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

In the Matter of	)	WT Docket No. 19-348
	)	
Facilitating Shared Use in the 3100-3550 MHz Band	)	
	)	

PETITION FOR RECONSIDERATION OF THE AEROSPACE INDUSTRIES ASSOCIATION

The Aerospace Industries Association ("AIA"), pursuant to Section 1.429 of the Commission's Rules, 47 C.F.R. § 1.429, hereby petitions the Commission to reconsider, in part, its March 18, 2021, *Second Report and Order* in the above-captioned proceeding.[1] Specifically, AIA respectfully asks the Commission to reconsider the decision in the *Second Report and Order* to not take steps to ensure, before an auction of spectrum commences in 3450-3550 MHz (the "3.45 GHz Band"), a coordination framework is in place to enable contractors to continue to have dependable and reliable access to the band at a limited set of existing facilities currently operating under Part 5 experimental licenses.[2] These eleven locations, which are identified in the

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[1] *Facilitating Shared Use in the 3100-3550 MHz Band*, Second Report and Order, Order on Reconsideration, and Order of Proposed Modification, WT Docket No. 19-348, FCC 21-32 (rel. Mar. 18, 2021) ("Second Report and Order"). The *Second Report and Order* was published in the Federal Register on April 7, 2021. 86 FR 17920 (Apr. 7, 2021). Therefore, this Petition is timely. *See* 47 C.F.R. §1.429(d)(petitions for reconsideration in rulemaking proceedings shall be filed within thirty days of public notice.)

[2] *Second Report and Order* ¶34. To be clear, AIA does not seek reconsideration of that part of the *Second Report and Order* decision to "not extend coordination obligations on commercial licensees for . . . *future* non-federal radiolocation operations authorized under part 5 of the rules regardless of whether they are located either inside or outside of Cooperative Planning Areas or Periodic Use Areas." *Second Report and Order* ¶ 34. AIA does, however, as explained below, request clarification of the *Second Report and Order* of generally applicable obligations that 3.45 GHz Band service licensees and experimental license applications will negotiate in good faith for shared use that the Commission declared in the *First Report and Order* in this docket. *See Facilitating Shared Use in the 3100-3550 MHz Band*, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 11078 ,¶ 21 (2020) ("First Report and Order").

Attachment hereto,[3] have long been the sites of high-powered outdoor testing activity and include extensive permanent infrastructure required for government contract-related engineering development, systems integration, and sustainment problem resolution.[4] AIA explained in its submissions in this docket that these contractor facilities constitute an essential link in the defense industrial supply chain by meeting requirements of the critical federal programs that will continue to use this band indefinitely on a co-primary, highest-priority basis and the *Second Report and Order* recognizes are essential "to preserve military readiness, capabilities, and national security."[5]

Reconsideration of the *Second Report and Order* is warranted because, as explained below, the decision did not take into account record evidence presented by AIA, and the Commission did not consider important aspects of the problem AIA presented that demonstrated serious concerns about prospects for continued access by contractors to the 3.45 GHz Band.[6] Let

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[3] Five of the sites are located within a Cooperative Planning Area ("CPA") (and within a Periodic Use Area ("PUA")) and a sixth is located within a PUA.

[4] As AIA explained in its Comments in this proceeding, indoor testing alone or the use of different sites, such as federal government customer sites, are not viable alternatives as they cannot "support the breadth and intensity of testing that takes place at contractor facilities required for engineering development, systems integration, and sustainment problem resolution." Comments of the Aerospace Industries Association, WT Docket No. 19-348, at 3, 4 (filed Nov. 20, 2020) ("AIA Comments"). *See also id.* at 3 ("Testing at full power at contractor ranges . . . depends upon extensive, massive, and permanent test infrastructure the contractors have deployed.")

