

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

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| In the Matter Of: |) | |
| |) | |
| AST&SCIENCE Petition for Declaratory |) | SAT-APL-20200727-00088, SAT-PDR- |
| Ruling |) | 20200413-00034 & SAT-APL-20201028- |
| | | 00126 |

PETITION TO DENY OF T-MOBILE USA, INC.

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TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY 1

II. T-MOBILE HAS STANDING AS A PARTY IN INTEREST 3

III. THE COMMISSION SHOULD NOT ALLOW USE OF TERRESTRIAL
MOBILE SPECTRUM FOR SATELLITE SERVICES 3

 A. Commission Rules Prohibit Lessees from Using Spectrum Licensed for
 Mobile Terrestrial Use for Satellite Services..... 3

 B. The Envisioned Use of Licensed Terrestrial Mobile Spectrum for Satellite
 Systems Requires Consideration by the Full Commission in a Rulemaking
 Proceeding..... 5

 C. AST’s Application Suffers from Deficiencies and Should be Dismissed. 8

 D. Grant of AST’s Petition for Declaratory Ruling Would be Inconsistent
 with the Public Interest, Convenience, and Necessity. 11

 E. AST’s Technical Showings Are Insufficient and Do Not Demonstrate That
 Primary Licensees Are Protected from Harmful Interference. 13

IV. AST EARTH STATIONS IN THE V-BAND MUST PROTECT PRIMARY
UMFUS OPERATIONS AND THE REQUESTED USE SHOULD BE
SUBJECT TO A RULEMAKING..... 14

 A. AST’s Use of the V-Band Must Conform to the UMFUS Sharing
 Framework. 14

 B. AST Has Provided No Basis for Granting Its Waiver Requests and the
 Requested Use Requires Consideration by the Full Commission in a
 Rulemaking Proceeding. 15

V. CONCLUSION..... 17

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PETITION TO DENY OF T-MOBILE USA, INC.

I. INTRODUCTION AND SUMMARY

T-Mobile USA, Inc. (“T-Mobile”), hereby submits this Petition to Deny the above-captioned Petition for Declaratory Ruling filed by AST&Science (“AST” or “SpaceMobile”) seeking market access for a constellation of low-earth orbit (“LEO”) non-geostationary orbit (“NGSO”) spacecraft and waivers of certain Commission rules necessary to support the deployment of the satellite constellation.¹ AST’s Petition for Declaratory Ruling requests that the International Bureau (“IB”) grant U.S. market access for its planned constellation of LEO NGSO spacecraft.² AST proposes to use its constellation of 243 spacecraft in sixteen orbital planes at an altitude of 700 km to provide fixed-satellite service (“FSS”) and mobile-satellite service (“MSS”) to fixed and mobile devices employing LTE broadband communications

¹ AST&Science Petition for Declaratory Ruling, IBFS File No. SAT-PDR-20200413-00034 (filed Apr. 9, 2020) (“AST Petition”).

² *See id.* at 1.

architecture.³ AST recently amended its Petition for Declaratory Ruling modifying its request and limiting its market access request to:

1. Gateway links (downlink) on 37.5-42.5 GHz; and
2. Gateway links (uplink) on 45.5-47 GHz, 47.2-50.2 GHz, and 50.4-51.4 GHz.⁴

In making this modification, AST additionally clarified that it was not seeking authority to operate in spectrum allocated to terrestrial services and that its use of Part 24 and Part 27 spectrum would be pursuant to a lease agreement.⁵ AST additionally withdrew its waiver request for modification of the U.S. Table of Frequency Allocations with respect to terrestrial frequencies and clarified that it would not operate in the WCS frequency band.⁶

T-Mobile requests denial of the AST Petition for Declaratory Ruling as grant would be inconsistent with the public interest, convenience, and necessity. The actions requested by AST are of such magnitude that they must be addressed via rulemaking before the full Commission, and not at the Bureau-level. AST has, in any event, failed to meet the required legal thresholds for its request to be granted. Moreover, AST's application suffers from numerous deficiencies that warrant its dismissal. At a minimum, AST should be required to withdraw its application and remedy such deficiencies before it is considered by the IB.

