with their community advisory boards,¹³ will evaluate various factors including the MVPD adoption of ATSC 3.0 capabilities,¹⁴ surveys of dual-mode receiver penetration in their communities, and the availability of low-cost converter devices. For example, some stations that lack a simulcast partner but are eager to quickly adopt Next Gen may decide that it is reasonable in their community to distribute free or low-cost converter devices for viewers. This might be a particularly sensible option in smaller markets, particularly where stations have already deployed the necessary Next Gen equipment as part of the repack. Other stations might prefer to wait until they have determined that their local community has sufficient capability to receive ATSC 3.0 signals, either through receiver penetration or through voluntary agreements with MVPDs. Because each station's transition will be locally tailored to its community, the Commission should refrain from dictating the timing or prerequisites of that transition on a national regulatory basis.

¹³ Community advisory boards, which meet at regular intervals and represent the interests of public television viewers, are required under the Public Broadcasting Act of 1967 unless stations are owned by a "State, a political or special purpose subdivision of a State, or a public agency." 47 U.S.C. § 396(k)(8).

¹⁴ As previously noted, PTV is not advocating for any new carriage requirements at this time. PTV expects that many of the technical upgrades to MVPDs' facilities that are necessary to carry ATSC 3.0 programming will be driven, in large part, through marketplace negotiations with commercial stations.

Exempting public television stations from the simulcasting requirement will also help incentivize them to make thoughtful, cost-efficient investments over the coming years to prepare for Next Gen implementation. Numerous stations involuntarily reassigned channels in the post-Incentive Auction repacking process are currently making investments in new transmission equipment, which includes substantial out-of-pocket costs. If granted a simulcast exemption, the 43 percent of public television stations that have been repacked will be much more likely to invest in equipment that includes robust ATSC 3.0 capability. Without the regulatory certainty of an exemption that ensures they can flash-cut to Next Gen service based on a local community determination, financially constrained stations are much more likely to limit their current expenditures by only purchasing equipment with minimal functionality. The Commission's Order requires that a station's ATSC 1.0 simulcast channel must continue to cover the station's community of license and must cover 95 percent of its population for expedited processing.¹⁵ As such, stations without a simulcast partner that might otherwise wish to allocate money for ATSC 3.0-capable equipment might be unable to justify these out-of-pocket costs if they could be forced to indefinitely broadcast in ATSC 1.0 on a timeline entirely outside of their control. Not only will such stations ultimately spend more money over the long-term, but viewers will be indefinitely deprived of the many public benefits of ATSC 3.0 programming in the meantime. Similarly, a blanket exemption also will incentivize cost efficiency for the remaining 57 percent of public television stations that are currently looking to replace aging infrastructure that was last updated during the DTV transition.¹⁶

¹⁵ Order and Further Notice, 32 FCC Rcd at 9947, para. 34.

¹⁶ With the waiver, public stations that invest in Next Gen compatible equipment will not only be able to switch to ATSC 3.0 as soon as it is in the best interests of their community, but some might also be able to serve as ATSC 3.0 "lighthouses" for other stations. Because the Commission's Order permits more coverage flexibility for ATSC 3.0 signals, public stations that

If the Commission ultimately decides against granting a blanket exemption for public television stations, then PTV urges that it adopt a presumptive waiver process for those stations that have no viable local simulcasting partner. With respect to such waivers, the Commission seeks comment on how broadly to define “viability”—in other words, is the existence of one potential partner that covers the station’s entire community of license sufficient or should there be another threshold number?¹⁷ PTV urges the Commission to take a pragmatic approach, with a threshold of at least three potential simulcasting partners to ensure that stations have the ability to fairly negotiate with a potential simulcast host. In those situations where a public television station has only one other station that is capable of covering its entire community of license, that other station might be an uncooperative neighboring station and unwilling to enter into a simulcasting relationship on reasonable terms.

If a station seeking a simulcast waiver does, in fact, lack viable simulcast partners, the Commission asks what type of “reasonable efforts” the station should be required to take when transitioning to Next Gen to minimize the impact on viewers. PTV believes these efforts will depend on the unique circumstances of the station’s community of license. In a small market, for example, it might be reasonable for a station to volunteer to provide free ATSC 3.0 converters to its viewers while in a large market it might be reasonable for a station to provide low-cost converters.¹⁸ The reasonableness of a station’s efforts also will depend on whether the station intends to flash-cut to ATSC 3.0 service or simulcast ATSC 1.0 service from a temporary host facility that does not cover its community of license. In situations where a station does simulcast

lack viable partners for ATSC 1.0 simulcasts might still be able to transmit other stations’ ATSC 3.0 signals even though such signals might not reach all of a station’s viewers. Order, 32 FCC Rcd at 9950, para. 39.

¹⁷ Order and Further Notice, 32 FCC Rcd at 9989–90, para. 123.

¹⁸ See *infra* p. 9.

ATSC 1.0 programming to part of its community, it should only be expected to provide free or low-cost converters to viewers unable to receive the ATSC 1.0 signal.

Finally, should the Commission adopt a presumptive waiver standard, PTV urges that it also adopt formal timelines for acting on waiver requests akin to those established for licensing in the Order.¹⁹ Specifically, the Commission should act on a waiver request from a noncommercial educational licensee within 15 business days to provide the necessary level of certainty and predictability as these organizations work to serve their local communities.

