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

In the Matter of	)	
	)	
Notice of Proposed Rulemaking, Facilitating Shared Use in the 3.1-3.55 GHz Band	)	WT Docket No. 19-348
	)	
	)	

REPLY COMMENTS OF DYNAMIC SPECTRUM ALLIANCE

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REPLY COMMENTS

The Dynamic Spectrum Alliance (DSA)[1] submits these reply comments in response to the Commission's Notice of Proposed Rulemaking requesting public input regarding the future use of the 3.1-3.55 GHz band.[2] DSA agrees with the majority of commenters in this proceeding that support the Commission's efforts to free up additional mid-band spectrum for commercial broadband services by eliminating the non-federal radiolocation services allocation in the 3.3-3.55 GHz band and the non-federal amateur allocation in 3.3-3.5 GHz, while also forgoing approval of pending or future requests for high-power weather radar operations in the band.[3]

In addition to these important first steps, DSA further urges the Commission to take advantage of the opportunity to extend the successful Citizens Broadband Radio Service (CBRS) framework in 3.55-3.7 GHz down to the adjacent 3.1-3.55 GHz band, in particular to the 3.45-3.55 GHz band. Extending the existing CBRS framework would be the most expedient way to make this critical spectrum available for commercial operations. While other commenters have suggested that this spectrum could be cleared of the federal incumbents – which include primarily U.S. military

[1] The Dynamic Spectrum Alliance is a global, cross-industry alliance focused on increasing dynamic access to unused radio frequencies. The membership spans multinational companies, small- and medium-sized enterprises, academic, research, and other organizations from around the world, all working to create innovative solutions that will increase the utilization of available spectrum to the benefit of consumers and businesses alike. A full list of DSA members is available on the DSA's website at www.dynamicspectrumalliance.org/members.

[2] *Notice of Proposed Rulemaking, Facilitating Shared Use in the 3.1-3.55 GHz Band*, WT Docket No. 19-348 (Dec. 12, 2019).

[3] *Accord* Comments of CTIA at 6-7; T-Mobile, Comments of AT&T at 3; Comments of Wireless Internet Service Providers Assn (WISPA) at 4-5; Comments of Nokia at 1-2; Comments of Commscope at 3; Comments of CompTIA at 2; Comments of 5G Americas at 8: Comments of Competitive Carriers Assn (CCA) at 3; Comments of Federated Wireless at 4-5.

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airborne, shipborne and ground-based radar systems – and auctioned for geographic area licensing on an exclusive basis,[4] in its recent report NTIA indicated that a dynamic, time-based sharing mechanism "present[s] a potentially attractive approach to both protecting federal systems and providing viable commercial operations."[5] Recognizing that clearing this spectrum of federal incumbents may not be possible and could at best take many years to implement, delaying commercial use of the band, DSA supports the other commenters in this proceeding that recommend that the Commission and NTIA move as quickly as possible to extend the CBRS framework to 3.45-3.55 GHz while also exploring options for sharing 3.1-3.45 GHz.

I. EXISTING ALLOCATIONS AND FUTURE APPLICATIONS

DSA agrees with the majority of commenters in this proceeding that the Commission should eliminate the non-federal radiolocation services and amateur allocations and reject pending and future applications for high-power weather radar operations in the 3.3-3.55 GHz band. Considering the strong demand for mid-band spectrum for 5G, NTIA's findings that sharing in this spectrum appears feasible, and the success of CBRS as a framework for protecting incumbent military radar systems, it is clear that the highest and best use of the 3.1-3.55 GHz band is for innovative, commercial wireless use, which can be readily implemented on a shared basis with federal incumbents.

[4] *See* Comments of CTIA at 8; Comments of AT&T at 3-4; Comments of 5G Americas at 6; Comments of Nokia at 2.
[5] Edward Drocella, Robert Sole, Nickolas LaSorte, *Technical Feasibility of Sharing Federal Spectrum with Future Commercial Operations in the 3450-3550 MHz Band*, NTIA Technical Report 20-546, at ix (rel. Jan. 2020) ("NTIA 3.45 GHz Report").

