

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

In the Matters of	)	
	)	
Allocation of Spectrum for Non-Federal	)	ET Docket No. 13-115
Space Launch Operations	)	
	)	
Revision of Section 87.305(a) of the	)	RM-12025
Commission's Rules	)	

**COMMENTS OF THE AEROSPACE AND FLIGHT TEST
RADIO COORDINATING COUNCIL, INC.**

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**COMMENTS OF THE AEROSPACE AND FLIGHT TEST
RADIO COORDINATING COUNCIL, INC.**

Aerospace and Flight Test Radio Coordinating Council, Inc. (“AFTRCC”) hereby submits its Comments on the August 25, 2026, Public Notice in the above-captioned proceedings (“Notice” or “FNPRM”) which seeks comment on ways to increase and improve reliable spectrum access for space launch and reentry activities, consistent with the goals of the Administration’s National Space Transportation Policy.¹ The *Public Notice* also solicits comment on a Petition for Rulemaking filed by the Commercial Space Federation (“CSF”) asking the Commission to vacate Section 87.305(a) of the Rules, which establishes a frequency advisory committee (“FAC”) as the coordinator in the 1435-1525 MHz Band (the “L-Band”), the 2360-2395 MHz Band (the “Upper S-Band”), and the 5091-5150 MHz Band (the “Middle C-Band” and, collectively with the L-Band and the Upper S-Band, the “AMT Bands.”).²

¹ Public Notice, *WTB, OET, and SB Seek Comment on Ensuring Reliable Access to Spectrum for Space Launch Activities to Achieve the Goals of the President’s National Space Transportation Policy*, ET Docket No. 13-115, RM-12025, DA 26-887 (rel. August 25, 2026) (“Public Notice”).

² Commercial Space Federation Petition for Rulemaking, RM-12025 (filed August 4, 2026) (“CSF Petition”). *See also* 47 C.F.R. § 87.304(a).

AFTRCC acknowledges the importance of a vibrant space economy and America's leadership role in that economy and appreciates the opportunity to offer comments on the Public Notice. Reliable access to spectrum for commercial space launch and reentry operations is a critical element of America's success in space. AFTRCC, as the FAC in the AMT Bands, has implemented balanced coordination procedures facilitating access for space launch and reentry operations in the context of heavily used and shared spectrum and a complex web of different spectrum priorities within the Commission's regulatory framework. AFTRCC continues to explore prospects for further streamlining and increased automation to improve its processes.

For the reasons discussed herein, the CSF Petition lacks a factual foundation, is without merit, and should be summarily dismissed without further action. At a minimum, further consideration of the CSF Petition should be deferred until its proponents correct material deficiencies in the substance of their proposal.

I. SUMMARY

Aerospace and Flight Test Radio Coordinating Council, Inc. ("AFTRCC") submits these comments to the Federal Communications Commission in response to its August 25, 2026, Public Notice, for seeking broad comment on the spectrum needs for commercial space launch and options that could meet those needs. AFTRCC, as the Commission-designated frequency advisory committee ("FAC") in the 1435-1525 MHz, 2360-2395 MHz, and 5091-5150 MHz bands (the "AMT Bands"), has long been part of the ecosystem by which space launch operators obtain access to spectrum for launch and reentry (in particular in the 2360-2395 MHz Band, principally, and the 1435-1525 MHz Band on a more limited basis – the 5091-5150 MHz Band is not used for commercial space launch today). AFTRCC looks forward to continuing to assist the Commission and stakeholders, the primary incumbent Federal and non-Federal flight test operators in the AMT Bands, space launch operators, as well as other users of the bands in

exploring solutions to improve access to spectrum commercial space launch and reentry operations as the cadence of launches increases. Access to the AFTRCC-coordinated AMT Bands is and will remain an important part of the solution.

As the Commission-designated FAC responsible for coordinating non-Federal flight test frequencies across the AMT Bands, AFTRCC has developed coordination or concurrence frameworks through countless discussions and collaborations with the various stakeholders that cover an interrelated ecosystem of secondary and adjacent-band uses with differing spectrum access priorities. Users of the AMT Bands, and adjacent spectrum, which is also coordinated, include not only aerospace and aviation companies using AMT to support critical flight-testing operational and safety requirements, but commercial space launch operators, medical body area networks (“MBANs”) (AFTRCC has a concurrence agreement with the Commission-designated MBANs coordinator), wireless microphones, and a wide variety of Part 5 experimental operations. AFTRCC also has coordination agreements with licenses that cover adjacent Wireless Communications Service (“WCS”) (below the 2360 MHz band edge) and Ligado Networks’ Ancillary Terrestrial Component operations (just above the 1525 MHz band edge). AFTRCC’s extensive coordination activities are conducted in close collaboration with Government Area Frequency Coordinators (“AFCs”) of the Department of Defense (“DoW”) and are supported by five regional Area Coordinating Committees consisting of non-Federal flight test operator and DoW participation in regions where flight-test activity is particularly intense.

AFTRCC has worked diligently, in consultation with stakeholders such as flight test operators (its members and non-members), Federal ranges, and space launch operators to find ways to improve the framework by which it coordinates commercial space launch and reentry

operations in the AMT Bands. AFTRCC has significantly shortened timelines over the past eighteen months, improved its electronic portals, increased its professional staffing, and streamlined the process of soliciting prompt feedback from potential affected flight test operators with primary access to the AMT Bands. In so doing, the current framework for commercial space launch coordination strikes an appropriate balance of interests that increases certainty for space launch operators once dates are coordinated (even though they have lower priority access than AMT operations) at the cost of significant compromises affecting flight test operators. At the same time, the existing framework aims to give substance to the primary access rights of the AMT operators under the U.S. Table of Frequency Allocations and the Commission's rules. As the FAC, AFTRCC must carry out its responsibilities respecting those aspects of the Commission's regulations.

Access to the AMT Bands for real-time flight test telemetry is a safety-of-life concern. This has been recognized by the Federal Aviation Administration, the Commission, the National Telecommunications and Information Administration, and the International Telecommunications Union. The deeply embedded safety-of-life protections represent a longstanding policy commitment by numerous Federal agencies that should not be undermined to accommodate commercial space launch operators seeking to bypass established coordination mechanisms.

Further, the end product of flight test operations using AMT are aircraft and related systems which are made and manufactured by the U.S. aerospace and defense industry which supports millions of domestic jobs and generates almost one trillion dollars in annual sales and more than a 100 billion-dollar positive contribution to the country's trade balance. The net result is aircraft and missiles that are safer for pilots, crews, passengers, and persons on the ground.

Any disruption to the existing coordination frameworks that would hamper access to the AMT Bands by flight test operators would be a matter of serious policy and economic concern. Real-time AMT data is essential during tests that push aircraft to design limits; even brief interference can necessitate test aborts and impose costs exceeding \$1 million per flight. The demand for AMT spectrum continues to surge, with modern aircraft requiring continuous monitoring of over 100,000 data points, while available spectrum has been reduced over time. Reliable and ready access for flight test operators supports timely design, development, production, delivery, and sustainment, including upgrades and modifications. AMT operations are in the critical path for military readiness, aircraft certification, and next-generation aviation platforms including UAS and VTOL (vertical take off and landing) aircraft. AFTRCC submits that any framework that increases the risk of harmful interference to flight testing or curtails reliable and ready access by flight test operators in the AMT Bands would carry unacceptable consequences for military capability, aviation safety, and the national economy. Thus, the AMT bands are not an appropriate home for those commercial space launch operators requiring at-will access without meaningful coordination and with very short notice. Such needs for space launch operators may be better met in other bands or through secondary markets, i.e., lease arrangements, among other possible options. Having said that, AFTRCC is committed to continue coordinating commercial space launch coordination requests in an unbiased manner through its existing framework and will remain open to further improvements, all while honoring the spectrum access rights embedded in Commission's rules and orders.

AFTRCC submits that the recent Petition for Rulemaking filed by the Commercial Space Federation to vacate Section 87.305(a) of the Commission's Rules, under which AFTRCC has been designated as the FAC, is without merit and should not be granted for several reasons.

First, the CSF Petition fundamentally misstates its scope, characterizing itself as a narrow request to vacate Section 87.305(a) when it would, in reality, require wholesale revision to portions of the Commission's regulatory frameworks across Parts 2, 5, 25, 26, 27, 74, 87, and 95. Second, the Petition is an untimely petition for reconsideration of the Third Report and Order establishing the Part 26 framework mandated by Congress under the Launch Communications Act, and granting the Petition would subvert Congressional intent. CSF's claims of bias by AFTRCC are unsubstantiated, as AFTRCC's coordination activities faithfully reflect the various spectrum access priorities in the U.S. Table of Frequency Allocations and Commission Rules in which flight test operators using AMT have primary access. Moreover, contrary to CSF's unsubstantiated claims, AFTRCC has consistently supported new entrants consistent with the primary allocation for AMT operations and coordinated all timely commercial space launch requests successfully. Third, the CSF Petition's "proposal" for a coordination framework based on adoption of light-licensing model "in the spirit of" the automated coordination mechanisms 70/80/90 GHz bands is utterly without detail or justification. The 70/80/90 GHz light-licensing framework is a product of the propagation characteristics, atmospheric attenuation, and directional point-to-point narrowband ("pencil thin") link environment at those higher-band frequencies and bear no resemblance to the dynamic, shared, safety-of-life AMT spectrum at much lower frequencies. The CSF Petition conspicuously fails to address the complexities of the AMT Bands and the coordination requirements in place affecting the variety of in-band and adjacent band users. CSF offers little to no detail on the myriad data-related, safety, access priority, administration, cost, and other issues that would have to be addressed to make even a preliminary determination that an automated system of coordination could be practicable in the

AMT Bands. For these reasons, AFTRCC submits that the Petition should be summarily dismissed or, at a minimum, deferred.

II. AFTRCC AND SPECTRUM USE IN THE NON-FEDERAL AMT BANDS

AFTRCC, a member organization, was founded in 1954 to serve as an advocate for the aerospace industry on matters affecting spectrum policy, in particular ensuring flight testing of both military and commercial aircraft enjoys reliable, interference-free spectrum access.³ AFTRCC's Members include many of the nation's principal aerospace and defense ("A&D") manufacturers as well as newer entrants in the aerospace technology domain, and a number of its members have leading roles in the Nation's space economy with vested interests in space modernization including reliable access to spectrum for commercial space launch and reentry operations; *see* Attachment A. Because the Commission's actions and further proposals have impacted the use of the AMT Bands, AFTRCC has been a significant participant in the commercial space launch Docket No. 13-115 since it was initiated more than a dozen years ago.⁴

AFTRCC is the Commission-designated FAC for the AMT Bands.⁵ Under Part 87 of the Commission's Rules, a plethora of American aerospace companies, including many of

³ More information regarding AFTRCC may be found at <https://afrcc.org>.

⁴ *See* Comments of Aerospace and Flight Test Radio Coordinating Council, Inc., ET Docket No. 13-115 (August 30, 2013) (in response to the NPRM commencing ET Docket No. 113). More recently, AFTRCC has filed Comments and Petitions for Reconsideration in response to the Second Further NPRM of 2023 and the 2024 Third Report and Order, respectively, as well Comments and a pending Petition for Reconsideration on the Wireless Bureau's related Public Notice on Part 26 commercial space launch coordination procedures in ET Docket No. 13-115.

⁵ *See Amendment of Part 87 of the Commission's Rules to Make Provision for the Establishment of an Industry Frequency Advisory Committee for Coordination of Frequencies in the 1435-1535 Mc/s Band*, Report and Order, 15 F.C.C.2d 831 (1969). The 1969 Order established AFTRCC as the FAC for the 1435-1535 MHz Band (later reduced to the present L-Band, 1435-1525 MHz), and in 1984, AFTRCC was designated as the FAC for the then extant 2310-2320 and 2345-2390 MHz AMT spectrum Bands. *See Aeronautical Flight Test Telemetry Operations*, 49 FR 39330-01, 39333 (1984) ("1984 Designation Order"). The

AFTRCC’s members, use the non-Federal/Federal shared L-Band and Upper S-Band spectrum allocated on a primary, safety-of-life basis for flight testing of crewed aircraft, missiles, and uncrewed aircraft systems (“UAS”) to advance sophisticated, high-value technology programs. Increasing use is also being made of the Middle C-Band in which AMT is allocated on a co-primary basis with other applications, including AeroMACs.

During flight tests, it is essential to relay real-time telemetry data from test aircraft to ground stations up to approximately 200 miles away with low latency and high dependability. Without interference-free access to adequate spectrum for these purposes, effective monitoring of important flight tests involving high risk campaigns could not be achieved , with potential adverse consequences during the flight tests for the test article, pilots, crews, and persons on the ground and, in the long run, for both military programs and commercial passenger and transport aviation, not to mention private aviation and the use of UAS. Flight testing is also key to the Administration’s objectives to achieve and maintain Drone Dominance over the Nation’s geopolitical, military, and economic rivals.⁶

spectrum available for AMT in the 2.3 GHz Band has since been seriously reduced, and now consists of only 2360-2395 MHz, and in 2012 the Commission confirmed AFTRCC’s role as FAC in the Upper S-Band. *See In the Matter of Amendment of the Commission’s Rules to Provide Spectrum for the Operation of Medical Body Area Networks*, ET Docket No. 08-59, First Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6422, fn. 14 (2012) (“MBANS R&O”). In 2015, AFTRCC was designated by the Commission as the FAC in the 5091-5150 MHz range. *Amendment of Parts 2, 15, 80, 90, 97, and 101 of the Commission’s Rules Regarding Implementation of the Final Acts of the World Radiocommunication Conference (Geneva, 2012)(WRC-12), Other Allocation Issues, and Related Rule Updates*, ET Docket No. 15-99, et al., FCC 15-50, ¶ 74 (rel. Apr. 27. 2015) (“we note that AFTRCC’s authority to act as the non-Federal coordinator for flight test frequencies now extends to the 1435-1525 MHz, 2360-2395 MHz, and 5091-5150 MHz bands”).