II. The Commission Should Permit Broadcasters to Use Vacant In-Band Channels for Simulcasting

PTV appreciates that the Commission continues to consider the use of vacant in-band channels to serve as temporary host facilities for either ATSC 1.0 or 3.0 programming, as this approach might help alleviate the constraint placed on some stations that are not otherwise able to share facilities to simulcast. Rural, remote, and isolated public television stations, which are usually quite small, are the most vulnerable to the Commission's local simulcasting requirement. Many of these stations would have significant interest in the potential to use vacant in-band channels to execute their Next Gen transition plans. PTV cautions, however, that this approach will have limited use in practice given that vacant in-band channels are not universally available or affordable.

Because allowing public television stations to deploy Next Gen service will enable the delivery of many public service benefits, utilizing vacant channels for this purpose should be a top priority. Some commentators, such as the Wi-Fi Alliance and Microsoft, have expressed concern that the use of vacant channels by licensed broadcasters could limit the use of these

¹⁹ Order and Further Notice, 32 FCC Rcd at 9956, para. 56.

channels for white space devices.²⁰ It is important to keep in mind, however, that these various white space devices have access to spectrum outside the television band.²¹ The Commission should not preclude primary users of the band (full-power television stations) from offering viewers the public service benefits of Next Gen service in order to allow scarce spectrum to lie fallow for theoretical use by unlicensed white space devices. The public service benefits of Next Gen service are real and immediate with tangible advantages to communities that are able to receive this service.²²

Prioritizing the use of vacant channels by full-power licensed broadcasters should have limited impact on the post-Incentive Auction repacking process for LPTV and translator licensees. Now that the Auction has been completed, LPTV and TV translator stations displaced by the repack will have an opportunity during the upcoming special filing window to submit displacement applications for new channels. As long as the in-band vacant channels for Next Gen service are made available to full-power broadcasters *after* this special window has closed, there should be little adverse impact on LPTV and translator licensees. LPTV and translator licensees would still have the first opportunity to secure a post-auction frequency; any spectrum that remains vacant after the special filing window has been closed and the Commission has assigned frequencies to LPTV and translator licensees could then become available for in-band vacant use, as well as marketplace frequency adjustments that may need to occur as a result of the repack.

²⁰ Order and Further Notice, 32 FCC Rcd at 9990–91, para. 126.

²¹ *Amendment of Parts 15, 73 and 74 of the Commission's Rules to Provide for the Preservation of One Vacant Channel in the UHF Television Band For Use By White Space Devices and Wireless Microphones*, Notice of Proposed Rulemaking, 30 FCC Rcd 6711, 6742 (June 11, 2015) (dissenting statement of Comm'r Pai).

²² See *supra* pp. 5–6.

In weighing whether to allow full-power licensed broadcasters to use vacant channels for transitioning to ATSC 3.0 service, the Commission asks how broadcasters should apply for authorization. PTV believes such a request should be considered a minor change to a station's existing license and should therefore require only a minor change application. PTV's suggested approach is consistent with the Commission's decision in its Order to treat temporary ATSC 1.0 channels, which are intended to comply with the local simulcasting requirement, as minor changes.²³ Finally, PTV asks that the Commission refrain from processing broadcasters' requests for a minor change on a first-come, first-served basis. Consistent with the Commission's regulatory frame in the first and second priority windows, PTV asks that the Commission schedule an initial 30-day window for such requests, with all applications during the window being treated as filed simultaneously. This will ensure that noncommercial stations with limited resources have an adequate opportunity to apply for and secure a channel. If there are competing requests for the same vacant channel, then stations that otherwise lack viable simulcast partners should receive priority. Thereafter, the Commission should establish a 90-day period to resolve any remaining mutually exclusive applications.

CONCLUSION

PTV strongly believes that exempting noncommercial educational licensees as a class from the local simulcasting requirement best serves the public interest. Public television stations are eager to share with their viewers the many benefits of Next Gen television, including interactive curriculum-driven games for underserved children. Due to their unique circumstances, however, many of these stations are not situated near their commercial counterparts and will have difficulty finding a viable simulcast partner. Without an exemption to

²³ Order and Further Notice, 32 FCC Rcd at 9956–57, para. 57.

the Commission's simulcast rule for public television stations, many stations will be unable to deploy ATSC 3.0 service until the Commission eventually allows stations to permanently transition away from ATSC 1.0 service—a process that is likely many years away and outside of stations' control. PTV therefore respectfully requests that the Commission acknowledge the unique circumstances of public television and, instead of imposing a nationwide one-size-fits-all approach, provide enough flexibility so that these local stations can best determine what is in the best interests of their local communities.

Respectfully submitted,

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February 20, 2018

Appendix A

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The Public Broadcasting Service (“PBS”),¹ Corporation for Public Broadcasting (“CPB”),² and America’s Public Television Stations (“APTS”)³ (collectively, “PTV”) welcome this opportunity to submit comments in response to the Federal Communications Commission’s (the “Commission”) Notice of Proposed Rulemaking on authorizing permissive use of the Advanced Television Systems Committee (“ATSC”) 3.0 broadcast television standard (the “Notice”).⁴

¹ PBS, with its 350 member stations across the country, offers all Americans the opportunity to explore new ideas and new worlds through television and online content. Each month, PBS reaches nearly 100 million people through television and nearly 30 million people online, inviting them to experience the worlds of science, history, nature, and public affairs; to hear diverse viewpoints; and to take front row seats to world-class drama and performances.

