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July 14, 2022

**VIA ELECTRONIC FILING**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
45 L Street NE  
Washington, DC 20554

Re: Ex Parte Presentation in Expanding Flexible Use of the 12.2-12.7 GHz Band, WT Docket No. 20-443; and Facilitating Shared Use in the 3100-3550 MHz Band, WT Docket No. 19-348

Dear Ms. Dortch:

Pursuant to Section 1.1206 of the Commission's rules, 47 C.F.R. § 1.1206, DISH Network Corporation ("DISH") submits this letter summarizing the following meetings on July 12, 2022:

- A meeting with Chairwoman Jessica Rosenworcel; Umair Javed, Chief Counsel to Chairwoman Rosenworcel; and Ethan Lucarelli, Legal Advisor, Wireless and International to Chairwoman Rosenworcel. Present on behalf of DISH were Charlie Ergen, Chairman; Tom Cullen, Executive Vice President, Corporate Development; Jeff Blum, Executive Vice President, External & Legislative Affairs; Alison Minea, Vice President & Associate General Counsel, Regulatory Affairs; and Hadass Kogan, Director & Senior Counsel, Regulatory Affairs.
- A meeting with Commissioner Brendan Carr and Greg Watson, Policy Advisor to Commissioner Carr. Present on behalf of DISH were Charlie Ergen, Chairman; Tom Cullen, Executive Vice President, Corporate Development; Jeff Blum, Executive Vice President, External & Legislative Affairs; Alison Minea, Vice President & Associate General Counsel, Regulatory Affairs; and Hadass Kogan, Director & Senior Counsel, Regulatory Affairs.
- A meeting with Commissioner Geoffrey Starks and Shiva Goel, Legal Advisor, Wireless and International to Commissioner Starks. Present on behalf of DISH were Charlie Ergen, Chairman; Tom Cullen, Executive Vice President, Corporate Development; Jeff Blum, Executive Vice President, External & Legislative Affairs; Alison Minea, Vice President & Associate General Counsel, Regulatory Affairs; and Hadass Kogan, Director & Senior Counsel, Regulatory Affairs.
- A meeting with Commissioner Nathan Simington; Erin Boone, Chief of Staff and Wireless Advisor to Commissioner Simington; Adam Cassady, Media Advisor to Commissioner Simington (by video conference); Marco Peraza, Wireline Advisor to Commissioner Simington (by video conference); Michael Sweeney, Confidential Assistant (by video conference); and Jackson McNeal, Intern. Present on behalf of DISH were Charlie Ergen, Chairman; Tom Cullen, Executive Vice President, Corporate Development; Jeff Blum, Executive Vice President, External & Legislative Affairs; Alison Minea, Vice President & Associate General Counsel, Regulatory Affairs; and Hadass Kogan, Director & Senior Counsel, Regulatory Affairs.

- A meeting with Joel Taubenblatt, Charles Mathias, Jessica Quinley, Blaise Scinto, Susan Mort (by video conference), Susannah Larson (by video conference), and Thuy Tran of the Wireless Telecommunications Bureau; and Donald Stockdale (by video conference), Patrick Sun, Cher Li (by video conference), and Judith Dempsey (by video conference) of the Office of Economics and Analytics. Present on behalf of DISH were Charlie Ergen, Chairman; Tom Cullen, Executive Vice President, Corporate Development; Jeff Blum, Executive Vice President, External & Legislative Affairs; Alison Minea, Vice President & Associate General Counsel, Regulatory Affairs; Hadass Kogan, Director & Senior Counsel, Regulatory Affairs; William Beckwith, Director & Senior Counsel, Regulatory Affairs; and Courtney Tolerico, Associate Corporate Counsel.