⁶ E.O. 14307, *Unleashing American Drone Dominance*, (June 6, 2025). The E.O. stresses the need to “accelerate testing and to enable routine drone operations, scale up domestic production, and expand the export of trusted, American-manufactured drone technologies to global markets”—all activities that rely on flight testing. *See id.* ¶ 1. The E.O. requires the Secretary of Transportation to ensure “FAA UAS Test Ranges are fully utilized to support the

Protecting and preserving the A&D industry's primary access to the AMT Bands while enabling other compatible uses that do not constrain flight testing is a central mission of AFTRCC. Access to adequate flight test spectrum on an interference-free basis, when and where needed, ensures the foregoing objectives can be met as quickly and as cost-effectively as possible while satisfying all development, performance, and, most important of all, safety requirements.

A. AFTRCC Is the Commission-Designated Coordinator of non-Federal Uses in the AMT Bands and Has a Multi-Faceted Role in the Coordination of In-Band and Adjacent Band Spectrum to Ensure the Protection of AMT

AMT in support of flight testing is accorded the highest priority access to the shared 1435-1525 MHz and 2360-2395 MHz Bands.⁷ Non-Federal flight testing at commercial and Federal ranges shares the band on a co-primary basis with flight testing conducted by the Federal Government on Federal ranges, and AFTRCC acts as the Commission-designated non-Federal coordinator.⁸ One of AFTRCC's responsibilities as FAC is to maintain a database (based on inputs received from and updated by flight test operators) of all non-Federal and

development, testing, and scaling of American drone technologies, with a focus on BVLOS operations, increasingly autonomous operations, advanced air mobility, and other advanced operation." *See id.* ¶ 5(b). In addition to activities on FAA Ranges, analogous and critical activities advancing drone technologies and platforms take place on many A&D manufacturers' facilities today on an increasing scale reliant on spectrum in the AMT Bands.

⁷ 47 C.F.R. § 2.106 US274 ("Except as otherwise provided for herein, use of the band 2360-2395 MHz by the mobile service is limited to aeronautical telemetering and associated telecommand operations for flight testing of aircraft, missiles or major components thereof") and US343 ("In the mobile service, the frequencies between 1435 and 1525 MHz will be assigned for aeronautical telemetry and associated telecommand operations for flight testing of manned or unmanned aircraft and missiles, or their major component"). *See also id.* §(b)(343) ("5.343 In Region 2, the use of the band 1435-1535 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service") and §(b)(394) ("5.394 In the United States, the use of the band 2300-2390 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services").

⁸ *See note 5 supra.*

Federal AMT sites, which is a key component of its coordination activities and serves as a coordination trigger under several of AFTRCC's coordination and concurrence agreements related to coordination of secondary users in the AMT Bands or with adjacent band users, as explained in subsections 2 and 3 below.

No one flight test operator in a given area is entitled to exclusive use. Multiple flight test operators may be, and often are, licensed by the Commission or conduct test operations under Federal Radio Frequency Assignments ("RFAs") issued by the National Telecommunications and Information Administration ("NTIA"), for use of the same frequencies at test facilities that are near to each other. Flight test areas overlap, sometimes substantially.⁹ This use of AMT spectrum by flight test operators sometimes conflicts with plans of other Federal or non-Federal flight test operators to access the band in the same time frame which conflicts must be resolved. Thus, a Part 87 licensee conducting flight testing may, on a given day, or even a given hour, be subject to scheduling with Department of Defense Area Frequency Coordinators ("AFCs"), Government range coordinators, or through agreements with or among flight test operators of varying formality.¹⁰

In addition to aeronautical flight testing, the L-Band and Upper S-Band AMT spectrum bands are available to other categories of users with different priority rights to use the band, including commercial space launch operators, which drives the need for coordination of these other spectrum uses by AFTRCC. In carrying out its coordination activity, AFTRCC also works in close collaboration with Government AFCs, who are responsible for Department of Defense ("DoD") use of Federal AMT spectrum as well as coordinating proposed space launch

⁹ See for example, Attachment B (depicting the almost twelve dozen flight test areas of non-Federal AMT sites in the lower 48 States).

¹⁰ See discussion *infra*, regarding Area Flight Test Radio Coordinating Committees.

and reentry activity with Federal operations. Indeed, on occasion, because of its experience with the coordinating AFCs, AFTRCC is able, during its initial review to suggest modifications to launch operators making coordination requests to improve their chances of receiving a grant of coordination from the Government coordinators.

1. Flight Testing in the Heavily Used 1435-1525 MHz Band and 2360-2395 MHz Band

The primary rights for use of the 1435-1525 MHz and 2360-2395 MHz Bands are for Part 87 non-Federal as well as Federal flight testing of aircraft. Spectrum is also allocated in 5091-5150 MHz for AMT on a shared Federal/non-Federal basis. AFTRCC serves as the Commission-recognized non-Federal Government coordinator (or FAC) for flight testing in the L-Band, Upper S-Band, and Middle-C Bands.¹¹ AFTRCC's primary missions as FAC are to ensure that aeronautical flight test operations can be conducted without any material risk of harmful interference from either similar uses or other sources while also coordinating secondary and Part 5 experimental operations, as well as certain adjacent channel operations.¹²

Typically, non-Federal AMT operations are licensed on a long-term (multi-year) basis under Part 87 and must be coordinated prior to being licensed for the first time or renewed. AFTRCC reviews coordination requests from flight test operators seeking such a longer-term

¹¹ See note 5 *supra*.

¹² AFTRCC also coordinates frequencies in the VHF Band (123.1125-123.5875 MHz) used by Member Companies and the Federal Government ranges for critical communications with pilots and other personnel in connection with flight testing. AFTRCC also coordinates flight test radio communications in the HF Band (2851.0-21931.0 kHz). Finally, AFTRCC has been working for several years with the Federal Aviation Administration ("FAA") to coordinate flight test radio communications in the 5091-5150 MHz Band, albeit AMT access to that band has proven limited for Part 87 flight test operators and is sometimes hampered due to the priority in the rules for access by co-primary AeroMACS, which limits the locations where such spectrum is available without waiver.

license.¹³ This is a mechanism necessitated to achieve coordination across both non-Federal and Federal users, one of AFTRCC's key roles, and AFTRCC provides this service to ensure that U.S. Government equities are accounted for. Following AFTRCC's completion of its review, the information for the proposed AMT site is then transmitted to the relevant AFCs which will conduct their own review of use of the AMT Bands at the proposed site.¹⁴

In general, once a non-Federal AMT site is coordinated and then licensed by the Commission after reviewing the application supported by the evidence of coordination, the licensee theoretically is free to use the site on a continuing basis, but, in some cases depending upon location of the flight test, may be required to schedule its flight test operations in advance with the AFCs in or near Federal flight test ranges.¹⁵ In certain situations, Commission-authorized flight testing may occur on Government ranges, and the scheduling of flight test windows for non-Federal flight test operators is closely controlled by the ranges. Time slots in these circumstances are often at a premium. Indeed, on an increasing basis, Government AFCs and ranges have indicated to some Part 87 licensees that coordination of new flight test operations will not be possible or will be delayed, not only on the Government ranges but even on nearby non-Federal ranges. Members have reported that requests to renew coordination of the same amount of AMT spectrum are being denied, at least in part. Some AFCs have directed Members to look for spectrum outside of the L-Band and Upper S-Band, such as the Federal

¹³ AFTRCC will often discuss modifications to the proposed operations of the requestor.

¹⁴ Occasionally, AFTRCC will be contacted by Federal users or NTIA when there is a new Federal AMT site or for specific Federal flight test activity to assess whether the proposed Federal operations will pose an interference risk to non-Federal flight test operations. Where possible, AFTRCC avoids requesting conditions to be placed on a Federal RFA.

¹⁵ For example, in Southern California, below 37° North, virtually all Federal and non-Federal flight tests must be scheduled through the Western AFC using the Government's Integrated Frequency Deconfliction System ("IFDS").

4400-4940 MHz Band, which at this time is available only on an unprotected Part 5 experimental basis for non-Federal AMT.¹⁶

Some flight test operators seek access to the AMT Bands on a short-term or temporary license, e.g., a special temporary authority or experimental license, under the Commission's Part 5 experimental rules at a new site for specific flight test operations. Such a request is transmitted by AFTRCC, after its review, to the Government AFCs by email for their consent to coordination.¹⁷ Once AFTRCC and the Government issue letters of coordination, which will include any conditions applicable to the coordination, the requestor submits these as part of its experimental license application filed with the Commission.

AFTRCC has previously described for the Commission how heavily the AMT Bands, especially the 1435-1525 MHz Band and 2360-2395 MHz Band, are used by flight test

¹⁶ See Amendment of Parts 2, 15, 80, 90, 87, and 101 of the Commission's Rules Regarding Implementation of the Final Acts of the World Radiocommunication Conference (Geneva, 2012) (WRC-12), Other Allocation Issues, and Related Rule Updates, Notice of Proposed Rulemaking, Docket No. 15-99, 30 FCC Rcd 4183, 4256-4257 (2015) (pending rulemaking: "NTIA recommends that we allocate the 4400-4940 MHz band to the AMS on a primary basis for non-Federal [AMT] use, amend footnote US111 to add the 4400-4940 MHz band, and add the two footnotes shown below to the Allocation Table to ensure compatible operations between non-Federal and Federal users in the band.").

¹⁷ On occasion, AFTRCC, because of its long history of working with the AFCs and general knowledge of the Federal flight test operations (that are not classified), will anticipate problems that are likely to arise during the Government's review and handling of the coordination request for such Part 5 operations, which are on a non-interference basis. In such circumstances, AFTRCC may suggest changes to the requesting operator to increase compatibility, such as a change in frequency, reduction in power, a smaller or different zone of flight test operation, or even a different location altogether for the flight tests, so as to improve the chances for an AFC issuance of consent to the coordination. (Sometimes these suggestions are the result, not just of AFTRCC's sole review, but of advance conversations between AFTRCC and the Government AFCs.) AFTRCC finds that this type of pre-coordination is occurring on an increasing basis as there is a growing number of requests for flight test coordination, both from more established aircraft developers and manufacturers as well as from new aviation entrants, due to the complexity of advanced crewed and uncrewed aircraft concepts and the pace of domestic technology investment in the aerospace domain.

operators.¹⁸ Recent feedback AFTRCC has received from polling its members and other Part 87 licensees indicates that, not surprisingly, the usage of the AMT Bands has not relented. Flight test demand for AMT use is on the rise; flight test operators have informed AFTRCC that in the near future they expect to use AMT at additional sites beyond those where it is used today and to support a variety of new programs. There are scores to hundreds of flight tests per year at each respondent's sites, resulting in hundreds to thousands of flight test hours per year per manufacturer, numbers which operators have informed AFTRCC will increase for large numbers of programs for fixed wing aircraft, rotor craft, missiles, and a wide range of UAS essential for the military, passenger transport, corporate jets, cargo airport, emergency and public safety operations, VTOL, upper air UAS mobility, and numerous other uses.

The Commission recognizes that the AMT Bands are heavily used by incumbent licensees.¹⁹ In several regions of the country where the density of non-Federal flight test operators with continuing flight-testing needs is particularly high, more formalized multi-party

¹⁸ See, e.g., Comments of AFTRCC on the Third Report and Order, ET Docket No. 13-115, pp. 23-28 (Jan. 22, 2025) (detailing the nationwide scope of AMT operations in 30+ states, multiple regions in all quadrants of the continental U.S. where operations are heaviest, variable constraints on the operational area where flight testing can occur (due to factors such as weather and temporary FAA airspace restrictions) and the usage levels of Boeing, Lockheed, Bell Helicopter, Textron among others).

¹⁹ See, e.g., *Allocation of Spectrum for Non-Federal Space Launch Operations*, Third Report and Order, 39 FCC Rcd at 14096, ¶ 60 (“We also note that a [commercial space] licensee’s ability to operate in excess of 5 megahertz is dependent on its ability to coordinate such a bandwidth, which may be difficult given the congested nature of, and the existence of critical AMT incumbent operations in, the 2360–2395 MHz band.”); *Allocation of Spectrum for Non-Federal Space Launch Operations*, Second Report and Order and Second Further NPRM, 38 FCC Rcd 9029, 9092 ¶ 174 (concerning the Upper S-Band, the “we are [i.e., the Commission is] aware that this band is heavily used for flight test purposes and agree that we should proceed cautiously with respect to measures that have the potential to introduce additional interference to operations in the band.”); *Public Notice* at p. 2 (“these allocations [for Part 26 licensees in the 2025, 2200, and 2360 MHz bands] are on a secondary basis in bands heavily used by incumbent services.”)

arrangements, primarily among non-Federal operators, exist. In such areas, non-Federal flight test operators participate in Area Flight Test Radio Coordinating Committees (“Area Coordinating Committees”) under the auspices of AFTRCC.²⁰ Through these Area Coordinating Committees, operators work collaboratively to ensure coexistence in the L-Band and Upper S-Band by collaboratively engaging in long-term, short-term, and temporary scheduling for flight testing, sometimes with the participation of Government AFCs.²¹ The cooperation that occurs within the Area Coordinating Committees is guided by scheduling procedures memorialized in multilateral agreements that apply within a defined geographic area (which may be hundreds of miles in diameter²²). Today, five Area Coordinating Committees exist, centered in Los Angeles/Southern California; Tucson, Arizona; Wichita, Kansas; Dallas/Fort Worth, Texas; and Marietta, Georgia. For some coordination requests, AFTRCC may condition the coordination by requiring the applicant, once the license is granted, to complete local coordination with the Area Coordinating Committees for its flight tests.²³

²⁰ The Area Coordinating Committees are sub-committees of AFTRCC. Non-Members can participate in the Area Coordinating Committees, but typically a prerequisite for a non-federal flight test operator joining an Area Coordinating Committee is to join AFTRCC as a Member.