AST's Petition for Declaratory Ruling is ultimately unnecessary to achieve many of the stated public interest benefits, as T-Mobile is already addressing the issues AST seeks to address

³ *See id.* at 3.

⁴ Amendment to Petition for Declaratory Ruling, IBFS File No. SAT-APL-20201028-00126, at 1 (filed Oct. 28, 2020) ("AST October Amendment").

⁵ *Id.*

⁶ *Id.*

with the instant request, specifically the deployment of affordable wireless broadband service to unserved or underserved rural areas and enhancing competition in these areas. Rather than bridging the Digital Divide, granting the Petition for Declaratory Ruling could exacerbate deployment to these areas by impeding a well-established, well-funded and technologically sound deployment due to harmful interference.

II. T-MOBILE HAS STANDING AS A PARTY IN INTEREST

As a terrestrial wireless licensee T-Mobile has standing to file this Petition to Deny. T-Mobile would be harmed by any interference introduced by AST's operations in the mobile terrestrial spectrum bands. T-Mobile has devoted significant resources to acquire its licenses and to deploy a world-class LTE and 5G network, and its operations and the performance of its network are threatened by AST's proposed deployment utilizing terrestrial mobile spectrum. As discussed further below, AST has not submitted any evidence whatsoever that exclusive-use, terrestrial mobile systems will be protected from harmful interference.

III. THE COMMISSION SHOULD NOT ALLOW USE OF TERRESTRIAL MOBILE SPECTRUM FOR SATELLITE SERVICES

A. Commission Rules Prohibit Lessees from Using Spectrum Licensed for Mobile Terrestrial Use for Satellite Services.

In the most recent of its flurry of amendments to its original application, AST claims it is no longer seeking authority to use terrestrial mobile spectrum for its satellite services.⁷ AST now suggests it will operate its satellite system utilizing spectrum from leases of Part 24 and Part 27 terrestrial mobile spectrum, and in doing so withdraws its prior waiver request with respect to the

⁷ See AST October Amendment.

Table of Frequency Allocations for terrestrial spectrum while clarifying it will no longer use WCS spectrum as part of its operations.⁸

AST clearly recognized the unprecedented and procedurally defective nature of its original application and attendant waiver requests, however, its current attempt to work around existing Commission rules is similarly insufficient and should be denied. Secondary market rules do not allow a lessee to evade use restrictions applicable to the underlying license. AST's amended application is silent on the type of lease it would enter into to support its operation, but it is likely based on its description that it would enter into a long-term *de facto* transfer leasing arrangement with a terrestrial mobile licensee. The rule governing such arrangements provides that if the underlying licensed spectrum is restricted to certain services "the use restrictions apply to the spectrum lessee as well."⁹ There are similar restrictions on spectrum manager lease arrangements¹⁰ and short-term *de facto* transfer lease arrangements should AST be considering those type of leasing options.¹¹

What's more, the Commission explicitly addressed the type of work around attempted here by AST when it established its secondary market spectrum leasing framework. The Commission noted that it did not "intend for the secondary market initiative to be used as a

⁸ *Id.*

⁹ 47 CFR § 1.9030(d)(3).

¹⁰ *See* 47 CFR § 1.9020(d)(3).

¹¹ *See* 47 CFR § 1.9035(d)(1).

means to undermine the service rules and general policies applicable to particular licenses.”¹² It further noted that, at the heart of its concerns with regard to limitations on services provided via spectrum leases, was “the need to protect the public and spectrum users from harmful interference caused by authorized and unauthorized users.”¹³

The Part 24 and Part 27 license authorizations AST seeks to use for satellite operations are only allocated for fixed and mobile terrestrial operations and do not contain any provisions for satellite use of the bands.¹⁴ Therefore, these leases can only be used to provide terrestrial mobile services and not satellite services. AST’s proposed use of terrestrial mobile spectrum for satellite services is therefore in direct conflict with Commission rules governing Part 24 and Part 27 licensees and clearly violates the intent of the Commission when it established its rules for secondary market spectrum leases, specifically that such transactions would not “undermine service the service rules and general policies applicable to particular licenses.”¹⁵

B. The Envisioned Use of Licensed Terrestrial Mobile Spectrum for Satellite Systems Requires Consideration by the Full Commission in a Rulemaking Proceeding.