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As a first step in preparing the band for commercial use on a shared basis, DSA supports the Commission's proposal to eliminate the non-federal radiolocation services allocation in the 3.3-3.55 GHz band and the non-federal amateur allocation in 3.3-3.5 GHz. As a number of commenters suggest, these non-federal incumbents should not be moved to the lower portion of the band (below 3.3 GHz) if there is any other spectrum that can meet their needs.[6] We also recommend that the Commission forgo approval of any additional high-power weather radar operations in the 3500-3550 MHz band given their impact on adjacent CBRS commercial operations as well as on future commercial broadband services.[7]

II. THE OPPORTUNITY TO EXTEND CBRS AND MAKE ADDITIONAL MID-BAND SPECTRUM AVAILABLE AS EXPEDITIOUSLY AS POSSIBLE

DSA also agrees with NTIA and other commenters that the extension of the successful CBRS sharing framework into the 3.1-3.55 GHz band would be the most expeditious way to make additional, critical mid-band spectrum available for 5G services. NTIA's January technical report on the prospects for sharing the 3.45-3.55 GHz with terrestrial broadband operators made it clear that

[6] *See, e.g.*, Comments of AT&T at 4; Comments of Nokia at 5 ("we oppose the NPRM's suggestion for non-Federal users to be relocated from the 3.3-3.55 GHz range to the 3.1-3.3 GHz range, as it would be contrary to the Commission's 'ultimate . . . intention' to introduce next generation services into that portion of the band.").

[7] See, *e.g.*, Comments of CommScope at 5, citing "concerns raised by WInnForum about the impacts of high-power weather radar operations in the 3500-3550 MHz band on commercial services in the adjacent CBRS band."

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very wide-area, higher-power outdoor mobile networks are almost certainly not feasible unless incumbent military radar systems are cleared out of the band.[8]

In contrast, NTIA has identified the 3.45-3.55 GHz band "as the most promising portion for sharing in the near term."[9] The NTIA technical report concludes that "a dynamic, time-based sharing mechanism could present a potentially attractive approach to both protecting federal systems and providing viable commercial operations," whereas geographic-based and frequency-based sharing approaches would make "sufficient access for viable commercial applications unlikely."

DSA agrees with WISPA, Federated Wireless, and other commenters suggesting that the Commission focus on this 100 MHz (3.45-3.55 GHz) for sharing at the earliest possible time.[10] Extending the existing and successful CBRS framework into the adjacent band below 3550 MHz can jumpstart private investment and leverage the extensive collaboration between the public and private sectors to achieve a resounding commercial and policy success in operationalizing 5G networks. As CommScope describes, the technological expertise, know-how, methods, and relationships developed in the commercialization of the CBRS band should be leveraged by the Commission to expedite preparations to make use of the 3.1-3.55 GHz band for 5G services, particularly in the

[8] Edward Drocella, Robert Sole, Nickolas LaSorte, *Technical Feasibility of Sharing Federal Spectrum with Future Commercial Operations in the 3450-3550 MHz Band*, NTIA Technical Report 20-546 (rel. Jan. 2020) ("NTIA 3.45 GHz Report"). "The report indicates that commercial operations would impact incumbent federal systems; however, spectrum sharing that provides both sufficient protection to incumbent operations and an attractive commercial business case may be possible with further information and analysis, including studying the efficacy of deploying appropriate time-based sharing mechanisms. . . . In the aggregate and in some cases individually, the federal systems use the entire band throughout the United States and its possessions, including near and over the most populated areas." *Id*. at viii.
[9] *NPRM* at ¶ 3.
[10] Comments of WISPA at 4; Comments of Federated Wireless at 5.

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immediately adjacent 100 MHz in the 3.45-3.55 GHz band that NTIA has identified as feasible for near-term sharing with the commercial sector.[11] And as WISPA observes, "the ecosystem for CBRS equipment can be easily modified to extend to the 3.1-3.55 GHz band even on a shared basis."[12]

Respectfully submitted,

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[11] Comments of CommScope at 4-5. *See also* Comments of Competitive Carriers Assn at 4 ("The Commission's approach in the 3.5 GHz band, for example, is a model of innovation in service of maximizing efficient use of spectrum.")
[12] *Id*. at 3.