



Thomas A. Schatz
President

October 22, 2020

VIA ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
45 L Street, N.E.
Washington, D.C. 20554

Re: *Ex Parté* Communication: Multichannel Video Distribution and Data Service (MVDDS) 5G Coalition Petition for Rulemaking to Permit MVDDS Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service, RM-11768

Dear Ms. Dortch,

Citizens Against Government Waste (CAGW) is a private, nonprofit, nonpartisan organization dedicated to educating the American public about waste, fraud, abuse, mismanagement, and inefficiency in government. On behalf of the more than 1.2 million members and supporters of CAGW, I offer the following *ex parte* comments in support of CAGW's opposition to the petition from the Multichannel Video Distribution and Data Service (MVDDS) 5G Coalition requesting use of the 12.2-12.7 GHz band (or "Ku Band") for two-way mobile broadband service (RM-11768).

The FCC has made great strides in bridging the digital divide in rural areas of the country, yet there are still millions of Americans without broadband access. While wireline and wireless broadband solutions may reach some of these unserved households, areas where the terrain is exceptionally remote, like mountainous regions, must rely on other methods to receive broadband access, including the use of satellite services. CAGW has long advocated the deployment of broadband services using an "all-of-the-above" approach to reach unserved and underserved populations across the country. But, granting the petition will not only fail to expand deployment of broadband since 12 GHz is not suitable for 5G, it will also interfere with existing use of the spectrum.

On April 26, 2016, 11 MVDDS licensees (the MVDDS 5G Coalition), including DISH and smaller telecommunications providers like Braunston Spectrum LLC, MDS Operations, and Cass Cable TV Inc., filed a petition with the FCC requesting the initiation of a rulemaking proceeding designed to permit them to use their licenses in the 12.2-12.7 GHz spectrum for two-way mobile broadband services, arguing that the "500 MHz of contiguous spectrum is ideally suited for 5G deployments."¹ The spectrum licenses were auctioned by the FCC in 2004. However, according to a

¹ Petition for Rulemaking to Permit MVDDS Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Services, RM-11768, Federal Communications Commission, April 26, 2016, <https://ecfsapi.fcc.gov/file/60001692292.pdf>.

December 4, 2019 *Bloomberg Law* article, the companies that won the auction admit that because of the non-interference requirements of their spectrum licenses, “they could never use them effectively.”²

MVDDS providers are authorized by the FCC to use the 12 GHz band on a co-primary basis with non-geostationary satellite orbit (NGSO) fixed-satellite service (FSS) stations and Direct Broadcast Service (DBS) providers. They are licensed based on geographic area according to Nielson’s Designated Market Areas (DMAs) and four FCC-defined areas.³ With these licenses come mandatory build out requirements which demonstrate an expected level of service to be provided within a set amount of time, typically a period of 10 years for licenses issued within the Ku-band, with the potential for an extension of time if the MVDDS has shown a good faith effort toward buildout. In an October 29, 2018 order denying a separate request made by three MVDDS companies, MDS Operations (20 requests on April 6, 2016); Braunston Spectrum LLC (one request on April 7, 2016); and Montana Internet Corporation (one request on April 12, 2016) for a “waiver and extension of the 10-year, final construction requirement,” the FCC noted, “the waiver standard must be applied in light of Section 309(j) of the Communications Act, which provides that the Commission shall include performance requirements to ensure intensive use of valuable spectrum and to prevent the stockpiling and warehousing of spectrum by licensees.”⁴

Opposing comments to the MVDDS 5G Coalition petition were filed on June 8, 2016 by AT&T, which provides DBS services to consumers through its DirecTV satellite services.⁵ The company stated that expansion of the MVDDS licenses to two-way terrestrial communications would harm existing services for DBS providers. The comments noted, “the spectrum at issue is not simply lying fallow, and though the Petitioners characterize it as underutilized, it is in fact being extensively utilized by DBS providers for direct to home video services to tens of millions of ubiquitously deployed satellite receivers, and “there must be some showing that appropriate interference protections could be provided for DBS from a mobile, two-way service in the 12 GHz band.”⁶

