December 27, 2017

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Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: *Hughes Network Systems, LLC, Application for Authority to Launch and Operate a Ka-band and Q/V-band Geostationary Fixed-Satellite Service Satellite at the Nominal 95° W.L. Orbital Location, File Nos. SAT-LOA-20170621-00092; SAT-AMD-20170908-00128*

Dear Ms. Dortch:

Hughes Network Systems, LLC ("Hughes") files this *ex parte* letter to respond to The Boeing Company's ("Boeing") reply regarding the above-captioned application ("Application").[1] Hughes is seeking Federal Communications Commission ("Commission") authority to launch and operate a geostationary satellite orbit ("GSO") satellite ("HNS 95W") operating in the Ka- and Q/V-band fixed-satellite service ("FSS") to substantially increase commercially available broadband capacity across the United States. HNS 95W will provide broadband at speeds of at least 100 Mbps, significantly in excess of current FCC-defined broadband speeds, and provide support for next-generation communications services such as 5G, machine-to-machine, and the Internet of Things. Nothing Boeing raised in its reply gives the Commission a reason to delay a grant of the Application. Therefore, Hughes urges the Commission to expeditiously grant the pending Application.

Despite Boeing's argument to the contrary,[2] the Commission has no stated policy or rule that requires dismissal of an application for NGSO-like operation if filed after the Commission has granted an application for GSO-like operation, or vice versa, in frequency bands where no satellite service rules have been adopted. In fact, in September 2017, the Commission eliminated its prior policy, and corresponding rule in Section 25.156(d)(5) which had stated that the

[1] *See* Reply of The Boeing Company, IBFS File Nos. SAT-LOA-20170621-00092; SAT-AMD-20170908-00128 (filed Dec. 8, 2017) ("Boeing Reply").

[2] *Id.* at 2.

Commission will not *consider* such applications until sharing criteria are established.[3] The Commission has established a new policy which requires NGSO systems to protect GSO networks based upon a finding that "both GSO networks and NGSO FSS systems can operate using the same frequencies if NGSO systems are required to protect GSO networks."[4] The Commission found that without this requirement, GSO networks "may be precluded entirely."[5] This new policy is consistent with similar provisions under the International Telecommunication Union's ("ITU") Radio Regulations ("RR") and was supported by the majority of parties in NGSO proceeding.[6] Boeing incorrectly argues that the Commission's prior policy is still in effect, and again "neglects to mention that the policy was adopted to implement Section 25.156(d)(5) and is no longer required following elimination of the rule."[7] Consequently, Hughes' application is not subject to dismissal and the pending NGSO applications in the Q/V-band are subject to a Commission policy and the ITU RRs requiring them to protect GSO operations.[8]

Furthermore, contrary to Boeing's claim, Hughes did explain why the Commission should reject Boeing's request for equal treatment of pending applications for GSO and NGSO FSS systems in the Q/V-band.[9] In its reply, Hughes cited the *NGSO Order* which provides that NGSO and GSO operators can exist in a band in which sharing criteria has not been adopted *if* GSO networks are protected by NGSO systems.[10] Boeing's request for equal treatment is

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[3] *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Further Notice of Proposed Rulemaking, FCC 17-122, at ¶ 39 (rel. Sept. 27, 2017) ("*NGSO Order*").

[4] *Id.* Pursuant to this policy change, the Commission chose to eliminate Section 25.156(d)(5) and the codification of the policy adopted in 2003. The Federal Register Summary for the *NGSO Order* has been released and several new rules, including the elimination of Section 25.156(d)(5), should become effective on January 17, 2018. *Updates Concerning Non-Geostationary, Fixed Satellite Service Systems and Related Matters*, 89 FR 59972-87 (Dec. 18, 2017) ("*NGSO Order FR Summary*").

[5] *NGSO Order* at ¶ 39.

[6] *Id.*

[7] Response of Hughes Network Systems, IBFS File Nos. SAT-LOA-20170621-00092; SAT-AMD-20170908-00128, at 2-3 (filed Nov. 28, 2017) ("Hughes Response"). The policy that Boeing refers to was adopted in 2003 to implement Section 25.156(d)(5). *See Amendment of the Commission Space Station Licensing Rules and Policies*, First Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10760, ¶ 58 (2003).