As established above, AST’s proposed use of Part 24 and Part 27 terrestrial mobile spectrum for satellite service is in direct contravention of Commission rules governing operation in the bands, which limit the use of such spectrum to fixed and mobile terrestrial services.¹⁶

¹² *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 20604, 20648, ¶91 (2003) (“Secondary Markets Order”).

¹³ *Id.*

¹⁴ 47 CFR § 2.106.

¹⁵ *See* Secondary Markets Order, 18 FCC Rcd at 20648, ¶91.

¹⁶ *See* 47 CFR § 2.106.

Therefore, AST's proposed use would require alterations to the Table of Frequency Allocations and, as such, AST should be required to file a petition for rulemaking. This would subject AST's request, which represents a substantial alteration of current spectrum licensing regime, to notice and comment rulemaking. An application of this scope warrants consideration by the full Commission and should not be addressed under delegated authority by the IB. Grant of a request of this magnitude without initiating a rulemaking would be unprecedented.

Commission precedent provides that uses that do not conform to those authorized under the Table of Frequency Allocations will only be permitted when there is "little potential for interference" for authorized services, and only in the event "the non-conforming operator accepts any interference from authorized services."¹⁷ That is not the case here. T-Mobile has not located an instance in which IB or the Commission has granted authority of the type AST requests via a petition for declaratory ruling or waiver request. In contrast, in one instance in which a NGSO FSS operator sought to operate on a co-frequency basis with many terrestrial band systems, the Commission required the party to file a petition for rulemaking.¹⁸ Similarly, when a satellite

¹⁷ *Fugro-Change, Inc.*, Order and Authorization, 10 FCC Rcd 2860 ¶ 2 (rel. Mar. 16, 1995) ("In general, use of the radiocommunication frequencies in the United States must be in accordance with the Table of Frequency Allocations contained in Section 2.106 of the Commission's rules. We have, however, permitted non-conforming uses when there is little potential for interference into any service authorized under the Table of Frequency Allocations and when the non-conforming operator accepts any interference from authorized services.").

¹⁸ *See Application of Skybridge L.L.C. for Authority to Launch and Operate the Skybridge System and Its Requested Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operations of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku Band and to Establish Technical Rules Governing NGSO FSS Operations in this Band*, Public Notice, DA 98-833 (rel. May 1, 1998) (noting on February 28, 1997, Skybridge L.L.C. filed a license application with the Commission to operate a non-geostationary orbit Fixed Satellite Service system on various frequencies within the Ku band, and subsequently on July 3, 1997, Skybridge filed a Petition for Rulemaking to permit such NGSO FSS operations).

allocation was proposed to be used for terrestrial fixed and mobile service, the Commission again initiated a rulemaking proceeding prior to allowing the change in use of the spectrum license.¹⁹

Grant of AST's request would also bypass an important component of satellite licensing: the application processing round. The Commission has held the application processing round serves important policy purposes, including ensuring fairness among applicants.²⁰ Here, AST has failed to demonstrate why the Commission departing from its processing round rules will serve the public interest and why other interested parties should not be afforded the opportunity to file applications.²¹

Grant of the instant request is also premature without the more fulsome information gathering process afforded by a rulemaking. AST has simply provided insufficient information with regard to its proposed operations. T-Mobile obtained its licenses for terrestrial mobile spectrum at auction at great cost. As discussed in more detail below, AST has provided no technical information or an interference study demonstrating that its operations would not interfere with T-Mobile's primary operations in the impacted bands. The only detail provided by AST is that it will partner with a mobile operator.

Consistent with past precedent, AST should be required to file a petition for rulemaking seeking changes to the Table of Frequency Allocations for the spectrum bands it desires to

¹⁹ See *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands et al.*, WT Docket No. 12-70 et al., Report and Order and Order of Proposed Modification, 27 FCC Rcd 16102 (2012).

²⁰ See *Petition of PanAmSat Licensee Corp. to Reopen the Ka-band Satellite Application Processing Round*, Order, 11 FCC Rcd 5627 (Int'l Bur. 1996).

