

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Inquiry Concerning Deployment of Advanced)	GN Docket No. 19-285
Telecommunications Capability to All Americans)	
in a Reasonable and Timely Fashion)	
)	
To: The Commission		

COMMENTS OF HUGHES NETWORK SYSTEMS, LLC

Hughes Network Systems, LLC (“Hughes”) submits these comments in response to the Commission’s Notice of Inquiry seeking comment on annual assessment of whether advanced telecommunications capabilities are being deployed to all Americans in a reasonably and timely manner.¹

As discussed in more detail below, the Fifteenth Report should conclude that they are, recognizing the importance of satellite broadband in achieving this goal, particularly to rural, remote, hard-to-reach, and other underserved and unserved areas of the country as well as to areas affected by natural and man-made disasters.

Advanced telecommunications capabilities are being deployed to all Americans in a reasonable and timely fashion, and satellite broadband providers, including Hughes, play a significant role in this. The Section 706 report should reflect this by not excluding information about satellite broadband coverage from the text and tables of the report.

¹ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, Fifteenth Broadband Deployment Report Notice of Inquiry, FCC 19-102 (rel. Oct. 23, 2019) (“NOI”).

Hughes is the largest provider of satellite broadband services in the United States and around the world, with more than 1.4 million subscribers across North and South America and more than 1.2 million in the United States. Hughes operates three geostationary orbit (“GSO”) Ka-band satellites networks over the United States to provide ubiquitous broadband coverage of the continental United States, southeastern Alaska, Puerto Rico, and the U.S. Virgin Islands at Commission-defined speeds of 25/3 megabits per second (“Mbps”) and above.²

Hughes is also deploying new infrastructure in order to provide greater speeds and capacity. Specifically, Hughes is currently constructing its next-generation, Commission-licensed, ultra-high-density satellite, EchoStar XXIV (also known as Jupiter 3), which will provide service in the Americas at speeds of 100 Mbps or more.³ Jupiter 3 is expected to launch and begin commercial service in 2021.⁴

In addition, Hughes is partnering with WorldVu Satellites Limited d/b/a OneWeb to facilitate high-speed, low-latency broadband connectivity to regions of the United States where it is often economically or physically infeasible for terrestrial networks to build out. Hughes has invested \$50 million in OneWeb and Hughes is providing the ground system, including gateways and user terminals, for OneWeb’s global low earth orbit (“LEO”) satellite constellation, and

² EchoStar Corp., Annual Report (Form 10-K) 4 (Feb. 21, 2019), available at <https://www.sec.gov/ix?doc=/Archives/edgar/data/1415404/000141540419000003/sats12311810kdocument.htm>.

³ Press Release, *Hughes Selects Space Systems Loral to Build Next-Generation Ultra High Density Satellite* HUGHES, (Aug. 9, 2017), available at <https://www.echostar.com/Press/Newsandmedia/Hughes%20Selects%20Space%20Systems%20Loral%20To%20Build%20Next-Generation%20Ultra%20High%20Density%20Satellite.aspx>.

⁴ *Id.*

began shipping this equipment in spring 2018.⁵ OneWeb’s mission is to enable affordable Internet access to everyone, even in the most remote regions of the globe.⁶

Satellite broadband, and HughesNet Gen5 in particular, has played an important role in U.S. disaster relief efforts. Indeed, satellite broadband has proven to be “the only reliable communications system” in the aftermath of many natural disasters.⁷ As was the case following the Hurricane Michael’s devastation of Florida and Georgia in late 2018, for example, following Hurricane Dorian’s devastation of the Bahamas, Hughes has provided satellite services through the use of its EchoStar IX satellite throughout the country keeping citizens and commerce connected.⁸ Hughes continues to provide service while the country repairs.⁹ Hughes’s efforts and ability to respond quickly to emergency and disasters has been recognized by federal agencies.¹⁰

⁵ See “Hughes Ships First Gateways for the Ground Network to Support OneWeb’s Low Earth Orbit Constellation” (March 13, 2018), <https://www.hughes.com/resources/press-releases/hughes-ships-first-gateways-ground-network-support-onewebs-low-earth-orbit>.

⁶ See OneWeb, “Our Mission,” <https://oneweb.world/our-mission>.

⁷ Comments of Liga de Cooperativas de Puerto Rico, WC Dkt. No. 18-143 *et al.* at 1 (Jul. 2, 2018); see also *The Uniendo a Puerto Rico Fund and the Connect USVI Fund*, Report and Order and Order on Reconsideration, FCC 19-95, at ¶ 46 (rel. Sept. 30, 2019) (“We agree with numerous commenters that allowing inclusion of satellite providers is particularly valuable in the context of Puerto Rico and the U.S. Virgin Islands due to satellite’s resilience and availability post-hurricanes.”).

