

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
Petition for Rulemaking to Amend and Modernize)
Parts 25 and 101 of the Commission’s Rules to) RM-11791
Authorize and Facilitate the Deployment of Licensed)
Point-to-Multipoint Fixed Wireless Broadband)
Service in the 3700-4200 MHz Band)

OPPOSITION OF THE SATELLITE INDUSTRY ASSOCIATION

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SUMMARY

The Satellite Industry Association (“SIA”) opposes the petition for rulemaking filed by the Broadband Access Coalition (“BAC”) for the simple reason that the relief requested by the BAC would impair, not promote, the stated goals of improving telecommunications access to rural and underserved areas. The BAC’s proposal to radically alter the well-established framework for coordinating fixed-satellite service earth stations in the 3700-4200 MHz band is wholly unjustified and contrary to the public interest.

In particular, the Commission’s express policy favoring full-band, full-arc licensing of satellite earth stations is a necessary component of the regulatory environment that has permitted C-band satellite service to fulfill a crucial role in the U.S. telecommunications infrastructure. Roughly four dozen satellites with C-band payloads serve the U.S., fully reusing the spectrum every two degrees, and communicating with thousands of earth stations. This multi-billion-dollar investment in space and ground station facilities provides high-reliability services ranging from basic connectivity for remote villages in Alaska to backbone distribution of programming content for the nation’s video delivery providers.

Many earth station complexes routinely access multiple satellites and transponders, while others might rely primarily on a single satellite for service. All customers, however, need the flexibility to quickly and seamlessly change their pointing and frequency use in order to meet shifting demand, restore service if an outage occurs, and take advantage of competition among providers. Similarly, satellite operators rely on the ability to shift customer traffic among transponders and satellites to optimize network loading and resolve interference.

The BAC claims that its proposal will ensure protection of both existing satellite operations and new earth stations, but presents no workable approach that would achieve these

goals. Abandoning full-band, full-arc earth station licensing as the BAC requests would leave satellite operators without a way to fulfill their commitments to customers and would endanger critical C-band satellite services, including those to remote areas.

In contrast to these clear harms, the alleged benefits of the changes sought in the BAC Petition are completely speculative. SIA wholly supports efforts to bridge the digital divide, but the BAC's claim that the primary obstacle to increased delivery of terrestrial fixed wireless connectivity to rural areas is a lack of available spectrum is wholly unsupported. Indeed, the BAC acknowledges that other frequencies below 6 GHz are available to fixed wireless Internet service providers today, but asserts that these frequencies are congested due to heavy use by existing broadband providers. To state the obvious, however, frequency congestion cannot possibly be a problem in areas that lack terrestrial broadband service today.

Finally, the Commission should dismiss the BAC's suggestion that its petition is entitled to action within a year under Section 7 of the Communications Act. Contrary to the BAC's claims, use of point-to-multipoint terrestrial fixed facilities to supply wireless broadband represents neither a new technology nor a new service.

In short, the BAC Petition is a "lose-lose" proposition. The changes the BAC seeks would threaten the satellite industry's ability to continue to provide service reliability and continuity to customers, including those in rural areas. Yet there is no reason to believe that U.S. consumers that are unserved or underserved by terrestrial broadband providers today would see any new service offerings. Accordingly, the BAC's request for drastic changes in the earth station coordination rules should be rejected.

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OPPOSITION OF THE SATELLITE INDUSTRY ASSOCIATION

The Satellite Industry Association (“SIA”)¹ opposes the above-captioned petition for rulemaking filed by the Broadband Access Coalition (“BAC”),² which seeks fundamental changes in Commission policy with respect to coordination of fixed-satellite service (“FSS”) earth stations operating on a primary basis in the 3700-4200 MHz conventional C-band downlink spectrum in order to accommodate a proposed new point-to-multipoint (“P2MP”) terrestrial fixed service. The BAC’s request to eliminate full-band, full-arc licensing of C-band earth stations would threaten critical satellite services and must be rejected.