²¹ See, e.g., *1983 Cut-Off Order*, 93 FCC 2d 1260 (1983).

access for its satellite system. A rulemaking is particularly appropriate considering AST's request is not limited to spectrum allocated for MSS. The types of changes envisioned by AST are of a magnitude typically taken by the International Telecommunication Union at an international level, and therefore the requested action is particularly inappropriate to be undertaken at the Bureau level under delegated authority. A rulemaking would afford affected stakeholders and the full Commission the opportunity to weigh the desirability of permitting AST's use of terrestrial mobile spectrum in the manner it proposes based on additional information provided both by AST and stakeholders. Crucially, a rulemaking would allow sufficient time for AST to undertake a study demonstrating that satellite use of the spectrum at issue here would protect primary licensees from harmful interference.

C. AST's Application Suffers from Deficiencies and Should be Dismissed.

AST's application suffers from numerous procedural defects that lend towards IB dismissing the application or requiring AST to withdraw the application to cure such deficiencies before it is considered. Specifically, AST's application doesn't comply with Part 25 requirements applicable to applications for space station authorizations.

Initially, AST has asserted in its Schedule S certification that the applicable power flux density ("PFD") limits of Section 25.208 are met for the 37.5-40 GHz band.²² However, a review of technical details indicates that AST is greatly exceeding the PFD requirements, inconsistent with its certification to the Commission. Section 25.208(r) of the Commission's rules specify the PFD limits from an NGSO station such as that proposed by AST.²³ T-Mobile

²² See AST Petition Schedule S.

²³ 47 CFR § 25.208(r).

has calculated the Maximum allowable PFD limits in Section 25.208 (r)(1) for various angles of arrival above the horizontal plane in the table below, without consideration to rain fade²⁴ and compared them with what AST has indicated in its Schedule S as the maximum PFD for beams transmitting within this frequency range (AST identifies these satellite beams as QDNL and QDNR in their Schedule S):

| Angle of arrival above the horizontal plane | 0 to 5 degrees | | 5 to 10 degrees | | 10 to 15 degrees | | 15 to 20 degrees | | 20 to 25 degrees | | 25 to 90 degrees |
|---------------------------------------------------------------------------------------------------------------------|----------------|--------|-----------------|--------|------------------|--------|------------------|--------|------------------|--------|------------------|
| | 0-5 | 5.1 | 9.9 | 10.1 | 14.9 | 15.1 | 19.9 | 20.1 | 24.9 | 25-90 | |
| AST Max. PFD limit (dBW/m ² /MHz) per AST Schedule S submitted on July 27, 2020 for Tx beams QDNL & QDNR | -116.2 | | -114.7 | | -113.3 | | -112.1 | | -110.9 | | -105.0 |
| FCC §25.208 (r)(1) maximum allowable limits in dBW/m ² /1 MHz | -132 | -131.9 | -128.3 | -128.2 | -124.6 | -124.4 | -120.8 | -120.7 | -117.1 | -117.0 | |
| AST PFD exceedance in dB | 15.8 | 17.2 | 13.6 | 14.9 | 11.3 | 12.3 | 8.7 | 9.8 | 6.2 | 12.0 | |

Under each angle of arrival above the horizon, AST would significantly exceed the PFD limits defined in Section 25.208(r)(1). This substantial variance from the Commission’s rules renders AST’s application defective and the IB should dismiss this application for failing to comply with (or seek waiver of) the PFD limits for NGSO space stations in this band.

Additionally, Section 25.114 (a)(1) provides that “[a] license application filed pursuant to § 25.110(b)(2) for a GSO space station or NGSO space station or space-station constellation must comprise a **comprehensive** proposal and must be submitted on FCC Form 312, Main Form

²⁴ In Section 25.208(r), the Commission notes that satellites exceeding these values to compensate for the effects of rain fading are under study and have not been defined. Nevertheless, T-Mobile has also compared the Schedule S AST Max PFD levels for beams QDNL and QDNR with the maximum allowable levels in Section 25.208(r)(2), which consider the effects of rain fade. Even then, AST would *still* exceed the Section 25.208(r)(2) limits for angles of arrival above the horizon between 0 and 13.8 degrees and between 15.1 and 15.4 degrees.