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³ APTS is a non-profit organization whose membership comprises the licensees of nearly all of the nation’s CPB-qualified noncommercial educational television stations. The APTS mission is to support the continued growth and development of a strong and financially sound noncommercial television service for the American public.

⁴ *In the Matter of Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, Notice of Proposed Rulemaking, GN Docket No. 16-142 (rel. Feb. 24, 2017) [hereinafter “Notice”].

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Introduction and Executive Summary

PTV fully supports adoption of a regulatory framework that flexibly permits voluntary deployment of the ATSC 3.0 broadcast television standard by local broadcasters across the country. This innovative standard has the potential to enable significant public service benefits, including interactive children's educational content, robust emergency alerting services, mobile broadcasting, improved accessibility measures, and dramatic visual enhancements.

In these comments, PTV encourages the Commission to recognize that local broadcasters are best suited to determine what is in the best interests of their viewers, particularly local public television stations given their noncommercial mission and longstanding connections with the community. A nationwide one-size-fits-all approach with extensive or detailed regulatory requirements would not support the customized station implementation strategies that will be necessary given varying local circumstances and needs.

The Commission should aim to *facilitate* and *simplify* broadcaster collaboration, without substituting its own judgment for that of local stations on the inevitable trade-offs involved in ATSC 3.0 deployment. The transition to ATSC 3.0 is intended to be fluid and adaptable by design, which necessitates an agile regulatory framework. Specifically, PTV urges the Commission to:

- recognize that a simulcast mandate is not needed for public television stations because they will, by their very nature and mission, continue to broadcast what is in the best interests of their local community; and in the alternative, if adopting a simulcast mandate for public television stations, then adopt a presumptive waiver standard, or at the very least a liberal waiver policy, given the unique challenges that many public television stations will face in fulfilling such a mandate;

- permit stations with no transition partner – particularly rural, remote, and isolated stations – to optionally use vacant in-band channels to serve their viewers (and to satisfy the simulcast mandate if adopted), including by establishing new low-power television stations to serve each station’s local community;
- implement the origination approach, described below, as the method for authorizing ATSC 3.0 broadcasting, rather than either the licensing or multicasting approaches described in the Notice; and
- monitor the roll-out of ATSC 3.0 closely and stand ready to initiate a subsequent proceeding on carriage obligations as soon as market adoption conditions warrant.

I. The Public Service Benefits of ATSC 3.0 Warrant Swift Commission Action and a Flexible Regulatory Framework for Local Stations.

The ATSC 3.0 broadcast television standard will enable public television stations to advance their longstanding public service missions by pursuing a wide variety of benefits that the standard enables. Each station will continue to serve its local community in its own unique way that is tailored to that community’s population, interests, and needs. While no two implementations of ATSC 3.0 will necessarily be exactly alike and stations will need the flexibility to customize their approach to the new standard, there are a number of key public service benefits that should motivate swift Commission action in this proceeding by the end of 2017 at the latest.

As detailed in PTV’s comments in this docket in May 2016, there are four principal public service benefits of ATSC 3.0 – interactive educational children’s content, robust emergency alerting services, improved accessibility measures, and dramatic visual enhancements – along with various other benefits that will broadly enhance the reach of public broadcasting

and access to its noncommercial services.⁵ The significant benefits described in those prior comments warrant the adoption of regulations by the Commission authorizing use of ATSC 3.0 as quickly as feasible.⁶

To cite one example involving interactive educational children’s content, PBS and its producers have been testing, researching, and deploying multi-platform educational children’s content for many years (with critical support from the U.S. Department of Education). PBS KIDS has developed a series of transmedia suites that allow children to actively engage with curriculum-driven educational content on a range of devices, and the educational efficacy of these resources has been rigorously studied by researchers at WestEd and the Education Development Center.⁷ For instance, one 2015 study found that children who engaged with certain PBS KIDS transmedia content improved their average scores from pre-test to post-test in foundational math skills (such as skip counting and pattern recognition) by up to 25 percent.⁸ These impressive educational gains have been accomplished due to the opportunities afforded to children to interact hands-on with the content through digital applications and games that reinforce educational lessons (and through PBS’s use of curriculum advisors to ensure that its content is effective). While this multi-platform approach has been highly successful, its reach

⁵ The emergency alerting potential of ATSC 3.0 will be fully complementary to and augment the existing Warning, Alert, and Response Network (WARN) system operated by public television stations across the country, which safeguards the reliability of wireless emergency alert (WEA) message delivery in critical life-saving situations. See www.pbs.org/about/contact-information/warn.

⁶ Comments of the Public Broadcasting Service and the Corporation for Public Broadcasting, *In the Matter of Authorization of Next Generation TV For Permissive Use as a Television Standard*, GN Docket No. 16-142, 3–6 (filed May 26, 2016) [hereinafter “PTV 2016 Comments”].

⁷ See PBS KIDS Content Studies, *available at* www.pbskids.org/lab/research/content-studies.

