

**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 Authorize and
Facilitate the Deployment of Licensed Point-
to-Multipoint Fixed Wireless Broadband
Service in the 3700-4200 Band

RM-11791

REPLY COMMENTS OF ALPHABET ACCESS

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INTRODUCTION AND SUMMARY

The Broadband Access Coalition (BAC) petitioned the Federal Communications Commission (FCC or Commission) to advance the use of the 3700-4200 MHz band for licensed fixed wireless point-to-multipoint operations. To achieve this goal, BAC suggested that the Commission update the IBFS database to ensure appropriate, but not excessive, protection of incumbent Fixed-Satellite Service (FSS) operations, and adopt specific rule changes to Part 101.

A range of commenters demonstrate that these changes would improve broadband service across the country, especially in underserved areas and locations where purchasers lack a competitive provider. Furthermore, the Utilities Telecom Council,¹ National Spectrum Management Association,² and others agree with BAC that while there is significant use of the band by FSS operators (as well as a small number of Part 101 point-to-point links), registration data overestimates FSS use due to overbroad licensing, outdated information in the database, and inaccuracies in the data submitted by earth station licenses.³

Because the 3700-4200 MHz band represents 500 megahertz of prime but underutilized mid-band spectrum, the Commission should take action to improve utilization of the band. Specifically, Alphabet Access suggests that the Commission should:

1. Act expeditiously to clean up FSS earth station registrations, and

¹ Comments of the Utilities Technology Council at 3-4, RM-11791 (filed Aug. 7, 2017) (“UTC Comments”).

² Comments of the National Spectrum Management Association at 2, RM-11791 (filed Aug. 7, 2017) (“NSMA Comments”).

³ See Comments of the Fixed Wireless Communications Coalition at 2, RM 11-791 (filed Aug. 7, 2017) (“FWCC Comments”); Petition of Broadband Access Coalition for a 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 3700-4200 MHz Band, Petition for Rulemaking, RM-11791, 21-24 (filed June 21, 2017) (“BAC Petition”).

2. Begin a proceeding to address BAC's proposed rule changes to permit near-term point-to-multipoint access in a manner that does not foreclose or prejudice the FCC acting more comprehensively to improve this and other bands in response to the pending Mid-Band Spectrum Notice of Inquiry (NOI).⁴

Alphabet Access fully supports the larger goal of opening the 3700-4200 MHz band for licensed services and the 6 GHz band for unlicensed services, as contemplated in that NOI, while protecting incumbent systems from harmful interference.

I. THE COMMISSION SHOULD ACT EXPEDITIOUSLY TO CLEAN UP THE 3700-4200 MHZ LICENSING DATABASE.

The record makes clear that existing earth station registrations in the 3700-4200 MHz band greatly exaggerate the extent and protection needs of earth station deployments, reducing spectral efficiency and hampering efforts to deploy innovative new services.⁵ The registration data is rife with registrations for earth stations that do not exist, and exaggerates the protection needs of those that do through the use of often unnecessary full-band/full-arc protection.

As Commissioner O'Reilly has observed, "[g]one are the days when hundreds of thousands of six-foot dishes (affectionately referred to as large bird baths) dotted the

⁴ *Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Notice of Inquiry, GN Docket No. 17-183 (rel. Aug. 3, 2017).

⁵ *See, e.g.*, BAC Petition at 21-24; FWCC Comments at 2; UTC Comments at 3; NSMA Comments at 2.

landscape.”⁶ These have largely been replaced with much smaller dishes using Ku and other bands, or by terrestrial services.⁷

Although commercial earth stations remain in the band, BAC has pointed out that many registrations for these commercial earth stations are outdated or erroneous.⁸ Alphabet Access’s own analysis of approximately 4,000 earth station registrations confirms BAC’s findings: 29% of these registered earth stations have either been removed or were never installed. In addition, for the remaining 71% that exist, registrations often inaccurately reflect the true location of the earth station, undermining the protections afforded by registration, and unnecessarily limiting operations in other areas.

Moreover, many of these commercial earth stations are licensed on a full-band/full-arc basis, meaning that they are protected across the entire frequency band, at all elevation angles. While this may be appropriate for certain earth stations, many others use only a portion of the band or remain pointed at one or a small number of satellites at a single point in the sky. For these earth stations, full-band/full arc protection is unnecessary, and wastes valuable spectrum by creating unneeded exclusion areas. As the Fixed Wireless Communications Coalition (FWCC) explained, “full-band, full-arc earth station licensing blocks the FS from making productive use of vacant frequencies and pointing directions. This is a form of spectrum warehousing, which

⁶ Commissioner Michael O’Reilly, *A Mid-Band Spectrum Win in the Making*, FEDERAL COMMUNICATIONS COMMISSION (July 10, 2017), <https://www.fcc.gov/news-events/blog/2017/07/10/mid-band-spectrum-win-making>.

⁷ In fact, an entire Pinterest page is dedicated to unique and charming ideas for home decorations made out of obsolete backyard satellite dishes, *available at* <https://www.pinterest.com/explore/satellite-dish/>.

