

**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	)	

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

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Aerospace and Flight Test Radio Coordinating Council, Inc. ("AFTRCC") hereby submits its Reply to the initial Comments submitted in response to the August 25, 2026, Public Notice in the above-captioned proceedings ("Public Notice").

I. INTRODUCTION AND SUMMARY

No commenter in this proceeding challenges the importance of finding the spectrum resources to support commercial space launch, and the anticipated increased cadence of launches, and meet the objectives of the National Space Transportation Policy ("NSTP").¹ But in its attempt to do so, the Commission should not further constrain the use of the AMT Bands (1435-1525 MHz, 2360-2395 MHz, and 5091-5150 MHz), which support many thousands of commercial and military flight tests each year from a large number of locations and serve the national priorities of military preparedness, safe and efficient aviation, drone dominance, and American manufacturing.

¹ See The National Space Transportation Policy, Presidential Memorandum, 91 Fed. Reg. 54,929, Aug. 20, 2026.

The focus of the handful of comments in support of the petition filed by the Commercial Space Federation (“CSF Petition”) is access for commercial space launch and reentry in the 2360-2395 MHz band. It is not the current coordination framework in this band that is ill-suited to support commercial space launch. Rather, it is the effort of CSF and its allies to support the expansion of commercial space launches in this admittedly congested and intensely used AMT Band (as are each of the AMT Bands) which is at odds with the important “business” of Federal and non-Federal flight test operations.

Contrary to the narrative of the CSF Petition, the record reveals a broad satisfaction with the existing coordination framework in the AMT Bands while recognizing there may be certain areas for incremental changes as the mix of spectrum users in the band continues to evolve. The majority of comments advocate abandonment (or at a minimum its deferral) of the CSF Petition and its request that the Commission vacate Section 87.305(a) of the rules and abandon the use of a frequency advisory committee (“FAC”) in the AMT Bands. The majority of commenters also urge rejection of CSF’s vague and unsubstantiated “proposal” to impose a light-licensing type of coordination approach mirroring that used in the very different 70/80/90 GHz bands. Critics note much more detail regarding the “proposal” is needed before it can be meaningfully evaluated as a possible improvement to the existing, well-functioning coordination process processes. The comments of CSF and its allies do not provide that detail.

Only a small subset of the nation’s space launch operators filed comments supporting the wholesale disruption to the 2360-2395 MHz band and its complex ecosystem of users the CSF Petition proposes.² Significantly, commenters in support of the CSF Petition fail to provide any

² Notably, the handful of commenters commenting in clear support of the CSF Petition focus their attention on the 2360-2395 MHz band, rather than the other two AMT Bands, and

further detail on the “proposal” obviating the value of further response on this record. At the same time, the CSF and its allies continue to persist in mischaracterizations and misstatements regarding the established coordination framework and the AFTRCC coordination procedures which AFTRCC discussed in its initial Comments³ and the latest version of which is publicly available online.⁴ On the other hand, launch operators’ comments, by calling for complete and virtually instantaneous access to spectrum for commercial space launch operators conducting a thousand or more annual launches – 10,000 by SpaceX alone if it is taken at its word⁵ – make plain that the AMT Bands are poor candidates to support the exponential expansion of launch activity that they anticipate.

While the Commission takes the time necessary to tackle the issues of finding spectrum to support commercial space launches, AFTRCC will continue to support access of commercial space launch operators in the 2360-2395 MHz band consistent with the Commission spectrum management framework and the U.S. Table of Frequency Allocations, including the rights of the non-Federal primary users, i.e., flight test operators with Part 87 licenses, and considering the primary Federal flight test operators. AFTRCC will continue to do so in the impartial and balanced manner in which it completes these tasks today, affording commercial space launch operators access using Part 5 authorizations. AFTRCC will continue to look for ways to

refrain from clear statements that they seek greater access to 1435-1525 MHz or access for the first time to 5091-5150 MHz.

³ See Comments of AFTRCC, ET Docket No. 13-115 et al., at 7-24 (Sept. 14, 2026) (“AFTRCC Comments”).

⁴ See <https://afrcc.org/filings-reports/space-coordination-policy>.

⁵ See Comments of Space Exploration Technologies Corp., ET Docket No. 13-115 et al., at 1 (Sept. 14, 2026) (“SpaceX Comments”).

improve, further streamline, and automate its coordination processes, while also welcoming constructive involvement, feedback, and suggestions from stakeholders.

II. USERS OF THE AMT BANDS SUPPORT THE CURRENT COORDINATION FRAMEWORK AND THE ROLE OF THE FREQUENCY ADVISORY COMMITTEE

Commenters, including existing users of the AMT Bands, with the exception of a few launch operators backing the CSF Petition, support the role of the Part 87 FAC and the existing coordination frameworks in the AMT Bands. Bringing an important perspective from the space industry, the Satellite Industry Association (“SIA”) “recognizes the overall importance of active coordination mechanisms as a sound spectrum management tool to address frequency deconfliction and maximize the efficiency of spectrum use in shared bands, particularly bands [such as the AMT Bands] in which an increasingly complex array of services coexists, with different priority schemes, due to multiple and overlapping allocations.”⁶ Forest Industries Telecommunications stresses that “greater spectrum demand makes effective coordination more important. Eliminating the frequency advisory committee would remove an established institutional mechanism for evaluating proposed operations against existing spectrum users and facilitating technically appropriate sharing arrangements.”⁷ Wireless microphone

⁶ Comments of Satellite Industry Association, ET Docket No. 13-115 et al., at 3 (Sept. 14, 2026) (“SIA Comments”).

