

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554**

In the Matter of

Expanding Flexible Use of the 3.7 to 4.2 GHz Band

GN Docket No. 18-122

Petition for Rulemaking to Amend and Modernize
Parts 25 and 101 of the Commission's Rules To
Authorize and Facilitate the Deployment of
Licensed Point-to-Multipoint Fixed Wireless
Broadband Service in the 3.7-4.2 GHz Band

RM-11791

Fixed Wireless Communications Coalition, Inc.,
Request for Modified Coordination Procedures in
Band Shared Between the Fixed Service and the
Fixed Satellite Service

RM-11778

**REPLY COMMENTS OF THE SMALL SATELLITE OPERATORS
(ABS GLOBAL LTD., HISPASAT S.A. AND CLARO S.A.)**

The Small Satellite Operators ("SSOs") appreciate the contribution ACA Connects and members of its Coalition have made to this proceeding. The Coalition's effort reflects the importance of making a more significant amount of spectrum available for 5G quickly and transparently, while respecting the rights of all C-band stakeholders.

Nevertheless, the SSOs remain concerned that the complexities of the ACA Connects proposal ("the Proposal") would delay the transition of the band to 5G, and that key aspects of the clearing mechanism have yet to be described on the record.¹ Most commenters share these concerns. Indeed, the predominant reaction to the Proposal has been skepticism. ACA Connects has not demonstrated the feasibility of the massive fiber construction project at the heart of the Proposal, nor has it confronted the challenges, and questionable legality, of completing a

¹ See Comments of the Small Satellite Operators (ABS Global Ltd., Hispasat S.A. and Claro S.A.) at 3-13, GN Docket No. 18-122 (filed Aug. 7, 2019) ("SSO August Comments").

centrally planned shift to fiber that many programmers and broadcasters do not want. The record also reflects real concern that the Proposal glosses over the legal and logistical challenges surrounding the clearing mechanisms that it would use to achieve the repurposing.

Meanwhile, the C-Band Alliance (“CBA”) continues to misuse what should be an industry consortium to advance the narrow anticompetitive ends of the largest satellite incumbents. Plainly failing on the record to justify the exclusion of the SSOs from compensation for relinquishing their C-band authorizations, the CBA has shifted to locking in its dominant market position by proposing technical rules that would prevent the SSOs from providing service in whatever portion of the band remains for satellite use. Its attempt to use this proceeding for anticompetitive purposes makes up in audacity what it lacks in legitimacy. The Commission simply cannot base its technical criteria for the protection of FSS networks upon the CBA’s latest attempt to undermine competitors.

I. Waiting for Nationwide Fiber Deployment Will Delay the Transition to 5G.

The SSOs recognize that, in some cases, fiber can accommodate the needs of programmers and content distributors that currently rely on the C-band. As Verizon notes, “fiber is a viable and attractive alternative” to C-band spectrum for some customers, and it should be “part of the conversation” moving forward.² CTIA similarly “supports considering fiber as a solution to help transition” some users to other delivery mechanisms.³ NTCA agrees that some “programming can be delivered via fiber.”⁴ Broadcasters and content consumers like the North American Broadcasters Association also agree that fiber can “augment and complement C-Band

² Comments of Verizon at 13, GN Docket No. 18-122 (filed Aug. 7, 2019) (“Verizon Comments”).

³ Comments of CTIA at 7, GN Docket No. 18-122 (filed Aug. 7, 2019).

⁴ Comments of NTCA—The Rural Broadband Association at 2, GN Docket No. 18-122 (filed Aug. 7, 2019) (“NTCA Comments”).

transmission”⁵; the Church of Jesus Christ of Latter-Day Saints similarly agrees that fiber is a “viable solution for some C-band operators.”⁶

But it does not follow that the Commission can or should make a wholesale migration to fiber a prerequisite for repurposing the C-band. Numerous parties have questioned whether the enormous fiber network at the heart of the Proposal would even be feasible, especially on the aggressive timeline that ACA Connects proposes.

For example, Verizon explains that the Proposal “leaves unanswered too many questions as to the economics and deployment schedule of the contemplated changeover, putting C-Band repurposing at risk.”⁷ The CBA likewise argues that ACA Connects “underestimate[s] the amount of time needed to complete the transition from C-Band to fiber,” including the significant time it would take to “lay fiber” in numerous areas, as well as handling the many logistical issues that accompany such a major undertaking.⁸

Other filers from across the spectrum elaborate on the difficulties the Proposal’s massive fiber project likely would face. The National Association of Broadcasters, for instance, explains that, to build a reliable fiber network of this scale, the Proposal “will require significant and time-consuming engineering investment with redundant and truly geographically diverse paths for both the collection and distribution of content,” only possible with “exceptional and unprecedented cooperation” among diverse market participants.⁹ Echoing considerations the

⁵ Comments of North American Broadcasters Association at 3, GN Docket No. 18-122 (filed Aug. 7, 2019) (“NABA Comments”).