⁸ BAC Petition at 23.

the Commission has condemned in other contexts.”⁹ The Commission should update its spectrum sharing policies for earth stations in this band in recognition of the significant value of this spectrum, and the sharing capabilities of modern systems. It can do so easily, and without risking interference to existing users, by taking the common-sense step of limiting earth station protections to only those frequencies and elevation angles that are actually in use or reasonably planned to be in use.

The Commission therefore should not wait for the resolution of other issues raised in this petition or in the broader Mid-Band Spectrum NOI¹⁰ before improving the accuracy of earth station registration data. There is now significant interest, from a variety of groups, in expanding the use of the 3700-4200 MHz band to support innovative new services.¹¹ Each of them will require improved information about the location and protection needs of existing operations. In fact, accurate registration information is an important prerequisite to planning any new services for this band as the availability of spectrum may determine the most effective technologies and policies for expanded use of the band. The Commission should therefore begin this process expeditiously to ensure that, whatever the broader outcome of this proceeding, or of the Mid-Band Spectrum NOI, the 3700-4200 MHz band will be ready for innovative new applications without inefficiently protecting earth stations that do not exist, or providing them protection that they do not need.

⁹ Letter from Andrew Kreig, FWCC, to Marlene Dortch, FCC, at 2, RM-11778 (filed Mar. 6, 2017).

¹⁰ *Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Notice of Inquiry, GN Docket No. 17-183 (rel. Aug. 3, 2017).

¹¹ See, e.g., Comments of T-Mobile USA at 3, Inc., RM-11791 (filed Aug. 7, 2017); Comments of Competitive Carriers Association at 3, RM-11791 (filed Aug. 7, 2017); FWCC Comments at 2; UTC Comments at 4.

II. THE COMMISSION SHOULD BEGIN A PROCEEDING TO ADDRESS PROPOSED RULE CHANGES AND ALLOW NEAR-TERM POINT-TO-MULTIPOINT SERVICE IN THE 3700-4200 MHZ BAND.

BAC has proposed a straightforward set of modifications to the Part 101 rules that would allow point-to-multipoint broadband access in the 3700-4200 MHz band.¹² Because these modifications do not represent fundamental changes to Part 101, and would produce a well-understood service that is similar to operations in other bands, the Commission can and should adopt them quickly, as a first step in its process of more widespread reform across the larger mid-band frequency range.

BAC's proposals would allow limited deployments of point-to-multipoint systems, which would advance the Commission's goal of expanding broadband service, especially in the remote and underserved areas where terrestrial service is critical and relatively few FSS sites exist. As Mimbres Communications, a fixed wireless broadband provider serving rural Grant County, New Mexico explained, these modest changes would "would bring rapid innovation to a currently underutilized band having highly desirable propagation characteristics."¹³ These rules would require point-to-multipoint deployments to respect existing Part 101 and Part 25 rules that the FCC put in place to protect co-primary FSS operations and traditional long-haul point-to-point links in the band. As Micronet, a fixed service frequency coordinator, explained in its comments, these point-to-multipoint operations could co-exist "nicely" with point-to-point links.¹⁴

¹² BAC Petition at 26-35.

¹³ Comments of Mimbres Communications, LLC at 1, RM-11791 (filed Aug. 7, 2017).

¹⁴ Comments of Micronet Communications, Inc. at 2, RM-11791 (filed Aug. 7, 2017).

Importantly, the Commission can make these changes to Part 101, and permit investment in point-to-multipoint services in underserved parts of the country, without foreclosing or prejudicing FCC action in response to the pending Mid-Band Spectrum NOI. Alphabet Access fully supports the larger goal of opening the 3700-4200 MHz band for flexible licensed services and the 6 GHz band for unlicensed services, as contemplated in that NOI, while protecting incumbent operations from harmful interference.

The FCC can act on the BAC petition as an important first step in this process because BAC has proposed rules that require point-to-multipoint equipment to be fully interoperable over the entire 3700-4200 MHz band. This rule would ensure that such equipment will be capable of reconfiguration to adapt to any other future uses the FCC may permit in the band. Furthermore, many point-to-multipoint operations will be in the remote, unserved areas where fixed service is needed most. Because the band is better suited to mobile capacity improvements in urban areas than improving mobile coverage in rural areas, these are also the areas where 3700-4200 MHz licensed mobile networks are least likely to be deployed. These operations will pose no interference risk to the mobile LTE bands used in rural areas today, which operate at lower frequencies.

Alphabet Access agrees with CTIA, T-Mobile, and the many other commenters that share the goal of flexible use of the 3700-4200 MHz band. But adopting such rules, designing an auction, and conducting that auction to assign licenses will take a significant amount of time. As this important work continues, the country would benefit from a near-term expansion of broadband access through point-to-multipoint operations in this band.

CONCLUSION

Alphabet Access supports the BAC petition to permit point-to-multipoint operations in the 3700-4200 MHz band. We recommend that the FCC: (1) clean up FSS earth station registrations, and (2) adopt BAC's proposed rule changes to permit near-term point-to-multipoint access without foreclosing or prejudicing Commission action to improve this and other bands in response to the pending Mid-Band Spectrum NOI.

Respectfully submitted,

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CERTIFICATE OF SERVICE

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