During the meetings, DISH provided an update on the status of its network deployment, consistent with the 5G Buildout Status Report it will file today with the Commission. As DISH previously announced, as of June 14, DISH is offering 5G Broadband Service to over 20 percent of the U.S. population.<sup>1</sup> DISH has achieved this milestone through deployment of a cloud-native, standalone 5G wireless network, consistent with the Open Radio Access Network specifications and 3rd Generation Partnership Project standards. This represents a significant industry first and DISH is the only operator anywhere in the world to deploy this type of wireless network. As DISH continues to deploy and increase coverage with this first-of-its-kind network, it will expand the availability of competitive services offered to both consumer and business customers, increasing competitive pressure on the incumbent carriers. This will benefit American consumers and promote U.S. technology leadership with the rest of the world.

DISH also discussed various proposals to maximize spectrum for 5G deployment, which, if adopted, will spur competition in the U.S. wireless marketplace, including:

**12 GHz.** The 12.2-12.7 GHz band (the “12 GHz band”) represents 500 megahertz of spectrum that is well-suited for terrestrial, two-way 5G use cases, including mobile and fixed, while still protecting satellite operations. DISH discussed the various engineering analyses in the record that demonstrate higher-power terrestrial operations in the 12 GHz band can co-exist with non-geostationary orbit (“NGSO”) satellite systems, including RKF’s May 2022 study<sup>2</sup> demonstrating that 5G deployments would have no effect on 99.85% of NGSO operations in the 12 GHz band.<sup>3</sup>

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<sup>1</sup> See Press Release, DISH Network Corporation, *DISH’s Smart 5G™ Wireless Network is Now Available to Over 20 Percent of the U.S. Population* (June 15, 2022), available at <https://ir.dish.com/news-releases/news-release-details/dishs-smart-5gtm-wireless-network-now-available-over-20-percent>.

<sup>2</sup> See RKF Engineering Solutions, LLC, *The Effect of 5G Deployment on NGSO FSS Downlink Operations in the 12.2-12.7 GHz Band*, attached to Letter from V. Noah Campbell, RS Access, to Marlene Dortch, FCC, WT Docket No. 20-443 (May 19, 2022).

<sup>3</sup> This analysis demonstrates that there is less risk of harmful interference than the already de minimis impact demonstrated in RKF’s 2021 study. In other words, the probability of any harmful interference to NGSO operations is no greater than 0.15%, and the probability of any impact on actual users is likely to be substantially less. *Id.*

DISH also addressed Starlink’s June 2022 submission,<sup>4</sup> which purports to show that its customers will experience interference with 5G operations in the 12 GHz band. Starlink’s latest filing, part of an ongoing misinformation campaign initiated by the company, is both scientifically and logically flawed. It is therefore not surprising that the study does not appear to be authored by any third-party expert engineers. Among other issues, Starlink’s submission:

- Attempts to imply nationwide conclusions based on results it generated from a single partial economic area (“PEA”): Las Vegas, NV. But, its unique topology and morphology makes Las Vegas among the most unfavorable PEAs to analyze for co-existence;
- Assumes an over-deployment of 5G towers that exceeds any realistic network build-out. If the assumptions SpaceX uses in Las Vegas are extrapolated nationwide, it would necessitate the deployment of over 600,000 macro 12 GHz sites across the country; and
- Says that 54 percent of its satellite user terminals in Las Vegas would operate in urban and suburban areas – in stark contrast to its own prior statements that Starlink service is targeted for sparsely populated regions.

Starlink’s misinformation campaign goes even further: they are now falsely telling customers and the public that coexistence is not possible in the band among Starlink and 5G services. Despite these claims, the record demonstrates that the enormous benefits of allowing 5G terrestrial operations in the 12 GHz band can be realized without harmfully interfering with existing operations.