The FCC must also evaluate the MVDDS petition in light of the rapid and extensive expansion of NGSO networks, which offer the opportunity to provide high-speed broadband internet to rural and remote users and will help bridge the digital divide. On November 15, 2017, the FCC approved an application filed by SpaceX to use the 12 GHz band for NGSO FSS licenses and licensed several low earth orbit (LEO) NGSO satellite constellations within this band.⁷ Since then, more than 800 satellites have been deployed, including 60 new satellites launched on October 18, 2020, that will be used to

² Jon Reid, “Dish, RS Access Wage Quiet Bid to Shift Airwaves Licenses for 5G,” *Bloomberg Law*, December 4, 2019, <https://news.bloomberglaw.com/tech-and-telecom-law/dish-rs-access-wage-quiet-bid-to-shift-airwaves-licenses-for-5g>.

³ Order, In the Matter of Requests of Three Licensees of 22 Licenses in the Multichannel Video and Data Distribution Service for Extension of Time to Meet the Final Buildout Requirement for Providing Substantial Service under Section 101.1413 of the Commission’s Rules, File Nos. 0007219617-0007219636 0007221703, 0007226755, Federal Communications Commission, October 29, 2018, <https://docs.fcc.gov/public/attachments/DA-18-1109A1.pdf>.

⁴ *Ibid.*

⁵ Statement of AT&T Opposing Petition for Rulemaking, In the Matter of MVDDS 5G Coalition Petition for Rulemaking to Permit MVDDS Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service, RM-11768, June 8, 2016, <https://ecfsapi.fcc.gov/file/60002098815.pdf>.

⁶ *Ibid.*

⁷ In the Matter of Space Exploration Holdings, LLC; Application for Approval of Orbital Deployment and Operating Authority for the SpaceX V-band NGSO Satellite System, IBFS File No. SAT-LOA-20170301-00027, Call Sign S2992, Federal Communications Commission, November 15, 2017, <https://docs.fcc.gov/public/attachments/FCC-18-161A1.pdf>.

connect Americans to the internet using the 12 GHz band.⁸ On March 12, 2020, the FCC authorized one million user terminals using the 12 GHz band, which will further enable satellite broadband services to these remote areas.⁹ This new generation of satellites uses innovative technology, which unlike prior generations of satellite broadband services, will cover the nation with low-latency (25 milliseconds to 35 milliseconds) and high-speed broadband services, including gigabit speeds for a wide range of uses.¹⁰ Granting the petition would undermine the purpose of the FCC’s approval of the NGSO FSS licenses and could create serious regulatory and legal issues related to the investment made by the companies that launched these satellites.

On May 26, 2020, a letter from a coalition of public interest groups was sent to the FCC supporting the 2016 MVDDS 5G Coalition petition, asserting that the 12 GHz spectrum is critical for 5G deployment. But this letter ignores the long-established and widespread international agreement that low-band, mid-band, and millimeter wave spectrum frequencies are the most optimal spectrum for 5G. Low-band spectrum is below 1 GHz, mid-band spectrum is between 1 GHz and 6 GHz, and millimeter wave spectrum is located above the 24 GHz band. Mid-band spectrum, is considered prime spectrum for widespread 5G deployment.¹¹

The suggestion that the 12 GHz band should be considered mid-band spectrum that could be used for 5G deployment is absurd and should be clearly rejected by the FCC. Given the international standards being developed using true low-band, mid-band, and millimeter wave spectrum bands for 5G, the use of the 12 GHz band for 5G deployment would be an outlier internationally and create issues with harmonizing standards around the world.¹² Additional time would be needed to deploy the equipment needed to use this band. While there are no federal encumbrances in the 12 GHz band, the incumbent NGSO and DBS satellite users of the band continue to deploy satellites to increase communications capabilities, and these services would be harmed by the expanded MVDDS use to two-way communications.

