HWG | HARRIS, WILTSHIRE & GRANNIS LLP

1919 M STREET NW
SUITE 800
WASHINGTON DC 20036

TEL +1 202 730 1300
FAX +1 202 730 1301
HWGLAW.COM

ATTORNEYS AT LAW

June 18, 2020

BY ELECTRONIC FILING

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

Re: *Viasat, Inc., IBFS File No. SAT-MPL-20200526-00056*

Dear Ms. Dortch:

On May 26, 2020, Viasat, Inc. filed the above referenced application seeking authority to modify its current authorization for a non-geostationary orbit ("NGSO") satellite system serving the U.S. market. The proposed modification would increase the number of satellites in Viasat's system from 20 to 288 and reduce the orbital altitude and inclination from 8,200 km and 87° to 1,300 km and 45°, respectively. Viasat requests that the Commission handle this application outside of the recently initiated processing round for Ku/Ka-band NGSO FSS systems.[1]

In support of that request, Viasat submitted the results of an analysis of the effect of the proposed modification on uplink and downlink interference using the characteristics of four NGSO systems authorized through the Commission's most recent Ka-band processing round.[2] Based on those results, Viasat asserts that "[b]ecause the number of times that other currently-authorized NGSO constellations will be required to reduce spectrum will be no greater than before, there will be no significant increase in interference and sharing with other NGSO FSS systems will not be significantly more difficult."[3]

SpaceX expects to have significant comments about Viasat's "modification." But at present, the Commission faces a threshold issue. It must determine whether the analysis Viasat has submitted adequately demonstrates that its proposed operations will not cause a significant increase in interference or spectrum sharing issues for other licensed NGSO FSS systems. If not, then the application can only be considered as part of the second processing round.

Unfortunately, Viasat has not provided sufficient information to enable the Commission and other interested parties to replicate the analysis and thereby test Viasat's conclusion.

---

1 *See* Public Notice, "Cut-Off Established for Additional NGSO FSS Applications or Petitions for Operations in the 10.7-12.7 GHz, 12.75-13.25 GHz, 13.8-14.5 GHz, 17.7-18.6 GHz, 18.8-20.2 GHz, and 27.5-30.0 GHz Bands," 35 FCC Rcd. 2881 (IB 2020).

2 *See* Exhibit B, Technical Annex, IBFS File No. SAT-MPL-20200526-00056, at "Exhibit 1 – NGSO Sharing Analysis" (May 26, 2020).

3 *Id.* at 6.

Accordingly, the Commission should require Viasat to provide the following information underlying its uplink and downlink interference analyses.

1. Table 3 of the Technical Annex provides the EIRP density and peak power flux-density ("PFD") for each downlink band segment. Did Viasat assume a constant EIRP density from the satellite or a constant PFD on the ground for purposes of its analysis, and what specific value was assumed?
2. Viasat states that "[o]perational EPFD spectral densities are used to model the VIASAT-NGSO transmitters based on the current grant and on the proposed modification."[4] Viasat has not presented any EPFD data with its application, nor has it identified a network filing with the International Telecommunication Union ("ITU") under which it proposes to operate the system. At a minimum, Viasat should identify a specific ITU network filing and confirm that the operational characteristics supplied to the ITU are the same as the ones used in its interference analysis in this proceeding.
3. How many uplink and downlink beams are on each satellite?
4. What beam selection strategy was assumed in the analysis for each satellite?
5. What, if any, minimum angular separation between co-frequency beams was assumed?

Only by securing this information can the Commission make the critical threshold determination of how to process the pending application.

Respectfully submitted,

William M. Wiltshire
Counsel for SpaceX

cc: Jose Albuquerque

[4] *Id.* at 4.