⁶ Comments of The Church of Jesus Christ of Latter-Day Saints at 3, GN Docket No. 18-122 (filed Aug. 7, 2019) (“LDS Comments”).

⁷ Verizon Comments at 14.

⁸ Comments of the C-Band Alliance at 9-16, GN Docket No. 18-122 (filed Aug. 7, 2019) (“CBA Comments”).

⁹ Comments of the National Association of Broadcasters at 5-6, GN Docket No. 18-122 (filed Aug. 7, 2019); *see also* Comments of Cumulus Media Inc. and Westwood One, LLC at 2, GN Docket No. 18-122 (filed Aug. 7,

SSOs have raised, QVC and HSN expect that the fiber deployments will be “subject to inherent complexities” that will inevitably extend the timeline.¹⁰ PSSI Global Communications similarly argues that the Proposal gives short shrift to “practical legal and construction issues that historically have long delayed fiber deployment.”¹¹ When rolling out a normal fiber network—let alone a moonshot like ACA Connects proposes—historically “the difference between promise and performance is very wide.”¹²

Quite simply, as NABA comments, the transition to fiber “will take a long time.”¹³ And the record accordingly shows widespread concern that the Proposal’s assumed timeline for fiber deployment is “overly ambitious”¹⁴ and “unrealistic” for a “proposed total overhaul of the nationwide video delivery system.”¹⁵ Given that this fiber transition is the centerpiece of the ACA Connects Proposal, with everything else depending on a timely and successful fiber deployment, the near-certain delays “would dramatically slow down access to the spectrum” for 5G.¹⁶

Commenters also raise significant concerns regarding whether customers can shift to the anticipated fiber as easily as the Proposal assumes, let alone whether it is appropriate for the

2019) (expressing “serious concerns regarding the technical viability of the Proposal” for several reasons, including that the fiber transition period is “not realistic”) (capitalization altered).

¹⁰ Comments of QVC, Inc. and HSN, Inc. at 6-7, GN Docket No. 18-122 (filed Aug. 7, 2019) (“QVC/HSN Comments”).

¹¹ Comments of PSSI Global at ii-iii, GN Docket No. 18-122, GN Docket No. 17-183 (filed Aug. 7, 2019).

¹² Comments of Globecast America, Inc. at 5-6, GN Docket No. 18-122, GN Docket No. 17-183 (filed Aug. 7, 2019) (“Globecast Comments”).

¹³ NABA Comments at 3.

¹⁴ NTCA Comments at 3.

¹⁵ Comments of Content Companies at 9, GN Docket No. 18-122 (filed Aug. 7, 2019) (“Content Companies Comments”); *see also* Globecast Comments at 2 (the Proposal “underestimates the challenges in time and resources to increase the deployment of fiber”).

¹⁶ Comments of Airspan Networks Inc. at 2, GN Docket No. 18-122 (filed Aug. 7, 2019).

Commission to adopt a proposal that would *force* them to do so. QVC and HSN explain that programmers face unique “individual circumstances” and “market-based considerations” that will require “significant lead time” to address.¹⁷ And NABA explains that “the reliability of fiber networks depends on the availability of redundant network components,” which are rare in “small and rural communities,” threatening the “availability and stability of programming” to consumers in those areas.¹⁸ FOX, CBS, Disney, Viacom, and Univision similarly question “the complexity, timing, reliability challenges, and cost that would arise from an attempt to change the video distribution infrastructure from one based primarily on satellite to one based mostly on fiber.”¹⁹ Given these concerns, the Commission cannot draw blanket conclusions about “the ability of fiber to substitute for C-band” for all the users that rely on C-band services today.²⁰

That assumes that it is appropriate in the first place for the Commission to mandate that MVPDs and programmers move to fiber in the first place—a proposition that several commenters contest. WISPA argues that there is “no sense from MVPDs and programmers that they even desire fiber replacement, much less want to have it foisted upon them as a mandatory outcome.”²¹ AT&T similarly supports letting programmers “retain the autonomy to determine what makes them ‘whole’ rather than having the FCC dictate the new market structure.”²² And the Church of Jesus Christ of Latter-Day Saints, one party that would be affected, opposes “mandatory fiber or filters for certain categories of operators,” agreeing that earth station

¹⁷ QVC/HSN Comments at 5.

