

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

In the Matter of:

Expanding Flexible Use of the 3.7 GHz to 4.2 GHz
Band

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WTB Docket No. 18-122

COMMENTS OF
THE NATIONAL ASSOCIATION OF BROADCASTERS

August 7, 2019

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I. INTRODUCTION AND SUMMARY

The National Association of Broadcasters (NAB)¹ hereby submits the following comments in response to the Commission’s Public Notice seeking additional comment in the above-referenced proceeding.²

NAB believes strongly that the Commission is in a position right now to move forward on reallocating 200 MHz of spectrum in the 3.7 to 4.2 GHz range (C-band) and that it should seize that unique opportunity. If the Commission caves to unreasonable and unjustified pressure to reallocate more spectrum in the C-band for terrestrial wireless services, it will no doubt be harming the backbone of our nation’s audio and video content delivery system. And, as evidenced by the proposal submitted by ACA Connects – America’s Communications

¹ The National Association of Broadcasters (NAB) is the nonprofit trade association that advocates on behalf of free local radio and television stations and broadcast networks before Congress, the Federal Communications Commission and other federal agencies, and the courts.

² *Wireless Telecommunications Bureau, International Bureau, Office of Engineering and Technology, and Office of Economics and Analytics Seek Focused Additional Comment in 3.7-4.2 GHz Proceeding*, Public Notice, GN Docket No. 18-122, DA 19-678 (July 19, 2019) (Public Notice).

Association, the Competitive Carriers Association and Charter Communications, Inc. (the ACA Proposal), further delay in reallocating 200 MHz of spectrum will give oxygen to ill-conceived, self-interested schemes that are out of touch with reality.

In this instance, the pay TV members of the ACA Coalition seek to leverage this proceeding to acquire four specific economic and competitive advantages. First, they seek to be paid for their earth stations. Second, they seek to be paid to install fiber to replace C-band distribution. Third, they seek to be paid by content providers for fiber distribution in lieu of C-band. Fourth, they seek long-term leverage to raise the rates for such distribution. By restricting or eliminating C-band and forcing content distribution to fiber, the ACA Coalition seeks to undermine intermodal competition for their new fiber services and secure a price-setting stranglehold on the content distribution business. Put simply, they want to get paid to eliminate competition. Nice work if you can get it.

Forcing content providers to give up the ubiquitous, seamlessly reliable satellite distribution C-band spectrum provides in exchange for a massively complex, expensive and less reliable fiber distribution network risks devastating harm to a vibrant content ecosystem on which hundreds of millions of Americans rely for the news, sports and entertainment programming they currently enjoy. NAB urges the Commission to reject the ACA proposal and any version of a proposal calling for a mandatory migration of content distribution to fiber.

NAB also continues to urge the Commission to reject proposals to allow shared use of the portion of the C-band that is not reallocated for wireless use in this proceeding. Adding new users to a reduced C-band footprint will complicate the transition for existing users and will freeze existing C-band operations in place. It will also set the stage for damaging service interruptions and jeopardize the Commission's ability to evaluate the C-band in the future.

II. THE COMMISSION SHOULD NOT FORCE PROGRAMMERS AND BROADCASTERS TO MOVE TO FIBER

As an initial matter, the ACA Proposal is not truly a proposal to reallocate 370-400 MHz of C-band spectrum. In practice, it is a proposal to reallocate the entire band. Because the operating costs for maintaining a fleet of satellites likely change very little if the fleet operates on 100 MHz or 500 MHz, it simply strains credibility to insist that satellite operators will continue to offer C-band services, including continuing to support an expensive satellite fleet and launching replacement satellites as needed, only for services occupying a small fraction of their current spectrum. These providers are unlikely to remain in business to provide service to a fraction of their current customer base. Even if they did choose to do so, prices would increase dramatically to reflect continued operating and capital expenses that would need to be recovered through just 100-130 MHz of spectrum. If the FCC adopts the ACA Proposal, the FCC could effectively be forcing all television and radio programming distribution to migrate in the near-term to an untested, enormously complex fiber distribution system that would also provide fiber providers with increased price-setting power. The Commission should reject this approach.