¹ SIA Executive Members include: The Boeing Company; AT&T Services, Inc.; EchoStar Corporation; Intelsat S.A.; Iridium Communications Inc.; Kratos Defense & Security Solutions; Ligado Networks; Lockheed Martin Corporation; Northrop Grumman Corporation; OneWeb; SES Americom, Inc.; Space Exploration Technologies Corp.; SSL; and ViaSat, Inc. SIA Associate Members include: ABS US Corp.; Artel, LLC; Blue Origin: DigitalGlobe Inc.; DataPath Inc.; DRS Technologies, Inc.; Eutelsat America Corp.; Global Eagle Entertainment; Glowlink Communications Technology, Inc.; Hughes; Inmarsat, Inc.; Kymeta Corporation; L-3 Electron Technologies, Inc.; O3b Limited; Panasonic Avionics Corporation; Planet; Semper Fortis Solutions; Spire Global Inc.; TeleCommunication Systems, Inc.; Telesat Canada; TrustComm, Inc.; Ultisat, Inc.; and XTAR, LLC. ViaSat abstained from participation in these comments.

² Petition for Rulemaking of the Broadband Access Coalition, RM-11791, filed June 21, 2017 (“BAC Petition”).

BACKGROUND AND INTRODUCTION

SIA's review of the BAC Petition produces a strong sense of déjà vu. Earlier this year SIA responded to a petition for rulemaking filed by the Fixed Wireless Communications Coalition, Inc. (the "FWCC Petition") that asked the Commission to alter its policy of allowing C-band earth stations to be licensed across the full available spectrum and the visible satellite arc.³ The FWCC Petition was itself a retread of a filing the FWCC had made in 1999 complaining about full-band, full-arc licensing. In a 2002 decision, the Commission rejected the original FWCC request for relief and terminated the proceeding, finding that the FWCC had neither provided evidence that full-band, full-arc licensing actually harmed terrestrial fixed service ("FS") operators nor presented an alternative that would accommodate the legitimate requirements of FSS networks.⁴

In response to the most recent FWCC Petition, SIA, satellite operators, and a range of service providers that rely on C-band satellite capacity conclusively demonstrated that full-band, full-arc earth station licensing continues to service critical public interest goals.⁵ In particular, as the Commission stated in enunciating the policy:

³ See Petition to Dismiss or Deny of the Satellite Industry Association, RM-11778, filed Jan. 9, 2017 ("SIA Opposition"); Reply of the Satellite Industry Association, RM-11778, filed Jan. 24, 2017 ("SIA Reply").

⁴ *FWCC Request for Declaratory Ruling on Partial-Band Licensing of Earth Stations in the Fixed-Satellite Service That Share Terrestrial Spectrum*, Second Report and Order, 17 FCC Rcd 2002 (2002) (the "Termination Order") at 2007-08, ¶¶ 11-13.

⁵ See, e.g., Opposition of Intelsat License LLC, RM-11778, filed Jan. 9, 2017 ("Intelsat Opposition"); Petition to Dismiss or Deny of SES Americom, Inc., RM-11778, filed Jan. 9, 2017 ("SES Opposition"); Comments of the National Association of Broadcasters, RM-11778, filed Jan. 24, 2017 ("NAB Comments"); Opposition of PSSI Global Services, LLC, RM-11778, filed Jan. 12, 2017; Opposition of Pacific Satellite Connection, Inc., RM-11778, filed Jan. 19, 2017 ("PSSI Opposition"); Letter from William Weber, Vice President, Government Affairs and Associate General Counsel, *et al.*, Public Broadcasting Service to Marlene Dortch, Secretary, FCC, RM-11778, filed Jan. 24, 2017 ("PBS Letter"); Letter from The Walt Disney Company, CBS Corporation, Scripps Networks Interactive, Inc., 21st Century Fox, Inc., Time Warner Inc.,

[C]oordination for the entire frequency band and visible arc is our general earth station licensing objective in order to protect our flexibility and that of the satellite operator to change satellite locations and transponder use assignments to best satisfy overall domestic satellite service requirements.⁶