²¹ For example, the Gulf AFC at Eglin Air Force Base (“AFB”) in Florida is a member of the Marietta Area Coordinating Committee; the AFC at Edwards AFB is part of the Los Angeles Area Coordinating Committee; and the Arizona AFC is a member of the Arizona Area Coordinating Committee.

²² For example, the area covered by the Wichita Area Flight Test Radio Coordinating Committee is defined by a 250-mile radius around Wichita, Kansas.

²³ Apart from the Area Coordinating Committees and where coordination or scheduling with a Government AFC is not a prerequisite, on an as-needed basis, flight test operators will work informally to communicate with and cooperate with nearby flight test operators, both Government and non-Government, in the same band to deconflict and ensure coexistence, often times with AFTRCC’s assistance.

2. Secondary Licensed Users of the L-Band and Upper S-Band and Experimental Licensees (Including Commercial Space Launch)

AFTRCC, as the Commission-designated AMT coordinator in the 2360-2395 MHz Band, has worked closely with the Commission and other stakeholders to accommodate secondary license uses in the bands. For example, AFTRCC has a concurrence agreement with the Commission designated coordinator of secondary medical body area networks (“MBANs”) use of the AMT spectrum at 2360-2395 MHz.²⁴ AFTRCC has also been designated to coordinate secondary wireless microphone use of the 1435-1525 MHz AMT Band,²⁵ and, for many years, AFTRCC has coordinated requests by broadcasters and broadcast engineering companies in both the L-Band and Upper S-Band for site-specific Part 5 experimental special temporary authorizations for video (and sometimes audio) operations. In limited instances, AFTRCC has also worked with applicants to coordinate and approve requests for Part 5 experimental use of the bands for related advanced technology development programs that are not yet under U.S. Government contract or have not otherwise been brought to commercial market. Under the Commission’s rules, Part 5 authorized users must operate on a non-interference basis with respect to primary and secondary licensed users, meaning they must accept any interference received and may not cause interference to primary and secondary licensed users. The overwhelming majority of commercial space launch activity in the 2360-2395 MHz range today is occurring through Part 5 experimental licenses, and it should be noted that such use is occurring at low volume as explained in Section III below.²⁶

²⁴ MBANs R&O ¶ 74. *See also* 47 C.F.R. § 95.2509(b)(2) (requiring coordination of MBANs with the designated AMT frequency coordinator).

²⁵ *See* 47 C.F.R. § 74.803(d)(2); Wireless Microphone Order ¶ 122.

²⁶ More recently, in December 2024, the Commission adopted a secondary allocation for commercial space launch and reentry operations in the 2360-2395 MHz Band in its Third Report and Order in ET Docket No. 13-115, requiring per launch coordination in the band. The Part 26

3. Adjacent Band Licensed Users and Coordination

AFTRCC is also responsible for coordination with AT&T, the Wireless Communications Services (“WCS”) licensee in the 2345-2360 MHz range, immediately below the Upper S-Band.²⁷ AFTRCC has successfully coordinated thousands of frequency assignments at WCS (downlink) cell sites in this band with flight testing operations occurring above 2360 MHz, and continues to process these requests as received. AFTRCC also has a coordination agreement with Ligado Networks to ensure compatibility with AMT of any future Ancillary Terrestrial Component operations of Ligado on frequencies located just above the L-Band AMT Spectrum.

III. AFTRCC COORDINATION OF COMMERCIAL SPACE LAUNCH AND REENTRY OPERATIONS IN THE 2360-2395 MHZ BAND

Of particular relevance to the *Public Notice*, AFTRCC currently coordinates commercial space launch and reentry operations with AMT operations in the Upper S-Band under the Commission’s limited regulatory framework governing commercial space launch and reentry operations on specified center frequencies in the two bands. At present, space launch operators have chosen to access this spectrum for commercial space launch and reentry operations using Part 5 of the FCC rules²⁸, filing experimental license applications for special

rules adopted in the Third Report and Order have not yet been implemented, and therefore no Part 26 commercial space launch licenses have been issued.

²⁷ 47 C.F.R. § 27.73(a) (“The coordinator for the assignment of flight test frequencies in the 2360-2390 MHz band, Aerospace and Flight Test Radio Coordination [sic] Council (AFTRCC), ... will facilitate a mutually satisfactory coordination agreement between the WCS licensee(s) and AMT entity(ies) for existing AMT receiver sites.”). *See also Amendment of Part 27 of the Commission's Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band, Establishment of Rules and Policies for the Digital Audio Satellite Service in the 2310-2360 MHz Frequency Band*, Report and Order and Second Report and Order, 25 FCC Rcd 11710, 11785 (2010).

²⁸ As noted above, Part 5 access is *below* secondary use in spectrum access.

temporary authority (“STA”) at specific launch locations for an extended period (such as 180 days) to cover multiple launches on dates not specified at the time of licensing and then seeking to coordinate specific mission and launches under that authorization through AFTRCC.²⁹

AFTRCC has proactively and in consultation with stakeholders, including several members of the CSF, introduced several changes to its space launch coordination policy and procedure in the past eighteen months as AFTRCC has enhanced its coordination workflow to be prepared to accommodate an increased cadence of commercial space launch activity and has adapted to particular aspects of space launch planning that it understands better now based on discussions with launch providers. Recent circumstances have generated increased demands by space launch operators that have thrust potential space launch activity into the band to a degree that far exceeds what the FCC’s rules initially contemplated, namely use of only three frequencies within the 2360-2395 MHz Band, as set out in footnote US276.

In its initial process, AFTRCC had required coordination requests (with planned trajectory and other technical operational parameters related to the proposed frequency use) to be submitted to it at least 60 days in advance of the first proposed launch date. Sixty days was

²⁹ See *Public Notice* at 2 (“To mitigate harmful interference with incumbent operations for which the bands are allocated on a primary basis, use of the bands for space launches and reentries requires federal coordination with the National Telecommunications and Information Administration (NTIA) and non-federal coordination with the Aerospace and Flight Test Radio Coordinating Council (AFTRCC), among other entities.”). Under Part 87, three specific frequencies within the 2360-2395 MHz Band are available for licensed commercial space launch. Space launch operators, to date, have not attempted to obtain licenses in the Upper S-Band pursuant to that framework. 47 C.F.R. § 87.303. Commercial space launch operators can also access the L-Band on five select frequencies within 1435-1525 MHz under for “telemetry associated with launching and reentry into the Earth’s atmosphere as well as any incidental orbiting prior to reentry of manned objects undergoing flight tests. 47 C.F.R. § 87.303(d)(1). *Accord* footnote US343 in the U.S. Table of Frequency Allocations (47 C.F.R. § 2.106). The CSF Petition does not give this type of access for launch and reentry activity in the L-Band any attention, and so AFTRCC will not comment further on it at this time. No commercial space launch activity is authorized or takes place within the 5091-5150 MHz Band. See note 76, *infra*.

chosen to be consistent with what has been, and remains, the Commission and Federal coordinator practice, as reflected on the Part 5 authorizations for commercial space launch operations.³⁰ However, following a series of detailed discussions with space launch operators and flight test operators, including AFTRCC’s Members, about their respective operational cadence and respective mission planning needs, AFTRCC has elected to shorten the window significantly before a planned launch before coordination must commence in two ways: **First**, AFTRCC now requires that space launch operators give an initial notice for specific launch missions **no later than 30 days prior to the earliest prospective launch date** (a “30-Day Notice”),³¹ with technical information including trajectory. **Second**, specific dates for the launch mission must be included in a notice at least 21 days before the earliest proposed date (a “21-Day Notice”), which can include up to six back-up dates.³²

³⁰ Even today, the Commission Part 5 licenses for commercial space launch require the commencement of coordination for planned launch dates at least 60 days prior to the launch. *See, e.g.*, Call Sign WB9XCZ granted to SpaceX on May 29, 2026 (Special Condition (6): “As soon as possible, but no later than sixty (60) business days prior to the planned launch, SpaceX is required to provide, as a minimum, [to specific Federal coordinators] launch date/time/window and planned first- and second-stage trajectory, transmission frequencies with associated duration/cut-off time . . .”).

³¹ For missions with multiple proposed trajectories, AFTRCC will require a mission coordination 30-Day Notice for each separate trajectory for that mission.

³² As part of the balancing of the different uses and spectrum access priorities in the band between Part 5 (and eventually Part 26) space launch operators and primary Part 87 AMT use by flight test operators, only one 21-Day Notice is permitted at a time under a mission-trajectory that has completed mission coordination. The submission of a new 21-Day Notice “returns” any earlier coordinated dates and cannot secure dates actively in addition to those coordinated following an earlier 21-Day Notice. However, AFTRCC, in extraordinary cases, will consider an exception to the limit of back-up dates. In one case this year, an exception was made based on the circumstances of a unique mission and the existence of extraneous factors (unrelated to AFTRCC’s policy requirements) which, AFTRCC was informed, were likely to lead to a potential delay in the launch date by several months if additional back-up dates could not requested while an original set of coordinated dates remained active.

AFTRCC's commercial space launch coordination procedure which is used for Part 5 licensees (and will be used for Part 26 when implemented³³) follows a straightforward course.³⁴ Once a mission coordination request is timely made, the space launch operator is to make a coordination request for a specific launch date or set of launch dates (primary and back-up dates) at least 21-days prior to the earliest proposed launch date. This advance notice requirement is 65% shorter than the 60 days previously required for the commencement of coordination for an individual launch.³⁵ This action initiates a full coordination effort based on the dates and complementing the trajectory and other operational technical information provided with the *mission* coordination request, during which AFTRCC contacts potentially affected flight test operators at AMT sites within the scope of a heat map for the proposed launch based on Rec. ITU-R M.1459 AMT protection criteria. AFTRCC affords the potentially

³³ See Third Report and Order, 39 FCC Rcd 14065, 14089, ¶ 46 (“We also amend our part 26 rules to incorporate a post-grant, per-launch coordination requirement with AFTRCC for part 26 licensees seeking access to the 2360–2395 MHz band.”).

³⁴ For a fuller description of AFTRCC's current policy for commercial space launch coordination requests, see https://cdn.prod.website-files.com/6a0e03fe10ba58aad7503458/6aa867a01c1b69c3c3bbd834_Space%20Launch%20Coordination%20Policy.pdf

³⁵ The CSF Petition incorrectly asserts that AFTRCC had previously conducted space launch coordination in only four days for individual launches. SpaceX has made similar claims on earlier occasions in this and related dockets; AFTRCC has explained to both the space launch operator and the Commission previously on the record that this was not coordination (in the sense of a full technical analysis and contacting potentially affected flight test operators), but merely an advance notification requirement. Since that time, as a result of better analytic tools allowing AFTRCC to better assess the wide geographic scope of potential impact to AMT operations, especially for coastal launches, AFTRCC has moved to a coordination (rather than notification) regime for individual launches to better ensure protection of safety-of-life real time aeronautical mobile telemetry (as it is the primary use) – all the more important to have in place as the number of launches is apparently set to increase over the coming years. This type of accommodation, and evolution of a coordination framework, is precisely what is expected by the Commission of the Part 87 FAC, and in fact in line with the expectations of every existing frequency coordinating body authorized in the regulations.

affected flight test operators the opportunity to review the planned launch and inform AFTRCC, subject to a brief deadline of five business days, whether they have any objections, questions, and concerns. Manual coordination commences if any such objections, questions, or concerns are received.

AFTRCC submits that, while there are certain timelines and other limitations imposed on the requesting space launch operator, this policy creates a reasonable balance between primary Part 87 flight test operators and space launch operators accessing the band with lower priority. Thus, the policy promotes maximum spectrum use. Without these procedures in place, for example allowing space launch operators to make requests on shorter notice than 21 days for specific proposed launch dates, there will be insufficient time for notice to flight test operators for their internal review of the proposed coordination dates for possible impacts on the aircraft programs they are supporting through flight tests and for the subsequent “manual coordination” that may be required as a result of their review. Moreover, as some flight test operators’ plans to use the spectrum often crystallize only a short period before the flight test activity,³⁶ the policy gives lower priority space launch operators a better chance at securing successful coordination.

The *Public Notice* seeks comment on how a greater cadence of launches can be accommodated.³⁷ AFTRCC submits that its present policy is completely scalable as each mission coordination and per launch coordination event is independent. AFTRCC is

³⁶ As AFTRCC has informed the Commission on repeated occasions, flight tests are only sometimes planned many weeks or even months in advance. Much flight test activity is, according to AFTRCC’s understanding, more opportunistic and embarked on with short notice or in other instances ongoing, requiring shifts in routine operations to accommodate secondary space launch spectrum use.