⁷ Comments of Forest Industries Telecommunications, ET Docket No. 13-115 et al., at 2 (Sept. 14, 2026) (“FIT Comments”).

manufacturers,⁸ trade alliances,⁹ and users of video and audio equipment¹⁰ that have come to depend on the 2360-2395 MHz band and 1435-1525 MHz band note the positive role that AFTRCC has played in developing coordination frameworks that support significant investment. The Association of Professional Wireless Production Technologies (“APWPT”) observes that

While the Petition repeatedly characterises the existing system as “antiquated”, “inefficient”, “biased”, and a barrier to innovation, it provides little evidence to substantiate those claims. Instead, the Petition largely demonstrates that AFTRCC is performing the role for which it was established under Part 87, namely reviewing requests, maintaining awareness of incumbent use, coordinating with the relevant Government Area Frequency Coordinators (AFCs), and providing recommendations to support interference-free operation of safety-critical services.¹¹

Significantly, comments from the flight test community for whom the Part 87 FAC exists to manage coordination in the AMT Bands support AFTRCC’s fulfillment of those duties. AMT operators conduct many thousands of flight tests annually involving tens of thousands of hours, and they underscore the importance of the current coordination framework to ensure they have access to spectrum to support their work. The Society of Flight Test Engineers notes that

The current allocation and coordination of RF spectrum meets the needs of the broad flight test community within the United States, and has allowed safe and effective conduct of world-leading first flights and product development for many decades. The

⁸ See generally Comments of Sennheiser Electronic Corporation, ET Docket No. 13-115 et al. at 7 (Sept. 14, 2026) (“Sennheiser Comments”) (“Sennheiser has invested in the L-Band because the current spectrum coordination and access framework works in no small part because of the role AFTRCC has played and continues to play as coordinator.”).

⁹ See Comments of Wireless Microphone Spectrum Alliance, ET Docket No. 13-115 et al., at 5-6 (Sept. 14, 2026) (explaining that “[w]orking with microphone manufacturers, AFTRCC has also developed an Application Programming Interface (API) to utilize in developing a portal for microphone users to make coordination requests that interfaces with AFTRCC’s portal” and noting that the Commission framework with AFTRCC as coordinator for wireless microphones “has resulted in heavy investments by manufacturers to develop innovative wireless microphone systems for the 1435-1525 MHz that include the related AFTRCC coordination techniques of the portal and electronic key.”).

¹⁰ Comments of CP Communications, LLC, ET Docket No. 13-115 et al., at 3 (Sept. 14, 2026) (“AFTRCC has always been most helpful, responsive, and communicative with regards to coordination requests.”).

¹¹ Comments of the Association of Professional Wireless Production Technologies, ET Docket No. 13-115 et al., at 2 (Sept. 14, 2026) (“APWPT Comments”).

current spectrum coordination through AFTRCC has supported delivery of safe and reliable aircraft to end users, both military and civil, since 1969.¹²

Lockheed Martin “maintains that the current active coordination frameworks in the AMT bands are essential to ensuring reliable access for space launch missions while protecting spectrum availability to primary users that are conducting daily operations in support of hundreds of different military, civil, and commercial contracts.”¹³ Boeing elaborates that

The current coordination framework also gives practical effect to the allocation hierarchy in the relevant bands. Where AMT holds primary status or priority over launch operations, the coordination process must ensure that those protections are meaningful in practice. Eliminating the coordinator with the broadest visibility into AMT operations could shift interference risk and operational burdens to primary AMT users, effectively requiring flight-test programs to modify, delay, or disclose their operations to accommodate launch use that is secondary to AMT.¹⁴

Joby Aviation, a fast-emerging American aerospace company developing advanced aviation technologies, including electric vertical takeoff and landing (“eVTOL”) aircraft, hybrid aircraft, and autonomy technologies, emphasizes that “[t]he coordination process, administered by AFTRCC, has *enabled*, not hindered, spectrum access allowing [Joby] to accomplish the novel testing we use to continue innovating in our sector.”¹⁵ RTX Corporation explains that

AFTRCC has provided centralized, neutral, and technically informed coordination of AMT operations, ensuring safe coexistence in bands where AMT holds primary status. AFTRCC’s national visibility across sensitive commercial and military flight test

¹² Comments of the Society of Flight Test Engineers, ET Docket No. 13-115 et al., at 1 (Sept. 14, 2026) (“SFTE Comments”). SFTE adds that “[c]hanges to the current coordination methods may incur costly delays or significant cost [to flight test operations] to change air vehicle and ground infrastructure to deconflict with new users.” *Id.* at 2.

