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EX PARTE PRESENTATION

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Expanding Flexible Use of the 3.7 to 4.2 GHz Band, WT Docket No. 18-122

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 to provide input on enabling new 5G terrestrial use of the 3.7-4.2 GHz band (C-band).

Through this proceeding, the Commission has the opportunity to clear hundreds of megahertz of mid-band spectrum for 5G, while protecting or accommodating the content delivery services currently provided by C-band satellite services. Given the well-documented growth in demand for wireless communications, DISH agrees with many others in the record calling for new, exclusively-licensed mid-band 5G terrestrial spectrum. Key wireless industry stakeholders agree that the C-band should be reallocated as soon as possible, so that the band may be included in long-term 5G planning for the United States.¹

In making the repurposed C-band spectrum available for new uses, DISH supports an FCC-run public auction, which will offer all wireless industry players the chance to access mid-band spectrum. To the extent any C-band spectrum is retained for legacy satellite services, the Commission should limit it to services that cannot be served by other methods. DISH believes, however, that viable alternatives exist, including fiber and other satellite spectrum such as the 12 GHz frequencies used by Direct Broadcast Satellite (DBS). Rather than a piecemeal approach, the Commission should establish a complete roadmap to repurpose the maximum possible amount of C-band spectrum and adhere to those timelines going forward.

¹ See, e.g., CTIA Comments, AT&T Comments, T-Mobile Comments, WT Docket No. 18-122 (filed Oct. 29, 2018); see also Nokia Comments, Ericsson Comments, and Qualcomm Comments, WT Docket No. 18-122 (filed Oct. 29, 2018); and Letter from ACA Connects – America's Communications Association, Competitive Carriers Association, and Charter Communications, Inc., WT Docket No. 18-122 (filed Jul. 2, 2019).

- **The FCC Should Auction Reclaimed C-Band Spectrum Using a Transparent, Public Auction**

Mid-band spectrum is a crucial input for American leadership in 5G, and the C-band frequencies represent an important opportunity for wireless competitors of all sizes to obtain spectrum to support their business plans. For this reason, the Commission should make this spectrum available in a transparent, public auction using time-tested procedures that have been used successfully in previous auctions. As a substantial number of other stakeholders have explained, a public process is superior to a private sale to ensure that spectrum serves its highest and best use.² Also, any arguments that a private sale is necessary to speed the spectrum to market are overstated. Even if a private sale arguably could commence faster than a public auction, the Commission should consider that substantial standards planning work will need to be completed to put the spectrum to use, including 3GPP standardization. This work could be conducted in parallel while the Commission establishes procedures for a public auction.

A public auction will also increase participation by a wide variety of wireless stakeholders, which will maximize funds raised for the U.S. Treasury.³ DISH is interested in potentially participating to acquire C-band spectrum for its own planned 5G network. At the same time, DISH supports fair compensation for C-band incumbents who vacate the band. DISH agrees with commenters that support an incentive auction format as one possible solution. An incentive auction potentially could result in the full 500 megahertz of the C-band being made subject to auction.⁴

² See, e.g., Letter From Ross Lieberman, ACA Connects; Elizabeth Andron, Charter Communications, Inc.; and Alexi Maltas, Competitive Carriers Association to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-122 (filed July 2, 2019) (“5G Plus Plan”); Letter From Brian Hurley, ACA Connects, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-122 (filed Sept. 25, 2019) (“Supplement to 5G Plus Plan”); Comments of Frontier and Windstream, WT Docket No. 18-112, at 3 (filed Aug. 7, 2019) (“Frontier and Windstream also strongly support a public process associated with the spectrum and a continued focus on enabling rural fixed wireless use cases. All major U.S. spectrum policy decisions to date have been made through a public process, and a private sale risks thwarting the public interest and failing to ensure this spectrum achieves its highest and best use.”); Comments of NTCA—The Rural Broadband Association, WT Docket No. 18-112, at 4 (filed Aug. 7, 2019) (“NTCA supports a Commission-led auction . . . The Commission has utilized this approach for decades to successfully repurpose a wide array of spectrum bands. This process is fair, open, and transparent, and ensures that decisions about this critical public resource are made according to public interest considerations and constraints.”).

³ See T-Mobile Comments at 13 (“The ACA Connects Coalition proposes awarding C-band spectrum through either a conventional or incentive auction that is open to all bidders. T-Mobile supports this approach, and commenters agree that a Commission-led process is preferable to a secret transaction that directs all financial gains to satellite companies, as the CBA proposes.”)

⁴ Comments of T-Mobile USA, Inc., WT Docket No. 18-122, at 5 (filed August 7, 2019) (“T-Mobile . . . has favored an incentive auction that provides the potential to make the full 500 megahertz of C-band spectrum available for terrestrial use in some or all areas based on market demand.”)

- **C-Band Incumbent Protection Rules Should Not Hinder 5G Deployments**

If some incumbent satellite services remain on a repacked portion of the C-band, the Commission should adopt reasonable and balanced interference rules. Like AT&T, T-Mobile and others, DISH believes that interference protections for any incumbent services must be balanced to allow innovative 5G services to make full and efficient use of the repurposed spectrum. The C-band Alliance's (CBA's) proposed in-band and out-of-band limits appear to be unnecessarily strict, and could thwart the Commission's goal of leading the race to 5G by unleashing additional mid-band spectrum. As CTIA observes, the CBA's proposed incumbent protections are "overly conservative and appl[y] multiple worst-case scenarios that would result in overly restrictive technical rules hindering the deployment of 5G."⁵ T-Mobile similarly argues that the Commission should not rely on the CBA's proposed in-band and out-of-band protection thresholds, because they could "[force] 5G deployment to significantly deviate from natural, organic network architecture growth plans."⁶ Qualcomm notes that the CBA's proposed rules would "require mammoth reductions in mobile transmit power levels and cripple 5G in this band."⁷ DISH agrees that the Commission should seek to optimize use of the band for 5G, and should collect detailed engineering input to ensure that incumbent protections are no more restrictive than necessary.