and Schedule S, with attached exhibits required by paragraph (d) of this section.”²⁵ AST’s Form 312 as filed in its amended application does not meet these requirements and is therefore incomplete.²⁶ Field #24, which requires the applicant to specify upper and lower frequency, is left blank.²⁷ Field #27, which requires the applicant to state a purpose of the proposed modification, is also left blank.²⁸ Other than a generic mention of the “V-band”, AST makes no mention of any specific frequency band in its Form 312. Additionally, the FCC Specific Instructions for Schedule S require AST to file an updated Schedule S reflecting its amended application, which it has not done.²⁹ Even prior to its most recent amendment, the frequency bands listed in Attachment A of AST’s original Petition for Declaratory Ruling did not entirely match those listed in the accompanying Schedule S. Furthermore, AST’s Schedule S does not contain information about the telemetry, tracking, or command beams utilized by its operation, as required by Commission rules.³⁰ With such deficiencies it is hard for potentially impacted stakeholders to discern what, exactly, AST’s operations would entail and accurately weigh the risks to its operations. IB should therefore dismiss AST’s application or, at a minimum, require

²⁵ 47 CFR § 25.114(a)(1) (emphasis added).

²⁶ See AST October Amendment at 1-5.

²⁷ *Id.* at 2.

²⁸ *Id.* at 2-3.

²⁹ FCC, *Specific Instructions for Schedule S* (April 2016), <https://enterpriseefiling.fcc.gov/schedules/resources/Instructions%20for%20Schedule%20S%20v%20Apr2016.pdf>. Providing a Schedule S (along with the FCC 312 Main Form) is to be completed when amending a pending space station application.

³⁰ 47 CFR § 25.114(4)(i).

AST to withdraw its application to cure the aforementioned deficiencies before its application is considered.

D. Grant of AST’s Petition for Declaratory Ruling Would be Inconsistent with the Public Interest, Convenience, and Necessity.

Allowing satellite operations into mobile spectrum bands that could potentially interfere with the primary operations in the terrestrial spectrum bands would be inconsistent with the public interest, convenience, and necessity. T-Mobile, for its part, has invested billions of dollars in its network to provide superior service to its customers. The result has been an industry-leading LTE network³¹ as well as a nationwide, world-class 5G network.³² T-Mobile is using its network to bring competition to new services, bringing competition and consumer choice to services often characterized by high prices and poor customer service. Home Internet is T-Mobile’s in-home broadband offering currently piloted on its LTE network, but T-Mobile is preparing to launch 5G Home Internet providing high speed broadband with an emphasis on deploying to unserved and underserved rural areas.³³ T-Mobile also just unveiled its TVision

³¹ Opensignal, *Mobile Network Experience: USA Report* (July 2019), <https://www.opensignal.com/reports/2019/07/usa/mobile-network-experience>. Finding T-Mobile had the fastest LTE download and upload speeds.

³² T-Mobile, *You Can’t Enjoy 5G If You Can’t Get 5G. Ookla Finds T-Mobile Customers Get a 5G Signal More than Anyone Else in Wireless* (Oct. 19, 2020), <https://www.t-mobile.com/news/network/t-mobile-ookla-5g-signal-more-than-anyone-else>. Ookla report from Q3 2020 finding T-Mobile customers get a 5G signal more often and get the fastest network response times compared to customers of other wireless providers.

³³ T-Mobile, *T-Mobile Expands Home Internet to More than 450 Cities & Towns Left High-and-Dry by AT&T* (Oct. 8, 2020), <https://www.t-mobile.com/news/network/t-mobile-expands-home-internet-to-more-than-450-cities-towns-left-high-and-dry-by-att>.

streaming service that will provide customers with an unbundled TV service offering with more flexibility in choosing their channels at a competitive price.³⁴

AST's Petition for Declaratory Ruling provides that several of the public interest benefits stemming from its proposed operations are increased deployment and competition in rural areas, thereby helping to bridge the Digital Divide.³⁵ Rather than bridging the Digital Divide and facilitating the deployment of affordable broadband to unserved or underserved areas, grant of the Petition for Declaratory Ruling would potentially impair such deployment by interfering with mobile wireless providers' operation in these areas. T-Mobile is dedicated to bridging the Digital Divide and as established above, is in the process of deploying high speed 5G and in-home broadband to rural areas. T-Mobile has additionally made verifiable and enforceable commitments to the FCC to deploy its 5G network and Home Internet offering to millions of rural Americans,³⁶ and its business plan calls for focusing on deploying to those areas AST claims will be the beneficiaries of its operations.