¹³ Comments of Lockheed Martin Corporation, ET Docket No. 13-115 et al., at 6 (Sept. 14, 2026) (“Lockheed Martin Comments”).

¹⁴ Comments of The Boeing Company, ET Docket No. 13-115 et al., at 4 (Sept. 14, 2024) (“Boeing Comments”). Boeing adds that AFTRCC’s “coordinating role is not an unnecessary administrative layer. It is the essential mechanism through which potential conflicts are identified and resolved before safety-critical operations occur.” *Id.* at 3.

¹⁵ Comments of Joby Aviation, Inc., ET Docket No. 13-115 et al., at 4 (Sept. 14, 2024) (“Joby Aviation Comments”) (emphasis in original).

operations cannot be replicated by distributed, operator-to-operator coordination or a database alone.¹⁶

And Learjet notes that “[t]he AFTRCC coordination process, working within the FCC developed framework, amicably facilitates full spectrum usage for flight test AMT operations”¹⁷ and underscores for the Commission that “AFTRCC [is] a trusted central point with visibility across flight-test operations. They identify potential frequency conflicts before they occur, work directly with operators to resolve them, and protect sensitive information that cannot appropriately be placed in a broadly accessible database.”¹⁸

The larger aviation and aerospace community also advocates that the current coordination framework overseen by a Part 87 FAC should be preserved, even if additional certain improvements in the framework can yet be achieved. As the Aerospace Industries Association (“AIA”) notes, “[t]he present record does not, however, support eliminating the existing non-federal coordinating function or initiating a rulemaking on the terms proposed in RM-12025. Any coordination framework must preserve established spectrum rights and protect the flight-test operations that support aviation safety, national security, and aerospace innovation.”¹⁹ The Aerospace & Defense Industry Spectrum Coalition (“ADIS Coalition”), in comments joined by twenty aviation and aerospace companies and trade associations, notes

[A]ccess [to the AMT Bands] requires the role of an active, dependable coordinator to manage the challenges of ensuring spectrum availability to fulfill the business and

¹⁶ Comments of RTX Corporation, ET Docket No. 13-115 et al., at 1 (Sept. 14, 2026) (“RTX Comments”).

¹⁷ Comments of Learjet, Inc., ET Docket No. 13-115 et al., at 2 (Sept. 14, 2026) (“Learjet Comments”).

¹⁸ *Id.* Learjet adds that “Centralized coordination is particularly important because many AMT operations involve proprietary commercial and civil programs or sensitive and classified defense activities.” *Id.*

¹⁹ Comments of the Aerospace Industries Association, ET Docket No. 13-115 et al., at 4 (Sept. 14, 2026) (“AIA Comments”).

regulatory needs of a proliferation of manufacturers and operators. Balancing the technology innovation and safety-of-life operational requirements of a demonstrably wide array of users in such a complex spectrum ecosystem necessitates thoughtful consideration, not just of the potential ways to modernize and improve further the current coordination processes and procedures, but also how to accomplish that objective in a manner that results in a durable yet equitable outcome.²⁰

The General Aviation Manufacturers Association (“GAMA”) explains that “[AFTRCC] has successfully coordinated access to the AMT spectrum bands identified in the CSF petition for the U.S. aerospace industry since the 1950’s, while also supporting commercial space operations.”²¹

III. THERE IS STRONG OPPOSITION IN THE RECORD TO THE CSF PETITION

The majority of the almost three dozen commenters join AFTRCC²² and oppose moving forward with the CSF Petition and ask the Commission to reject it or defer consideration of it. The United Launch Alliance (“ULA”), “as one of the nation’s premier launch providers, . . . offers that the proposals put forward by CSF in its petition do not appear to align well with the broader spectrum management approaches upon which access for space launch providers has relied and been effectively accommodated for years.”²³ ULA concludes that “the FCC [should] not move forward with the CSF petition.”²⁴ Similarly, the Space Enterprise Council plainly states that the Commission should “decline to act on the CSF petition.”²⁵ FIT states a similar position: “FIT respectfully requests that the Commission deny the Petition insofar as it seeks to

²⁰ Comments of the Aerospace & Defense Industry Spectrum Coalition, ET Docket No. 13-115 et al., at 3 (Sept. 14, 2026) (“ADIS Coalition Comments”).

²¹ Comments of the General Aviation Manufacturers Association, ET Docket No. 13-115 et al., at 2 (Sept. 14, 2026) (“GAMA Comments”).

²² AFTRCC Comments at 2, 56-57.

²³ Comments of United Launch Alliance, LLC, ET Docket No. 13-115 et al., at 12 (Sept. 14, 2026) (“ULA Comments”).