- **DISH Agrees There Are Several Viable Alternative Solutions to Replace C-Band Incumbent Services**

Like many other commenters, DISH urges the Commission to look to alternative platforms that could replace existing C-band services. By transitioning to fiber and other alternative transmission mechanisms, the Commission can free up as much of the 500 MHz of C-band spectrum as possible. Any necessary continued satellite use of the C-band could be repacked to make more efficient use of the entire band.

Fiber in particular can offer a reliable, high capacity alternative for the content delivery services that the C-band supports today. As T-Mobile notes, "substantial fiber runs are already available in both urban and rural areas."⁸ Fiber is already used for substantial programming connectivity. For example, DISH relies on fiber throughout the United States to backhaul some TV broadcast station signals from their local markets back to DISH's satellite uplink facilities. For this reason, there is no compelling policy or technical reason to retain the C-band as a long-term solution for content delivery, especially given that the C-band spectrum is being globally harmonized for wireless 5G technology.⁹ The 5G Plus Plan contains proposals for "a fiber

⁵ Comments of CTIA, WT Docket No. 18-112, at 8 (filed Aug. 7, 2019)

⁶ T-Mobile Comments at 15.

⁷ Comments of Qualcomm, Inc., WT Docket No. 18-122, at 2 (filed Aug. 7, 2019).

⁸ T-Mobile Comments at 7.

⁹ See Mason, Final Report for CTIA, *Global Race to 5G – Update*, April 2019, at pp. 31-33, *Figure 4.10 Upcoming mobile spectrum allocations in the mid band*, available at

network for delivery of multichannel video that matches or exceeds the reliability, capacity and quality provided today via the C-band.”¹⁰ DISH agrees that fiber should be looked to as “a solution to help transition existing C-band traffic to facilitate repacking where feasible, in addition to other means of freeing up spectrum, including repacking existing satellite users and modernizing outdated and inefficient equipment.”¹¹

DISH also recognizes that fiber may not always be the most efficient option in all circumstances, and that stakeholders should retain flexibility to choose the best technology for their needs.¹² There may be areas of the country, such as Alaska,¹³ where fiber is not yet deployed in sufficient density to replace the capacity offered by the C-band, at least in the near term.¹⁴ For this reason, the Commission should look to a diverse array of options to ensure incumbent services are supported. For example, the spectrum at 12.2-12.7 GHz (the downlink allocation for Direct Broadcast Satellite) and the related DBS infrastructure already in place could provide capacity, and DISH would welcome discussions to consider this option. And, as T-Mobile noted, certain non-MVPD narrowband services could be supported by several alternate means, including Ku-band, Ka-band, and/or the 3.5 GHz band.¹⁵

- **The Commission Should Avoid Piecemeal Plans to Repurpose the C-Band in Favor of a Holistic, Long-Term Solution**

DISH agrees with commenters that the FCC should take a holistic and long-term approach in repurposing the C-band for 5G wireless services. The FCC should map out a complete strategy to maximize the amount of C-band spectrum reallocated for 5G, without agreeing to costly interim steps that would be difficult to walk back and could reduce the Commission’s flexibility to find the most efficient outcome. The CBA’s members have suggested constructing new satellites to support one possible repurposing/repacking scenario.¹⁶ It would not be efficient, however, for the incumbent satellite operators to construct new satellites to support a partial repacking and reallocation of the C-band, especially when there

<https://ecfsapi.fcc.gov/file/1040331077123/Analysis%20Mason%20-%20Global%20Race%20to%205G%20Update.pdf>.

¹⁰ Supplement to 5G Plus Plan at 1.

¹¹ CTIA Comments at 7.

¹² AT&T Comments at 5 (“Ultimately, a reallocation framework must be broad enough that all impacted stakeholders retain control of their technology choices.”)

¹³ See Comments of Alaska Communications Internet, LLC, WT Docket No. 18-122, at 3 (filed Aug. 7, 2019).

¹⁴ See, e.g., Comments of the Content Companies (CBS Corporation, Discovery, Inc., FOX Corporation, The Walt Disney Company, Univision Communications Inc., and Viacom Inc), WT Docket No. 18-122, at 2-3; 5-6 (filed Aug. 7, 2019).

¹⁵ T-Mobile Comments at 9.

¹⁶ See C-band Alliance, Ex Parte Presentation, WT Docket No. 18-122 (filed Apr. 9, 2019), at Attachment “Transition Implementation Process,” Section III.A (“Under the CBA’s proposal, eight new satellites will be required to clear spectrum for 5G operations while protecting incumbent users.”)

remains a variety of views in the record about how much spectrum could be repurposed and how to distribute it. DISH agrees with AT&T that “the Commission should determine how much spectrum can be reallocated—and the timetable for that spectrum to be put into use—and strictly adhere to those deadlines instead of deferring a portion of the band to a later rulemaking proceeding. When spectrum in a band is metered out in dribs and drabs, it creates standards-setting problems and therefore raises the potential for interoperability issues down the road.”¹⁷

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DISH appreciates the Commission’s focus on placing mid-band spectrum in the pipeline, which will help to advance U.S. leadership in 5G.

/s/ Jeffrey H. Blum

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¹⁷ AT&T Comments at 9-10.