A number of BAC members also commented on the FWCC Petition, supporting the initiation of a rulemaking proceeding to explore changes to the FSS-FS coordination framework for the 3700-4200 MHz band but emphasizing the need to ensure protection of FSS incumbents from harmful interference.⁷ These commenters specifically asked the Commission to explore allowing P2MP operations in this band segment, as the BAC now requests.⁸

The BAC Petition adds nothing substantive to the existing record before the Commission on these issues. Most significantly, the BAC provides no meaningful response to satellite network operators, earth station licensees, content providers, and others who have emphasized the essential nature of full-band, full-arc licensing. Instead, the BAC very briefly acknowledges satellite industry concerns and asserts that it is “confident” that they can be addressed by allowing earth stations to use a different frequency or orbital location if “such a change is necessary.”⁹ Leaving aside the critical question of who gets to define when a change is “necessary,” the BAC Petition does not explain how an earth station licensee making such a

and Viacom Inc. to Marlene Dortch, Secretary, FCC, RM-11778, filed Jan. 24, 2017 (“Content Companies Letter”); Reply of General Communication, Inc., RM-11778, filed Jan. 24, 2017 (“GCI Reply”).

⁶ *American Satellite Corporation*, 72 F.C.C.2d 750 at 754, ¶ 10 (1978).

⁷ See SIA FWCC Reply at 16 and nn.50 & 52, *citing* Comments of Mimosa Networks, RM-11778, filed Jan. 9, 2017 (“Mimosa Comments”) at 4-5; Comments of Open Technology Institute at New America and Public Knowledge, RM-11778, filed Jan. 9, 2017 (“OTI/PK Comments”) at 2-3.

⁸ See Mimosa Comments at 4; OTI/PK Comments at 11. See also Wireless Internet Service Providers Association Comments, RM-11778, filed Jan. 9, 2017 (“WISPA Comments”) at 5.

⁹ BAC Petition at 26.

permissible change would be protected from terrestrial interference affecting its new frequency assignment and antenna pointing.

Thus, the BAC Petition shares the flaws of both FWCC petitions: it fails to make an evidence-based case for changing the Commission's full-band, full-arc earth station licensing policy or to present a viable alternative coordination framework. As discussed below, the BAC proposals would harm the public interest by undermining the flexibility necessary for satellite services to be managed effectively. Accordingly, the Commission should reject the BAC's request for changes to earth station coordination procedures and retain the long-standing full-band, full-arc earth station licensing policy.

I. C-BAND SATELLITES USE SPECTRUM EFFICIENTLY TO PROVIDE CRITICAL SERVICES NATIONWIDE, INCLUDING IN AREAS UNSERVED OR UNDERSERVED BY TERRESTRIAL NETWORKS

As SIA and others have previously demonstrated, there is no factual basis for the suggestion repeated in the BAC Petition that C-band spectrum is "underutilized" or that satellite use of the band is inefficient.¹⁰ Instead, the record developed in response to the FWCC Petition shows that satellite networks intensively use C-band frequencies to supply a broad range of essential services that play a significant role in the larger telecommunications infrastructure.

The BAC Petition parrots claims made by the FWCC regarding satellite use of the C-band without providing any supporting documentation or responding to the contrary evidence provided by satellite operators and customers. In some cases, the BAC's statements are internally inconsistent. For example, the BAC quotes the FWCC's argument that earth stations in the 3700-4200 MHz band have proliferated to the point that it is difficult to coordinate a new

¹⁰ *Id.* at 5.

terrestrial fixed link.¹¹ Yet elsewhere the BAC argues that the numbers for C-band earth station licenses and registrations are declining, suggesting an underutilization of the spectrum.¹² The BAC makes no attempt to explain how there can simultaneously be both too many and too few C-band earth stations.

Moreover, the information presented by the BAC in Exhibit 3 to its petition contradicts its claim that “FSS C-band license and renewal applications have declined steadily since at least 1988.” Instead, a review of the historical data presented by the BAC reflects that over time there have been periods of increases and decreases in new license applications, new registrations, and renewals, with no consistent trends in either direction.¹³ In particular, as the base of already licensed C-band earth station has grown over time, it is hardly surprising that fewer applications for new earth stations have been filed.