⁸ Odd Squad: Learning Math with PBS KIDS Transmedia Content at School and Home, WestEd, 15–16 (Oct. 2015), *available at* www-tc.pbskids.org/lab/media/pdfs/research/Y5-WestEd-OddSquad_FullReport.pdf.

and impact could be greatly increased through the interactive potential of ATSC 3.0. PBS member stations each air at least 7 hours of educational children's content per weekday, which enables them to reach more children aged two to five and more children from low-income families than any other children's television programmer, and as a result 71 percent of all children aged two to eight watch PBS.⁹ The ability to deliver truly immersive and interactive content via broadcast to the many families and children that depend upon PBS KIDS content could be transformative.

II. The Simulcast Mandate Is Unnecessary for Public Television and, if Adopted, Should Be Waived for Local Stations as Needed.

The Commission asks in the Notice whether a simulcast mandate is “necessary,” and the answer – at least for public television stations – is simply no.¹⁰ The Commission is understandably concerned with ensuring that viewers maintain access to content during the extended and voluntary transition to the ATSC 3.0 standard. Public television stations share this concern. It is absolutely essential to stations that their viewers maintain access to their content and services, no matter the individual's viewing equipment, for both mission-driven and financial reasons. Public television stations have been tasked with providing service to “all citizens of the United States,” particularly “unserved and underserved audiences,” since the Public Broadcasting Act of 1967 was adopted.¹¹ This mission is at the core of public broadcasting's work, which impels stations to serve the smallest and most rural of America's communities into which sometimes no other broadcasters will go. Moreover, many public

⁹ Nielsen NPOWER®, Sept. 22, 2014 – Sept. 20, 2015.

¹⁰ Notice at ¶ 11.

¹¹ 47 U.S.C. § 396(a)(6), (7).

television stations receive more funding through individual viewer donations than from any other source. Public television stations will ensure the continuity of viewer access throughout the ATSC 3.0 transition *regardless* of whether the Commission establishes a nationwide regulatory mandate.

The Commission should refrain from doing so because each of the 361 public television stations across the country will pursue its educational mission through a customized approach that is tailored to its unique community's needs. Local stations will have to weigh the trade-offs of various options – such as multicasting, datacasting, mobile broadcasting, and ultra-high-definition content – and the Commission should not substitute its own judgment for that of local stations that know their communities best. Stations will need to allocate the limited bits available to them to deliver the most impactful and educational content across their range of ATSC 1.0 and 3.0 services, but there is no one-size-fits-all solution. If the Commission adopts the proposed simulcast mandate, then it would unnecessarily constrain the ability of public television stations to best serve local community needs. For instance, public television stations led the industry after the digital television transition in rapidly implementing a diverse array of multicast channels (such as gavel-to-gavel coverage of state legislatures, noncommercial multilingual programming, and Native American programming), and such stations will need the flexibility to adapt and customize their local services during the bandwidth-constrained circumstances of the ATSC 3.0 transition.¹²

In the event that the Commission adopts a simulcast mandate, then PTV urges the Commission to adopt a presumptive waiver standard, or at the very least a liberal waiver policy.

¹² See, e.g., ECHO Minnesota (including content in Hmong, Lao, Somali, and other languages), *available at* www.echominnesota.org; First Nations Experience, *available at* www.fnex.org.

Public television stations would have unique challenges fulfilling such a mandate, and stations do not want to be foreclosed from the possibility of serving their viewers with the benefits of ATSC 3.0. The Notice asks whether noncommercial educational broadcasters “will have difficulty finding simulcast partners,” and the answer is a resounding yes.¹³ For example, the facilities of public television stations are often not sited based on DMA boundaries because many statewide networks licensed to state agencies or commissions are tasked with serving their entire state regardless of cross-state DMA boundaries. Moreover, PTV cable carriage rights are entirely divorced from DMA boundaries, in contrast to commercial cable carriage.¹⁴ Many public television stations will have unique challenges finding a natural transition partner with which to simulcast, and those stations would need the mandate to be waived in order to serve their local viewers with the benefits of ATSC 3.0.

Furthermore, if the Commission adopts a simulcast mandate for public television stations, then it should enable local flexibility by interpreting the phrase “substantially similar community of license” broadly.¹⁵ Given the geographic challenges described above, many public television stations will simply be unable to find a simulcast partner that covers all or even most of their viewers. If the coverage requirements are narrowly interpreted, then the simulcast mandate will entirely *preclude* many public television stations from pursuing the ATSC 3.0 transition and delivering the attendant benefits to many areas of the country. The maps provided in Appendix A are intended to serve as illustrative examples of this particular issue, which is

¹³ Notice at ¶ 26.

¹⁴ See 47 C.F.R. § 76.55(b).

¹⁵ Notice at ¶ 23.

widespread across the country and necessitates Commission deference to the customized transition strategies of local broadcasters.¹⁶

- WIIQ, licensed to the Alabama Educational Television Commission, is the only full-power television broadcaster licensed to the community of Demopolis, Alabama. As the map in Appendix A demonstrates, WIIQ is located near the western edge of the Montgomery-Selma DMA near no other stations because of the licensee's unique noncommercial mission to serve all of the residents across the state of Alabama.
- KAWE, licensed to Northern Minnesota Public Television, is technically in the Minneapolis-St. Paul DMA, but this community station operates at the remote northern edge of Minnesota to serve the people of Bemidji, where the map makes abundantly clear that there is no possible full-power transition partner.
- WUNC, licensed to the University of North Carolina, is in the Raleigh-Durham DMA, but the station is on the opposite side of Raleigh from all of the other local stations because WUNC is part of the university's network of 12 full-power transmitters and 24 low-power translators that is purposefully designed to best serve the entire state of North Carolina.