⁸ See 30-day STA Authorization to Extend Service to the Bahamas for Emergency Operations, File No. SAT-STA-20190906-00088 (granted Sept. 13, 2019).

⁹ See 60-day STA Authorization to Extend Service to the Bahamas for Emergency Operations, File No. SAT-STA-20190925-00101 (granted Nov. 14, 2019).

¹⁰ See Press Release, “Hughes Selected by NAVAIR to Support U.S. Coast Guard Airborne Communications for ISR, Humanitarian Aid and Disaster Relief Missions,” (Nov. 5, 2018), available at <http://ir.echostar.com/news-releases/news-release-details/hughes-selected-navair-support-us-coast-guard-airborne>. See also Press Release, “Department of Homeland Security Selects Hughes for Tactical Satellite Communications Under New TacCom II Contract” (Sept.

Hughes is thus an important part of the American broadband market, providing speeds of 25/3 Mbps over most of the continental U.S. and evolving towards higher speeds with the deployment of new infrastructure. As a result, satellite broadband and Hughes's service must be a part of the Commission's assessment of whether the deployment of advanced telecommunications capability is reasonable and timely.

In the NOI the Commission proposes to limit the information in the primary text and tables to terrestrial services, as it has in past reports, providing the complete information about fixed services availability, including satellite broadband, only in an appendix.¹¹ Hughes believes that this provides an incomplete picture of the broadband marketplace and the advancements it has achieved.

The Commission justifies this approach on the basis that, "while satellite signal coverage may enable operators to offer services to wide swaths of the country, overall satellite capacity may limit both the speed of service and the number of consumers that can actually subscribe to satellite service at any one time."¹² It is not clear, however, that this is relevant to the Commission's Section 706 inquiry. In designing their networks to reflect reasonable assumptions about network loading, satellite broadband providers are no different from terrestrial network providers. For example, in the Commission's Digital Opportunity Data Collection proceeding, the Commission has proposed using network loading factors of 30 percent to

17, 2019), available at <http://ir.echostar.com/news-releases/news-release-details/departments-homeland-security-selects-hughes-tactical-satellite>.

¹¹ NOI at ¶ 19.

¹² *Id.*

determine mobile broadband network coverage contours.¹³ Similarly, fixed broadband networks are engineered to meet varying quality-of-service levels depending upon decisions made by the provider about peak network demand.¹⁴

The analysis mandated under Section 706 focuses on whether broadband service is being deployed in a “reasonable and timely” fashion¹⁵ – i.e., to meet demand. Satellite broadband providers are doing so. The Commission’s Section 706 report should reflect this. This is not to say that the Commission may not provide the information in the text and the tables of the report both with and without satellite broadband providers’ data. The point is simply that satellite broadband providers’ information should not be relegated to an appendix.

Advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion. Satellite broadband plays a significant role in this success, and the Commission’s Section 706 report should reflect this appropriately. Conclusion

The Commission should find that the deployment of advanced telecommunications capability is reasonable and timely. In view of the importance of satellite broadband in the deployment of advanced telecommunications capability to rural, remote, and underserved areas,

¹³ *Establishing the Digital Opportunity Data Collection, et al.*, Report and Order and Second Further Notice of Proposed Rulemaking, 34 FCC Rcd 7505, 7551 ¶ 116 (2019).

¹⁴ See, e.g., John Ulm and Tom Cloonan, “Traffic Engineering in a Fiber Deep Gigabit World,” NCTA/CableLabs 2017 Fall Technical Forum, at 21 (2017) (discussing different network assumptions that can be made in a DOCSIS network depending on the desired quality of service), available at <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&cad=rja&uact=8&ved=2ahUKEwjx1KStx87kAhVH11kKHTGXBlcQFjAJegQIBRAC&url=https%3A%2F%2Fwww.nctatechnicalpapers.com%2FPaper%2F2017%2F2017-traffic-engineering-in-a-fiber-deep-gigabit-world%2Fdownload&usg=AOvVaw1Lb-DwJXvyvFINawjy8eX1>.

¹⁵ 47 U.S.C. § 1302.

and in response to disasters, the Commission should continue to include satellite broadband in its broadband deployment analysis and meaningfully evaluate satellite broadband deployment data.

Respectfully submitted,

By: _____/s/_____

Jennifer A. Manner
Senior Vice President, Regulatory Affairs
HUGHES NETWORK SYSTEMS, LLC
11717 Exploration Lane
Germantown, MD 20876
(301) 428-5893

November 22, 2019