



March 8, 2018

**BY ELECTRONIC FILING**

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

**Re: *ViaSat, Inc., Application, IBFS File No. SAT-PDR-20161115-00120;  
Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed Satellite Service  
Systems and Related Matters, IB Docket No. 16-408;  
Amendment of Parts 2 and 25 of the Commission's Rules to Facilitate the Use  
of Earth Stations in Motion Communicating with Geostationary Orbit Space  
Stations in Frequency Bands Allocated to the Fixed Satellite Service, IB Docket  
No. 17-95***

Dear Ms. Dortch:

On March 8, 2018, EchoStar Satellite Operating Corporation and Hughes Network Systems, LLC (collectively "EchoStar") met with Rachael Bender, Wireless and International Advisor to Chairman Pai, to discuss EchoStar's proposals and concerns in the above-referenced proceeding. EchoStar was represented by Jennifer A. Manner, Senior Vice President, Regulatory Affairs, and Jodi Goldberg, Associate Corporate Counsel, Regulatory Affairs.

In the meeting the parties discussed the attached talking points, which were distributed to Ms. Bender during the discussion.

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

Respectfully submitted,

*/s/ Jodi Goldberg*

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Jodi Goldberg  
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Attachment

cc: Rachael Bender



**FCC ACTIONS TO FACILITATE NEW SATELLITE BROADBAND DEPLOYMENT  
(IBFS File Nos. SAT-LOA-20170621-00092, SAT-AMD-20170908-00128 & SAT-PDR-  
20161115-00120; IB Dkt Nos. 16-408 & 17-95)**

**March 2018**

- Hughes Network Systems, LLC (“Hughes”), a U.S.-based company, is the largest provider of satellite broadband services in the United States and globally.
- Hughes operates a fleet of high-capacity broadband satellites, including EchoStar XIX (a/k/a JUPITER 2), which commenced commercial service in 2017 and delivers broadband services that meet or exceed FCC-defined broadband speeds of 25 Mbps down and 3 Mbps up to the continental U.S., southeastern Alaska, Puerto Rico, and the U.S. Virgin Islands.
- Hughes has begun construction of its next-generation satellite, HNS 95W (a/k/a JUPITER 3), which is planned for launch in early 2021 and will deliver even higher estimated speeds of up to 100 Mbps down, along with expanded services in the Ka and V bands to consumers throughout the United States and the Americas.

**The FCC Should Dismiss ViaSat’s Request for Inter-satellite Link (“ISL”) Use of Ka band Spectrum or Defer Consideration until Technical Studies Are Completed**

- To date, the FCC has not authorized the use of the Ka band for ISL use nor had any open rulemaking proceeding on such use. Further, the U.S. table of allocations does not allocate the Ka band for ISL use. This is largely because there is more than sufficient spectrum available today to meet today’s demands for ISL use.
- ViaSat, however, has requested use of this spectrum without as much as asking for a waiver of the U.S. Table of Allocations or making a technical and policy showing on why the FCC should permit such a non-conforming use. Grant of such use could result in harmful interference into other users of the band. In addition, such a grant could initiate a precedent that results in greater use of the Ka band for ISL at the expense of using the band to provide valuable broadband services to consumers. Accordingly, the FCC should deny ViaSat’s request.
- If the FCC does want to proceed, the FCC should defer consideration at least until technical studies are completed to ensure interference protection to geostationary orbit (“GSO”) satellite operations. The FCC previously has deferred licensing of ISLs when spectrum has not been internationally allocated for ISL use.<sup>1</sup> Without further analysis being performed and appropriate rules being adopted domestically and internationally, there is a risk that ViaSat’s proposal could result in harmful interference to other Ka band satellite systems (both GSO and non-geostationary orbit (“NGSO”)). It is imperative that the FCC defer consideration of ViaSat’s ISL proposal at least until standards for antenna pointing accuracy, performance standards, and interference avoidance can be addressed internationally and domestically.