Similarly, there is a simple and straightforward explanation for Exhibit 3’s indication that zero C-band earth station renewal applications have been filed in the past several years. Specifically, in 2002 the Commission extended the license term for earth stations from ten years to fifteen years.¹⁴ That action effectively created a five-year period between 2012 and 2017 when no earth station renewal applications were due. For example, a license originally granted in 2001, before the Commission changed the license term, would have been up for renewal in 2011, whereas a license granted in 2002 after the rule change took effect in April would have received a fifteen-year term and not be due for renewal until 2017.

¹¹ See BAC Petition at 24, *citing* FWCC Petition at 5.

¹² BAC Petition at 15.

¹³ *Id.* at Exhibit 3.

¹⁴ *Amendment of the Commission’s Space Station Licensing Rules and Policies*, Notice of Proposed Rulemaking and First Report and Order, 17 FCC Rcd 3847, 3895 (2002); 67 Fed. Reg. 12,485 (Mar. 19, 2002).

Thus, even the BAC’s own data shows that FSS use of the C-band continues to be robust. There is certainly no basis for the BAC’s assertion that declining FSS use of the C-band “suggests that the rules and policies governing the 3700-4200 MHz band are outdated and badly in need of review.”¹⁵ To the contrary, to the extent that total C-band earth station numbers may have dropped somewhat over time, that simply provides more opportunities for the co-primary terrestrial fixed service to make greater use of the band, just as FSS deployments expanded when legacy terrestrial networks were decommissioned.¹⁶

In any event, the premise of the BAC’s argument – that earth station numbers are a reliable indicator of spectrum use and efficiency – is clearly wrong. As SIA has previously observed, evaluating FSS use of the C-band by focusing only on earth stations is equivalent to attempting to judge the efficiency of a terrestrial mobile network based on how much an individual cellphone is used, ignoring the frequency re-use by the network as a whole.¹⁷ Satellite networks intensively use C-band frequencies, providing coverage that blankets the U.S. many times over, fully reusing the spectrum at each orbital location through dual polarization and multiplying that reuse with satellites spaced two degrees apart across the arc.¹⁸

The propagation characteristics of the C-band spectrum and its resistance to rain fade make these frequencies uniquely suited to meeting the needs of customers who require high availability, especially those in remote locations for whom no alternative communication offerings exist. The Commission has noted that services supplied by C-band satellites include “providing broadband Internet service to consumers (particularly in rural areas), enabling

¹⁵ BAC Petition, Exhibit 3.

¹⁶ SIA Reply at 5-6.

¹⁷ *Id.* at 8-9.

¹⁸ *See id.*

communications on board planes and ships, delivering television programming to cable headends, providing data connectivity for merchant credit card transactions, and supporting corporate data networks.”¹⁹

Opponents of the FWCC Petition highlighted the importance of the 3700-4200 MHz frequencies for service to Alaska in particular. SIA member SES Americom noted that it “operates satellites used by the two largest Alaskan telecommunications service providers, AT&T Alaska and GCI, to serve the needs of customers in remote parts of the state for services ranging from basic voice telecommunications to Internet connectivity.”²⁰ In its own filing, GCI confirmed that its customers depend on C-band “communications for basic, life-sustaining services in extremely rural areas.”²¹

A group of major video content providers (Disney, CBS, Scripps, Fox, Time Warner, and Viacom) emphasized that they use C-band satellite capacity “to ensure reliable distribution of content to more than 100 million American television households each day.”²² The companies noted that C-band satellite services are used to deliver programming to broadcast affiliates, the head-ends of multichannel video programming distributors (“MVPDs”), and to innovative over-

¹⁹ See *Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 4.2 GHz*, Notice of Inquiry, GN Docket No. 17-183, FCC 17-104 (rel. Aug. 3, 2017) at ¶ 8.