And, it bears repeating that the FCC has authorized 15,000 MHz of *other* spectrum for Starlink service – spectrum, by the way, Starlink did not pay a penny for. The 12 GHz band represents just 3 percent of Starlink’s total spectrum authorization. And, when the FCC authorized Starlink’s use of the 12 GHz band, the grant was explicitly conditioned on the outcome of this very 5G rulemaking. As the Commission explained in 2018: “we condition this grant, subject to any modification necessary to bring it into conformance with future actions in Commission rulemakings, *including but not limited to the 12 GHz proceeding*, which is expressly referenced in the ordering clauses below.”<sup>5</sup> Indeed, the FCC has expressly warned Starlink that if it deploys using the 12 GHz band it “proceeds at its own risk”<sup>6</sup> and that “any investments made toward operations ... assume the risk that operations may be subject to additional conditions or requirements as a result of any future Commission actions.”<sup>7</sup>

Since 1996, DISH has been the primary user of the 12 GHz band to provide service to our satellite TV customers. DISH has no interest in harming its own – or any other – customers, and wants to share the band between satellite and terrestrial operations. Starlink, on the other hand, insists on

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<sup>4</sup> See SpaceX, *SpaceX Analysis of the Effect of Terrestrial Mobile Deployment on NGSO FSS Downlink Operations*, attached to Letter from David B. Goldman, Space Exploration Technologies Corp., to Marlene Dortch, FCC, WT Docket No. 20-443, GN Docket No. 17-183 (June 21, 2022).

<sup>5</sup> Space Exploration Holdings, LLC, Request for Modification of the Authorization for the SpaceX NGSO Satellite System, *Order and Authorization and Order on Reconsideration*, IBFS File No. SAT-MOD-20200417-00037, 36 FCC Rcd 7995, 8025 ¶ 50 (2021) (emphasis added).

<sup>6</sup> *Id.*

<sup>7</sup> Space Exploration Holdings, LLC, Application for Approval for Orbital Deployment and Operating Authority for the SpaceX NGSO Satellite System, *Memorandum Opinion, Order and Authorization*, IBFS File No. SAT-LOA-20161115-00118, 33 FCC Rcd 3391, 3407 ¶ 40r (2018).

sidelining 500 MHz of mid-band spectrum in the 12 GHz band for 5G, an outcome that would greatly disserve the public interest. DISH looks forward to continuing to work with the Commission during its ongoing analysis of the 12 GHz band. An outcome that protects DBS and NGSOs while enabling 5G use of the band would be a win-win-win.

**CBRS.** DISH also reiterated the benefits of raising the maximum authorized power levels in the Citizens Broadband Radio Service (“CBRS”) band, consistent with its previous submissions.<sup>8</sup> Rationalizing the CBRS power levels with adjacent bands will provide carriers and consumers enormous benefits by enabling more efficient use of the spectrum, lowering the costs of deployment, and ensuring that the U.S. has mid-band spectrum allocations that are comparable to the large 5G frequency bands available in most of Europe and the rest of the world. Notably, this can be achieved without harming the fair and dynamic usage of the spectrum for GAA, incumbents and Cat A/B CBSDs. DISH urged the Commission to initiate a rulemaking to enable parties to weigh in on this proposal.

/s/ Jeffrey H. Blum  
Jeffrey H. Blum

cc: Umair Javed  
Greg Watson  
Ethan Lucarelli  
Shiva Goel  
Erin Boone  
Adam Cassady  
Marco Peraza  
Michael Sweeney  
Jackson McNeal  
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Charles Mathias  
Jessica Quinley  
Blaise Scinto  
Donald Stockdale  
Susan Mort  
Susannah Larson  
Thuy Tran  
Patrick Sun  
Cher Li  
Judith Dempsey

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<sup>8</sup> See Letter from Jeffrey H. Blum, DISH, to Marlene H. Dortch, FCC, WT Docket No. 19-348 (Mar. 5, 2021); see also Letter from Jeffrey H. Blum, DISH, to Marlene H. Dortch, FCC, WT Docket No. 19-348 (Mar. 31, 2021); Letter from Jeffrey H. Blum, DISH, to Marlene H. Dortch, FCC, WT Docket Nos. 20-443 and 19-348 (May 9, 2022).