¹⁸ NABA Comments at 3.

¹⁹ Content Companies Comments at i.

²⁰ Globecast Comments at 2.

²¹ Comments of Wireless Internet Service Providers Association at 5, GN Docket No. 18-122 (filed Aug. 7, 2019).

²² Comments of AT&T at 11, GN Docket No. 18-122 (filed Aug. 7, 2019).

operators “are in the best position to determine how to adjust their networks and continue operations as the Commission restructures the C-band.”²³ QVC and HSN note that “a threshold question” is whether the Commission has authority “to mandate and direct a fundamental reorganization of the content distribution industry through a government-compelled forced migration to fiber delivery and distribution, not to mention on a Commission-determined timeline.”²⁴

Finally, several commenters challenge the Proposal’s assumptions regarding the costs of the transition to fiber. The Content Companies, for example, “agree with the CBA that the actual cost of transitioning to fiber” will be high, and that the Proposal, in addition to being “overly optimistic” in general, fails to “account for substantial operations, staffing, and training costs that would be incurred on both a recurring and non-recurring basis to transition to a fiber-based distribution system.”²⁵

Perhaps most tellingly, ACA Connects itself appears to recognize that the Proposal is not ready for adoption, as it has promised to “supplement[] its original proposal” “within weeks.”²⁶ While the SSOs look forward to reviewing the revised proposal, the concerns raised on the record are fundamental to the Coalition’s plan, and strongly suggest that the Coalition should explore simpler alternatives to meet the same objectives—such as using compression technology in earth stations to increase the amount of spectrum available for terrestrial repurposing.²⁷

²³ LDS Comments at 2.

²⁴ QVC/HSN Comments at 3.

²⁵ Content Companies Comments at 12.

²⁶ Letter from Ross J. Lieberman, Senior Vice President, Government Affairs, ACA Connects – America’s Communications Association, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-122, at 1 (filed Aug. 6, 2019).

²⁷ See Letter from Scott Blake Harris and Shiva Goel, Counsel to the Small Satellite Operators, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-122 (filed Aug. 9, 2019).

II. Key Questions About the Clearing Mechanisms Remain Unanswered.

In their opening comments, the SSOs explained that the Coalition’s clearing mechanisms remain opaque, raising questions about the feasibility, lawfulness, and fairness of the Proposal.²⁸ Several commenters have raised similar concerns. Verizon argues that the Proposal “minimizes significant legal questions” that, as the Commission’s earlier *Public Notice* illustrates, must be answered before any proposal is adopted in this proceeding.²⁹ With respect to a traditional auction, for example, the CBA maintains that the Proposal would “constitute an unlawful fundamental change” to existing authorizations, in violation of Section 316.³⁰ And with respect to the potential incentive auction, the Proposal still does not “solve th[e] problem” of the absence of “competing licensees” necessary under Section 309(j).³¹

Beyond these legal problems, commenters also note that the Proposal “raises complex issues from the perspective of prospective auction participants,”³² including with respect to cost reimbursements. As QVC and HSN note, the “Proposal is unclear as to the scope of all reimbursable costs to programmers and broadcasters,”³³ leaving uncertainty about what portion of the high transition costs will be left to those parties. As the SSOs previously noted, there are similarly few details and little certainty regarding reimbursements and incentives that would be provided to satellite operators who relinquish their rights to use repurposed spectrum.³⁴ These

²⁸ SSO August Comments at 8-13.

²⁹ Verizon Comments at 15.

³⁰ CBA Comments at 17; *see* 47 U.S.C. § 316.

³¹ CBA Comments at 17-18; *see* 47 U.S.C. § 309(j).

³² AT&T Comments at 11.

³³ QVC/HSN Comments at 11-12.

³⁴ SSO August Comments at 9-11.

problems are only exacerbated by the absence of “critical details” on how the auctions would work in practice.³⁵

Thus, far greater detail and certainty is necessary before the Commission can fully evaluate this Proposal. While the SSOs remain open to a reasonable, lawful, and less time-consuming auction proposal, the hour is late for filling in these gaps.