³⁷ *Public Notice* at 2.

committed to having the technological and staffing resources needed to accommodate a greater number and frequency of coordination requests under its policy. For those launch operations that have predictable scheduling requirements from the same launch location and involve the same trajectories and other technical parameters for each launch, AFTRCC envisions that such requests can be made predictably through the 21-Day Notices, noticed to potentially affected flight test operators, and issued on a streamlined basis. Such needs can be accommodated within the policy as it stands today, albeit each launch date will have to be coordinated and may create conflicts with planned flight test operator uses that would need to be worked out to enable a successful coordination.

It also bears repeating that collaboration between AFTRCC and the Federal Government users and coordinators helps ensure that both Federal *and* non-Federal flight test operations are protected from harmful interference when a commercial space launch coordination request is received and that flight safety during any tests that may take place contemporaneously with launches is not jeopardized. Consistent with the Commission's rules, AFTRCC, following its review of a commercial space launch coordination request, typically forwards the request to "the responsible Government Area Frequency Coordinators listed in the NTIA 'Manual of Regulations and Procedures for Federal Radio Frequency Management.'"³⁸ The AFCs, in turn, work with NTIA to complete the coordination process for purposes of ensuring that Federal AMT sites are adequately protected from the proposed space launch and reentry operation.³⁹ Depending on the location of the proposed launch, for example if it is in the vicinity of Federal AMT sites, the Government may impose a condition on the launch

³⁸ *Id.*

³⁹ Depending upon the parameters of the launch activity more than one AFC may be involved in coordinating a specific launch.

operator to schedule any commercial space launch and reentry activity through the AFC (or AFCs) in the region(s) potentially affected.

AFTRCC continues to improve its coordination procedures and is willing to sit down with spectrum users to discuss its policies and procedures and entertain ways in which it might improve. AFTRCC has expanded its professional staffing in each of the past two years, scaling its capacity to handle an increasing number of coordination requests, including those anticipated but not yet realized for commercial space launch. It has been investing in measures to make its coordination request portals more efficient with the assistance of an outside software system architect contractor and its own in-house capabilities. This includes AFTRCC's commercial space launch coordination request portal as well as its systems to support other coordination requests and its interfaces with wireless mic manufacturers. In addition, at its expense, it is continuing to develop its portal for non-Federal flight test operators to confirm coordinated commercial space launch activity and to check, as a result of post-coordination notifications from space launch operators, whether certain dates that were burdened due to a commercial space launch coordination have become unburdened and thus available for their use, another means to maximize spectrum utilization. Recently, in the past two years, AFTRCC reviewed and renewed its concurrence agreement with the MBANs coordinator concerning licensed secondary access to the 2360-2390 MHz range. Because AFTRCC's attitude toward effective and efficient spectrum management, matched by its track record on such matters, is to consider all reasonable proposals that are brought to it, it is disheartening that the CSF chose to file its Petition rather than to engage with AFTRCC and discuss the issues that it perceived. We welcome the opportunity to engage with CSF, in consultation with the other various AMT stakeholders, to address their concerns.

IV. SIGNIFICANCE OF AMT TO NATIONAL PRIORITIES, MILITARY READINESS, SAFE AND EFFICIENT COMMERCIAL AVIATION, AND THE ECONOMY

A. General Importance of the A&D Sector to the Nation's Economy and Balance of Trade

The A&D industry which relies on flight testing remains vital to the national economy. 2025 data compiled by the Aerospace Industries Association (“AIA”) reflect that the industry supported over 2.1 million U.S. jobs (434,000 direct jobs in the Aeronautics/Aircraft sector), with average labor income per A&D job in excess of \$127,000 (40% above the national average) and generated over \$988 billion in total sales. In terms of economic value, the industry contributed a healthy 1.6 percent of total nominal GDP and a \$109.2 billion trade surplus, the largest positive contribution to the nation’s trade balance of any U.S. manufacturing sector.⁴⁰

B. Flight Testing Using AMT Is in the Critical Path for Maintaining Military Readiness and Ensuring U.S. Leadership in Efficient, Safe, and Advanced Aviation

Flight test telemetry spectrum at 1435-1525 MHz and 2360-2395 MHz is in the critical path for the foregoing success of the United States military defense and the civil aviation industry. Flight testing plays a key role in our nation’s world-leading A&D industry, supporting the design, development, delivery, and sustainment of civilian and military aircraft, including helicopters and missiles, and it is critical for the introduction of new types of aircraft, such as UAS (from smaller drones to, eventually, passenger-carrying uncrewed aircraft) and VTOL aircraft.

⁴⁰ See AIA, 2026 Facts & Figures (June 25, 2026), at <https://www.aia-aerospace.org/news/2026-aia-facts-figures-u-s-aerospace-defense-industry-leads-the-world-with-1-trillion-in-sale/>.

As the FAA succinctly explained in its 2016 Report to Congress on AMT testing and spectrum needs

Displaying and analyzing [AMT] data in real-time allows flight testers to monitor critical parameters and mitigate risks in order to conduct safe, effective, and efficient missions. U.S. aerospace companies depend heavily on AMT services to reduce both risks and costs. Although AMT is not well known inasmuch as it serves a specialized technical purpose typically not seen by the general population, it is an important enabler for the aerospace industry. Indeed, AMT is in the critical path for U.S. aerospace manufacturers in delivering new products, and is a key asset to aerospace research and development (R&D), test and evaluation, and certification by the FAA.⁴¹

Routine flight testing by non-Federal flight test operators throughout the life of aircraft programs, which can extend for many years and even decades, is essential. Testing is conducted during design and development, during manufacture and prior to delivery of aircraft, and also during sustainment: maintenance, upgrades, refits, and other modifications. Most aircraft depend on flight testing and are key to every sector of the country's national security, critical infrastructure, transportation, shipping, emergency response, and public safety, and, generally, the nation's economic growth. Flight testing is typically a prerequisite to aircraft certification (including modifications)⁴² and the military, once it receives aircraft from the A&D manufacturer contractors, often conducts its own rigorous flight tests at its ranges.

⁴¹ See Letters of Michael P. Huerta, Administrator, FAA, to Sen. John Thune, Chairman, Committee on Commerce, Science, and Transportation United States Senate *et al.* (April 29, 2016) ("FAA Thune Letter") attaching Mitre Corp., Report to Congress on Aeronautical Mobile Telemetry (July 2016) ("FAA Report to Congress") found at <https://www.faa.gov/sites/faa.gov/files/2021-11/Report-to-Congress-on-Aeronautical-Mobile-Telemetry.pdf> The FAA Report to Congress was required by the FAA Modernization and Reform Act of 2012, Section 820, which requested the FAA report to Congress on the AMT needs of civil aviation and the potential impacts from introducing new in-band radio services into AMT spectrum. See FAA Thune Letter at 1.

⁴² Part 21 of the FAA Rules require flight testing to ensure the airworthiness and safety of all new aircraft and new aircraft parts, or modifications to existing aircraft.

While some systems can be tested, to some degree, when aircraft are on the ground, only rigorous flight tests in the air can ensure an aircraft is truly ready for operations. Both non-Federal and Federal flight test ranges are large, with sensitive AMT ground stations receiving telemetry sent from test aircraft, often hundreds of kilometers away.

Flight tests by design often push aeronautical vehicles to design limits, frequently at extremely high velocities, thus significantly increasing safety-of-flight considerations. But, as the FAA has observed, “[e]ven seemingly routine tests can involve significant risk to safety of life.”⁴³ Link margins may be small and any additional interference, even if mild, cannot be tolerated in many circumstances. Whether during flight tests or subsequent regular operations, all flight activity depends on the reliability of telemetry data received on a real-time basis during the multiple phases of flight testing, without disruption from harmful interference, even for an extremely short period that may last only a few seconds.⁴⁴ Successful real-time receipt and analysis of key telemetry data is essential, especially in cases where a test may promptly need to be aborted or modified to protect life and property in the air and on the ground.⁴⁵

⁴³ FAA Report to Congress at 5.

⁴⁴ If signal lock is lost, even for a matter of seconds, it may be several multiples of that period before lock can be successfully reestablished, during which time telemetry is not being received and a decision may be made to abort a flight test operation to ensure safety of the flight test pilots (and any crew). If the interfering signal is strong enough to capture the receive antenna tracking, re-acquiring the tracking of the test article and obtaining data “lock” can take much longer. But it is important to note that other interference effects, even if they do not result in a loss of lock, such as a loss in data integrity or corrupted data, can have significant adverse effects during a flight test given the demand of continuous real-time delivery of telemetry data to the ground. Guarding against this plethora of harmful interference effects are the protection criteria of Rec. ITU-R M.1459 which are incorporated into a number of Commission rules. See 47 C.F.R. § 27.73(a) (WCS coordination of mobile base stations below 2360 MHz with AMT above 2360 MHz); 47 C.F.R. § 95.2509(a)(2) (Medical body area networks; coordination between MBAN coordinator and AFTRCC where MBAN devices within line of sight of AMT site); 47 C.F.R. § 25.253(a)(2) (MSS ATC base stations to take all practical steps to avoid harmful interference to AMT receive stations consistent with Rec. ITU-R M.1459).

⁴⁵ As the FAA explained to Congress, FAA Report to Congress at 5:

AMT systems can be highly susceptible to interference without adequate mitigation measures in place. Aircraft undergoing tests can be as much as 200 miles away from the flight test center's AMT receive facilities. During flight tests, the telemetry signals are often weak and subject to severe fluctuations due to speed and high bank angles amongst other typical flight testing maneuvers. To detect telemetry signals throughout flight tests at all relevant distances, tracking systems are designed to be extraordinarily sensitive, requiring very high-gain directional antennas, which also renders them vulnerable to harmful interference from relatively low levels of co-channel signals. The safety-of-life implications of the uninterrupted availability of flight test telemetry data cannot be overstated and justify the primary status that has long been afforded these operations in the respective AMT Bands.

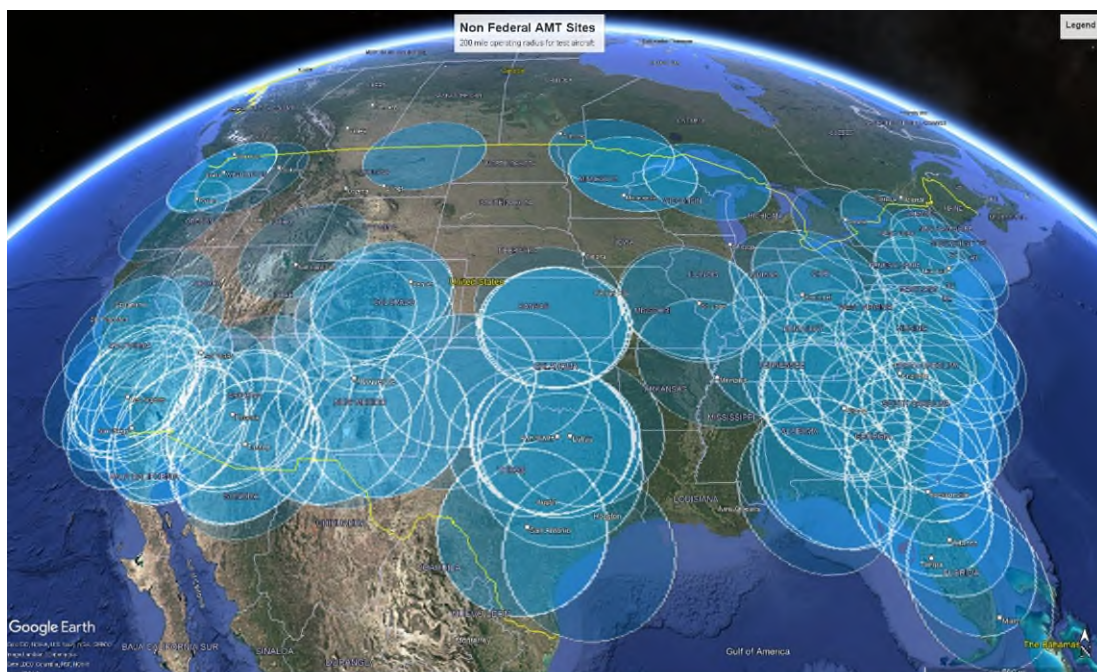
Further, flight testing is not a limited geographic exercise limited to a handful of locations. There are up to five hundred Federal and non-Federal AMT sites in the continental

During flight tests, aircraft are pushed to their maximum limits. So-called "flutter" tests stress the wings and control surfaces to the point where aerodynamic, elastic, and inertia forces can produce potentially violent oscillation. These oscillations, or vibrations, can build with suddenness: Once begun, they are difficult, and sometimes impossible, to control. Likewise, envelope expansion testing, including stall, spin, and dive tests, requires that the aircraft be flown to the limits of its airspeed and load factor design capabilities. Another example, the pitch-roll coupling of higher performance aircraft, involves highspeed pullouts; these can create critical conditions not easily predicted by design engineers or recognized by a pilot. All of these tests are inherently dangerous to the pilot and persons on the ground. Even seemingly routine tests can involve significant risk to safety of life.