[5] *See, e.g., id.* at 2-5; Letter from Karina Perez Molina, Manager, Unmanned and Emerging Aviation Technologies, Aerospace Industries Association, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-348 at Attachment (filed Mar. 9, 2021) ("AIA March 9 *Ex Parte* Letter"). AIA's filings are incorporated herein by reference. *See also Second Report and Order,* ¶ 10 (explaining the need for adequate protection of DOD facilities within CPAs and PUAs "to preserve military readiness, capabilities, and national security") and ¶ 22, nn. 71 and 73 (federal operations in CPAs will require protection from harmful interference "indefinitely" and "incumbent [federal] operations include all current and planned" use in the 3.45 GHz Band).

[6] *See Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co*., 463 U.S. 29, 43 (1983) (an agency order is arbitrary and capricious when the agency "entirely failed to consider an

there be no doubt: AIA and its over 300 members share the Commission's goal to ensure that the United States remains a world leader in spectrum use in its myriad forms, and generally support making the 3.45 GHz Band available for flexible use. With that said, AIA asserts that, given the record and its (and its members') unaddressed interests in the proceeding, the decision in the *Second Report and Order* to take no action to preserve dependable and predictable access for contractor facilities in the 3.45 GHz Band was arbitrary and capricious.

Prior to the *Second Report and Order*, the National Telecommunications and Information Administration ("NTIA") confirmed for the Commission that contractor facilities use, and require continued access to, the 3.45 GHz Band to perform outdoor experimentation and testing, for example, to fulfill contracting requirements with federal agencies for systems that operate in and will remain in the 3.45 GHz Band.[7] NTIA reiterated and validated AIA's request that the Commission develop a coordination framework in conjunction with the Department of Defense ("DOD"), NTIA, AIA, and other concerned stakeholders that ensures contractor access while minimizing potential impacts to the eventual commercial licensees in the band.

In the *Second Report and Order*, the Commission "agree[d] that these contractor facilities have needs to access the spectrum for testing and experimentation."[8] Indeed, in the *First Report and Order* in this proceeding, the Commission had already urged "future users of

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important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise"); 5 U.S.C. §§ 706(2)(A) and (E) (reversal of agency decisions by a court appropriate where the decision was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law"; or otherwise "unsupported by substantial evidence.")

[7] Letter from Charles Cooper, Associate Administrator, NTIA, to Ronald T. Repasi, Acting Chief, Office of Engineering and Technology, FCC, and Joel Taubenblatt, Acting Chief, Wireless Telecommunications Bureau, FCC, WT Docket No. 19-348, at 6 (filed Feb. 19, 2021).

[8] *Second Report and Order* ¶ 34.

the band to negotiate [with operators of contractor facilities] in good faith . . . consistent with the regulatory status afforded primary users versus experimental licenses."[9] Unfortunately, the *First Report and Order* did not define what qualified as good faith as has been done in other contexts.[10]

AIA explained in its comments on the Further Notice of Proposed Rulemaking accompanying the *First Report and Order* that its radar manufacturer and integrator members are working with the National Defense Industrial Association Spectrum Working Group ("NDIA SWG") to develop voluntary, mutually agreeable practices regarding continued dependable access by contractors to the 3.45 GHz Band for the purposes described above.[11] Yet, as resolution of the NDIA SWG discussions did not appear imminent at the time the Commission circulated a public draft of the *Second Report and Order*, AIA urged the Commission to commit to step in and develop a coordination framework if the NDIA SWG did not yield concrete results well before the auction.[12] AIA also narrowed its earlier requests, asking the Commission to develop a framework for "high-power S-band radar outdoor manufacturing, production, and test facilities."[13] AIA specifically requested that those facilities "whose operations are completely encompassed within the contours of a Cooperative Planning Area, [be subject to] the coordination process put in place for the 3.45 GHz flexible use

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9 *First Report and Order* ¶ 21.

10 *See, e.g.*, 47 C.F.R. § 101.73(b) (listing non-exclusive factors the Commission will consider when claims are made that a party has not negotiated coordination in good faith).

11 *See* AIA Comments at 5-6, 10-11.

