

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

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| <i>In the Matter of</i><br><br>Upper C-Band (3.98 to 4.2 GHz) | )<br>)<br>)<br>)<br>)<br>)<br>) | GN Docket No. 25-59 |
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**REPLY COMMENTS OF THE WIRELESS INFRASTRUCTURE ASSOCIATION**

The Wireless Infrastructure Association (“WIA”)<sup>1</sup> submits these Reply Comments to highlight certain comments received in response to the Federal Communication Commission’s (“FCC”) Notice of Inquiry (“NOI”) in the above-captioned proceeding.<sup>2</sup> As noted by many commentors, moving forward with freeing up critical mid-band spectrum must be a priority for the Commission in order to support expanded and enhanced mobile services. Specifically, there is broad consensus in the record that the Commission should move forward with evaluating frequencies between 3.98-4.2 GHz (“Upper C-Band”) for more intensive use and that reallocation should focus on making this spectrum available for commercial mobile terrestrial applications.<sup>3</sup> WIA additionally supports collaboration with stakeholders, including incumbents and the aviation community, throughout this process to ensure changes are made with full awareness and minimal

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<sup>1</sup> The Wireless Infrastructure Association (“WIA”) represents the businesses that build, develop, own, and operate the nation’s wireless infrastructure. Members include infrastructure providers, wireless carriers, and professional services firms that are responsible for telecommunications facilities around the globe.

<sup>2</sup> *Upper C-band (3.98 to 4.2 GHz)*, Notice of Inquiry, FCC 25-13 (rel. Feb. 28, 2025) (“Upper C-Band NOI”).

<sup>3</sup> See Comments of AT&T Services, Inc, GN Docket No. 25-59 (Apr. 29, 2025); Comments of CTIA, GN Docket No. 25-59 (Apr. 29, 2025); Comments of Ericsson, GN Docket No. 25-59 (Apr. 29, 2025); Comments of Qualcomm Incorporated, GN Docket No. 25-59 (Apr. 29, 2025); Comments of T-Mobile USA, Inc., GN Docket No. 25-59 (Apr. 29, 2025); Comments of Verizon, GN Docket No. 25-59 (Apr. 29, 2025).

disruption to existing operations; while noting that lessons learned during the reallocation of the lower portion of this band should preclude some of the major hurdles faced at that time.

**I. The Commission Should Proceed with Evaluating the Upper C-Band for Intensive Use, Prioritizing Mobile Terrestrial Services.**

As several commentors note, continued access to sufficient spectrum is key to maintaining the United States’ leadership in the wireless ecosystem.<sup>4</sup> However, the U.S. wireless industry is facing a looming spectrum shortage—creating a deficit that will only become more acute given the ongoing lapse of FCC’s spectrum auction authority.<sup>5</sup> This review is particularly timely to in light of recent Congressional action moving towards reinstating the Commission’s authority, enabling the Commission to quickly proceed with auctions once authority is restored.

Mobile networks have delivered a host of benefits to consumers and industry alike. As CTIA provides, studies have shown that the 5G economy has spurred substantial economic growth and investment, contributing \$825 billion in GDP and 4.5 million jobs annually.<sup>6</sup> To maintain this investment and growth, mobile networks continually need access to more spectrum, with midband frequencies like those in the C-Band being prime candidates to deliver the advanced services

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<sup>4</sup> See, e.g., Comments of Ericsson at 2 (“A recent report by Accenture draws a straight line from this growing demand in wireless services to the need for more spectrum”); Comments of T-Mobile at 4 (“The Commission should now start the necessary work on a long-term spectrum pipeline that helps ensure continued American leadership in wireless technology, meets the consumer demand for increased wireless use, and increases competition in connectivity.”).

<sup>5</sup> See Comments of CTIA at 2 (providing an outline of the current spectrum shortage and potential long-term impacts on U.S. mobile deployments); Comments of Verizon at 1-2 (discussing its utilization of existing licenses and need for additional spectrum to maintain deployment pace). See generally *Advancing US Wireless Excellence: The Case for Global Spectrum Harmonization*, ACCENTURE (Jan. 2024), <https://api.ctia.org/wp-content/uploads/2024/01/Advancing-US-Wireless-ExcellenceGlobal-Harmonization.pdf> (detailing deficits in mid-band spectrum compared to other peer nations and extrapolating what the long-term deficit would be if current trends continue).

<sup>6</sup> Comments of CTIA at 6.

Americans rely on.<sup>7</sup> This continual need to make more spectrum available for commercial uses should encourage the Commission to proceed with the proposed analysis of the Upper C-Band, as well as other bands across the electromagnetic spectrum that can support mobile wireless networks.<sup>8</sup>

Finally, several commentors provide that there are sufficient alternatives for incumbent operations, including higher frequency spectrum bands and wireline distribution systems, that will allow these services to be maintained after reallocation.<sup>9</sup> WIA further notes that, since the publication of the NOI, the Commission has taken steps proposing to make historic amounts of spectrum available for satellite operators.<sup>10</sup> Recognizing the changes in the spectrum allocation landscape, WIA agrees with commentors that incumbents will likely be able to transition to other platforms and technologies with minimal cost and disruption while freeing up bandwidth for critical terrestrial mobile operations.