III. Many Stations – Especially Rural, Remote, and Isolated Stations – May Need to Use Vacant In-Band Channels to Simulcast.

The Notice asks whether the Commission should allow broadcasters to “use vacant in-band channels” to serve as temporary host facilities, and PTV believes that the Commission should absolutely permit and embrace this approach.¹⁷ Given all of the challenges

¹⁶ See *infra* Appendix A.

¹⁷ Notice at ¶ 14.

that public television stations will face, as described in Section II above, it would be incredibly helpful if such stations were permitted to use vacant in-band channels to serve as host facilities during the ATSC 3.0 transition to best serve their local viewers (and fulfill the simulcast mandate if adopted). There are many rural, remote, and isolated public television stations that would have significant interest in making use of vacant in-band channels to effectuate their ATSC 3.0 transition plans. While this solution will not be workable in a variety of cases, it is certainly worth allowing as an option for those stations that can take advantage of this possibility.

The two biggest challenges to this approach will be finding an available frequency and covering the costs of deployment. Fortunately, low-power television (“LPTV”) service can help potentially mitigate both issues. The Commission should permit broadcasters to establish LPTV stations using vacant in-band channels in order to serve their viewers with both an ATSC 1.0 and an ATSC 3.0 signal, effectively partnering with themselves to simulcast and maximize the availability of content for everyone in the community. Stations could either broadcast in ATSC 1.0 on the new LPTV station while converting their full-power facilities to ATSC 3.0, or stations could alternatively establish the new LPTV station to test an ATSC 3.0 feed while maintaining an ATSC 1.0 broadcast on their full-power facilities. This type of regulatory flexibility that defers to each station’s analysis of local conditions will make it significantly more feasible for public television stations to experiment with the public service benefits of ATSC 3.0 in their local communities. If the Commission adopts a simulcast mandate, then stations should be able to fulfill that mandate by serving the community with an ATSC 1.0 feed through an LPTV station. In addition, if the Commission adopts a simulcast mandate, then it should remain open to fully waiving the mandate for rural, remote, and isolated stations if they are unable to establish an LPTV station for whatever reason or if they determine that it is in the best interests

of their local community to transition all of their operations to the ATSC 3.0 broadcast television standard.¹⁸

IV. The Commission Should Adopt an Origination Approach for Authorizing ATSC 3.0 Broadcasting, Rather Than a Licensing or Multicasting Approach.

The Commission should adopt an origination approach as the method for authorizing ATSC 3.0 broadcasting, rather than either the licensing or multicasting approaches described in the Notice. The Notice outlines two regulatory frameworks for authorizing service during the transition, and it correctly points out the challenges with each. The licensing approach would be overly burdensome and time-consuming with excessive regulatory intervention, which would limit the ability of stations to quickly adapt to changing circumstances and would burden Commission staff with an unneeded licensing approval process. The multicasting approach would not appropriately allocate compliance obligations (such as closed captioning, indecency, sponsorship identification, political broadcasting, children's television requirements, and Section 399B of the Communications Act), which would create an unnecessary level of uncertainty and confusion. Both the licensing and the multicasting approaches would unduly impede adoption of ATSC 3.0. Instead, the Commission should adopt a straightforward origination approach that will best facilitate station collaboration, while achieving the *certainty* of the licensing approach along with the *simplicity* of the multicasting approach.

¹⁸ Stations interested in doing a flash cut to ATSC 3.0 in sparsely populated areas may even consider providing ATSC 3.0 devices to over-the-air viewers given that this may deliver a better public service to the community and be more cost-effective than standing up a new LPTV facility.

The origination approach would establish a regulatory framework whereby the Commission would ascribe each broadcast feed to the originating licensee rather than to the transmitting licensee. The ATSC 1.0 and 3.0 simulcast signals used throughout the transition should be treated, for all intents and purposes, as operating under the license of the originating station, not the transmitting station. This could be accomplished through a short-form registration or notification of the station's simulcast arrangement to the Media Bureau (which could either stand alone or accompany the filing of the simulcast agreement if the Commission proceeds with that proposed requirement).¹⁹ This short-form filing would simply adjust the scope of the existing license to cover both the 1.0 and 3.0 feeds, rather than needing to issue any new licenses. No construction permit application or Commission decision-making process would be required, contrary to the suggestions in the Notice.²⁰ This is entirely consistent with the Commission's past practice of regularly including notes on licenses that explain, define, or limit a station's operating authority. The Commission could still monitor the pace of implementation through the filing of either notification letters or simulcast agreements, and importantly the Commission would retain full enforcement authority over the originator of programming.

The benefits of the origination approach would be many. First and foremost, it would enable the Commission to minimize the extent of regulatory intervention into the business of broadcast television. The regulatory burden on broadcasters *and* Commission staff would be significantly reduced by avoiding the licensing approach described in the Notice.²¹ The

¹⁹ See Notice at ¶ 13.