AMT allows controllers on the ground to monitor the performance of a test aircraft second by-second and warn the pilot to abort maneuvers that threaten a structural failure, out-of-control flight, or other system emergency. If an aircraft encounters an unsafe condition, or strays from a safe flight path, engineers can alert the pilot and advise him or her on possible corrective measures before personnel or property is endangered. In the unfortunate instance where an aircraft is lost during flight tests, real-time data captured by AMT helps in reconstructing the cause of the crash.

United States. AMT sites are found in more than 30 states. Figure 1 shows the current geographic distribution of non-Federal AMT sites (based on the AMT site database AFTRCC maintains) and shows that while many are concentrated in certain areas of the country, others can be found in smaller numbers through much of the remaining United States. The circles have 200 mile radii to depict the geographic operational scope often employed for flight testing. Notably, there are even more Federal AMT sites than non-Federal ones.

FIGURE 1



Flight testing of increasingly sophisticated, and sometimes autonomous, platforms often requires the marshalling of scores of test and support personnel, a wide variety of range equipment, search and rescue aircraft, and chase planes, to name only some of the principal elements. All of these components incur significant costs: flight test operations for advanced aircraft can exceed \$1 million per flight. In fact, flight testing represents as much as 15-20% of the cost of developing new aircraft. Thus, the more data that can be collected per test flight (much of it gathered via AMT), the more effective the cost per flight, and potentially reduces

the number of test flights required to ensure aircraft and missile performance, efficiency, and safety, and this lowers the total cost of the aircraft.⁴⁶

In addition to large, flight-testing events planned weeks or even months in advance involving large numbers of personnel, observers, subcontractors, and suppliers, much flight testing occurs on and around manufacturers' or assemblers' facilities on an opportunistic basis where decisions to conduct the flight tests occur on very short notice. As noted above, these flight tests typically operate up to 200 miles of range from their takeoff origin due to speed requirements and do not always conclude at the same location since flight testing can also occur along segments that cover multiple Federal and manufacturer ranges. This need, balanced with the spectrum needs of space launch operators, was a key consideration as AFTRCC designed various aspects of its current commercial space launch coordination policy, as discussed earlier.

There has been an exponential increase in the number of parameters, including the precision and frequency of measurements, required during flight testing that is driving a surge in spectrum demand to meet AMT needs for both Federal Government and non-Federal Government flight testing. Modern aircraft and missiles are designed to operate closer to the point of maximum efficiency, and testing requires that more data be collected at higher speeds and more extensive testing.⁴⁷ Certification of next generation commercial aircraft can require

⁴⁶ It should be noted that flight testing occurs in the air and on the ground, examples of the latter being brake testing, aborted takeoff testing, and equipment calibration, to name a few operations.

⁴⁷ Notably, digital video cameras represent an increasingly important source of data for both crewed and uncrewed (*e.g.* missiles and UAS) test flights. Cameras complement traditional sensors, offering "pictures" that other sensors cannot capture. Video can be synchronized with other instrumentation to record the movements of "tufts," or "strings" glued to the aircraft skin, visibly indicating the direction of air flow over the surface of the aircraft at every instant during flight maneuvers, thereby providing insight for design changes to increase performance and efficiency. Video also provides other benefits, such as the ability to closely observe the interaction of water and tires during wet runway testing, monitoring ice build-up on control

tests requiring AMT data rates in the 100 to 200 Mbps. While flight testing of the Boeing 707 during the 1950s required continuous measurement of a few hundred data points, flight testing for new Boeing aircraft can require continuous monitoring of more than 100,000 data points.

Bottom line, interference-free access to adequate flight test spectrum in the AMT Bands is an essential element of all flight tests. There is no Plan B; if AMT spectrum is unavailable for a flight test when it is scheduled (and weather and airspace conditions are favorable) due to harmful interference, it will be cancelled. The demand for new aircraft and the integration of updated equipment, and correspondingly tighter development and delivery cycles, puts stress on the already limited existing AMT spectrum resources for non-Federal flight testing, *i.e.*, the 1435-1525 and 2360-2395 MHz Bands. Further, it bears emphasizing that the amount of spectrum available for flight testing has been reduced over time – for example, once most of the 2300-2400 MHz Band was allocated for flight testing, but reductions have occurred to accommodate satellite digital radio and the Wireless Communications Service, until only 35 megahertz remain.⁴⁸

Unfortunately, delays due to spectrum shortages affecting AMT operators (even as their need for spectrum increases) are becoming more frequent,⁴⁹ and these can impose heavy

surfaces during icing tests, and determining the time lag on cockpit avionics displays. Video is also used for monitoring weapons separation tests and scoring, and for an over-the-shoulder view of the instrument panel as seen by the pilot. The latter is utilized when trying to capture pilot workload so as to inform efficient and ergonomic instrument panel design: high-definition video can show flight test engineers on the ground what the pilot sees, and how he or she is reacting to the various gauges, warning lights, and other visual and auditory inputs. These video inputs are merged with the rest of the flight test telemetry stream, improving the efficiency and efficacy of the ground operations, but also adding significantly to the spectrum requirement.

⁴⁸ When AFTRCC became the FAC in the Upper-S Band, the total range of frequencies for AMT that it coordinated was 2310-2320 and 2345-2390 MHz. *1984 Designation Order* at 39333. The 2310-2320 and 2345-2360 MHz sub-bands are no longer available for flight testing.

⁴⁹ AFTRCC Members report that access to the L-Band and Upper S-Band – the two primary non-Federal bands allocated for non-Federal flight testing – has become increasingly difficult to

logistical and financial costs on both manufacturers and their customers – and ultimately the country’s national defense, strategic alliances, and economic interests. When the customer is the DoD, delays can blunt our nation’s competitive edge against foreign adversaries and limit opportunities to support allies through U.S. technology leadership. When the customer is the commercial aviation industry or private customers, delays impact the flying public and the movement of goods – in other words, the efficiency of the economy – and, even more important, the safety of aviation.⁵⁰ It is noteworthy that each commercial aircraft model introduced to the market can generate hundreds of millions, if not billions of dollars of value into the U.S. economy.

V. THE L-BAND AND UPPER S-BAND ARE PROTECTED SAFETY-OF-LIFE FLIGHT TEST BANDS REQUIRING RIGOROUS OVERSIGHT

In its Report to Congress in April 2016, the FAA emphasized the several ways in which AMT during flight testing, “[e]ven seemingly routine tests,” is inextricably linked to safety of life.⁵¹ As the FAA explained, access to real-time telemetry data during flight tests “is crucial to monitor hazardous trends exceeding aircraft limitations, and to safely and incrementally

secure in a number of areas due to testing demands by other users, both Government and non-Government. The need to meet customer requirements and conduct tests on Government customer ranges, or in coordination with Government and other non-Government ranges, has led to scheduling and availability constraints. Meanwhile, Government contracts increasingly require the integration and validated use of C-band capabilities on aircraft. For these reasons, on an experimental basis, some AFTRCC Members have been relying upon the 4400-4940 MHz Band in addition to the 5091-5150 MHz Band (available on a limited basis due to the spectrum management framework to accommodate AeroMACS in that band) to conduct flight tests in addition to L-Band and Upper S-Band frequencies.

⁵⁰ See FAA Report to Congress at 4, n.18 (“Without AMT services, flight tests would incur reduced safety, higher costs, and more schedule delays, negatively impacting the competitiveness of the U.S. aerospace industry.”).

⁵¹ See *id.*

progress to higher risk flight test points.”⁵² In Recommendation ITU-R M.1459, which establishes the recognized protection criteria for AMT in AMT Bands, it is similarly acknowledged that “Aeronautical telemetry and telecommand operations are used for flight testing of manned and unmanned aerospace vehicles. Vehicles are tested to their design limits, thus making safety of flight dependent on the reliability of information received on a real-time basis.”⁵³

The 1435-1525 MHz and 2360-2395 MHz Bands at issue in the Petition are shared Government/non-Government allocations primarily for the aeronautical mobile (route) service (“AM(R)S”) to support flight testing.⁵⁴ The Commission’s rules provide that AM(R)S is “[a]n aeronautical mobile service *reserved* for communications relating to *safety and regularity of flight*, primarily along national or international civil air routes.”⁵⁵ Consequently, the Commission has for decades taken appropriate pains to protect the AMT Bands, and specifically flight testing, from risks of harmful interference. For example, in 1989 the Commission determined that the telemetry bands should be classified as “Restricted” and thus protected from fundamental emissions of unlicensed devices. The agency stressed that the telemetry bands at 1435-1525 MHz and 2360-2395 MHz “involv[e] safety-of-life.”⁵⁶

⁵² *Id.* at 2 (citing F.N. Stoliker (editor), “Introduction to Flight Test Engineering,” North Atlantic Treaty Organisation, Research and Technology Organisation, Flight Test Techniques Series, vol. 14, July 2005).

⁵³ Rec. ITU-R M.1459, Protection criteria for telemetry systems in the aeronautical mobile service and mitigation techniques to facilitate sharing with geostationary broadcasting-satellite and mobile-satellite services in the frequency bands 1 452-1 525 MHz and 2 310-2 360 MHz, Annex 1, § 2.1 (05/2000).

⁵⁴ 47 C.F.R. §§ 27.73(a) and 74.803(d).

⁵⁵ 47 C.F.R. § 2.1(c).

⁵⁶ *In the Matter of Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without an Individual License*, First Report and Order, 4 FCC Rcd 3493, 3502 (1989); *see also* 47 C.F.R. § 15.205(a).

Likewise, in 1990 the Commission concluded that secondary use of flight test frequencies for air shows could result in significant harmful interference “impair[ing] the efficiency and safety of the flight test industry.”⁵⁷ It added:

In short, sharing of [AMT] frequencies with unlike services is difficult at best because schedules of telemetry flight tests are unpredictable and delays costly. Further, interference cannot be tolerated. For example, in the event of a crash the telemetry data may be the only means available to determine the cause of the crash. In this case, interference to the telemetry transmission could be disastrous.⁵⁸

When the Commission adopted rules in 2012 to permit low-powered wireless MBANs in the Upper S-Band on a secondary basis, it imposed a requirement for coordination with the Commission-designated MBAN coordinator “to protect AMT receive sites,” which is backed by a concurrence agreement between that coordinator and AFTRCC.⁵⁹ More recently, the agency adopted “safeguards [applicable to licensed, secondary wireless microphones in the L-band] designed to protect AMT,” due to safety considerations of the primary AMT operations.⁶⁰

The NTIA also recognizes the safety-of-life nature of AMT in the AMT Bands. Referring to the 1435-1525 MHz Band, it has explained that “AMT systems are used for flight testing of manned and unmanned aerospace vehicles. Vehicles are tested to their design limits, thus making safety of flight dependent on the reliability of information received on a real-time

⁵⁷ *In the Matter of Petition to Amend Part 87 of the Commission's Rules to Allot VHF Aeronautical Frequencies for the Coordination of Air Show Events*, Order, 5 FCC Rcd 4641, 4642 (1990).

⁵⁸ *Id.* quoting Report and Order, GEN Docket 89-16, 5 FCC Red 493 (1990).

⁵⁹ MBANs R&O ¶ 59.

⁶⁰ *In the Matter of Promoting Spectrum Access for Wireless Microphone Operations et al.*, Report and Order, 30 FCC Rcd. 8739, 8780, ¶106 (2015) (“Wireless Microphones Order”).

basis.”⁶¹ NTIA recognizes the similar real-time data applications during flight testing in the 2360-2395 MHz band.⁶²

VI. THE PUBLIC NOTICE RECOGNIZES THE CURRENT SPECTRUM FRAMEWORK, THE CHALLENGES OF SHARED SPECTRUM USE ACCOMMODATING COMMERCIAL SPACE LAUNCH, AND POSSIBLE ALTERNATIVES

In the *Public Notice* the Wireless Bureau, Space Bureau, and OET recognize the difficulties of commercial space launch utilizing spectrum occupied by long-standing primary incumbents, not limited to the fact that access is required by commercial space launch operators over large geographic areas. The *Public Notice* also acknowledges that the AMT Bands in which some commercial space launch and reentry operations occur today are heavily used by the incumbent AMT operators.⁶³

AFTRCC wishes to emphasize that the potential for interference from commercial space launch and reentry operations is not limited to the general area where a rocket leaves the launch site but, as altitude increases, and depending upon the trajectory – even at coastal launch sites – AMT sites over hundreds of thousands or even millions of square miles. The heat maps in Figure 2 are based on notional launches (informed by approximations of actual launch trajectory data) from Vandenberg in California and Kennedy Space Center in Florida proceeding out over the water. They depict the areas (within and inside the green color) over which the PFD exceeds

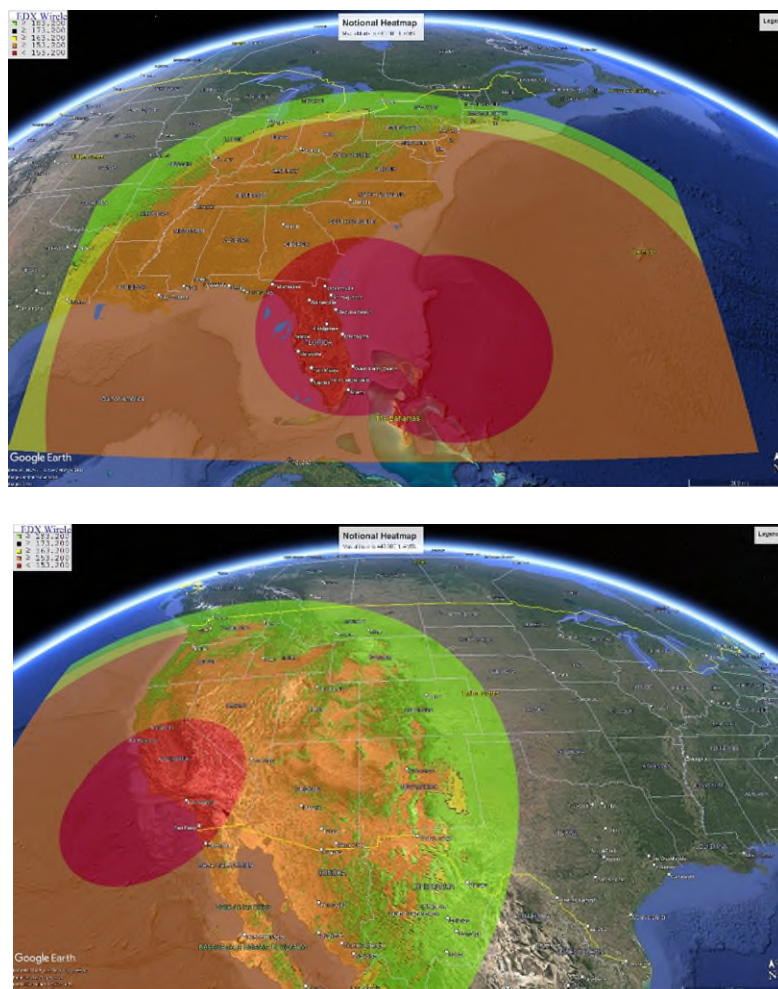
⁶¹ NTIA, Federal Government Spectrum Use Reports 225 MHz – 7.125 GHz, 1435-1525 MHz, at 1, *found at* https://www.ntia.gov/files/ntia/publications/compendium/1435.00-1525.00_01MAY15.pdf.