A. Fiber is not a Replacement for C-band Spectrum

Implicit in the ACA Proposal is the assumption that fiber can serve as a perfect substitute for C-band distribution for programmers. It cannot. While the record of this proceeding suggests that fiber may serve as a complement to satellite distribution in some cases, content providers themselves have explained that it cannot serve as a *substitute* for C-band satellite delivery.³ Preserving not only diverse paths, but also diverse modes of content

³ Letter from Matthew S. DeNero to Marlene H. Dortch, GN Docket No. 18-122 (June 7, 2019); Comments of Comcast Corporation and NBCUniversal at i-ii, GN Docket No. 18-122

distribution increases reliability. One need only perform a brief internet search for “fiber cut outages” to come up with numerous examples of significant fiber service disruptions or outages due to construction, vandalism or other causes. These fiber outages are not resolved within seconds or minutes – they are resolved within hours or days – a wholly unacceptable timeframe to restore programming distribution.

For example, just in the past two months:

- A cut to CenturyLink’s fiber optic lines led to widespread outages in South Carolina, lasting approximately 12 hours;⁴
- A fiber cut led to widespread telephone service outages – including 911 service – in northwest Colorado;⁵
- A fiber cut caused widespread cellular service outages in North Dakota;⁶
- A fiber cut caused service disruptions in Arizona;⁷ and

Oct. 29, 2018); Comments of the Content Companies at 3-4, GN Docket No. 18-122 (Oct. 29, 2018).

⁴ See, e.g., Mary Katherine Wildeman, “After a cut line sparks widespread SC web outages, full details unlikely to come to light,” The Post and Courier (July 3, 2019) available at: https://www.postandcourier.com/business/after-a-cut-line-sparks-widespread-sc-web-outages-full/article_e31c8c88-9da3-11e9-9d48-e79b3b02bcd7.html ;

⁵ Sawyer D’Argonne, “Update: Service restored after fiber optic cut causes widespread phone outage, including 911,” Summit Daily (July 15, 2019) available at: <https://www.summitdaily.com/news/phones-down-at-summit-dispatch-center-following-regional-911-outage/>.

⁶ Nick Broadway, “North Dakota AT&T outages caused by cut fiber line,” INFORUM (June 3, 2019) available at: <https://www.inforum.com/news/1357338-North-Dakota-ATT-outages-caused-by-cut-fiber-line>.

⁷ News Staff, “Cox customers experiencing outage in Arizona,” asfamily.com (June 26, 2019) available at: https://www.azfamily.com/news/cox-customers-experiencing-outage-in-arizona/article_8cbcae10-9883-11e9-ad00-c31e69ea7c90.html.

- A fiber cut lead to widespread internet, phone and cable outages in parts of Alabama.⁸

Broadcasters themselves have experience with fiber failures, including one network that saw a fiber path fail seconds before a presidential debate. Viewers at home never noticed a problem because the network could rely on satellite distribution. Indeed, precisely because of concerns that fiber is less reliable and more expensive than C-band distribution, far from shifting to fiber, some broadcasters actively seek to replace fiber links wherever possible.

When disasters strike, such as extensive storms, fiber services can be disrupted and the disruptions can last for days or weeks.⁹ It could become impossible for broadcasters and first responders to relay emergency information in or out of a disaster area if fiber were the sole means of distribution. While satellite dishes might be knocked out of alignment or power lost to satellite receiver, restoration of service is straightforward and can be accomplished rapidly, saving lives and property.

B. ACA's Proposal is Complex, Unproven and Time-Consuming

Replacing C-band content distribution with fiber would be a massive, time-consuming and complex endeavor. While C-band's one-to-many architecture is perfectly suited for the nationwide distribution of content, particularly in rural areas, fiber's point-to-point architecture will require content providers to fit a square peg into a round hole. Creating a nationwide series of aggregation points to receive content and distribute it to earth stations in the vicinity of each aggregation point will require significant and time-consuming engineering investment

⁸ Leada Gore, "Widespread Spectrum outage reported," al.com (June 18, 2019) available at: <https://www.al.com/news/2019/06/widespread-spectrum-outage-reported.html>.