²⁰ *Id.* at ¶ 17.

²¹ *Id.* at ¶ 17–18.

licensing approach would require public television stations to expend significant resources, including both time and money, on licensing procedures that would be an unnecessary bureaucratic requirement. For example, the licensing approach would make it significantly more difficult and time-consuming to adjust simulcast partners over time to account for changing business needs. The transition to ATSC 3.0 is intended to be fluid and adaptable by design, which necessitates an agile regulatory framework. The origination approach would also avoid the pitfalls of the multicasting approach, which risks the widespread misallocation of existing compliance obligations and the exclusion of noncommercial stations due to the requirements of Section 399B of the Communications Act.²² Ultimately, the origination approach would achieve the *certainty* of the licensing approach (without its attendant regulatory burdens) and the *simplicity* of the multicasting approach (without its attendant compliance shortfalls). The Commission should implement this regulatory concept in order to best facilitate the transition to ATSC 3.0 and the delivery of its many public service benefits to the American public.²³

V. The Commission Should Stand Ready to Initiate a Subsequent Proceeding on Carriage Obligations as Soon as Market Adoption Conditions Warrant.

The Commission should closely monitor the roll-out of ATSC 3.0 and stand ready to initiate a subsequent rulemaking proceeding on carriage obligations as soon as market adoption conditions warrant. Public broadcasting's core mission since its establishment in 1967

²² *Id.* at ¶ 19–20. The Commission does not have the authority to waive the restrictions in Section 399B, which have set forth a statutory mandate on the scope of permissible activity for public broadcast stations since 1981.

²³ *See supra* Section I.

is to provide universal access for all Americans to unique, trusted, and educational content.²⁴

Cable and satellite carriage has been an *essential* component of that universal service mission for decades.

Public television stations are not eligible to participate in the retransmission consent regime that the Commission discusses in the Notice.²⁵ The statutory framework for retransmission consent excludes any “noncommercial television broadcast station.”²⁶ Instead, public television stations secure cable carriage through must-carry provisions and satellite carriage through carry-one-carry-all provisions.²⁷ This framework has long served as the underpinning for PTV’s universal service to all Americans by ensuring that everyone has access to critical public television programming and services, regardless of their cable or satellite provider.

The Notice acknowledges that “MVPDs should not be required to carry broadcasters’ ATSC 3.0 signals at this time.”²⁸ The transition to the ATSC 3.0 broadcast television standard is just beginning and it will be a gradual process driven in large part by viewer demand. Given that the Commission plans to closely monitor the roll-out and implementation of ATSC 3.0 (such as through the filing of simulcast agreements proposed in the Notice), PTV urges the Commission to remain vigilant and prepared to initiate a subsequent rulemaking on must-carry and carry-one-carry-all obligations as soon as the extent of ATSC 3.0

²⁴ 47 U.S.C. § 396(a)(5) (“constitute a source of alternative telecommunications services for all the citizens of the Nation”); 47 U.S.C. § 396(a)(7) (“make public telecommunications services available to all citizens of the United States”).

²⁵ See Notice at ¶ 39–42.

²⁶ 47 U.S.C. § 325(b).

²⁷ 47 U.S.C. § 535; 47 U.S.C. § 338.

²⁸ Notice at ¶ 31 (emphasis added).

adoption warrants.²⁹ While it is not yet possible to know how quickly viewers and broadcasters will adopt the new standard, the Commission will have the data necessary to see the tipping point coming and to anticipate the need to act in this space.

With respect to the Notice's questions about carriage of ATSC 1.0 simulcast signals, the overriding principle that should guide the Commission's approach during the deployment of the ATSC 3.0 broadcast television standard is to leave stations in a position that is no better or worse than they are currently situated.³⁰ This approach will require no additional investment by cable or satellite companies and no additional channels to be carried than are being carried today. The legal basis for according carriage rights to simulcast feeds can be secured through the origination approach described in Section IV above, which adjusts the scope of the existing license to cover the ATSC 1.0 feed of the originating station, no matter the transmitting station partner.

VI. The Commission Should Incorporate a Flexible Approach Throughout the ATSC 3.0 Regulatory Framework.

The Commission should adopt a flexible overall approach in all of its decision-making for ATSC 3.0 rules that minimizes regulatory burdens and facilitates stations moving to the new standard. In furtherance of this overall approach, PTV urges the Commission to consider the following three recommendations.

First, PTV recommends that the Commission only approve and incorporate ATSC A/321:2016 "System Discovery and Signaling" into its rules. This is the only portion of the standard that needs Commission approval to ensure a stable and predictable radio frequency

²⁹ *Id.* at ¶ 13.

³⁰ *Id.* at ¶ 34–35; *See* PTV 2016 Comments at 7–8.

operating environment.³¹ Taking a light-touch approach here will allow the Commission to maximize industry flexibility to respond to evolving and unpredictable market dynamics; this will also be most consistent with the Commission’s general approach to the 600 MHz Band. The Commission should not incorporate A/322:2016 “Physical Layer Protocol” or any other portion of ATSC 3.0 into its rules because that would unnecessarily impede broadcaster innovation in the years to come.