²⁴ *Id.*

²⁵ Comments of Space Enterprise Council, ET Docket No. 13-115 et al., at 2 (Sept. 14, 2026) (“Space Enterprise Council Comments”).

eliminate the Part 87 frequency advisory committee function.”²⁶ GAMA urges the Commission to reject the CSF Petition because “[t]he changes proposed by the CSF petition would create a chaotic environment and place at risk the existing positive economic impacts to the United States of advanced aircraft design, development, manufacturing, and sales [and] undo a cohesive coordination framework upon which the aviation industry, along with other eligible users, consistently rely to ensure access to spectrum for these vital operations.”²⁷

The ADIS Coalition warns that “the outcome of the recommendations made in the [CSF] petition would be the wholesale disruption of spectrum access frameworks that multiple different stakeholders, representing fixed-wing and rotorcraft, crewed and uncrewed segments of industry, as well as U.S. Government defense and civil agencies, rely upon daily to ensure equitable access to spectrum in the limited bands identified in the petition.”²⁸ The ADIS Coalition “urge[s] the Commission to set aside the CSF petition and instead allow for additional opportunities for the public to develop meaningful responses to the other important questions posed by the Public Notice.”²⁹ Individual Aerospace and Defense industry sector companies filing comments join AFTRCC in uniformly counseling for the rejection of the CSF Petition, including Boeing, Learjet, Lockheed Martin, Joby Aviation, and RTX.³⁰

²⁶ FIT Comments at 5. *Accord* Sennheiser Comments at 7 (“the Commission should preserve Section 87.305(a) without change [and] preserve AFTRCC’s coordinating role”).

²⁷ GAMA Comments at 2.

²⁸ ADIS Coalition Comments at 2.

²⁹ *Id.* at 3.

³⁰ See Boeing Comments at 6; Learjet Comments at 3; Lockheed Martin Comments at 12-16; Joby Aviation Comments at 2; RTX Comments at 2.

IV. THE INITIAL COMMENTS OF PETITION SUPPORTERS DO NOT CLARIFY THAT THE CSF PETITION “PROPOSAL” IS VAGUE AND NOT SUSCEPTIBLE TO MEANINGFUL COMMENT

Most of the initial comments join AFTRCC in its conclusion that the CSF “proposal” is devoid of detail and does not even provide a starting point for discussion. The comments of CSF and its allies do not remedy the fundamental deficiencies of the Petition.

AFTRCC explained in its comments the many unanswered questions that must be addressed in any credible proposal for a database driven coordination framework in bands as complex as the AMT Bands before one such as the “proposal” by CSF could be given any meaningful consideration.³¹ Other commenters noted similar deficiencies. ULA, coming from the perspective of one of the country’s leading launch operators, is emphasizes: “The [CSF] petition does not provide any technical analysis to support its recommendations and leaves open a host of significant questions about the structure, development, ownership, and implementation of a fundamentally different spectrum assignment process for launch providers.”³² ULA went on to explain that, “absent a detailed description of the framework [CSF] proposes only conceptually . . . a thorough evaluation of its merits by all the relevant stakeholders” is not possible, and “the CSF petition does not appear to provide a pathway that addresses this need

³¹ AFTRCC Comments at 54-55. These include, among others, questions regarding development, administration, payment for the proposed automated coordination scheme; the need development, collection, and maintenance of the required dynamic, distributed and near real-time data concerning use of the frequencies; questions of security, accessibility, interoperability; considerations of safety-of-life AMT operations; the ability to account for different spectrum access priorities among users; the potential scope of inter-operator negotiations; and the arbitration of disputes.

³² ULA Comments at 12.

[for certainty of access] consistent with the principles of a well-coordinated spectrum access model.”³³ Likewise, APWPT summarizes:

[The CSF Petition] provides very little detail regarding the operation of its proposed replacement. References to “direct coordination”, “self-coordination”, and a database-driven system modelled on the 70/80/90 GHz framework are largely conceptual and do not explain how complex, time-critical, and safety-sensitive sharing arrangements would function in practice across the diverse communities operating in [the AMT] bands. The Petition does not explain who would operate such a database, who would be responsible for technical validation, how disputes would be resolved, how coordination with federal users would be managed, or how incumbent protection would be assured.³⁴

RTX was even more blunt, noting that “[t]he CSF proposal risks . . . [i]ncreased interference during critical defense and commercial aerospace safety testing, . . . [s]ignificant delays or cost increases to key defense products due to aborted test flights or repeated test campaigns, . . . [r]educed national flight-test capacity, affecting certification of commercial aircraft and development of defense systems, . . . [and t]he erosion of primary-status protections through procedural changes rather than a full technical record.”³⁵

V. CSF AND ITS ALLIES FAIL TO REMEDY THE CONCEPTUAL SHORTCOMINGS, AND THEIR DEMANDS HIGHLIGHT WHY 2360-2395 MHz AND OTHER AMT BANDS ARE AN UNSUITABLE HOME FOR LARGE-SCALE LAUNCH ACTIVITY

CSF and its allies do not backfill the deficiencies of the CSF Petition in its request for greater access for commercial space launch to AMT spectrum. CSF merely draws vague analogies to how access to the national airspace is achieved at airports, calling on the Commission to “initiate a streamlined sprint with industry participation to develop, test,

³³ *Id.* ULA elaborated that “the petition cannot reasonably be adopted at this time, absent a detailed description of the framework it proposes only conceptually and a thorough evaluation of its merits by all the relevant stakeholders.” *Id.*

³⁴ APWPT Comments at 3. *Accord* AFTRCC Comments at 52-56.