## **II. Frequencies in the Upper C-Band are Ripe for Further Intensive Use by Mobile Operators, Consistent with Existing Operations in the Lower C-Band.**

In addition to the physical characteristics that make these frequencies critical for advanced mobile service deployments, there is strong consensus in the record that the FCC should take

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<sup>7</sup> See *id.* See also Comments of T-Mobile at 2-3 (detailing the types of services the carrier can provision over similar mid-band spectrum).

<sup>8</sup> See Comments of CTIA at 8 (identifying additional bands that would be beneficial for the wireless industry including the 4, 7, and 8 GHz bands).

<sup>9</sup> See, e.g., Comments of CTIA at 12 (describing the expansive deployment of fiber networks as one potential alternative for incumbents); Comments of Ericsson at 7 (noting changes in the communications landscape compared to 2020 which provide more alternatives for incumbents); Comments of Verizon at 7-8 (discussing how wireline networks and operating in the Ku-band are viable alternatives for incumbent satellite operators in the C-Band).

<sup>10</sup> See *FCC Looks to Unleash More than 20,000 Megahertz for Satellite Spectrum Abundance* (May 22, 2025), <https://docs.fcc.gov/public/attachments/DOC-411583A1.pdf> (“Today, the Commission voted to kickstart a proceeding that could unlock more than 20,000 megahertz of spectrum for high-speed internet delivered from space. That amount is more than the sum total of all spectrum available for satellite broadband today.”).

advantage of shared history to reallocate the upper C-Band expeditiously.<sup>11</sup> Several comments in the record highlight the ongoing coordination and information sharing among the wireless and aviation industries that were initiated in response to concerns with potential interference between radio altimeters and mobile networks raised when the Commission made the lower portion of this band available for mobile terrestrial uses.<sup>12</sup> These efforts were successful in mitigating potential interference and have fostered continued collaboration that will help expedite reallocation pursuant to this proceeding. As commentors note, this experience will be best leveraged if the Commission proceeds with similar rules for mobile operations in the upper portion of this band.<sup>13</sup>

In addition to these collaborative efforts, the upper C-Band is already allocated for terrestrial mobile services internationally, providing additional experience with peaceful coexistence between aviation safety equipment and mobile networks.<sup>14</sup> Commentors highlight that these frequencies are already in use for terrestrial mobile operations in several countries due

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<sup>11</sup> See Comments of CTIA at 10 (discussing cross-industry partnerships created during the reallocation of the lower C-Band); Comments of Nokia, GN Docket No. 25-59, at 5 (Apr. 29, 2025) (noting that collaboration with these stakeholders has led to a deeper understanding of potentially affected systems, challenges, and solutions); Comments of Verizon at 6 (highlighting ongoing collaboration with aviation and mobile stakeholders).

<sup>12</sup> See, e.g., Comments of AT&T at 2 (“That inter-industry collaborative effort continues today and is now shifted to assessing co-existence between mobile use in the Upper C-band and safe operations of radio altimeters”); Comments of CTIA at 10 (encouraging the Commission to leverage existing collaborative partnerships to assist in the rapid reallocation of these frequencies); Comments of Verizon at 6 (“The wireless industry has worked very closely with aviation stakeholders and the Federal Aviation Administration to build relationships and craft solutions to enable this 5G/radio altimeter co-existence.”).

<sup>13</sup> Comments of Ericsson at 2 (“The FCC can take action here and extend the successful paradigm that it enacted to repurpose the Lower C-band . . . into the adjacent Upper C-band, all while continuing to protect radio altimeter operations . . .”). See also Comments of AT&T at 4 (noting the success of the previous C-Band auction); Comments of T-Mobile at 4 (encouraging the Commission to extend the lower C-Band rules to these frequencies in order to support 6G deployments); Comments of Verizon at 8-9 (urging the Commission to expand lower C-Band rules to the entirety of the band).

<sup>14</sup> See Comments of AT&T at 7 (providing international allocations of mobile operations in these frequencies); Comments of Ericsson at 5-6 (discussing international efforts to support mobile deployments in this band); Comments of Qualcomm at 4-5 (demonstrating international harmonization in these bands).

to the allocation of 3.3-4.2 GHz for 5G operations in the 3GPP band plan.<sup>15</sup> Specifically, AT&T provides that allied nations, including Australia, France, Japan, South Korea, and the United Kingdom, currently allow mobile operations in these bands—strongly indicating that there will not be unforeseen interference issues if these operations are allowed within the U.S.<sup>16</sup>

### **III. Conclusion**

WIA strongly supports the Commission moving forward with the proposed evaluation of the upper C-Band for intensive mobile use and considering rules for deployment similar to those currently provided for operations in the lower portion of this band. As demonstrated throughout the record, making more mid-band spectrum available for terrestrial mobile uses is key to maintaining the United States' position as a global leader in 5G and successive generations of mobile technology. The frequencies being considered in this proceeding are prime for this use due to their physical characteristics and international allocations for mobile uses in this band. Further, the lack of spectrum auctions during the past three years has created greater urgency for making this kind of spectrum available. Finally, WIA recognizes and supports comments in the record encouraging collaboration among stakeholders, regulators, and incumbents during this process but urges the Commission to move quickly with its proposed evaluation.

Respectfully submitted,

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<sup>15</sup> See, e.g., Comments of CTIA at 9 (“C-band spectrum up to 4.2 GHz is part of internationally standardized 3GPP band n77, which is the most deployed spectrum range for 5G networks worldwide.”); Comments of Ericsson at 5-6 (discussing international efforts to support mobile deployments in this band).

<sup>16</sup> Comments of AT&T at 7.

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