Second, PTV urges the Commission to allow noncommercial educational stations to determine for themselves how best to keep viewers informed throughout the ATSC 3.0 transition. Local stations have longstanding and close connections with their viewers, which will enable them to develop the best possible methods for making sure that their viewers know where and how to find the station. Alternatively, if the Commission decides to adopt a nationwide notification mandate, then it should provide noncommercial educational stations with the same measure of flexibility in their notifications to viewers and cable providers that the Commission historically provided during the digital television transition and the post-incentive auction repacking process.³² The Commission concluded in 2008 and 2014 that an alternative flexible approach to notifications was warranted for noncommercial educational stations, and the same standard should be applied to notifications throughout the transition to ATSC 3.0.³³ Public television stations have close and deep connections to their local communities as well as a

³¹ Notice at ¶ 7.

³² *In the Matter of DTV Consumer Education Initiative*, Report and Order, MB Docket No. 07-148, FCC 08-56, at ¶ 34 (Mar. 3, 2008).

³³ *In the Matter of Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, GN Docket No. 12-268, FCC 14-50, at ¶ 589 (June 2, 2014).

mission-driven approach to public service, all of which warrants this flexible regulatory treatment.

Finally, the Notice correctly recognizes that replacement equipment eligible for reimbursement from the TV Broadcaster Relocation Fund “necessarily may include improved functionality,” but not “optional features.”³⁴ This distinction is critical to allowing stations that did not participate in the incentive auction, and that have been compelled to relocate to new frequencies, the flexibility to purchase equipment in the marketplace that will best enable them to continue serving their communities. The Commission need not revisit that prior determination in this unrelated ATSC 3.0 rulemaking context.

Conclusion

PTV urges the Commission to adopt a regulatory framework that flexibly permits deployment of the ATSC 3.0 broadcast television standard on a voluntary basis. The Commission should act quickly to adopt new rules by the end of 2017 because this innovative standard will enable significant public service benefits. The Commission’s regulatory approach should recognize that local broadcasters, particularly local public television stations, are best suited to determine what is in the best interests of their viewers. A nationwide one-size-fits-all approach with extensive and detailed regulatory requirements would not support the wide range of customized station implementation strategies that will be necessary to best serve local needs. The Commission should aim to facilitate and simplify broadcaster collaboration, without substituting its own judgment on the inevitable trade-offs involved in ATSC 3.0 deployment for

³⁴ Notice at ¶ 78.

that of local stations. PTV looks forward to continuing to work with the Commission throughout the groundbreaking deployment of ATSC 3.0 over the coming years.