²⁰ SES Opposition at 4. More recently, OptimERA, an Alaskan internet service provider, purchased capacity from SES to enable a 10-fold improvement in broadband connectivity speed for the remote port city of Unalaska and neighboring towns and islands in the southwestern portion of the state. See *Rural Alaska Benefits from Enhanced WiFi and Broadband Services via Satellite*, Press Release, July 20, 2017, available at: <https://www.ses.com/press-release/rural-alaska-benefits-enhanced-wifi-and-broadband-services-satellite>.

²¹ GCI Reply at 3.

²² Content Companies Letter at 1.

the-top (“OTT”) distributors, as well for telecasting live news or sporting events.²³ C-band satellites allow the Content Companies to perform these tasks with “near-perfect reliability.”²⁴

In short, the overwhelming evidence before the Commission shows that FSS networks use C-band spectrum efficiently and contradicts any suggestion in the BAC Petition that the frequencies are underutilized. SIA does agree with the BAC Petition on one point, though – a clean-up of the Commission’s International Bureau Filing System (“IBFS”) database containing earth station licensing and registration information is appropriate to ensure its ongoing accuracy and completeness.²⁵ Earth station licensees already, in good faith, file modification applications to update station coordinates²⁶ and routinely surrender authorizations for earth stations that are no longer in use.²⁷ However, conducting a one-time audit in which licensees are contacted and required to verify the operational status, coordinates, and elevation of their facilities may be warranted to ensure that any unbuilt or decommissioned facilities are removed from the database and any inaccurate site data is corrected.²⁸

²³ *Id.*; see also NAB Comments at 1-2; PSSI Opposition at 2.

²⁴ Content Companies Letter at 1.

²⁵ See BAC Petition at 23-24.

²⁶ See e.g., Public Notice, Satellite Communications Services, Satellite Radio Applications Accepted for Filing, Report No. SES-01956 (May 17, 2017).

²⁷ See e.g., Public Notice Satellite Communications Services, Actions Taken, Report No. SES-01967 (June 21, 2017).

²⁸ In connection with such a review, it may be useful for the Commission to consider adopting a single standard for the format in which earth station location information is provided in IBFS. In particular, although the Commission requires site information for authorizations in the Universal Licensing System to be referenced to the North American Datum of 1983 (“NAD83”), see <https://www.fcc.gov/north-american-datum-1983-coordinates>, in IBFS many licenses have coordinates referenced to the older North American Datum of 1927 (“NAD27”). For some earth stations, the NAD reference on the IBFS license is “UNK,” indicating that the datum associated with the given coordinates is unknown. Moreover, Google Earth relies on yet a different reference datum, the World Geodetic System 1984 (“WGS84”), which is also the datum used by the Global Positioning System (“GPS”). In practice, it is likely that many recent earth station applicants use

In a September 2016 letter, the FWCC asked the Commission to consider initiating such an audit for earth station authorizations in bands shared between FSS and FS operations, including the 3700-4200 MHz frequencies.²⁹ SIA agrees with the FWCC that if an audit is conducted, in order to promote necessary corrections the Commission should “offer an amnesty both for location errors and for missing or inoperative earth stations to licensees who make a timely response to the audit,” and that “earth stations filing to update coordinates or elevation [should] not be charged a filing fee.”³⁰ Such an approach will ensure that cost does not deter earth station licensees, many of whom are smaller entities with limited resources, from submitting necessary corrective filings.

II. THE BAC PETITION DOES NOT PRESENT A WORKABLE APPROACH TO PROTECTING EXISTING AND FUTURE EARTH STATION OPERATIONS

The BAC Petition pays lip service to the goal of ensuring that incumbent C-band earth stations – as well as earth stations deployed in the future – would be protected from harmful interference,³¹ but does not put forth a concrete mechanism to achieve that solution. Even from the vague outlines that appear in the petition, it is clear that the BAC’s proposed regulatory changes would compromise the continuity and reliability of C-band satellite services.

SIA and other parties opposing the FWCC Petition provided detailed information confirming that the Commission’s policy of licensing of C-band earth stations for the full band and full arc is essential to maintaining critical communications services. The flexibility provided by the policy serves a number of public interest objectives, including allowing rapid restoration

Google Earth or another GPS-based methodology to determine antenna site coordinates. Updating IBFS to require use of a uniform baseline reference for location data would help ensure that the information is consistent and verifiable.