12 *See* Letter from Karina Perez Molina, Manager, Unmanned and Emerging Aviation Technologies, Aerospace Industries Association, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-348, at 2 (filed Mar. 2, 2021)("AIA March 2 Ex Parte Letter"); *see also* Attachment to *AIA March 9 Ex Parte Letter* (proposed order language).

13 *Id.*

licensees and the DoD."[14] For those high-power S-band radar outdoor contractor facilities "that (i) are located outside of a Cooperative Planning Area, or (ii) have operations that do not fall completely within the contours of the Cooperative Planning Area," AIA asked that the Commission commit to "take steps to develop . . . a coordination framework on an expedited basis" if the NDIA SWG failed to deliver a mutually agreed framework in a timely fashion.[15] In addition to advancing the strong public interest in ensuring that these eleven permanent contractor operations are not disrupted, AIA's proposal provide sufficient notice and time to interested auction participants to incorporate coordination considerations into their auction plans.

Unfortunately, the *Second Report and Order* did not include conditions in which, or a process by which, the Commission would adopt a coordination approach or any other measures accommodating ongoing contractor needs (and ensure that the supply chain for the federal government operations remaining in the band as the highest priority users remain properly supported). The *Second Report and Order* simply stated that "[w]e expect all future commercial licensees to cooperate with part 5 licensees when presented with requests for experimentation and testing in the 3.45 GHz band to enable continued development and upgrades of essential DoD systems."[16] But the Commission did not back this up and impose any obligations on 3.45 GHz licensees. Further, the *Second Report and Order* did not reiterate the *First Report and Order*'s adoption of a good faith standard, let alone *define* what constitutes

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[14] *Id.*

[15] *Id.* The time for action is particularly urgent to the extent auction-related prohibitions of certain communications by or among competitive bidding participants would impact efforts to develop a cooperation framework with contractors. *See* 47 C.F.R. 1.2105(c).

[16] *Second Report and Order* ¶ 34.

"good faith" negotiations.[17] Rather, the Commission merely "encouraged" stakeholders to work within the NDIA SWG "to develop mutually agreeable practices regarding experimental use of the band for defense radar testing and development."[18] The Commission did note that it would monitor the results of its approach founded on expectations and encouragement and "may *revisit [its approach] as necessary* based on the experience of experimental and 3.45 GHz Service licensees," while inviting "information on this approach [from stakeholders] *if needed*."[19]

AIA files this Petition because engagement and action by the Commission is needed urgently in light of the evidence in the record, the licensing framework adopted in the *Second Report and Order*, the lack of resolution of NDIA SWG discussions since the *Second Report and Order* was adopted (despite all participants' continued efforts), and the approaching date of the auction. AIA's members continue to work with the commercial mobile wireless industry stakeholders in the NDIA SWG. However, the NDIA SWG has not met its objective, set in conjunction with the DOD, to develop and deliver by April 1, 2021, a mutually-acceptable coordination framework for 3.45-3.55 GHz that enables continued testing at the majority of contractor facilities while minimizing undue constraints on either party. Now,

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[17] Although the *Second Report and Order* did not reiterate the "good faith" requirement, importantly, it did not modify or rescind the part of the *First Report and Order* that requires 3.45 GHz Band licensees to negotiate with Part 5 licensees and applicants in good faith. Accordingly, AIA submits that this obligation, while not backed by specific criteria in either of the two orders in this docket, still exists. AIA asks the Commission to clarify this matter and provide guidance to parties as to what good faith means in this particular context. If, however, AIA's reading is incorrect and the *Second Report and Order* removed the good faith obligation by omission, AIA seeks reconsideration of the *Second Report and Order* on this point and asks the Commission to reinstate the good faith obligation on 3.45 GHz Band service licensees with regard to existing and proposed Part 5 operations, both the high-powered testing contractor facilities that are the particular subject of this Petition, and experimental license applications, in general.