The Commission should not authorize a secondary use that could potentially interfere with primary use of the terrestrial mobile spectrum bands, particularly when the primary user is supporting the same services and consumer benefits. Grant of the Petition for Declaratory Ruling is therefore not in the public interest, as the heretofore unexamined risk of interference (discussed in more detail below) to these planned deployments—backed by billions in

³⁴ T-Mobile, *T-Mobile Un-Clusters TV with TVision Services Cut the Cord Starting at Just \$10 per Month* (Oct. 27, 2020), <https://www.t-mobile.com/news/un-carrier/t-mobile-un-clusters-tv-with-tvision-cut-the-cord-starting-at-just-10-per-month>.

³⁵ AST Petition at 2.

³⁶ See *Applications of T-Mobile US, Inc., and Sprint Corporation*, Memorandum Opinion and Order and Order to Show Cause, 34 FCC Rcd 10578, Section VI (2019).

investment and grounded in sound and established technological methods—outweighs any potential benefit.

E. AST’s Technical Showings Are Insufficient and Do Not Demonstrate That Primary Licensees Are Protected from Harmful Interference.

AST has provided a technical analysis that it alleges supports sharing between its satellite space station and terrestrial mobile devices operating in the terrestrial mobile spectrum bands.³⁷ However, AST has not provided any technical analysis about the mobile portion of its operations to demonstrate that it will be able to operate in these bands without causing harmful interference to licensed, primary terrestrial operations. AST has not sought licensing of its mobile handsets that will be used as part of the SpaceMobile system, and as such has provided no engineering analysis or technical parameters for how these devices will be operated such that they will not cause harmful interference to the terrestrial base stations receiving the transmissions from these devices. While AST suggests it may be using standard wireless handsets, it has not indicated how these devices will interoperate with the satellite constellation.

AST should be required to provide a technical description of how it anticipates its mobile devices to communicate—for example, will they communicate with the satellite directly? Or is the expectation that they will communicate with the terrestrial base station and then be relayed to the satellite through some other method? If the mobile handsets are communicating with the satellite directly, AST should provide evidence that this signal path would not harmfully interfere with terrestrial wireless licensees (operating either in adjacent spectrum or geography). Instead,

³⁷ See AST Petition, Attachment A SpaceMobile Non-Geostationary Satellite Network Technical Statement at 6-7.

the AST technical analysis focuses on interference from its space station into the terrestrial network.³⁸

AST claims it will use mobile handsets only with the permission of its partner spectrum holders and that such use will conform to the terms of its agreements with the mobile spectrum holders.³⁹ AST argues that since the frequencies it uses are nationwide or cover a wide geographic areas, much of the co-channel interference within the coverage area will be a result of self-interference using frequency selection (reuse), inter-cell interference coordination, beam control, power control, and other methods.⁴⁰ AST has not provided any detail on how the referenced mechanisms will be used in its operation. Tellingly, AST has not provided any analysis on how it will protect mobile licensed terrestrial operations. The Commission should therefore reject AST's application and Petition for Declaratory Ruling because, consistent with Commission precedent, the company has not demonstrated that its satellite system would present little potential for interference to licensed, exclusive-use operations in the terrestrial mobile spectrum bands.

IV. AST EARTH STATIONS IN THE V-BAND MUST PROTECT PRIMARY UMFUS OPERATIONS AND THE REQUESTED USE SHOULD BE SUBJECT TO A RULEMAKING

A. AST's Use of the V-Band Must Conform to the UMFUS Sharing Framework.

High-band spectrum is a critical component of 5G, and to ensure mobile operators have sufficient access to this necessary input the Commission has adopted a carefully balanced set of

³⁸ *Id.*

³⁹ *Id.* at 8.