⁹ Robert Perkins, "Internet outages in the U.S. doubled during Hurricane Sandy, USC Study finds," USC News (Dec. 18, 2012) available at: <https://news.usc.edu/45114/internet-outages-in-the-u-s-doubled-during-hurricane-sandy-usc-study-finds/>

with redundant and truly geographically diverse paths for both the collection and distribution of content. This is a wholly novel vision for a distribution network that will require exceptional and unprecedented cooperation among a myriad of network owners. The ACA Coalition seems to suggest that all of the aggregation points and all of the new fiber paths would be under common ownership and control. This is purely magical thinking.

Further, while the ACA Coalition claims it can stand up this unprecedented fiber distribution network very quickly, it is unclear why the Commission should assume that fiber providers are reliable sources of information concerning the pace of fiber deployment. For example, the New York Public Service Commission decided in 2018 to rescind its approval of Charter's merger with Time Warner Cable following Charter's failure to meet broadband deployment commitments Charter made to secure approval for that merger.¹⁰ The PSC concluded that Charter "repeatedly and continuously fails to meet its buildout targets" and that Charter "continues to show an inability or a total unwillingness to extend its network in the manner intended by the Commission."¹¹ Why should the Commission not assume that members of the ACA Coalition are similarly overpromising in this instance?

As described above, the Commission should interpret the ACA Proposal as a proposal to reallocate the entire 500 MHz of the C-band, as it is unlikely that C-band operators would have a viable business going forward with a fraction of their current customer and capacity base to support largely unchanged operating and capital expenses. However, even if taken at face value, the ACA Proposal rests on the assumption that transponder capacity is

¹⁰ *Joint Petition of Charter Communications and Time Warner Cable for Approval of a Transfer of Control of Subsidiaries and Franchises, Pro Forma Reorganization, and Certain Financing Arrangements, Order Denying Petitions for Rehearing and Reconsideration and Revoking Approval*, 2018 N.Y. PUC LEXIS 382 (N.Y.P.S.C. July 27, 2018).

¹¹ *Id.* at *33.

operationally fungible across satellites and that broadcasters can be accommodated in 100-130 MHz of spectrum operated across 24 orbital slots. In fact, C-band satellite operators have “neighborhoods” of orbital slots assigned for different types of users and specific satellites have predominant types of use. Currently, broadcasters receive signals from a handful of orbital slots.

Switching to a system where broadcasters would potentially need to receive signals from all 24 orbital slots would inevitably entail the installation of significant numbers of additional earth station antennas. Such installation would take considerable time, would add considerable cost, and many broadcasters simply will not have space to accommodate additional large dishes or will not have line of sight to all orbital slots at their current locations. The ACA Proposal is unworkable in any timeframe, but it certainly would not clear spectrum in the near term. The manufacture and installation of thousands – likely tens of thousands – of additional dishes alone would ensure that.

C. ACA’s Proposal Would Increase Costs and Dangerously Concentrate Pricing Power

The ACA proposal would dramatically increase the costs associated with content distribution. Fiber distribution is significantly more expensive than C-band distribution due to the inherent efficiencies in the C-band broadcast platform. But increased costs based on current rates are only part of the story – they do not reflect the transparent ambitions underlying the ACA Proposal.

The cable members of the ACA Coalition seek to leverage this proceeding to acquire four specific economic and competitive advantages. First, they seek to be paid for their earth stations. Second, they seek to be paid to install fiber to replace C-band distribution. Third, they seek to be paid by content providers for fiber distribution in lieu of C-band. Fourth, and most perniciously, they seek long-term leverage to raise the rates for such distribution. By restricting

or eliminating C-band and forcing content distribution to fiber, the ACA Coalition seeks to undermine or eliminate intermodal competition for their fiber services and secure a price-setting stranglehold on the content distribution business. The ACA Coalition wants to get paid to undermine its competition.