⁶² NTIA, Federal Government Spectrum Use Reports 225 MHz – 7.125 GHz, 2360-2390 MHz, at 3, *found at* https://www.ntia.gov/files/ntia/publications/compendium/2360.00-2390.00_01DEC15.pdf (“The Air Force uses this band to support developmental and operational tests of military flight systems. The AMT systems are used to transfer real-time data to multiple receive locations while the flight system is either on the ground or during airborne testing.”).

⁶³ *Public Notice* at 2.

the Rec. ITU-R M.1459 criteria during the launch up to an altitude above ground level of 440,000 feet (approximately 83 miles), with the highest exceedances in the red area (over 30 dB) and the orange area (between 20 and 30 dB). These heat maps demonstrate the large land areas where AMT sites will potentially receive harmful interference during a space launch even though the launch is from a U.S. coastal site out over the ocean. Scores if not hundreds of AMT sites may be affected for different lengths of time during a launch.

FIGURE 2



While AFTRCC is committed to process coordination requests by all users seeking to access the AMT Bands in an unbiased manner taking into account relative spectrum priorities, the needs of some commercial space launch operators make coordination without undue

constraints on flight test operators using AMT particularly challenging. Some space launch operators have expressed a need to deconflict spectrum as little as one day (and possibly even less) before a launch, or seek alternative frequencies or dates on very short notice, something which would be impossible (without exception) under AFTRCC’s commercial space launch coordination policy—and, presumably, any adequate coordination policy.⁶⁴ In these cases, the AMT Bands may not be the best home for those space launch operators anticipating such needs for sudden flexibility to seek coordination for new frequencies. On the other hand, space launch operators with more predictable or stable requirements are likely to have their needs met quite well, subject to each coordination dependent on planned AMT use, by the policy with the number of mission back-up dates permitted.

For those space launch operators that have the need for maximum short term flexibility that reasonable coordination policy timelines within congested bands with primary, safety-of-life incumbents cannot accommodate to meet their needs, other solutions should be considered. To the extent that certain space launch operators, at least for some missions, will require complete flexibility to deconflict and use spectrum on short notice, it begs the question how, without certain limitations, any “shared” framework could ever be suitable, whether coordinated by AFTRCC or through some other framework or system, without rendering all other users of the spectrum in question to uncertainty anathema to their business needs and, in the case of AMT operations, increased safety risks.⁶⁵

⁶⁴ For the reasons explained above, under AFTRCC’s coordination policy, space launch operators may seek coordination for a primary launch date and six backup dates in a 21-Day Notice.

⁶⁵ Regarding the question how much spectrum space launch operators require during commercial space launch and reentry operations, AFTRCC is glad that the *Public Notice* seeks to obtain such information as it considers what solutions might be available to address future needs. *Public Notice* at 2 (“we seek comment on specific spectrum needs, including the amount of

AFTRCC wishes to emphasize its understanding that some space launch operators may be planning to operate on a more regular cadence without a need for maximum flexibility to make 11th-hour changes (e.g., morning launch windows for several hours on certain days of each week). AFTRCC is confident that needs such as these, through arrangements, perhaps, with flight test operators, could be accommodated even in heavily congested AMT spectrum. Each case, of course, would have to be analyzed under the circumstances (and AFTRCC does not wish to speak for the Federal government coordinators, such as the AFCs).

Based upon numerous discussions and work sessions with certain members of the CSF, it is evident to AFTRCC that a different solution is needed for some members of the commercial space launch sector with operational unpredictability up until the date of launches that cannot be satisfied by the number of launch back-up dates AFTRCC's coordination policy welcomes. After all, such needs are incongruous with the use of heavily used spectrum by a variety of other uses, as in the 2360-2395 MHz Band.

That better solution is not an overhaul of coordination or priorities in the heavily used AMT Bands. Rather such licensees could consider meeting some or all of their needs for access to dedicated spectrum through secondary market long-term lease arrangements or other mechanisms that the Commission has implemented or is currently considering to provide additional tools to operators seeking exclusive-use arrangements.⁶⁶ Such arrangements could

spectrum needed to support space launch and reentry activities"). AFTRCC is willing to provide detailed information based on the coordination requests it has received directly to the Commission for its consideration and review.

⁶⁶ The CSF Petition suggests that launch providers have made progress on post-launch notifications, which is good to know because such notifications are important to maximizing spectrum use, but this does not offset, where it exists, the need for maximum spectrum access flexibility prior to launch, which is at the heart of the problem in a shared band. Multiple pre-launch changes for a mission undermines confidence and certainty for other users of the spectrum.

provide the extreme flexibility this sub-class of space launch operators appear to require, at least for certain categories of their launches, that are not conducive to obtaining access to spectrum in a necessarily structured, shared spectrum environment through AFTRCC's coordination policy. For such space launch operators, obtaining their spectrum for launch and reentry operation either solely through an alternate spectrum access framework or through a hybrid approach of both shared, coordinated spectrum access and leased or exclusive spectrum arrangements may be the best solution. The Commission's spectrum allocation and licensing framework should already offer that flexibility to space launch operators and such framework would be entirely appropriate given the urgency expressed in the *Public Notice*. After all, the Commission's spectrum policies are increasingly considering alternatives and there does not need to be a one-size-fits-all solution for all launch providers. AFTRCC awaits with interest the feedback that stakeholders provide on this particular matter throughout this proceeding. However, and whatever path or paths that launch providers ultimately choose to pursue to meet their individual business models, AFTRCC wishes to be very clear that, as the FAC in the AMT Bands, it will continue to coordinate all requests to support commercial space launch and reentry operations through its policy on an impartial and uniform basis.

VII. THERE SHOULD NOT BE AN UPGRADE IN SPECTRUM PRIORITY FOR COMMERCIAL SPACE LAUNCH IN THE AMT BANDS

The *Public Notice* seeks comment on “the appropriate [spectrum access] priority for space launch operations,” specifically whether “new allocations [should] be secondary, co-primary, or primary.”⁶⁷ The *Public Notice* recognizes that if a new allocation is in a shared band, it will raise complications with respect to incumbent users, regardless of the priority assigned to

⁶⁷ *Public Notice* at 2.

the commercial space launch and reentry operations.⁶⁸ These are critical questions, and AFTRCC will monitor the record developed in this proceeding and offer comments, as appropriate, on these issues should they affect AMT operators' interests.

The *Public Notice* also inquires whether priorities within existing spectrum used for commercial space launch and reentry operations should be altered.⁶⁹ Within the 2360-2395 MHz Band, which today is used occasionally for commercial space launch and reentry operations,⁷⁰ commercial space launch operations to date have been on a Part 5 non-interference basis. While the 2024 Launch Communications Act ("LCA") directed the Commission to make a new *secondary* allocation in the Upper S-Band for commercial space launch and reentry operations,⁷¹ and the Commission has done so and adopted Part 26 rules to govern secondary licensed operations in the band, the new framework has yet to be implemented. As such, there is no experience to date with how well secondary licensed Part 26 commercial space launch and reentry operations will coexist with primary Federal and non-Federal AMT operations in the band. AFTRCC submits that, until experience with the new Part 26 regime is gained, it would be premature to consider any changes in the priority of commercial space launch and reentry operations in the 2360-2395 MHz Band.⁷²

⁶⁸ *Id.*

⁶⁹ *Id.* ("we seek comment on . . . whether [commercial space launch and reentry] operations should be provided higher priority spectrum rights than the current allocations for space launches and reentries.").

⁷⁰ See Section VIII.B. of these comments describing the volume of launch coordination activity in the 2360-2395 MHz Band in the past six months.

⁷¹ Launch Communications Act, Pub. L. No. 118-85, 138 Stat. 1546 (2024).

⁷² AFTRCC acknowledges that in the 1435-1525 MHz Band and 2360-2395 MHz Band a limited number of channels are available for certain types of launch operations under Part 87. See 47 C.F.R. §§ 2.106 (b)(276)(three channels within 2360-2395 MHz) and (343)(five channels within 1435-1525 MHz for launch and reentry operations during flight tests).

AFTRCC also respectfully reinforces its view that the best solution, given the apparent needs of at least some space launch operators to accommodate unpredictable changes in spectrum needs due to circumstances that they claim are outside their control, would be for the launch operators to evaluate existing mechanisms to access spectrum on a dedicated basis for commercial space launch and reentry operations. Spectrum bands in which AMT operations are primary -- for example, the 2360-2395 MHz Band -- are simply not an appropriate home for commercial space launch if space launch operators want, in effect, at-will access based on last-minute changes in launches for dates that have not been coordinated in advance. To accommodate that type of need, space launch operators require the highest priority access among all users without any meaningful need to coordinate.

AFTRCC is cognizant that the 2360-2395 MHz Band has an important role to play in supporting the needs of commercial space launch operators, but this AMT band may not be conducive to meet all categories of space launch requirements. Just as every parcel of land is not appropriate for all theoretical uses because of existing uses and zoning requirements, not every spectrum band is equally suited to meet the needs of every user, including each space launch operator. Bands where AMT operations are the primary allocations, there are existing secondary allocations, and there is intensive use by Part 5 experimental licensees are not the best match for space launch operators whose needs are in flux up until the day before or day of launch and who want, in effect, super primary rights without the need to coordinate.

In practice, trying to accommodate last minute requests for coordination for commercial space launch and reentry operations is untenable because there is insufficient time to notify and obtain the non-objection of other users, and a solution allowing space launch operators to coordinate a large number of days in advance for a mission burdens the use of the spectrum by

others, including the primary incumbents that operate safety-of-life AMT operations.

Excessively hobbling the capacity of aerospace manufacturers and Federal government flight test operators to access the AMT Bands for primary flight-testing activity by permitting commercial space launch operators to seek coordination of large numbers of consecutive days for a launch mission at a time, as one example, would hamper the important role timely flight testing plays in ensuring a strong military and our world-class commercial safe and efficient aviation system, especially as sectors modernize by introducing ever more sophisticated and capable UAS.

Nevertheless, to be absolutely clear, AFTRCC is not advocating that commercial space launch and reentry operations be removed from the 2360-2395 MHz Band, or that the Part 26 secondary licensing per-launch coordination framework not be implemented in the band. Rather, it is stating that there must be a balance in recognition that the primary allocation in the band per Commission rules is for Federal and non-Federal AMT use. To that end, AFTRCC has worked diligently to establish a commercial space launch coordination framework with shorter coordination request and notification timeframes than applied previously. This policy has proven effective to date, supporting four launches using 2360-2395 MHz Band since it was adopted in its present form in March 2026.⁷³ AFTRCC is unaware of specific facts substantiating hardships by space launch operators in using the AFTRCC procedure to make requests or that the application of the policy was in any way partial favoring a spectrum user with lower or co-equal spectrum priority access rights as the space launch operator. All requests

⁷³ Several other coordination requests for commercial space launches were completed by AFTRCC in this time frame for both primary and back-up dates, but either the space launch operator ultimately did not need the spectrum for the launch (i.e., the spectrum was requested for deconfliction purposes should it be required), or the launch operator did not launch during the coordinated dates and a request for subsequent additional dates would have been untimely requested under the AFTRCC procedure. This occurred through even-handed application of the AFTRCC policy.

to date for use of the 2360-2395 MHz Band under the current AFTRCC policy have been made under Part 5 and per-launch coordination under experimental licenses, under which operations are on a non-interference basis to secondary and primary licensed users and which must accept interference received from any source.