Respectfully submitted,

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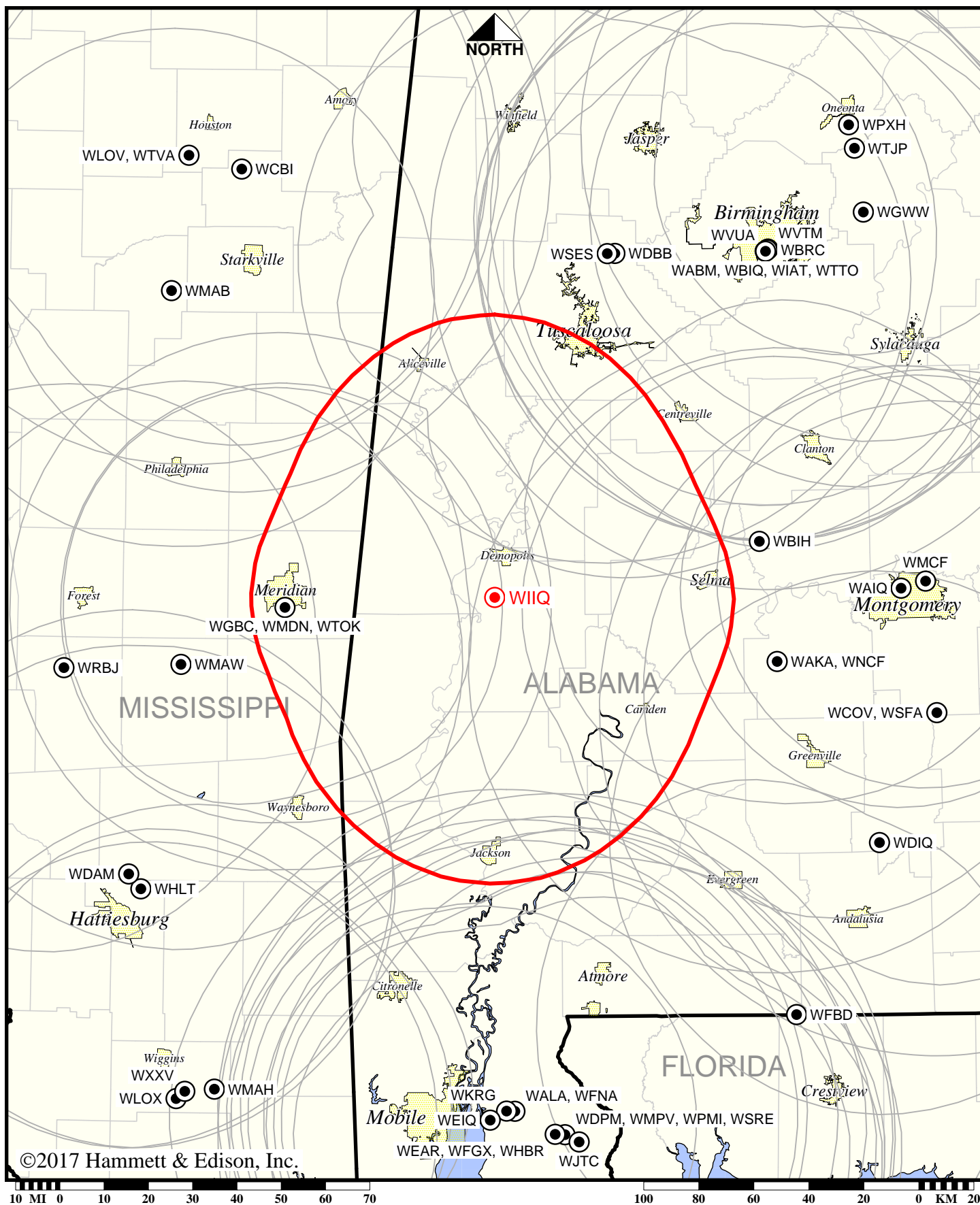
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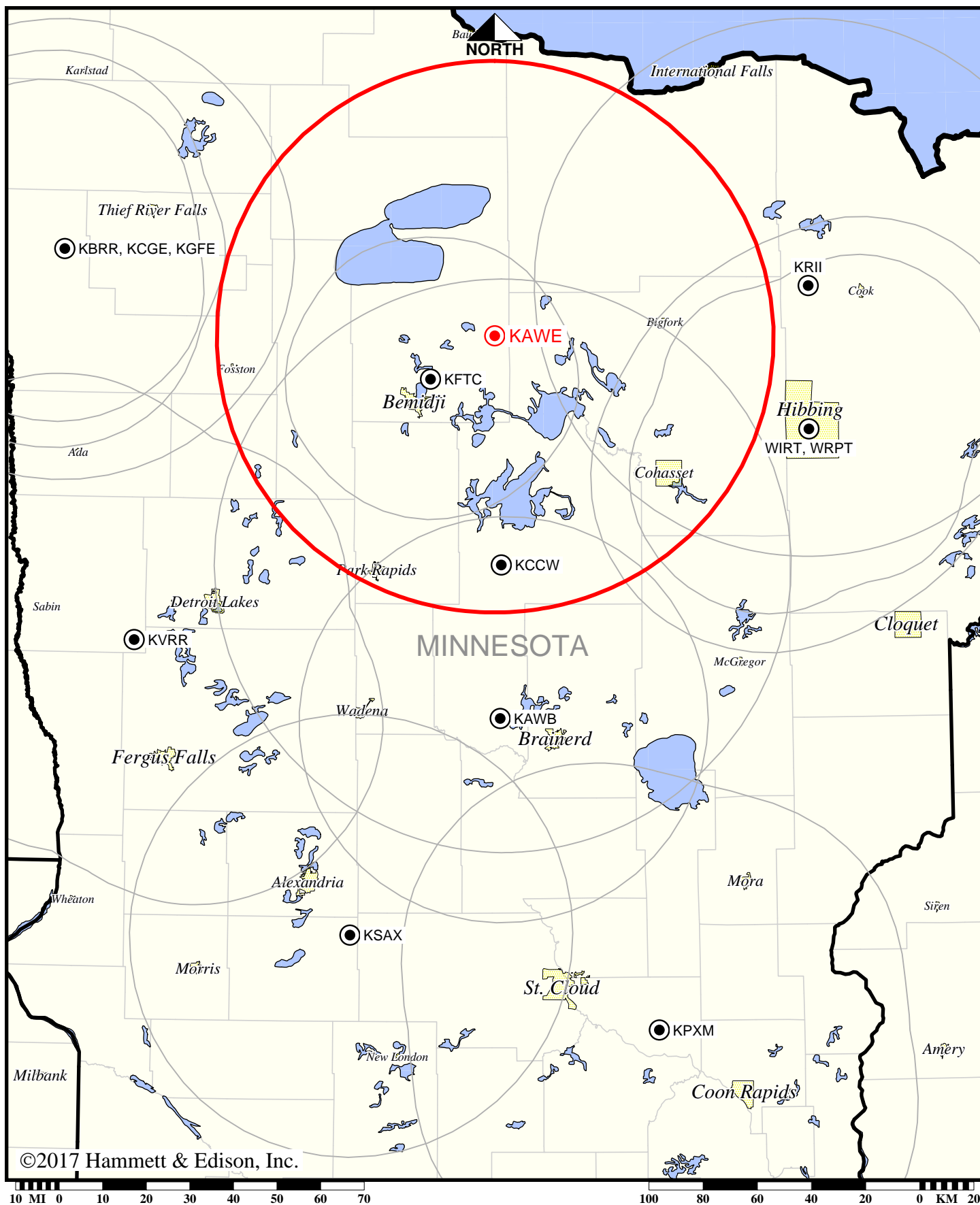
May 9, 2017

Appendix A

Alabama Educational Television Commission
WIIQ • Demopolis, AL



Northern Minnesota Public Television, Inc.
KAWE • Bemidji, MN



University of North Carolina
WUNC-TV • Chapel Hill, NC