The ramifications could be catastrophic for content. Concentrating the sole means of content distribution in the hands of fiber providers could lead to price increases that would dramatically curtail programming investment and undermine the value of content that is itself a critical part of a healthy 5G ecosystem.

This certainly would not be the first time cable companies have sought to hamper competitors. They have a demonstrated track record of seeking to prevent new competitors from gaining a foothold in their markets. For example, Charter, one of the members of the ACA Coalition, actively sought to thwart Google Fiber's entry into the Louisville, Kentucky market by suing to block one-touch make-ready rules that would have facilitated Google Fiber's installment of fiber.¹² Undermining intermodal competition by crippling the C-band would be a vastly more profitable endeavor for the members of the ACA Coalition – who would be paid to install fiber that would eliminate competition for that fiber's capabilities.

III. THE COMMISSION SHOULD NOT PERMIT SHARED USE OF THE REMAINING C-BAND

The Public Notice also seeks comment on a study submitted by WISPA, Google and Microsoft regarding the ability of co-channel fixed wireless point-to-multipoint service to

¹² Jon Brodtkin, "Google Fiber's biggest failure: ISP will turn service off in Louisville," Ars Technica (Feb. 8, 2019), available at: <https://arstechnica.com/information-technology/2019/02/google-fiber-exits-louisville-after-shoddy-installs-left-exposed-wires-in-roads/>.

coexist in the portion of the C-band that is not reallocated for wireless use.¹³ The Commission should reject this proposal for reasons already set forth in the record of this proceeding.

First, reallocating existing satellite content distribution service in the C-band will prove challenging enough without adding to that complexity by limiting the utility of the remaining spectrum. Building point-to-multipoint links around the locations of existing earth stations will freeze earth stations in place – when in fact, as a practical matter, broadcasters do change the locations of existing earth stations and add additional stations as needed.

Second, sharing would likely require the Commission to eliminate or constrain its longstanding and highly successful full-band, full-arc earth station licensing policy, under which earth stations may coordinate across the entire frequency band over the entire geostationary arc. Preserving the flexibility that full-band, full-arc licensing provides is essential to maintaining the reliability that broadcasters and other users achieve with satellite services. It allows earth stations to access other satellites and frequencies in case of unanticipated interference or equipment problems or failures. Flexibility in both satellite choice and transponder frequency are absolute necessities to assure reliable operation and are key components of the near-flawless reliability that C-band service provides today. Even small reductions in this level of reliability would significantly degrade the value of the band and risk significant service interruptions that viewers and listeners would notice and resent.

Third, the implications of harmful interference to an earth station user include programming disruptions for that station’s viewers and listeners. Interference would need to be resolved immediately – in seconds, not minutes or hours or days, to prevent critical service disruptions of programming. As a practical matter, there is simply no proven mechanism for

¹³ Public Notice at 5.

co-channel sharing in the C-band that would allow earth stations to immediately identify the source of interference and immediately require that source to cease all operations until the interference could be resolved.

Finally, if the Commission wants to preserve the flexibility to continue to evaluate the C-band in the future, the Commission should not introduce new services in the band. The Commission is well-aware of the challenges it has faced in this proceeding with respect to considering how to accommodate existing users. Creating an entire new class of existing users in the band would be short-sighted and could risk limiting the Commission's flexibility in the future.

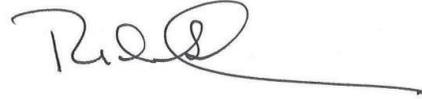
IV. CONCLUSION

We urge the Commission to focus its efforts on serious proposals to reallocate 200 MHz of spectrum for wireless use immediately, while preserving the content distribution system that hundreds of millions of Americans rely on today. The Commission can continue to study further opportunities in the C-band and other bands to make additional spectrum available for 5G and other services. But pressuring stakeholders to make more spectrum available than the current distribution system can bear risks breaking the content ecosystem.

Respectfully submitted,

**NATIONAL ASSOCIATION OF
BROADCASTERS**

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A handwritten signature in black ink, appearing to read "Rick Kaplan", with a long horizontal line extending to the right from the end of the signature.

Rick Kaplan
Patrick McFadden
Robert Weller

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