The AFTRCC commercial space launch policy and procedure in the 2360-2395 MHz Band is one element of a complex coordination ecosystem in the band. As explained in Section II above, in addition to coordinating Part 87 licenses as the Commission-designated FAC, AFTRCC has entered into a concurrence process agreement with the Commission-designated coordinator of MBANs in the 2360-2390 MHz range (which was recently renewed for a second ten-year term). AFTRCC is the coordinator of Part 5 experimental licenses in the band (both those involving commercial space launch and other uses, such as video and audio by broadcast engineers for major sporting, musical, and other events), and AFTRCC has for more than a decade coordinated tens of thousands of AT&T Wireless Communications Service base station deployments in the adjacent band immediately below the 2360 MHz band edge.

AFTRCC submits that Congress got it right when it made commercial space launch secondary in the 2360-2395 MHz Band under the LCA.⁷⁴ “Upgrading” the commercial space launch allocations to primary in the band would risk upsetting the stable balance which has been achieved by the Commission’s rules and facilitated by AFTRCC as the FAC, in collaboration with Federal range coordinators, and among users in the band recognizing their respective spectrum access priorities.⁷⁵

⁷⁴ See also *Public Notice* at 1, 2 (confirming the secondary status of commercial space launch in the 2360-2395 MHz Band).

⁷⁵ Similar concerns for similar reasons would apply in the 1435-1525 MHz range as well, in which, as AFTRCC described earlier, there is a multiplicity of users with different priorities, much as in the 2360-2395 MHz Band.

VIII. THE CSF PETITION IS WITHOUT MERIT AND NO FURTHER ACTION SHOULD BE TAKEN ON IT

The CSF Petition requests that the Commission initiate a rulemaking to radically reorganize coordination processes, including for non-Federal AMT operations among other users under the Commission’s complex spectrum management frameworks, and adopt new coordination and sharing mechanisms in the 1435–1535 MHz, 2360– 2395 MHz, and 5091–5150 MHz Bands.⁷⁶ In its Petition, CSF advocates to overhaul the existing coordination processes in the bands, although it is very short on details as to what would replace on a wholesale basis the ecosystem of coordination frameworks described above. The Commission specifically requests comment on the implications of what the Petition “proposes with respect to ensuring reliable access to spectrum for space launch and reentry activities.”⁷⁷

As described below, the CSF Petition is an untimely petition for reconsideration of the Commission’s Third Report and Order in this proceeding in which a framework for coordination was adopted to implement the Congressionally-mandated secondary allocation of commercial space launch in the 2360-2395 MHz Band. The Petition seeks nothing short of a gutting of the existing access and coordination framework established by the Commission by which a diversity of flight test operators, both Federal and non-Federal, and other spectrum users, including space launch operators, utilize the band today. The Petition would also, in effect, dispense with the Third Report and Order in ET Docket No. 13-115 which adopted a Part 26 regime for the 2360-2395 MHz Band as mandated by Congress, and subsequent Bureau decisions on Part 26

⁷⁶ AFTRCC notes that the 5091-5150 MHz Band has never been used or identified for commercial space launch and reentry operations. Accordingly, the Commission should summarily reject the Petition as it applies to this band without further consideration and without delay or deferral.

⁷⁷ *Public Notice* at 3.

commercial space launch coordination procedures and policies.⁷⁸ In so doing, the Petition's proposal would undermine numerous investment-backed decisions by a large number of spectrum users.

Indeed, the CSF Petition makes little effort to understand, or pose specific improvements to, the long-established coordination frameworks it seeks to overthrow. If the Petition were granted and the Commission were to proceed to a rulemaking on the Petition's flimsy foundation, it poses a precedential threat to the Commission's general shared spectrum management framework in all spectrum bands and the foundation of coordination upon which it is based.

A. The Scope of CSF Petition Is Grossly Understated: It seeks to Undermine Numerous Spectrum Frameworks and Is an Untimely Petition for Reconsideration of the Third Report and Order Establishing the Part 26 Commercial Space Launch Coordination Framework in Contradiction of the LCA

The scope of the CSF Petition is misstated. It is couched as a Petition for a Rulemaking to modify or vacate a discrete Commission rule section, Section 87.305(a) of the Commission's rules which requires a frequency coordinating committee for the 1435-1525 MHz Band, 2360-2395 MHz Band, and the 5091-5095 MHz Band.⁷⁹ Reflecting its poor understanding of the complex spectrum management frameworks in the AMT Bands, as AFRCC describes above, the Petition suggests that vacating that one rule section would be a standalone event. But let there be no mistake: because of the interconnected ecosystem of coordination and uses in the AMT Bands, the CSF Petition would not just revise or remove 47 C.F.R. § 87.305(a) but would more

⁷⁸ See Public Notice, Wireless Telecommunications Bureau Announces Licensing and Coordination Procedures for the Space Launch Service, ET Docket No. 13-115, DA 25-270 (WTB rel. Mar. 25, 2025) ("Part 26 Coordination Policy Order") *reconsideration pending*.

⁷⁹ See 47 C.F.R. § 87.305(a).

globally rewrite material parts of the Commission’s spectrum management regulatory framework under Part 87, and also Part 2, Part 5, Part 25, Part 26, Part 27, Part 74, and Part 95 insofar as they implicate use of the AMT Bands. The Petition’s failure to acknowledge the true scope of what CSF requests is a clear sign that the Petitioner has not considered, and perhaps has not taken the time to understand, the implications of what it requested. This flaw is separate and apart from the lack of any basis for what is requested limited to Section 87.305(a) – which there is not.

In addition, the Third Report and Order and *Part 26 Coordination Policy Order* in ET Docket No. 13-115 established in 2024/2025 a licensing and coordination framework for secondary licenses permitting commercial space launch activity under Part 26. As part of that framework, the Commission made clear that AFTRCC would continue to serve as the non-Federal incumbent coordinator.⁸⁰ The procedure also calls for a Third-Party Coordinator that would work with incumbent coordinators to coordinate commercial space launches. The Petition seeks to discard this framework in the 2360-2395 MHz Band in its entirety, although it does not acknowledge this in the least. In short, the CSF long-ago missed its opportunity to seek a reconsideration of the rules establishing that framework.⁸¹ Because the Commission is in the process of implementing its Part 26 rules, it should summarily dismiss the Petition or defer any further consideration of it until experience is gained with the Part 26 framework.

Indeed, because the Third Report and Order was adopted to implement the LCA which established a secondary allocation in the 2360-2395 MHz Band and directed the Commission to

⁸⁰ See Third Report and Order, 39 FCC Rcd 14065, 14089, ¶ 46 (“We also amend our part 26 rules to incorporate a post-grant, per-launch coordination requirement with AFTRCC for part 26 licensees seeking access to the 2360–2395 MHz band.”).

⁸¹ Other petitions for reconsideration of the Third Report and Order and the Part 26 Coordination Policy Order remain pending.

establish a corresponding framework, the Petition essentially seeks to subvert the mandates and will of Congress. The Commission has no authority to do so, and this is a separate reason for a summary dismissal of the Petition.

B. The Petition Is Predicated on Gross Mischaracterizations

It is also important to underscore that the CSF Petition paints a fictional, unsupported, narrative regarding AFTRCC's commercial space launch coordination procedures and timelines as the basis for the relief it requests. This is yet another reason for dismissal.

The Petition's claims of bias on the part of AFTRCC when coordinating commercial space launch requests under Part 5 experimental licenses in the 2360-2395 MHz Band in favor of AFTRCC's so-called "legacy members" are completely false and unsubstantiated.⁸² The entirety of the Petition, despite paying lip-service to the important goal of ensuring that AMT operations are protected, completely removes from its narrative any acknowledgment that, in the 2360-2395 MHz Band, under the Commission-established hierarchy of access priorities, AMT uses (whether Federal or non-Federal) enjoy *priority spectrum access in the band*, whereas Part 5 (upon which space launch operators currently rely) is allocated on the basis of non-interference to both primary and secondary users of the band. Part 26 commercial space launch and reentry operational use of 2360-2395 MHz, once implemented, will also be secondary. AFTRCC has conducted its coordination activities, as the Commission-designated FAC, in accord with that Commission framework, *as it must*. As a result, certain considerations must be made in favor of AMT incumbents to ensure that they have access consistent with their primary status. Nevertheless, as detailed above in Section III, AFTRCC has developed a balanced commercial space launch coordination request procedure after months of direct and detailed consultation with

⁸² See, e.g., CSF Petition ii, 4, 6.

AMT operators, Federal ranges, and space launch operators, resulting in a dramatic reduction of coordination time frames for commercial space launch coordination requests. That procedure also creates a strong level of certainty that, once a space launch is coordinated for a primary launch date and up to six back-up dates, the space launch operator will not be pushed out of the coordinated dates by subsequent plans by a non-Federal flight test operator to use the spectrum on the same day. Rather, with a stronger degree of access than a secondary or Part 5 licensee ordinarily has, the primary flight test operators will need to modify their flight test plans accordingly as they see fit to obtain comfort that they will not receive harmful interference during the space launch.

The *quid pro quo* for this degree of certainty afforded space launch operators is that they must provide 21-Day Notices for a specific primary launch date and up to six back-up dates. This is a requirement that the CSF Petition bristles at, suggesting that AFTRCC uses the coordinator role to monopolize access to spectrum and block innovation and favor its own so-called “legacy members.”⁸³ In short, the CSF Petition posits that space launch operators should have access to spectrum *when and where they want it* on short notice with no regard for other users in the band. By staying true to the existing Commission-mandated spectrum framework in this shared band and recognizing the different spectrum priorities of different user groups, AFTRCC is not blocking innovation or access by any spectrum users. Indeed, it is functioning exactly as the Commission envisioned when it gave, and later expanded, AFTRCC coordination responsibilities as the FAC in the AMT Bands.

The *quid pro quo* of filing 21-Day Notices allows for the coordination process to unfold in an orderly fashion, which may result in the need for “manual” coordination between the flight

⁸³ See *id.* at 5.

test operators and space launch operator in the event that one or more potentially affected flight test operators has conflicting plans, valid concerns, or questions stemming from its primary priority status.⁸⁴ Another element of the *quid pro quo* is that a space launch operator cannot request coordination for more than seven dates at a time for a particular launch mission because the coordination request otherwise could result in a “reservation” of an unduly large number of dates that effectively could prevent flight test operators, for an unacceptable period of time, from conducting their test flight operations using AMT on a primary basis without additional constraint from potential commercial space launch and reentry operations impacts. Meanwhile, the flexibility inherent in the identification of an additional seven launch dates, which need not be consecutive, is intended to address exactly the uncertainty that the petition explains as a principal concern for space launch operators.

For AFTRCC, in its commercial space launch coordination procedure, to not give due accord to the primary status of AMT in the band would put AFTRCC, as FAC, in the position of *running directly afoul of the Commission’s rules and orders*.⁸⁵ It would also invite chaos with commercial space launch operators getting spectrum access without having to coordinate with other users or by unduly constraining the use of the spectrum by higher priority users. The CSF Petition chooses to ignore all of this.

⁸⁴ AFTRCC can report that, to date, no potentially affected flight test operator plans, questions, or concerns have prevented AFTRCC from successfully completing a commercial space launch coordination request under the current policy. AFTRCC would note however that, since the current policy and procedure was put into effect in March 2026, it has received fewer than a dozen commercial space launch coordination requests, *all of which*, when they have been timely submitted under AFTRCC’s coordination procedure (i.e., at least 21 days prior to the earliest requested date for coordination), have been successfully coordinated.

⁸⁵ The *Public Notice* bears this out, as it notes the secondary nature of commercial space launch under Part 26, and even lower priority access under Part 5, in the 2360-2395 MHz Band. See *Public Notice* at 2.

AFTRCC submits for these reasons that this procedure, as a result of its puts and takes, is instead balanced in a favorable way to commercial space launch operators operating on Part 5 or Part 26 basis and is fully in accordance with the principle of greater spectrum sharing and efficient use of the spectrum while remaining consistent with the overall Commission-mandated hierarchy of spectrum access, albeit *with constraints on the primary flight test operators*. This last point is studiously overlooked by the CSF Petition. The AFTRCC commercial space launch coordination procedure cannot be fairly characterized as biased in favor of Part 87 flight test operators without ignoring the reality of the Commission’s spectrum access priorities, which the CSF Petition does.⁸⁶

The Petition implies that its complaints are based on a track record of considerable coordination activity on the 2360-2395 MHz Band. But there has been only a small amount of commercial space launch coordination activity in the band to date. As recently as late 2023, in the Second Report and Order in ET Docket No. 13-115 the Commission concluded based on the “limited use” of the 2360-2395 MHz Band by commercial space launch on the three frequencies made available under US276 that it “[was] not convinced there is need for [a] new allocation[]” in the 2360-2395 MHz band.” The situation has not changed materially. Over the past six months, for example, when the commercial space launch coordination framework has been in place in the 2360-2395 MHz Band, there have been only four commercial space launches using the spectrum and fewer than a dozen mission coordination requests. The small amount of activity in terms of commercial space launch coordination requests in the 2360-2395 MHz Band, is in and of itself reason for the Commission not to give the Petition any more consideration.

⁸⁶ Notably, the CSF Petition does not acknowledge even once that AMT is primary in the band and that the space launch operators accessing the 2360-2395 MHz Band have done so using a method subject to obligations to operate on a non-interference basis.

The launches that were accomplished sometimes encountered delays and difficulties compounding the coordination process, yet AFTRCC by all accounts has been willing to work with the space launch operator to navigate and reach a positive outcome. But AFTRCC wishes to emphasize that were it to make regular exceptions for coordination requests that are not made within the timeframes set out in the policy, i.e., 21 days before the primary launch date for a mission, then the coordination framework would collapse, and the balance described above would dissolve. This would result in even further detriment to the primary flight test operators beyond the compromises already inherent within the AFTRCC procedure conferring greater certainty on secondary space launch operators.