²⁹ See Letter of Andrew Kreig, Co-Chair, Fixed Wireless Communications Coalition, Inc., to Marlene Dortch, Secretary, FCC, filed Sept. 30, 2016.

³⁰ *Id.* at 6.

³¹ See BAC Petition at 6-7.

of service in the event of an outage, permitting adjustments in response to changes in customer requirements, enhancing competition, and facilitating resolution of interference issues.³²

The record makes clear that these are not mere theoretical concerns. For example, NAB noted that:

Broadcasters' earth station facilities must have the flexibility that full-band, full-arc licensing has provided to maintain programming to the public. Broadcast stations routinely need to access programming from different network feeds or other sources, which may be on almost any transponder or satellite. For example, east coast and west coast network feeds may use different satellites and channels, and a station that is unable to receive one feed can often utilize the other. "Sun outages," where electromagnetic radiation from the Sun overwhelms satellite signals, occur regularly, making certain satellites completely unavailable for periods of time. Absent the backup capability assured by full-band, full-arc licensing, such outages can disrupt stock markets and other financial transactions as well as distribution of radio and television programming.³³

PBS recounted its direct experience with the need for full-band, full-arc licensing, explaining that the policy provides PBS with:

flexibility to execute its redundancy and disaster recovery plans in the event that its current satellite and transponder become inoperable. In 1997, PBS was affected by just such an outage and swiftly implemented a disaster recovery plan that relied upon the flexibility provided by the current rules. To this day, PBS continues to depend upon the forward-thinking flexible nature of the existing regulatory framework to efficiently reach all Americans in pursuit of its universal service mission.³⁴

Similarly, the Content Companies observed that:

In order to ensure that critical news and informational programming and groundbreaking sports and entertainment content

³² See, e.g., SIA Opposition at 13-15; Intelsat Opposition at 5; SES Opposition at 4-6; Comments of EchoStar Satellite Operating Corp. and Hughes Network Systems, LLC, RM-11778, filed Jan. 9, 2017, at 2.

³³ NAB Comments at 3-4.

³⁴ PBS Letter at 1.

reaches MVPDs, broadcast stations and OTT distributors without interruption, even in the event of a failure such as a satellite anomaly, the Content Companies need to have the ability to quickly utilize different frequencies and/or satellites. Elimination of the Commission’s long-standing and highly successful full-band, full-arc earth station licensing policy ... would result in substantial harm to the C Band spectrum and thus to the American consumers that we serve.³⁵

The BAC Petition completely ignores the real-world experience of companies who depend on C-band satellite service and simply asserts that it is “confident” that earth station operators’ need to change the frequency segment they use or the satellite they communicate with “can be accommodated” without maintaining the Commission’s full-band, full-arc coordination policy.³⁶ The BAC goes on to suggest that earth station licensees should be permitted to change frequency segments or antenna pointings only “when such a change is necessary.”³⁷ The BAC says it will “work with the FSS C-band industry to define the circumstances when changes in frequency and/or orbital slot communications will be necessary and to refine the procedures that will implement the changes so that actual FSS operations can be adequately protected.”³⁸

In other words, the BAC has no actual proposal for how to ensure that existing and future C-band earth station operations will be protected. Like the FWCC before it, the BAC wants the Commission to eliminate its full-band, full-arc earth station licensing policy but has not presented a viable alternative approach that accommodates FSS flexibility requirements. The BAC is asking the Commission to initiate a rulemaking not based on a well-thought out set of proposals, but in reliance on the BAC’s “confidence” that the critical details of how FSS

³⁵ Content Companies Letter at 1.

³⁶ BAC Petition at 26.

