

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of: )  
 )  
Boulder Regional Emergency Telephone ) PS Docket No. 19-254  
Service Authority Petitions )  
 )

**Reply Comments of America’s Public Television Stations**

America’s Public Television Stations (“APTS”)<sup>1</sup> hereby files these Reply Comments in the above-captioned proceeding.<sup>2</sup> Public television stations stand ready, willing and able to leverage their nationwide network of high-powered broadcast television stations in conjunction with digital datacasting to implement a nationwide wireless IP delivery network to complement FirstNet’s services and coverage for the benefit of public safety users nationwide. This one-to-many capability over resilient broadcast facilities utilizes the licensed spectrum of public television stations to greatly improve first responder access to critical information during emergencies – while reducing the potential for preemption of the public’s cell phone communications. Datacasting will also benefit public safety communications in rural areas of the country unserved or underserved by cellular networks.

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<sup>1</sup> 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.

<sup>2</sup> *Public Safety and Homeland Security Bureau Seeks Comment on Petitions Filed by the Boulder Regional Emergency Telephone Service Authority*, Public Notice, PS Docket No. 19-254, DA 19-902 (rel. Sept. 11, 2019).

All commenters, other than FirstNet and AT&T, support the Commission’s review of FirstNet’s interoperability requirements under the Spectrum Act.<sup>3</sup> APTS, which has offered to FirstNet and AT&T the vast resources of public television stations on a number of occasions, thus far without success, agrees that such a review is advisable. To leave public television stations, serving almost 97 percent of the American people – including some of the most rural and remote areas of our country – on the sidelines of the FirstNet infrastructure is to ignore a robust, reliable and ubiquitous partner whose public safety capabilities have proven effective in a variety of critical use cases. An inquiry to address the scope of FirstNet’s obligations – and its willingness – to provide access to and from other public safety networks, especially in light of FirstNet’s statutory requirements for coverage in rural areas, would be useful to all concerned.

At a minimum, such a proceeding will provide the Commission an opportunity to hear directly from public safety entities across the country and to develop a record to assist FirstNet in creating the best possible communications eco-system for first responders.

**I. Public Television Stations Have the Licensed Spectrum and Resilient Facilities to Enhance Public Safety Communications Nationwide, Including in Rural Areas, as a Complement to FirstNet.**

Public television stations operate over 1,000 transmitters in all 50 states, 4 territories and the Nation’s Capital reaching nearly 97% of the U.S. population.<sup>4</sup> The towers and related infrastructure of these stations are public safety grade – built with resiliency in mind to fulfill the primary mission of broadcast television service to consumers. Rural coverage is a hallmark of

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<sup>3</sup> Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156 §§ 6001-6303, 6413 (codified at 47 U.S.C. §§ 1401 et seq.) (“Spectrum Act”); see e.g. Comments of Verizon, at p.1; Comments of Southern Linc, at pp.1-2; Comments of the Digital Decision, at p.2; Comments of Mutualink, Inc.

<sup>4</sup> See a map showing the coverage of public television stations at: [https://apts.org/sites/apts.org/files/PBS\\_w\\_Translator\\_red\\_2.jpg](https://apts.org/sites/apts.org/files/PBS_w_Translator_red_2.jpg)

public television stations. Demonstrating their strong support for public safety, on February 22, 2016, the APTS member public television stations unanimously adopted a resolution committing in principle the designation of 1 Mbps of their licensed channel capacity to the FirstNet public safety initiative.

By utilizing digital datacasting – a proven technology that allows broadcast television signals to deliver encrypted and targetable IP data directly to first responders – public television stations are well positioned to complement FirstNet’s services and coverage.<sup>5</sup> Datacasting supports encrypted delivery of video, files, alerts and other data to specifically targeted first responders. The licensed spectrum of public television stations is already built-out and operational across the country, including in rural communities.

Datacasting allows for communications of one-to-many without overload or congestion. Because datacasting could offload bandwidth intensive content, particularly during periods of high use, it can reduce the need for AT&T/FirstNet to preempt members of the public – who also have significant communications needs during natural disasters or other emergencies. Datacasting over resilient broadcast facilities can also provide communications to first responders in areas where cell towers become inoperable during emergencies, such as severe weather events or wildfires. In addition, public television stations use their own satellite, fiber and microwave networks to bring content to the stations before transmitting high-quality video to their viewers. This backhaul infrastructure can also be available to FirstNet.

Datacasting has been in place and operating for more than a decade. It has been evaluated by the Department of Homeland Security Science and Technology Directorate and the

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<sup>5</sup> For an overview of the commitment of APTS member public television stations to public safety through datacasting, see <https://apts.org/local-service/public-safety>

Johns Hopkins University Applied Physics Laboratory, and it has been used by public safety agencies ranging from the National Park Police to the Houston Police Department.<sup>6</sup> It is currently operational in Washington DC, Houston, Las Vegas and throughout the entire state of Tennessee, and it has been used to reduce the early earthquake warning time in California from 30 seconds to less than 3 seconds. Inexpensive datacasting equipment could be installed throughout the rest of the public television system transforming billions of dollars of broadcast television assets into a new secure nationwide public safety wireless network.

