



August 2, 2017

BY ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *Additional NGSO-Like Satellite Applications or Petitions for Operations in the Ka Bands*¹

Dear Ms. Dortch:

On July 31, 2017, Hughes Network Systems, LLC, (“Hughes”) met with Chip Fleming, Karl Kensinger, and Stephen Duall of the International Bureau to discuss the Hughes’s comments and reply comments on certain applications and petitions for NGSO-like operations in the Ka bands.

EchoStar was represented by Jennifer A. Manner, Senior Vice President, Regulatory Affairs, Brennan Price, Senior Principal Engineer, Regulatory Affairs, and Jodi Goldberg, Associate Corporate Counsel, Regulatory Affairs.

In the meeting the parties discussed the attached talking points, setting out Hughes’s recommendations for Commission action on the referenced petitions.

Pursuant to the Commission’s rules, this notice is being filed in the applicable dockets for inclusion in the public record. Please contact me should you have any questions.

¹ *Telesat Canada Petition for Declaratory Ruling Granting Access to the U.S. Market for the Telesat System*, IBFS File No. SAT-PDR-20161115-00108; *The Boeing Company Petition for Declaratory Ruling Granting Access to the U.S. Market for the Boeing System*, IBFS File No. SAT-LOA-20161115-00109 (the “Boeing Application”); *Space Norway AS Petition for Declaratory Ruling Granting Access to the U.S. Market for the Space Norway System*, IBFS File No. SAT-PDR-20161115-00111; *LeoSat MA, Inc. Petition for Declaratory Ruling Granting Access to the U.S. Market for the LeoSat System*, IBFS File No. SAT-PDR-20161115-00112; *Karousel LLC Petition for Declaratory Ruling Granting Access to the U.S. Market for the Karousel System*, IBFS File No. SAT-LOA-20161115-00113; *O3b Limited Petition for Declaratory Ruling Granting Access to the U.S. Market for the O3b System*, IBFS File No. SAT-AMD-20161115-00116; *Audacy Corporation Petition for Declaratory Ruling Granting Access to the U.S. Market for the Audacy System*, IBFS File No. SAT-LOA-20161115-00117; *Space Exploration Holdings, LLC Petition for Declaratory Ruling Granting Access to the U.S. Market for the SpaceX System*, IBFS File No. SAT-LOA-20161115-00118 (the “SpaceX Application”); *ViaSat, Inc. Petition for Declaratory Ruling Granting Access to the U.S. Market for the ViaSat System*, IBFS File No. SAT-PDR-20161115-00120 (the “ViaSat Application”); *Theia Holdings A, Inc. Petition for Declaratory Ruling Granting Access to the U.S. Market for the Theia System*, IBFS File No. SAT-LOA-20161115-00121.

Respectfully submitted,

/s/ Brennan T. Price

Brennan T. Price
Senior Principal Engineer, Regulatory Affairs
EchoStar Corporation
11717 Exploration Lane
Germantown, MD 20876
(301) 428-1654

Attachment



Hughes Network Systems Comments on Additional NGSO-Like

Satellite Applications or Petitions for Operations in the Ka bands

July 31, 2017

- Hughes is the largest provider of satellite broadband services in the United States and globally, with more than one million subscribers in North America. With the successful launch of EchoStar XIX in December 2016, Hughes offers service in excess of FCC-defined broadband speeds across the continental United States and Southern Alaska. Since launching its new high-speed broadband service in March 2017, Hughes has added over 100,000 new satellite broadband subscribers in just the first two months.¹
- As an operator of broadband satellites in the geostationary orbit (GSO), Hughes supports actions that will ensure that both GSO and NGSO satellites can operate successfully in the 18.6-20.2 GHz and 27.5-30 GHz bands and protect against spectrum speculation and harmful interference.
- In order to achieve these goals, the FCC should:
 1. **Adopt aggregate EPFD limits for NGSO systems in the Ka band and condition NGSO operation on compliance with those limits, thus ensuring protection of GSO systems from harmful interference.** Hughes supports the FCC's proposal in the NGSO NPRM proceeding to codify the NGSO EPFD limits contained in Article 22 of the ITU Radio Regulations for the 17.8-18.6 GHz, 19.7-20.2 GHz, 27.5-28.35 GHz, and 29.5-30.0 GHz bands. Hughes also urges the adoption of a realistic and practicable mechanism to ensure that aggregate EPFD limits established in ITU Resolution 76 are met by all licensed NGSO systems in the United States. NGSO operation should be conditioned on compliance with these rules once they are adopted.
 2. **Defer consideration of the ViaSat application for use of portions of the Ka band for satellite-to-satellite links until studies are concluded that ensure protection of GSO FSS operations in these bands.** Inter-satellite service allocations are more appropriate for satellite-to-satellite links. There are no studies or technical references that support the general use of FSS allocations for inter-satellite communications, nor has ViaSat provided a technical analysis to demonstrate that there would not be harmful interference to other GSO and NGSO satellite systems operating on a co-channel basis in the FSS bands. Further, the contributions of MEO-to-GSO communications to aggregate EPFD levels must be accounted for. These issues must be studied before action on this portion of the ViaSat application to ensure protection of GSO systems from harmful interference.

¹ Press Release, *HughesNet Gen5 Delivers True FCC-Defined Broadband, Attracts New Customers In Every Continental U.S. State*, June 5, 2017 (available at <https://www.hughes.com/who-we-are/resources/press-releases/hughesnet-gen5-surpasses-100000-subscribers-just-two-months>).

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3. **Deny SpaceX's requested waivers of milestone and downlink PFD rules.** The requested waiver of the milestones will result in an inefficient use of the spectrum; something that milestones expressly protect against. Further, waiver of the milestones would hamper the coordination process between NGSO and GSO while there remains a possibility that additional satellites will be launched. Finally, the requested waiver of the downlink PFD limits in the 18.8-19.3 GHz band increases the risk of interference to space-to-Earth links that Hughes is authorized to use in the United States.
4. **Deny Boeing's request for a three-tiered milestone schedule.** Such a schedule will remove Boeing's incentive to deploy its entire constellation in a timely manner, resulting in inefficient use of spectrum. Further, it will complicate coordination between NGSO and GSO operators when there is a possibility that an unknown number of additional NGSO satellites will be launched in the future.