³⁵ RTX Comments at 2.

implement, and operate a reliable, real-time coordination tool that allows a certified operator to launch or reenter when other users have not reserved spectrum, similar to how airline reservations operate today.”³⁶ This attempted analogy does not capture the complex work necessary to coordinate safety-of-life spectrum and hardly elevates the “proposal” in the Petition to an implementable framework worthy of consideration. In a similar vein, CSF cavalierly suggests that the NTIA’s Space Launch Frequency Coordination Portal (“NTIA Portal”), announced in April of this year, can be leveraged “to give certified launch, reentry, and payload operators a single place to see federal constraints (like other, already scheduled events/associated windows), self-schedule, and receive light-touch, multi-launch approvals.”³⁷

AFTRCC and the Federal coordinators each are targeting steps to modernize their procedures where possible – AFTRCC has had discussions with the NTIA staff to understand the NTIA Portal and has described its own commercial space launch coordination request electronic portal. AFTRCC understands that NTIA’s new system, at present, is primarily a tool for space launch operators to submit coordination requests and track the basic status of them, not a means for actual coordination.³⁸

³⁶ Comments of the Commercial Space Federation, ET Docket No. 13-115 et al., at 5 (Sept. 14, 2026) (“CSF Comments”).

³⁷ *Id.* at 4.

³⁸ See NTIA OSM Press Release, “Cleared for Liftoff: NTIA Unveils Space Launch Frequency Coordination Portal” (Apr. 7, 2026) available at <https://www.ntia.gov/press-release/2026/cleared-liftoff-ntia-unveils-space-launch-frequency-coordination-portal>. NTIA Administrator Arielle Roth explained that the NTIA Portal “replaces a system that was previously run through e-mail and had been criticized by industry for lacking transparency and moving slowly. The new portal will allow commercial space launch providers to request spectrum in the sought after S-band frequencies for space launch operations, as well as deliver a transparent and more expeditious process for reviewing the status of their requests. Federal agencies will be able to review and approve requests, provide feedback, and view all aspects of a request including comments from other agencies.” *Id.*

AFTRCC applauds NTIA's portal as an important step forward for the government's coordination process. Yet it is a far leap from the current NTIA portal to the CSF Petition's "proposal" which asks the Commission to implement and oversee a "light licensing" coordination scheme "in the spirit" of the 70/80/90 GHz coordination framework. The casual suggestion by CSF that the NTIA could facilitate this goal by upgrading its portal to accommodate an automation of the complicated processes and procedures involved in coordinating AMT spectrum today and satisfy the complete flexibility demanded by certain space launch operators beggars belief, particularly without any suggestion how this could be done or where the resources and staffing to do so would come from.

The comments of SpaceX and Blue Origin also do not fill in the gaps within the CSF "proposal." SpaceX largely repeats CSF's notional suggestions, and generically suggests – without any regard whatsoever to users of the spectrum other than space launch operators – that "the Commission should work with the commercial and federal launch operators to field a reliable, real-time coordination tool that lets an operator launch when other launch providers or federal users have not reserved the spectrum, like airspace reservations."³⁹ SpaceX gives no consideration to the myriad developmental and operational issues raised by commenters such as APWPT,⁴⁰ in addition to those that AFTRCC raises.⁴¹

Blue Origin's comments are no more convincing. Without supplying any additional details, they call for a "single, database assisted coordination framework," and tout alleged benefits of "eliminat[ing] the inefficiency of routing all coordination through an intermediary,

³⁹ SpaceX Comments at 3.

⁴⁰ See APWPT Comments at 3 *discussed supra*.

⁴¹ See AFTRCC Comments at 54-55 and note 31 *supra*.

enabl[ing] real-time deconfliction that matches the tempo of modern launch operations, and provid[ing] a clear escalation path to the Commission when parties cannot reach an agreement.”⁴² Blue Origin, CSF, and SpaceX, effectively ask the Commission itself to become actively involved in bilateral coordination efforts with myriad users of the AMT Bands. These commenters envision that space launch operators, rather than seeking accommodation through a centralized FAC, will seek to obtain access and concurrence with a variety of users with equal or superior access rights to the spectrum.⁴³ As with the CSF Petition itself, none of these commenters explain how the Commission would support such a role or how the database-assisted process would be structured and function for such a complex and dynamic ecosystem as the AMT Bands.⁴⁴

Just as important, proponents of the CSF Petition do not substantiate any of the claims of bias, blocking of access, and denial of timely coordination requests that they continue to aver.⁴⁵

⁴² Comments of Blue Origin, LLC, ET Docket No. 13-115 et al., at 7-8 (Sept. 14, 2026) (“Blue Origin Comments”).