The European Space Agency (ESA) noted there are several spectrum bands assigned for satellite use with unique qualities that limit cross use at different levels. The ESA has designated these frequencies to include the L-band (1-2 GHz), which is used for global positioning systems and satellite mobile phones, including those providing communications for air, land and sea; the S-band (2-4 GHz) which is used for radar, surface ship radar, and some communications satellites including those used to communicate with the International Space Station; the C-band (4-8 GHz), which is used for satellite communications, full-time satellite TV networks, or raw satellite feeds; the X-band (8-12 GHz) primarily used for military applications; the Ku-band (12-18 GHz) used for satellite communications and direct broadcast satellite services, like DirecTV and DISH networks; and, the Ka-band (26-40

⁸ Amy Thompson, “SpaceX just launched 60 new Starlink internet satellites and nailed rocket landing at sea,” *Space.com*, October 18, 2020, <https://www.space.com/spacex-starlink-satellites-launch-rocket-landing-oct-18-2020>.

⁹ Federal Communications Commission, Public Notice, Report No. SES-02250, Satellite Communications Services Information re: Actions Taken, March 18, 2020, <https://docs.fcc.gov/public/attachments/DOC-363127A1.pdf>.

¹⁰ Jurica Dujomovic, “Here’s the technology behind SpaceX’s plan for fast internet service,” *MarketWatch*, May 25, 2019, <https://www.marketwatch.com/story/heres-the-technology-behind-spacexs-plan-for-fast-internet-service-2019-05-24>.

¹¹ “5G Spectrum: GSMA Public Policy Position,” GSMA, March 2020, <https://www.gsma.com/spectrum/wp-content/uploads/2020/03/5G-Spectrum-Positions.pdf>.

¹² “5G – Fifth generation of mobile technologies,” International Telecommunications Union, December 2019, <https://www.itu.int/en/mediacentre/backgrounders/Pages/5G-fifth-generation-of-mobile-technologies.aspx>.

GHz), which is also used for military applications.¹³ Because there are no 5G technology standards being considered for the 12 GHz band, receiving new International Telecommunications Union (ITU) allocations for global 5G access could take a decade.

While some in the record have suggested auctioning the spectrum in this band under a new allocation, such a proceeding would further delay deployment of the suggested use of technologies found in the MVDDS 5G petition like fixed broadband, mobile and internet of things devices.¹⁴

Leveraging the developments in satellite communications that have occurred in the U.S. NGSO marketplace since 2018, broadband services for rural and remote citizens will soon be greatly expanded.¹⁵ Broadband deployment in areas where 5G deployment is difficult to achieve either due to terrain or other obstacles would be significantly and negatively impacted if the MVDDS 5G coalition petition is adopted.¹⁶

While it is important for 5G networks to be built and rural communities to gain increased access to the internet, creating harmful interference with existing and new satellite networks deployed in spectrum that is not optimal or harmonized internationally for 5G purposes is not in the public interest. For these reasons, CAGW strongly urges the FCC to deny the April 26, 2016 petition request of the MVDDS 5G Coalition.

Sincerely,



Thomas A. Schatz

¹³ Satellite Frequency Bands, The European Space Agency,

https://www.esa.int/Applications/Telecommunications_Integrated_Applications/Satellite_frequency_bands.

¹⁴ See T-Mobile Comments on “Petition for Rulemaking to Permit MVDDS Use of 12.2-12.6 GHz Band for Two-Way Mobile Broadband Service,” June 8, 2016, <https://ecfsapi.fcc.gov/file/60002102519.pdf>; AT&T Comments on “Petition for Rulemaking to Permit MVDDS Use of 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service,” August 6, 2020, <https://ecfsapi.fcc.gov/file/108062359830185/200806%20FOR%20FILING%20Ex%20Parte%20RM-11768.pdf>.

¹⁵ Michael Sheetz, “Washington emergency responders first to use SpaceX’s Starlink internet in the field: ‘It’s amazing,’” CNBC, September 29, 2020, <https://www.cnbc.com/2020/09/29/washington-emergency-responders-use-spacex-starlink-satellite-internet.html>.

¹⁶ See TechFreedom Comments on “Petition for Rulemaking to Permit MVDDS Use of 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service,” October 8, 2020, <https://techfreedom.org/wp-content/uploads/2020/10/TFCComments-12-GHz-MVDDS.pdf>.