[18] *Id.*

[19] *Id.* (emphases added).

almost two months after the *Second Report and Order* was adopted, it is clear from the current state of discussions within the NDIA SWG that resolution is unlikely in the near term. Even assuming some understanding may eventually be reached – and the AIA remains hopeful for that outcome –regulatory action must be taken now to eliminate the uncertainty created by the *Second Report and Order* for contractor facilities and, conversely, to provide potential auction applicants time to account for changes in a timely fashion as Auction 110 approaches.

Furthermore, unless any eventual results of the NDIA SWG in terms of a coordination approach are somehow codified in regulations, they will be non-binding. This is particularly troubling because not all auction winners in any geography will necessarily have been involved in the NDIA SWG efforts,. Moreover, in any given geography, under the licensing framework adopted in the *Second Report and Order*, there may be as many as ten different ten megahertz auction winners. . Thus, the Commission decision to license the band in ten megahertz blocks further complicates the situation for contractors and underscores the need for regulatory action rather than reliance on voluntary negotiations in the absence of rights for Part 5 licensees and applicants and clear criteria on what constitutes good faith.

The record shows that testing and experimentation conducted by contractors in the 3.45 GHz Band requires access to this specific band.[20] While past experience suggests that negotiation with one flexible use licensee may be difficult enough, a contractor at one of its

[20] As AIA explained in its Comments, the testing of systems that operate in the entire 3.1-3.55 GHz require contractors to access to the entire band for that testing. They cannot reliably conduct tests in only one part of a band for systems that will operate in the entire band. *See* AIA Comments at 9 (testing in only a part of the band of operation would "preclud[e], for example, a full assessment of any impairments and band edge effects, which can be a critical aspect of radar reliability and integrity. Failing to assess these effects on a timely basis at all appropriate stages of the program at the required operational frequencies could lead to could lead to program delays and cost increases should deficiencies and anomalies be discovered in late-stage testing or post-delivery.")

facilities will have to negotiate with as many as ten different licensees. Indeed, if testing and experimentation operations at that location may affect or be affected by 3.45 GHz service licensees in more than one Partial Economic Area, negotiations may have to be successful in some location with more than ten parties to ensure continued access. The Commission did not take into account these important aspects of the problem generated by the *Second Report and Order* itself when it declined to take action to ensure the contractor facilities' needs, that the decision itself recognized, can be met.

Part 5 licensing has worked to date for contractor facilities in the 3.45 GHz Band because the only significant primary incumbents have been federal agencies served by the contractors. The *Second Report and Order* drastically changes the spectrum neighborhood and, rather than recognizing this impact on contractors' ability to preserve access for high-powered sites, the Commission merely stated that "non-federal entities will continue to be able to obtain experimental licenses for such testing under our part 5 rules."[21] Without a coordination framework, Part 5 licensing and spectrum access will be less dependable and more theoretical, rather than the reliable access contractors have today, and have had for years, *i.e.*, before Auction 110.[22] The *Second Report and Order* did not take into account both the marked difference in the nature and number of primary users with whom contractors will have to coordinate and be subject to non-interference obligations. The Commission did not consider how its inaction, despite its words to the contrary, undermines the public interest by disrupting the critical defense

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[21] *Second Report and Order* ¶ 34.

[22] AIA notes that Lockheed Martin Corporation recently indicated that it is considering a permanent licensing approach under Part 90 of the Commission's rules as a means to address the needs of its high power radar test sites outside of CPAs. *See* Lockheed Martin Corporation Request for Waiver of Sections 5.5 and 5.84 of the Commission's Rules at 18 (submitted Apr. 29, 2021). AIA submits that such an approach has merit and it would support pursuit of Part 90 applications by contractors, but such an approach should be considered complementary to, rather than a substitute for, the relief sought in this Petition.

industrial supply chain, thereby impacting federal systems critical to our "military readiness, capabilities, and national security."[23] Thus, the *Second Report and Order* should be reconsidered.