³⁷ *Id.*

³⁸ *Id.*

operations and the business and consumer services C-band satellites support can be protected. For this reason alone, the BAC Petition is subject to dismissal, since Section 1.401 of the Commission’s rules requires that a petition for rulemaking “set forth the text or substance of the proposed rule.”³⁹

Moreover, even the scant information in the BAC Petition makes clear that the regulatory changes contemplated by the BAC would not provide a satisfactory framework for preserving the reliability and continuity of C-band satellite services. The BAC does not attempt to explain why its members, none of which appear to have earth station licenses themselves, should have any say in defining when a change in an earth station’s frequency use or pointing is “necessary.” More importantly, the BAC Petition provides no indication of how an earth station operator making a change that meets the “necessary” standard would be protected from harmful interference. The premise of the BAC Petition is that P2MP facilities would be authorized near FSS earth stations as long as they did not interfere with the earth station based on the specific frequency segment and antenna pointing as reported to the Commission’s database.⁴⁰ Under such circumstances, the chance that an earth station could later make a “necessary” change and not experience interference affecting the new frequency and pointing would appear to be remote – unless nearby terrestrial operations were required to alter or terminate their operations to protect the FSS operations, an approach the BAC Petition certainly does not suggest.

Furthermore, the BAC’s actions belie its asserted commitment to working with FSS interests on these matters. If the BAC had truly been interested in “cooperation with FSS

³⁹ 47 C.F.R. § 1.401(c).

⁴⁰ *See* BAC Petition at 25.

operators” as suggested in its filing,⁴¹ the reasonable approach would have been to reach out to members of the satellite industry and consider their views *before* submitting the petition. In light of its failure to invite or consider satellite industry input as it was developing its proposals, the BAC’s assurances of its willingness to work with the industry ring hollow.

Again, however, the real evidence of the BAC’s disregard of satellite interests is in the petition itself, which argues for elimination of the Commission’s full-band, full-arc earth station licensing policy without suggesting a workable alternative that would meet the needs of satellite operators and customers. The undisputed record developed in response to the FWCC Petition demonstrates that full-band, full-arc earth station licensing continues to foster the same important aims identified by the Commission in response to the original FWCC Petition:

Our full-band licensing policy promotes important operational objectives in the FSS, in particular by providing earth station licensees the needed flexibility to change transponders or satellites on short notice, and without having to be re-licensed by the Commission, to meet changing operational requirements.⁴²

The BAC has presented no rationale for abandoning this proven approach to authorizing C-band earth stations, and the Commission must accordingly reject the BAC Petition.

III. THE BAC’S PROPOSALS WOULD UNDERMINE, NOT ENHANCE, SERVICE TO RURAL AND UNDERSERVED AREAS

The effect of the changes proposed in the BAC Petition would be directly contrary to its stated purpose of promoting the delivery of “wireless broadband service to rural, unserved and underserved areas.”⁴³ As discussed above, eliminating full-band, full-arc licensing of C-band

⁴¹ *Id.* at 26.

⁴² *FWCC Request for Declaratory Ruling on Partial-Band Licensing of Earth Stations in the Fixed-Satellite Service That Share Terrestrial Spectrum*, Notice of Proposed Rulemaking, 15 FCC Rcd 23127, 23146 ¶ 40 (2000).

⁴³ BAC Petition at 1.

earth stations would compromise the ability of satellite operators and their customers to maintain the reliable, continuous service that is being provided today to rural and remote areas not adequately covered by terrestrial networks. In contrast, there is no evidence to support the BAC's assertions that its proposed rule changes would improve the availability of terrestrial wireless broadband service in those areas.

The BAC Petition devotes several pages to describing the "digital divide," highlighting the percentage of the U.S. population that lacks access to terrestrial fixed broadband service, and several more pages to consideration of how the 3700-4200 MHz band could be used to expand the availability of such services.⁴⁴ But the petition simply assumes that designating 3700-4200 MHz spectrum for terrestrial wireless broadband would necessarily lead to increased terrestrial deployment without considering the critical question of why such terrestrial services are lacking in rural areas today.