[8] In any event, if the Commission finds that the policy behind Section 25.156(d)(5) is still applicable, the Commission has waived the prior policy and corresponding rule section in the past. *See Application of Virtual Geosatellite, LLC, for Authority to Launch and Operate a Global Fixed-Satellite Service System Employing Non-Geostationary Satellites in Sub-Geosynchronous Elliptical Orbits*, Order and Authorization, 21 FCC Rcd 14687, 14703, ¶ 52 (IB 2006) (waiving section 25.156(d)(5) to permit NGSO-like operation in the 3700-4200 MHz and 5925-6725 MHz bands, which are used by GSO-like systems).

[9] Boeing Reply at 2.

[10] Hughes Response at 2, *citing NGSO Order* at ¶ 39. In the *NGSO Order*, the Commission adopted section 47 C.F.R. § 25.289 which states that "an NGSO system licensee must not cause unacceptable interference to, or claim protection from, a GSO FSS or GSO BSS network. An NGSO FSS licensee operating in compliance with the applicable equivalent power flux-density limits in Article 22, Section II of the ITU Radio Regulations … will be considered as having fulfilled this obligation with respect to any GSO network." *Id.*, Appendix A. This rule should become effective on January 17, 2018. *See NGSO Order FR Summary*.

contrary to both the ITU RRs and Commission's findings in the *NGSO Order* and completely ignores the Commission's and ITU's interference protection requirements that are imposed on NGSO operators. The *NGSO Order* specifically states that in the majority of frequency bands, an NGSO system must not cause unacceptable interference to, or claim protection from, a GSO FSS network.[11]

Finally, the Commission should not impose any interim requirement on its grant of the Application in anticipation of the standards WRC-19 will adopt for NGSO operations in the Q/V-band. The Commission also should not wait until these standards are adopted before authorizing Hughes' Application. The WRC-19 Agenda Item 1.6 focuses on establishing a regulatory framework and equivalent power flux density limits that will be imposed on NGSO operations to protect GSO operations in the Q/V-band.[12] This framework will be adopted pursuant to the ITU requirement that NGSO operations not cause unacceptable interference to GSO systems. Given this Agenda Item's focus on *limiting* NGSO operations, Boeing's suggestion that the Commission require a GSO operator to incorporate a sufficient margin in its link budget to protect NGSO operations until WRC-19 addresses the issue is wholly inappropriate.

The Commission should disregard Boeing's request for equal treatment of pending GSO and NGSO FSS systems in the Q/V-band, and not wait for the resolution of WRC-19 Agenda Item 1.6 prior to acting on Hughes' Application. Boeing has not raised any issues that would delay action on the HNS 95W Application. Therefore, Hughes urges the Commission to promptly grant the Application.

Please direct any questions regarding this matter to the undersigned.

Respectfully Submitted,

/s/ Jennifer A. Manner

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December 27, 2017

[11] *NGSO Order* at ¶ 39, Appendix A (new rule § 25.289). In the 18.8-19.3 GHz and 28.6-29.1 GHz frequency bands, the Commission's Ka-band plan provides priority to NGSO operations over GSO operations. *NGSO Order* at ¶ 14.

[12] *See* International Telecommunication Union, *WRC-19 Agenda Item 1.6 to consider the development of a regulatory framework for non-GSO FSS satellite systems that may operate in the frequency bands 37.5-39.5GHz (space-to-Earth), 39.5-42.5GHz (space-to-Earth), 47.2-50.2GHz (Earth-to-space) and 50.4-51.4GHz (Earth-to-space), in accordance with Resolution 159* [COM6/18](WRC-15).

CERTIFICATE OF SERVICE

I, Lynne Montgomery, hereby certify under penalty of perjury that the foregoing Response was served this 27th day of December, 2017, by the United States Postal Service, first class postage pre-paid, except as otherwise indicated by an asterisk, addressed to:

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