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<sup>1</sup> See, e.g., *Teledesic*, 12 FCC Rcd 3154, ¶ 21 (1997).



- If, however, the FCC proceeds with granting ViaSat’s ISL request, it at a minimum, impose the conditions including those proposed in the record,<sup>2</sup> to ensure interference protection of GSO operations.

### **The FCC Should Retain the U.S. Coverage Requirement for NGSO Systems**

- Hughes, along with OneWeb and Intelsat, oppose the proposal to eliminate the U.S. coverage requirement for NGSO systems.
- Removing the U.S. coverage requirement will undercut the FCC’s longstanding but unrealized goals to ensure NGSO coverage of populated areas that cannot be reached by GSO or terrestrial networks, and will impede the FCC’s ongoing efforts to close the digital divide.
- Retaining the U.S. coverage requirement will still allow the FCC to grant individual waivers that serve the public interest – *e.g.*, for specialized systems focused on reaching underserved areas first.

### **The FCC Should Streamline Its Rules for Earth Stations in Motion (“ESIM”)**

- An important focus of the Hughes broadband business is ensuring service to consumers aboard motor vehicles, vessels, and airplanes utilizing ESIMs. Hughes has developed technology for ESIMs in the Ku and Ka bands for more than a decade, and its technology is currently powering broadband services to aircraft around the world.
- To facilitate effective delivery of broadband services to mobile consumers and protect other spectrum users, the FCC should adopt the following rule revisions:
  1. *Eliminate its antenna pointing accuracy requirements in favor of off-axis EIRP density limits.* While most ESIM operators will comply with an EIRP density limit by maintaining accurate antenna pointing, eliminating the antenna pointing accuracy requirement gives ESIM operators the alternatives of avoiding interference by reducing transmitted power or narrowing the ESIM’s transmitted beam width in order to maintain compliance with the EIRP density limit. Replacing the antenna pointing accuracy requirement with an off-axis EIRP density limit will streamline the FCC’s rules, and provide ESIM licensees with greater operational flexibility while ensuring protection of non-targeted space stations from harmful interference.
  2. *Eliminate unnecessary data logging requirements in favor of proactive interference avoidance.* The FCC’s current rules require an ESIM operator to log details of ESIM transmissions at frequent intervals and provide these logs to the FCC or the National Telecommunications and Information Administration upon request. In its years as an ESIM operator, Hughes has never been asked to provide logs for its ESIM operations. In the absence of any specific examples of how logging data has been used to identify or resolve a case of interference, the requirement should be eliminated as unnecessary and onerous and unnecessary. Hughes supports the

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<sup>2</sup> Letter from Jennifer A. Manner, Hughes, to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-PDR-20161115-00120 (Nov. 3, 2017); Letter from Jennifer A. Manner, Hughes, to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-PDR-20161115-00120 (Nov. 21, 2017).



FCC's proposal to maintain cessation of emission and network control and monitoring center requirements, which are sufficient to proactively resolve cases of harmful interference as they occur.

3. *Aggregate ESIM Rules into One Umbrella Rule Section.* The three classes of ESIMs (on vehicles, aircraft, and vessels) fundamentally operate in the same manner: relying on a precisely directed and carefully tracked link between the ESIM and the space station with which it communicates. A single set of rules for all classes of ESIMs will substantially reduce regulatory burdens.
- The FCC should reject SES and O3b's proposal to allow ESIM operators to designate operations with specific satellites in the Appendix 30B extended Ku band spectrum at 10.7-10.95 GHz and 11.2-11.45 GHz. These additional frequencies do not fall within the FCC's definition of "extended Ku band," are not covered under the FCC's existing or proposed ESIM rules, and thus are outside the scope of the existing rulemaking. SES and O3b have offered no basis for allowing ESIM use of these additional frequencies without causing harmful interference to existing spectrum users.