In particular, the BAC Petition provides absolutely no evidence that spectrum constraints are a significant factor limiting deployment of terrestrial wireless broadband to rural and underserved areas today. The petition expressly recognizes that frequencies with propagation characteristics similar to those of C-band spectrum are used now to deliver broadband access, noting that fixed wireless Internet service providers ("WISPs") "have long relied on unlicensed and 'lightly-licensed' sub-6 GHz band spectrum to deliver fixed broadband services."⁴⁵ The BAC goes on to claim that "heavy use of the 2.4 GHz, 3.65 GHz and 5 GHz bands by broadband

⁴⁴ *Id.* at 9-14.

⁴⁵ *Id.* at 17.

providers, increasing consumer demand for high-bandwidth services, and the presence of millions of unlicensed Wi-Fi and other devices inject congestion in network use.”⁴⁶

Spectrum congestion, however, cannot possibly present an obstacle to terrestrial network expansion in areas where terrestrial wireless broadband service is not being provided. Instead, other factors such as high build-out costs must play a significant role in deterring new deployment of terrestrial wireless broadband facilities in those areas. Accordingly, there is no reason to expect that designating additional spectrum for terrestrial fixed P2MP services will have any impact on bridging the digital divide.

Thus, the policy changes requested by the BAC would harm existing satellite services to remote areas without increasing the likelihood that terrestrial fixed wireless broadband operators would expand their services. The end result will be a net loss in connectivity for rural Americans.

IV. THE BAC PETITION DOES NOT QUALIFY FOR CONSIDERATION UNDER SECTION 7 OF THE ACT

Contrary to the BAC’s suggestion, the Commission is under no obligation to expedite its consideration of the BAC Petition. The BAC cites to Section 7 of the Communications Act, which establishes a policy in favor of new technologies and services and specifies that if a petitioner proposes such a new technology or service, the Commission must act on the request within one year.⁴⁷ The BAC, however, has not proposed a new technology or service that would warrant application of Section 7.

⁴⁶ *Id.*

⁴⁷ *Id.* at 19-20.

The Commission has held that “propos[ing] to provide wireless broadband internet access service, a service that currently is being offered by other service providers to consumers using both licensed and unlicensed spectrum” falls outside the scope of Section 7.⁴⁸ Indeed, Section 7 “cannot be interpreted to endorse methods for the provision of existing services at additional locations.”⁴⁹

Nothing about the BAC Petition warrants consideration under Section 7. The BAC proposes wireless broadband service, which is ubiquitous, not new or novel. The BAC proposes point-to-multipoint broadband in larger spectrum blocks, something the Commission explicitly sanctioned for a number of bands in the Spectrum Frontiers proceeding.⁵⁰ Courts have described Section 7 as “merely a broad statement of policy conferring substantial discretion on the Commission to determine how best to provide for new technologies and services.”⁵¹ Under this standard, the BAC Petition clearly does not merit Section 7 treatment.

⁴⁸ *Applications for License and Authority to Operate in the 2155-2175 MHz Band*, 22 FCC Rcd 16563, ¶ 13 (2007), *aff’d by M2Z Networks, Inc. v. FCC*, 558 F.3d 554 (D.C. Cir. 2009).

⁴⁹ *Access Tariffs (Alternate Access Technologies)*, 6 FCC Rcd 3760, 3764 (1991).

⁵⁰ *See Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, 31 FCC Rcd 8014 (2016) at ¶ 72 (designating 425 MHz blocks for the 28 GHz band) and ¶ 206 (making clear that point-to-multipoint services will be permitted in the 28 GHz band).

⁵¹ *Alenco Commc’ns, Inc. v. FCC*, 201 F.3d 608, 615 n.3 (5th Cir. 2000).

V. CONCLUSION

For the foregoing reasons, the Commission should reject the BAC Petition's request for revision of the full-band, full-arc earth station licensing policy.

Respectfully submitted,

THE SATELLITE INDUSTRY ASSOCIATION

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August 7, 2017

CERTIFICATE OF SERVICE

I hereby certify that on this 7th day of August, 2017, I caused a true copy of the foregoing “Opposition of the Satellite Industry Association” to be sent by first class mail, postage prepaid, upon the following:

Broadband Access Coalition
c/o Robert S. Koppel
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/s/

Charity Weeden