Specifically, AIA asks the Commission to establish, before Auction 110 commences, a coordination framework in the rules. Such a framework should require 3.45 GHz licensees to engage in good faith discussions that allows continued contractor access to the spectrum for high-powered outdoor testing at the limited number of permanent installations, in which the contractors have invested tens of millions of dollars. The framework should also provide for coordination triggers (e.g., when 3.45 GHz Band service licensees seek to deploy within the -35 dBm/m^2 contour of a listed high-powered contractor facility[24]), information exchange by both parties of existing and planned operations and deployments, timelines that govern discussions and when the parties can, should it prove necessary, escalate to the Commission for mediation and resolution.[25] The Commission should also define good faith coordination between 3.45 GHz Band auction winners and contractors as engaging in identification and discussion of deployment and technical alternatives where each party seeks to accommodate the other party's spectrum while minimizing impacts on the other party. Thus, a party with a higher priority of access to the band should be required to consider options for deployment that are substantially

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[23] *Id.* ¶ 10 (describing the DOD operations that will be protected within CPAs and PUAs indefinitely).

[24] *See* Letter from Charles Cooper, Associate Administrator, NTIA, to Ronald T. Repasi, Acting Chief, Office of Engineering and Technology, FCC, and Donald Stockdale, Chief, Wireless Telecommunications Bureau, FCC, WT Docket No. 19-348, Enclosure 5 (filed Sept. 8, 2020).

[25] As the *First Report and Order* explained, the Office of Engineering and Technology would continue to work, as it has "historically[,] to mediate disputes between parties." *First Report and Order* ¶ 21.

similar in light of the constraints that would be placed on the lower priority user if one option is adopted over another.

Given the important national interest in the experimental operations conducted by contractors at this limited number of high-powered facilities, the public interest would be served by a recognition that, while experimental licensees may not cause harmful interference, there can exist limited circumstances where the Commission's rules may require other users of the spectrum to accommodate such licensees. Otherwise, 3.45 GHz Band licensees may feel justified to simply push contractor Part 5 operations out of the band. Consistent with the narrow accommodations requested herein, which would be unique to the circumstances of this band and not create general precedents altering the status of Part 5 licensees,[26] it would remain the case that the Part 5 licensee cannot cause harmful interference.[27] An established coordination framework would provide all parties clarity and certainty regarding their obligations within negotiations for shared use and equip the Office of Engineering and Technology with the guidance to consistently mediate any disputes that arise.

For the foregoing reasons, the Commission should reconsider the *Second Report and Order* to ensure continued dependable and reliable spectrum access by contractors to the 3.45 GHz Band at the limited set of sites identified in the Attachment.

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[26] *See* discussion in *AIA March 2 Ex Parte Letter* at 4 (unique factors that apply to the 3450-3550 MHz band).

[27] If this were not the case, the exhortations of the Commission in the *First Report and Order* and the *Second Report and Order* for the future commercial licensees in the 3.45 GHz Band to cooperate and negotiate in good faith with contractor facilities and for the Commission staff to mediate disputes would have no meaning whatsoever.

Respectfully submitted,

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ATTACHMENT

High-Powered, FCC-Authorized Contractor Radar Testing Sites

Sites within a Cooperative Planning Area ("CPA") or a Periodic Use Area ("PUA")

Location	Contractor
Georgetown, DE (Pax River PUA)	Northrop Grumman
Annapolis, MD (Chesapeake Beach CPA/PUA)	Northrop Grumman
Hanover, MD (Chesapeake Beach CPA/PUA)	Northrop Grumman
Linthicum, MD (Chesapeake Beach CPA/PUA)	Northrop Grumman
Pelham, NH (Portsmouth CPA/PUA)	Raytheon Technologies
Moorestown, NJ (Moorestown CPA/PUA)	Lockheed Martin

Sites Not within a CPA or PUA

Location	Contractor
St. Louis, MO	The Boeing Company
Liverpool, NY	Lockheed Martin
Cazenovia, NY	Lockheed Martin
Portsmouth, RI	Raytheon Technologies
McKinney, TX	Raytheon Technologies