⁴³ Notably, SpaceX explains that, while it would generally “schedule around” “other operations that are occurring,” “where necessary,” presumably under SpaceX’s own criteria, it would “directly deconflict with” other users of the spectrum that have prior plans to use the spectrum around which SpaceX chooses not to schedule. SpaceX Comments at 2.

⁴⁴ Other commenters opine generally, without specific consideration of the existing ecosystem of use in the AMT Bands, on the principles that might apply were there a database-driven system, but these ideals reflect a perfect world in a greenfield environment rather than readily implementable suggestions in 2360-2395 MHz and the other AMT Bands. *See, e.g.*, Comments of National Spectrum Management Association, ET Docket No. 13-115 et al. (Sept. 14, 2026) (“NSMA”) (generally, discussing the “clear, objective neutrality standards” that “[a]ny coordination framework must be designed around”). NSMA adds that its comments “provide a sound foundation for the Commission’s development of coordination frameworks in the subject AMT bands and elsewhere.” *Id.* at 9. NSMA explains that “[t]he Commission should consider the broader implications of its decisions in this proceeding for frequency advisory committees and coordination frameworks in other bands.” *Id.* at 2. AFTRCC appreciates NSMA’s comments which provide a filter through which AFTRCC, as FAC, may seek to introduce further modernizations and improvements in its processes.

⁴⁵ CSF claims that “[b]ecause 2360-2395 MHz is not reliably available under the policy, it has pushed launch operations toward backup channels in the 2200-2290 MHz band.” CSF Comments at 7. It is not at all clear who the “it” is, but AFTRCC notes that until recently SpaceX considered the 2360-2395 MHz band as a back-up for deconfliction purposes and not as

Rather, they persist in generic misstatements of the AFTRCC coordination framework, claiming that the AFTRCC process takes months while knowing full well that *individual* launch coordination requests are due only 21 days before the first proposed launch date, well within the period when specific planning for a launch is quite advanced.⁴⁶ Yet contradictorily, without criticism, both CSF and SpaceX acknowledge that “[c]urrent alignment with other federal agency coordination sits closer to . . . sixty days for spectrum.”⁴⁷ Similarly, CSF and SpaceX both continue to allege that there have been denials by AFTRCC of requests for coordination, but none are identified specifically in their comments. AFTRCC is not aware of, nor has any way to respond to specific situations involving denials, not otherwise brought to our attention, where the space launch operator timely requested and adhered to AFTRCC’s published procedures but was denied coordination.⁴⁸ We invite space launch operators (and all other users of the AMT Bands and adjacent spectrum which coordinate with AFTRCC) to contact us in the event they believe there has been a denial that contradicts the AFTRCC policy and procedures, which are applied impartially. We ask the Commission to underscore a direct engagement approach to improve the existing frameworks, as opposed to filing a petition for rulemaking seeking disruption, as the

a principal band for launch spectrum. *See* Letter of Anton Yanchilin, Manager, Satellite Policy, SpaceX to Marlen H. Dortch, Secretary, FCC, WT Docket 24-687, at 2 (Mar. 13, 2025) (“Falcon 9 vehicles increasingly depend on the 2360-2395 MHz band to deconflict spectrum operations.”) The small number of coordination requests AFTRCC has received over the past year suggests that is still SpaceX’s approach. *See* AFTRCC Comments at 49.

⁴⁶ *See, e.g.*, SpaceX Comments at 3 (“Frequency coordinating committees such as Aerospace and Flight Test Radio Coordinating Council demand multi-month waiting periods for coordination processes that modern coordinating tools could handle in hours or even minutes.”). Individual launch coordination requests follow *mission* coordination, in which specific dates are not yet required, but technical and operational information must be submitted to AFTRCC at least 30 days before the anticipated launch.

⁴⁷ *Id.*; *accord* CSF Comments at 4 (“the current alignment with other federal agency coordination sits closer to . . . 60 days for spectrum”).

⁴⁸ As far as AFTRCC is aware, space launch operators that did not submit timely requests to AFTRCC under its coordination policy have been able to satisfy their spectrum requirements for the mission in question through access to other bands.

appropriate initial step towards addressing concerns with third-party coordination policies.

CSF criticizes that AFTRCC policy for, as it describes it, “block[ing] spectrum for the operators AFTRCC represents rather than providing small windows to coordinate.”⁴⁹ AFTRCC takes this suggestion to mean that CSF is asking that, paradoxically, commercial space launch operators be given only small windows in which they could utilize the spectrum. Nothing prevents space launch operators, when they submit their 21-Day notices requesting coordination on specific dates, to specify windows smaller than 24 hours on the dates for which they seek coordination. But they have not done so. As noted, AFTRCC’s policy was developed following meetings with a variety of stakeholders and seeks to balance those inputs. As part of that balance, AFTRCC’s space launch coordination policy conditions coordination of space launch dates by requiring space launch operators to give notice 96-168 hours beforehand of more precise launch windows on the days they have coordinated. This then opens up the remaining portions of those dates for flight test operators to utilize on an opportunistic basis. If CSF or other space launch operators have other suggestions how to narrow the coordinated windows for space launch, AFTRCC welcomes those inputs. But AFTRCC wishes to note that, contrary to the concept of “small windows” for space launch coordination, SpaceX has made the unreasonable request – on more than one occasion – that it be able to coordinate not only a primary launch data and six back-up dates, which need not be consecutive,⁵⁰ but instead an *entire month*’s worth of consecutive days at one time for one mission which would have had the effect of impacting the operation of flight testing across large swaths of the United States for weeks at a time.