⁴⁰ *Id.* at 11.

rules for earth station siting within the Upper Microwave Flexible Use Service (“UMFUS”) bands. These rules provide for very strict limits on such siting but do allow satellite interests some flexibility to operate in the bands provided they do not unduly impede 5G deployment.⁴¹ Specifically, these rules require earth stations to coordinate their location and placement with an UMFUS licensee prior to implementation, limit the amount of earth stations in a licensed UMFUS area, and otherwise ensure that terrestrial licensees are protected from interference.⁴² Any AST earth station use of the V-Band that is shared with UMFUS must comply with these procedures for earth station siting.

B. AST Has Provided No Basis for Granting Its Waiver Requests and the Requested Use Requires Consideration by the Full Commission in a Rulemaking Proceeding.

AST seeks waiver of the Table of Allocations for the 42-42.5 GHz and 45.5-47 GHz bands to allow for non-conforming use of these spectrum bands.⁴³ AST’s waiver requests fail to provide a compelling basis for the requested relief and to meet the baseline legal requirement for

⁴¹ See, e.g., *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, Second Report and Order and Order on Reconsideration, 32 FCC Rcd 10,988, 11,025 ¶ 132 (rel. Nov. 22, 2017); *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, Third Report and Order, 33 FCC Rcd 5576, 5585 ¶ 22 (rel. June 8, 2018); *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, Fifth Report and Order, 34 FCC Rcd 2556, 2560 ¶ 11 (rel. Apr. 15, 2019).

⁴² 47 CFR § 25.136; see also Opposition of T-Mobile USA, Inc. at 4, *In re Use of Spectrum Bands Above 24 GHz for Mobile Radio Services et al.*, GN Docket No. 14-177 et al. (filed Jan. 31, 2017). “Requests for increased satellite access are therefore contrary to the purpose of this proceeding. Any increased use of the spectrum for satellite operations means decreased utility of the spectrum for mobile terrestrial use. And, decreased utility of the spectrum for its primary intended purpose will depress investment in, and ultimately the success of, mobile use of these bands. The Commission must not sacrifice the deployment of mobile terrestrial services in the millimeter wave bands to meet unproven needs for satellite broadband.”

⁴³ AST Petition at 7-8.

a waiver to be granted. Specifically, for each waiver request AST has not demonstrated that the underlying purpose of the rule would be frustrated by the application of the rule; that the waiver would be in the public interest; or that application of the rule would be inequitable, unduly burdensome, or that AST has no reasonable alternative to the waiver request.⁴⁴ Rather than attempt to provide any sort of justification for grant of a waiver, in each instance AST merely recites that it will operate under the waiver on a non-interference, non-protected basis.⁴⁵ This does not meet the Commission's standard for waiver grant, and also does not provide any sort of technical analysis as to how AST will avoid harmful interference.

In addition to AST's failure to meet the requirements for grant, a waiver is inappropriate in any event because the request should be addressed via a rulemaking proceeding because grant would entail a waiver of the Table of Frequency Allocations. The scope of AST's request is substantial and as such a rulemaking is necessary to ensure that all impacted parties have an opportunity to comment on potential interference and UMFUS siting issues. UMFUS licensees invested substantial amounts of money to acquire their spectrum licenses. This investment was based on the protections afforded by the regulatory framework in place at the time of auction. Permitting new entrants into the bands or in adjacent spectrum presents a potentially drastic change to operations in the bands and as such, it should be examined by the full Commission and action via Bureau-level waivers is inappropriate and would be without precedent.

⁴⁴ See 47 C.F.R. § 1.925.

⁴⁵ See AST Petition at 7-8.

V. CONCLUSION

The Commission should deny AST's Petition for Declaratory Ruling and reject its application. The threat of harmful interference and the potential impact to 5G-critical spectrum has not been sufficiently examined and ATS has not met its burden demonstrating that grant of its request is in the public interest or that the requested waivers are necessary.

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November 2, 2020

CERTIFICATE OF SERVICE

I, Peter Shroyer, certify that on this 2nd day of November 2020, I have served a copy of the foregoing Petition to Deny on the following:

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AFFIDAVIT

Pursuant to 47 CFR § 25.154, I hereby certify that I am the qualified person responsible for preparation of the information contained in this filing, that I am familiar with Part 25 of the Commission's rules, that I have either prepared or reviewed the information submitted in this filing, and that it is complete and accurate to the best of my knowledge and belief.

Respectfully submitted,

/s/ Steve B. Sharkey

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