The CSF Petition also draws the wrong conclusion from the fact that, to date, all timely coordination requests in the 2360-2395 MHz Band have been completed successfully by positing that coordination is not even required. Rather, it is likely⁸⁷ that flight test operators, as they are wont to do, were able to use spectrum channels not requested by the launch operator for the particular launch or have otherwise adjusted their plans on the requested dates for the space launches to prevent a conflict. In this context, it is again important to underscore the small number of commercial space launch coordination requests received to date for the 2360-2395 MHz Band. As the number of requests for coordination for commercial space launch and reentry operations increases, assuming they do, the chances for conflicts with the plans of flight test operators that are potentially affected will increase unless parties adhere to the processes outlined in the current space launch coordination policy, which as stated previously AFTRCC views as scalable and intended to accommodate increased space launch activity subject to continued sufficient notice to

⁸⁷ Federal Flight Test records are not publicly available, and non-federal flight testing data is generally treated as confidential.

flight test operators. Any general conclusions regarding impact on flight test operators and AMT operations on such a small dataset are premature, at best, as is the basis for considering any overhaul of the regulatory framework in the bands as contemplated in the CSF Petition.

AFTRCC wishes to take the opportunity to correct several other incorrect assertions made with the CSF Petition. The CSF Petition claims, again without any substantiation, that AFTRCC stifles new entry.⁸⁸ As the Commission well knows, AFTRCC has continually done the opposite. Indeed, going back more 35 years, it was AFTRCC that supported the specific three frequencies that are now available under footnote US276 of the U.S. Table of Frequency Allocations for space launch operations in the 2360-2395 MHz Band, as described more fully in that footnote.⁸⁹ Further, in the early-to-mid 2010s, AFTRCC worked closely with wireless microphone manufacturers and advocated for Part 74 wireless microphones seeking access to the AMT 1435-1525 MHz Band as new entrant on a secondary basis. And again, AFTRCC worked closely with medical device manufacturers to clear the path for a new secondary allocation for MBANs in the 2360-2395 MHz Band. In the former case, AFTRCC has continued to work with wireless microphone manufacturers as they develop more advanced products for customers to utilize the L-Band allocation and has developed a concurrence agreement (recently renewed) with the Commission-designated MBANs coordinator. Further, AFTRCC's significant efforts to date in

⁸⁸ CSF Petition at 5.

⁸⁹ See Amendment of the Frequency Allocation and Aviation Services Rules (Parts 2 and 87) to Provide Frequencies for Use by Commercial Space Launch Vehicles, 5 FCC Rcd 493, 495, ¶¶ 5, 9 (1990) ("1990 Order") ("AFTRCC . . . support[s] our proposal to allow fully operational ELVs to use the six frequencies, 2312.500 MHz, 2332.500 MHz, 2352.500 MHz, 2364.500 MHz, 2370.500 MHz and 2382.500 MHz, for [space launch] telemetry communications."); *accord* frequencies listed in 47 C.F.R. § 2.106, US276. The Upper S-Band shared Federal/ non-Federal AMT allocation was, at the time, 80 megahertz wide, from 2310-2390 MHz compared to today's much reduced 35 megahertz. AFTRCC made the request and the Commission agreed that the remainder of the then expanded AMT Band would be available for AMT alone, without encroachment. *1990 Order* ¶ 9.

the creation of policies and technical infrastructure to support space launches is itself evidence of its embracing and supporting new uses of the band. The CSF Petition assertions that AFTRCC seeks to block entry are mere puffery in support of its radical efforts to turn the Commission's established framework, including implementation of the secondary allocation for commercial space launch and reentry operations in the 2360-2395 MHz Band under the LCA, on its head.

C. The 70/80/90 GHz Light-Licensing Framework Is Not an Apt Model for Coordination in the AMT Bands

The CSF Petition blithely suggests that a light-licensing framework akin to what the Commission has adopted in the 70/80/90 GHz bands would be appropriate, but without offering a single detail how it would work in the specific portion of the radiofrequency bands in which it is proposed, *i.e.*, in the AMT Bands, each of which has a fundamentally different set of users.⁹⁰ The CSF Petition completely ignores the very distinct circumstances of the services lightly-licensed under the 70/80/90 GHz framework adopted in 2003 for fixed point-to-point (“P2P”) links and the multiple levels of access of dynamic uses coordinated in the much lower frequency AMT Bands. The CSF Petition also ignores that, despite being first adopted more than twenty years ago, the 70/80/90 GHz light-licensing regime has never been adopted for use in any other bands, which underscores that it is a unique product of a specific spectrum environment and mix of users.

The spectrum environment for P2P links in 70/80/90 GHz is characterized by fixed (*i.e.* non-mobile) highly directional “pencil beam” connections, allowing multiple links to operate in relative proximity without the side-lobe issues that typically characterize much lower frequency

⁹⁰ CSF Petition at iii, 28-29. See Allocations and Service Rules for the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands, WT Docket No. 02-146, Report and Order, 18 FCC Rcd 23318 (2003) *subsequent history omitted*.

operations, as in the AMT Bands.⁹¹ In addition, due to the high amounts of atmospheric attenuation of radio frequency signals in the 70/80/90 GHz bands, the power of signals in these high-band frequencies degrade rapidly over distance, further facilitating the sort of coordination based on databases alone characteristic of the light-licensing framework.⁹² The atmospheric attenuation in the much-lower frequency AMT bands is minimal by comparison, meaning that the more dynamic set of users in the lower frequency bands are more likely to cause each other interference without more active management through closely supervised coordination.

Thus, the evolution of the 70/80/90 GHz light-licensing concept makes clear how important specific circumstances are in the adoption of a coordination framework. The CSF Petition offers no justification why a similar network would work within any of the AMT Bands, especially given the very long distances (up to 200 miles) of airborne aircraft AMT signals to their respective receivers, instead cavalierly invoking the “spirit” of the 70/80/90 GHz solution.⁹³ Each of the AMT Bands has a unique mix of present and future spectrum users and applications, as detailed earlier in these Comments.⁹⁴

⁹¹ See *id.* at 23337-9 ¶¶ 44-47.

⁹² See *id.* at 23338 ¶ 45.

⁹³ CSF Petition at 29 (“Adopting a simple, transparent, coordination system in the spirit of the 70/80/90 GHz link registration system would ensure that coordination is conducted in the most efficient and effective manner.”).

⁹⁴ And, indeed, the Commission has signaled its intent to consider at its September 2026 Open Meeting a possible rule change allowing earth station uplinks and downlinks in the 2360-2395 MHz Band to be coordinated with AMT receive sites. See *In the Matter of Satellite Spectrum Abundance et al.*, SB Docket No. 25-180 et al., Report and Order and Order Of Proposed Modification and Further Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, FCC-CIRC2609-02 (draft rel. Sept. 9, 2026). This would further complicate the 2360-2395 MHz framework if allowed, by adding yet another category of user to be coordinated.

Further, the CSF Petition is completely silent on how its “light-licensing” proposal would be administered and by whom – or who would pay for the establishment of the necessary infrastructure and ongoing operating expenses. The Petition also fails to suggest what ongoing role Federal coordinators would have in the framework. Today, AFTRCC works very closely with the AFCs and the Government ranges when coordinating non-Federal spectrum uses in the AMT Bands. What would replace that collaborative process under the CSF’s proposal?

In addition to completely ignoring any details about the basic framework and the roles that various parties would have in its administration, the CSF’s proposal offers no suggestions as to what sort of dynamic, distributed and near real-time data would need to be developed, collected, and maintained to make an analogue of the 70/80/90 GHz light licensing framework – assuming that is even possible – in each of the AMT Bands. That data may vary depending on the other spectrum users, AMT operators (Federal and non-Federal), secondary licensees, and Part 5 licensees as well as commercial space launch operators.⁹⁵ Who would maintain the Federal and non-Federal AMT site database that AFTRCC maintains today? The data regarding the spectrum uses in each band would, presumably, have to be visible (at least to an administrator), accessible, understandable, linked, trusted, verified, interoperable, and secure in order to serve as the basis for an automated framework. These questions are not even acknowledged, let alone considered, in the CSF Petition “proposal.” The importance of data generation, collection, verification, and security, among other considerations, will be magnified in the AMT Bands given the safety-of-life⁹⁶ needs supported by reliable real-time telemetry

⁹⁵ And, as noted above, the coordination framework also involved adjacent spectrum band users with whom AFTRCC coordinates under negotiated arrangements guided by Commission rules today.

⁹⁶ See *supra* Section IV.

streams used by AMT operators during flight test operations, a set of considerations that are not, to AFTRCC's knowledge, present in the 70/80/90 GHz band.

The CSF Petition does not, as best as AFTRCC can tell, provide in its barebone “proposal” any consideration of how the differing regulatory status among users – primary, secondary, Part 5 experimental – would be factored in. As best AFTRCC can tell, the CSF Petition purports to treat all authorized users on an equal basis, differentiated apparently only by the timing of their requests for access, virtually all of which would be temporary (with the possible exception of MBANs).⁹⁷ AFTRCC suspects that the CSF's intended goal is for commercial space launch operators to effectively become the highest priority use in the relevant bands with all other users an afterthought. Whether this is the case, and how that would be achieved, cannot be discerned given the lack of detail of a “proposal” on which to comment.

The CSF Petition also contemplates, as either an alternative to a light-licensing kind of framework or in conjunction with it, that spectrum users would enter into and administer a web of bilateral and/or multi-party agreements.⁹⁸ What would the volume of such agreements be? Would the Commission, with its very limited resources, be the ultimate “arbiter” in cases of disagreements, and how much staff would the Commission have to add to carry out this role? (The historical solution to address such needs and to obviate the need for a plethora of agreements among users of the same or different priorities sharing the same spectrum has been one or more Federally-designated coordinators, which is the solution that Commission has relied upon in the AMT Bands with AFTRCC as FAC for decades.)⁹⁹

⁹⁷ See generally *CSF Petition* at 28-29.

⁹⁸ See *id.* at 26-27.

⁹⁹ The CSF Petition claims that “Launch service providers have continually refined their post-licensing coordination processes over years of experience to swiftly and efficiently deconflict spectrum use with other federal and non-federal spectrum users.” See *CSF Petition* at

In sum, the CSF Petition simply makes pie-in-the-sky assertions that all of the foregoing could be accommodated through an automated system and AMT would remain protected without offering any specifics. It was easy for the CSF Petition to make its “proposal” in a few words, but any such solution would be extremely challenging on many levels to design and develop let alone administer in the unique environments of the AMT Bands. AFTRCC submits that comment on any such “proposal” is premature, and, for now, the Commission should defer any consideration of the CSF “proposal” until it begins to take shape in further comments or submission of its proponents, and the public has a meaningful chance to review and comment.¹⁰⁰

IX. CONCLUSION

AFTRCC, both in its role as impartial FCC-designated coordinator and as a member organization advocating for spectrum to support flight testing, recognizes the importance of space launch operators to have access to spectrum to support telecommand and telemetry requirements during launches and to achieve the Administration’s lofty goals for the development of the space economy ensure U.S. technology leadership in this domain. The importance of ensuring for Federal and non-Federal flight test operators’ reliable access to real-time telemetry in the AMT Bands during test flights is no less important. The *Public Notice* creates an important opportunity to consider other spectrum band solutions for commercial space

29. Similar claims have been made by certain space launch operators in their recent discussions with AFTRCC and its members, but those space launch operators have not been forthcoming when AFTRCC has sought details so as to better understand and, perhaps, consider modifying its commercial space launch coordination procedures as a result.

¹⁰⁰ It should be quite disappointing for the Commission, as it is to AFTRCC, that after SpaceX first mentioned such a prospect for a light-licensing-like coordination framework at least thirty months ago that the proponents have not advanced their thinking on this subject one iota. See Comments of Space Exploration Technologies Corp., Docket No. 13-115, RM-11341 at 2, 5-7 (dated March 4, 2024) (calling for a light-licensing framework in comments subsequent to the Second Report and Order and alleging the benefits of that framework but providing no meaningful details on what that framework would look like in the 2360-2395 MHz Band).

launch operators with the need for maximum spectrum flexibility up until the moment of launch – trying to force that solution in the safety-of-life AMT Bands is unjustified as a public policy matter as well as dangerous.

AFTRCC, as the FAC in the AMT Bands, remains committed to working with the Commission and affected stakeholders to find balanced solutions and improve upon existing spectrum management and coordination solutions within the frequencies allocated to AMT on a primary basis. The CSF Petition does not offer a solution that allows for comment at this time and should simply be denied. If the Commission were to proceed with its consideration, such action should be deferred until significantly more details are filled in. In the latter case, the Commission should issue a further public notice and seek additional comment and allow for appropriate time evaluation from all stakeholders before making the decision whether to initiate a rulemaking.

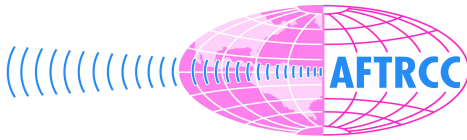
Respectfully submitted,

**AEROSPACE AND FLIGHT TEST RADIO
COORDINATING COUNCIL, INC.**

A handwritten signature in black ink, appearing to read 'Jonathan Westerling', is positioned above the printed name and title.

Jonathan Westerling
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September 14, 2026



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