School safety, live video briefings, improving access to helicopter and drone video, alerting and large file delivery are examples of use cases that have been successfully demonstrated. In Tennessee, the National Guard is preparing to leverage the technology to reach rural areas that do not have highspeed Internet.

In sum, datacasting over public television stations can be integrated with FirstNet's operations to provide seamless service to public safety end users, efficiently delivering video,

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<sup>6</sup> See Video by DHS Science and Technology Directorate, *Datacasting in 100 Seconds*:  
[https://www.youtube.com/watch?v=NeJ81\\_RtBhY](https://www.youtube.com/watch?v=NeJ81_RtBhY);

*Video Datacasting: Houston Pilot After Action Report, First Responders Group, October 2015, Homeland Security Science and Technology*:  
<https://www.dhs.gov/sites/default/files/publications/Houston%20Datacasting%20Pilot%20After%20Action%20Report.pdf>;

*Datacasting: NCAA Deployment in Houston Report, First Responders Group, July 2016, Homeland Security Science and Technology*:  
[https://www.dhs.gov/sites/default/files/publications/Datacasting-Use-at-NCAA-Houston-v5-08012016508C\\_0.pdf](https://www.dhs.gov/sites/default/files/publications/Datacasting-Use-at-NCAA-Houston-v5-08012016508C_0.pdf);

Factsheet by DHS Science and Technology Directorate, *Datacasting – Broadcast Real-Time Video and Critical data over Existing Digital Television Spectrum*:  
[https://www.dhs.gov/sites/default/files/publications/1015\\_OIC\\_Datacasting-FactSheet\\_180808-508.pdf](https://www.dhs.gov/sites/default/files/publications/1015_OIC_Datacasting-FactSheet_180808-508.pdf)

files and other bandwidth intensive content. The resulting benefit to public safety – including first responders in rural and remote areas – would be significant.

**II. The Commission and FirstNet Should Work to Create the Best Possible Communications Eco-system to Serve the Needs of Public Safety.**

In light of such resources readily available to contribute to the nation’s public safety, the Commission should review FirstNet’s approach to interoperability and integration with other public safety networks. The inquiry should particularly address these issues in the context of FirstNet’s coverage in rural areas and its ability to meet the needs of first responders in remote regions of the country as required under the Spectrum Act. The proceeding should also focus on examining a framework for the best possible communications eco-system for public safety – a framework which should include the APTS network of public television stations.<sup>7</sup>

The Commission is vested with both advisory and regulatory oversight responsibilities with respect to FirstNet and other public safety networks. It “shall implement and enforce” the Spectrum Act as if it is “a part of the Communications Act.”<sup>8</sup> It has the authority to adopt rules “to improve the ability of public safety networks to roam onto commercial networks and to gain priority access to commercial networks in an emergency.”<sup>9</sup> The Commission “may provide technical assistance” and “may take any action necessary” to assist FirstNet “in effectuating its duties and responsibilities.”<sup>10</sup>

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<sup>7</sup> APTS agrees with the view of Mutualink, Inc., that “an interconnected eco-system of public and private networks is critical to the nation’s resiliency and ability to respond to the increasing threats we face.” Comments of Mutualink, Inc., at pp. 4-5. Both the Commission and FirstNet should work to make such an eco-system a reality.

<sup>8</sup> 47 U.S.C. §1403(a).

<sup>9</sup> 47 U.S.C. §1431.

<sup>10</sup> 47 U.S.C. §1433.

Since the Commission has the *exclusive* authority to determine whether renewal of FirstNet’s license is in the public interest, based on a determination of whether FirstNet has met its “duties and obligations” under the law,<sup>11</sup> the Commission should certainly satisfy itself that FirstNet is providing “substantial” coverage to rural areas of the country, as required by the Spectrum Act.<sup>12</sup>

Most importantly, FirstNet and the Commission should work to establish the best possible eco-system for public safety communications. APTS and its member public television stations can play, and are eager to play, an important role in that eco-system – if given the opportunity.

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<sup>11</sup> 47 U.S.C. §1421(b)(2).

<sup>12</sup> 47 USC §1426 (b)(3).

**Conclusion**

APTS agrees with the commenters in this proceeding that the Commission should examine FirstNet’s obligations to provide access to and from other public safety networks with a focus on FirstNet’s requirements for coverage in rural areas. Public television stations have the spectrum, the resilient facilities and the commitment to play an important role in serving public safety’s communications needs. APTS recommends that the Commission and FirstNet develop the best possible eco-system to serve public safety, incorporating the resources of public television stations throughout the United States.

Respectfully submitted,



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