⁴⁹ CSF Comments at 6.

⁵⁰ SpaceX seems to continue to misapprehend this. *See* SpaceX Comments at 3-4.

VI. THE COMMENTS UNDERSCORE THE NEED FOR OTHER SPECTRUM SOLUTIONS FOR SPACE LAUNCH RATHER THAN OVERBURDENING THE AMT SPECTRUM

Commercial space launch coordination and usage of the AMT Bands under AFTRCC's coordination policy remains a proportionate part of satisfying space launch spectrum requirements without unduly compromising the use of the band by Government and non-Federal flight test operators and other users of the band and potentially even adjacent band licensees that have demonstrated they can coexist with AMT operations. Significantly, while the CSF Petition seeks to overhaul the balanced coordination frameworks in the 2360-2395 MHz band, the comments of CSF and its allies actually make clear that this band will not satisfy, and indeed, none of the AMT Bands will satisfy, the requirements of the commercial space launch industry as they describe them. The comments double down on the need for complete flexibility, something that simply is not achievable in any bands with multiple incumbent users including primary AMT. SpaceX, in addition to sometimes desiring advance coordination for an entire month, as described above, also makes clear its demand for coordination that can be completed "in hours or even minutes."⁵¹ CSF claims that coordination frameworks must "enable rapid-response operations through a flexible system that can accommodate near-term timing shifts due to weather, hardware, and range-safety constraints in real time."⁵² SpaceX wants super priority rights "around spaceports" – they do not explain what "around" means.⁵³ As the *Public Notice* explained, space launches operate over large areas,⁵⁴ such that CSF's proposals to afford

⁵¹ *Id.* at 3; *accord* CSF Comments at 4 ("the Commission should seek to enable day-before or day-of coordination to scale to operational demand").

⁵² *Id.* CSF adds that "operators must be able to quickly schedule emergency and high-priority launches within a day." *Id.*

⁵³ SpaceX Comments at 1 (the Commission should "upgrad[e] secondary allocations for space launch spectrum into co-primary status, with heightened priority around spaceports").

⁵⁴ *Public Notice* at 2.

commercial space launch operators “heightened priority around space ports” would effectively, over time as launch cadences increase, demote large numbers of incumbent primary AMT operators to secondary status and unjustifiably devalue to second-class concerns the important national objectives of military superiority, safe flight-testing and aviation generally, and significant contributions to the nation’s economy. What CSF and its allies champion is unsound spectrum management.

Rather, the Commission should be exploring alternate means to satisfy the alleged needs for ever greater launch cadences at larger numbers of launch sites that can be implemented outside the AMT Bands.⁵⁵ As CSF and its allies make clear in their comments, they demand much more spectrum than the today’s intensely used 2360-2395 MHz band can supply, even if the ill-conceived “proposal” for automated instant access becomes a reality. SpaceX explains that “increasing launch cadence and more ambitious space missions will stress already congested S-band launch spectrum and will require additional spectrum to keep pace with operational needs and national priorities. For example, allocating spectrum to integrate launch vehicles into Automatic Dependent Surveillance–Broadcast and the National Airspace System is one route the Commission should consider. Opening new primary launch allocations in S, X and Ka bands to complement existing shared Federal/non-Federal spectrum could also support an exponential increase in launch rate and *ease congestion in the current spectrum bands.*”⁵⁶ Blue Origin and

⁵⁵ As Relativity Space notes, achieving the Administration’s goals in the NSTP will “not be a matter of current industry flying more often from the current sites. It implies a materially different operating picture: more operators, more launch sites, a wider range of trajectories and mission profiles that utilize vehicle architectures that do not yet exist.” Comments of Relativity Space, Inc., ET Docket No. 13-115 et al., at 1 (Sept. 14, 2026). This fundamentally different set of requirements and scope of operations from today’s use of commercial space launch spectrum further illustrates why the AMT Bands are the wrong place to achieve the goals of the NSTP.