III. The CBA’s Technical Rules Are Anticompetitive and Overprotective.

In its comments, the CBA purports to offer a compromise alternative to AT&T’s proposal to split the band in three. Part of that compromise, however, reflects nothing more than a blatantly anticompetitive effort to ensure that the SSOs cannot provide service in whatever portion of the band remains allocated for primary satellite use. Specifically, the CBA proposes to limit 5G interference only with respect to space stations located from 89°W.L. to 139°W.L., *an arbitrarily selected portion of the geostationary arc that does not include any SSO satellites*, but within which all CBA-member satellites operating in the upper portion of the C-band would be located after repacking.³⁶

This is no more than a blatant attempt to eliminate competitors through unnecessary and biased “technical” rules. This proposal would also effectively deny market access to satellites already on the Permitted List, raising concerns under WTO rules and Section 316. It would, in addition, rewrite the Commission’s Part 25 rules, which permit elevation angles down to five degrees in bands shared with terrestrial operations.³⁷ And even from the perspective of limiting elevation angles, the CBA’s artificial reduction of the arc would be arbitrary and self-serving.

³⁵ CBA Comments at 19; *see also* Verizon Comments at 16 (“As an operational matter, the proposal offers scant details to explain how an incentive auction would work.”).

³⁶ CBA Comments at Attachment A, Section 27.78(c) (proposed); *see also id.* at 27-28 (discussing this proposal).

³⁷ *See* 47 C.F.R. § 25.205.

Indeed, some orbital locations outside of the range chosen by the CBA have full view of the entire contiguous United States at elevation angles greater than five degrees.

There are simpler ways to ensure that 5G services can thrive while also allowing *all* authorized satellite operators to provide service in the portion of the band that remains for satellite use. One step toward achieving that objective would be to recognize the large body of work done by the ITU on the issue of sharing between FSS and terrestrial wireless systems, most of which is reflected in M.2109 and S.2368.³⁸ Among other demonstrations, these reports have conclusively shown that the interference effects from user terminals is insignificant compared to those of the base stations. This would support moving away from the aggregate limits that apply to both base stations and user terminals as proposed by the CBA in favor of a single-entry EIRP density limit at the output of the receiving earth station antenna that would be applicable to base stations only, which could be devised by assuming an average expected base station density per square mile, with a conservative margin factor to accommodate multiple operators.³⁹

The SSOs also note that the reference earth station receive antenna pattern proposed by the CBA assumes a large antenna size consistent with gateway operations.⁴⁰ The SSOs believe additional antenna patterns corresponding to smaller antennas also should be considered to accommodate other applications.

³⁸ See Sharing studies between International Mobile Telecommunication-Advanced systems and geostationary satellite networks in the fixed-satellite service in the 3 400-4 200 MHz and 4 500-4 800 MHz frequency bands in the WRC study cycle leading to WRC-15, Report ITU-R S.2368-0 (06/2015); Sharing studies between IMT Advanced systems and geostationary satellite networks in the fixed-satellite service in the 3400-4200 and 4500-4800 MHz frequency bands, Report ITU-R M.2109 (2007).

³⁹ See Letter from Henry G. Hultquist, Vice President, Federal Regulatory, AT&T, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-122, at 12 (filed May 23, 2019) (expressing concern that “aggregating interference across a license” will “offer[] little to no additional protection for FSS earth stations” while “driv[ing] significant burden for 5G deployments”).

⁴⁰ CBA Comments at Attachment A, Section 27.78(b) (proposed).

CONCLUSION

The record shows widespread agreement that a C-band transition must take place quickly and transparently, while repurposing more than 200 MHz and respecting the rights and interests of all C-band stakeholders. While the ACA Connects Coalition's Proposal might be inspired by these shared objectives, the record demonstrates that it is unlikely to meet them—or at least that much more work must be done to evaluate whether it is feasible. The fulcrum of the Proposal is a massive fiber build driven by nonmarket forces that does not enjoy the support of the C-band customers who would be tasked with executing it—and that is exceedingly unlikely to be completed without massive time and cost overruns as a result. The Proposal also fails to describe how the proposed auctions would work in practice, how incumbent licensees would be made whole, which costs would be reimbursed, and how the Proposal would pass legal muster.

Finally, the Commission should reject the CBA's anticompetitive and self-serving technical rules and adopt protection criteria in line with ITU studies on this very issue that would protect all FSS satellite networks operating under Part 25 of the Commission's rules.

Respectfully submitted,

A handwritten signature in dark ink that reads "SCOTT HARRIS". The signature is stylized, with the first name in all caps and the last name in all caps, and a small circle above the 'i' in Harris.

Scott Blake Harris
V. Shiva Goel
Jason Neal
Harris, Wiltshire & Grannis LLP
1919 M Street NW
Washington, DC 20036
(202) 730-1330
Counsel to the Small Satellite Operators

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