⁵⁶ SpaceX Comments at 2 (emphasis added). Blue Origin contends that “[l]ower frequency bands such as S-band and L-band offer propagation characteristics that are well suited to launch operations.” Blue Origin Comments at 5. These characteristics are why AMT operations are

SpaceX also recognize the value in “reduc[ing] the burden on the overburdened S-band spectrum.”⁵⁷

Blue Origin recognizes that the anticipated increase in launch cadence is an unsuitable fit for the spectrum currently used for commercial space launch: “the spectrum allocated to space launch is often encumbered by heavy incumbent use and constrained by coordination frameworks that were designed for a fundamentally different era of launch activity.”⁵⁸ It recognizes that increasing usage of AMT spectrum by commercial space launch operators will increase the “probability of scheduling conflicts with incumbent users.”⁵⁹ Accordingly, Blue Origin appears to be taking prudent steps to “explor[e] architectures for its launch operations that offload higher-volume data downlinks from the congested S-band to other systems and services.”⁶⁰ AFTRCC applauds the creative thinking in which Blue Origin is engaging, and also stands with Lockheed Martin and SIA which urge in their comments that thoughtful consideration be given to how secondary market transactions can lend support as part of the options for commercial space launch operators that find that their needs for instant deconfliction on the day of or, “at a maximum, a few days in advance of launch,”⁶¹ cannot be satisfied under

concentrated in 1435-1525 MHz, 2360-2395 MHz, and 5091-5150 MHz, and the bands are already congested.

⁵⁷ Blue Origin Comments at 4. *See also* SpaceX Comments at 2 (new primary allocations in other bands would “ease congestion in the current spectrum bands.”).

⁵⁸ Blue Origin Comments at 2. “The spectrum allocated for commercial space launch today is limited and allocated on a secondary basis, this is sized for an era of far fewer launches.” *Id.* at 3.

⁵⁹ *Id.*

⁶⁰ *Id.* at 4. *See also* Blue Origin’s further discussion of other potential options to carry the load of space launch operators’ needs outside of overburdening the 2360-2395 MHz band and disrupting critical AMT operations.

⁶¹ *See* SpaceX Comments at 2.

the FAC-moderated frameworks in the AMT Bands while complying with the existing uses and regulations.⁶²

VII. AFTRCC STANDS WITH THE MANY STAKEHOLDERS THAT ARE WILLING TO WORK TO EXPLORE WAYS TO IMPROVE THE EXISTING COORDINATION FRAMEWORK IN THE AMT BANDS

Just as AFTRCC continues to develop its coordination policies and procedures to balance the complex ecosystem of users and more intense use of the AMT Bands, it welcomes the participation of the diversity of spectrum users in and adjacent to the AMT Bands. AFTRCC finds that the initial comments include many ideas worthy of consideration as potential means to adjust its coordination framework applied to, not only commercial space launch operators, but other users and coordinators with which it works. AFTRCC is heartened that there are many likeminded interested parties. The ADIS Coalition for example “strongly encourage[s] the FCC to proceed with the exploration of how best to make spectrum resources available to the space launch industry through a series of thoughtful consultations with all relevant airspace stakeholders and not to limit its collection of feedback only to this initial opportunity for comment, which itself is on a very accelerated timeline.”⁶³ The Space Enterprise Council submits that “any Commission action should be undertaken through a transparent and balanced process that considers the operational requirements of all affected stakeholders and preserves the

⁶² See discussion at Lockheed Martin Comments at 17-18. See also SIA Comments at 4 (“The FCC could consider, for example, how expanding its existing spectrum leasing rules, as it has already done in other services, could be extended to suitable bands outside those currently allocated for space launch operations, thereby enabling increased spectrum access for space launch operations. . . [and] could serve as a viable solution to address the gap in spectrum availability that space launch operators are anticipating.”).

⁶³ ADIS Coalition Comments at 2.

stability and reliability of the nation's spectrum allocation framework and of existing coordination mechanisms that can be improved—not discarded.”⁶⁴

“SFTE recommends that any potential changes to the availability and coordination of RF spectrum used by the aerospace sector for flight test be thoroughly vetted through consultation with a broad spectrum of flight test users, spanning both industry and government prior to implementation.”⁶⁵ AFTRCC welcomes SIA’s “commit[ment] to supporting efforts on behalf of the space industry to work proactively with all the relevant stakeholders to explore how best to maximize the benefits of this secondary allocation [in 2360-2395 MHz band] for space launch access while protecting primary operators.”⁶⁶

VIII. CONCLUSION

AFTRCC appreciates the opportunity to comment on the important issues regarding spectrum management to help satisfy within AMT spectrum an appropriate level of the requirements of commercial space launch operators. AFTRCC welcomes the opportunity to work constructively with the Commission and all interested stakeholders to continue making improvements to its coordination frameworks and through them, the efficiency of access to the

⁶⁴ Space Enterprise Council Comments at 2.

⁶⁵ SFTE Comments at 2. *See also* FIT Comments at 4 (“The Commission should therefore continue to encourage coordinators to review their procedures and identify opportunities to streamline processing, reduce unnecessary administrative requirements, improve communication with applicants, and establish reasonable processing expectations, . . . [and thus explore] improvements [that] strengthen the coordination process rather than undermine it.”).

⁶⁶ SIA Comments at 3.

AMT Bands and adjacent spectrum. The CSF Petition, which advocates for fundamental disruption to the 2360-2395 MHz band, and perhaps all the AMT Bands, should be denied.

Respectfully submitted,

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

A handwritten signature in black ink, appearing to read 'J. Westerling', with a stylized, cursive script.

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