Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
VIASAT, INC.	)	Call Sign: E202143
Application for Blanket Earth Station License Using Ka-band Spectrum	)	File No. SES-LIC-20200811-00852

PETITION TO DENY OF SPACE EXPLORATION HOLDINGS, LLC

Space Exploration Holdings, LLC ("SpaceX") hereby comments on the application filed by Viasat, Inc. ("Viasat") for a blanket license to deploy 1.8- and 2.4-meter fixed earth stations throughout the United States that will operate with the geostationary orbit ("GSO") ViaSat-3 satellite in Ka-band spectrum that includes the 18.8-19.3 GHz and 28.6-29.1 GHz bands—both of which the Commission has designated for non-geostationary satellite orbit ("NGSO") fixed-satellite service ("FSS") operations on a primary basis.[1] SpaceX relies on this spectrum (the "NGSO Ka-Bands") for communications between its NGSO satellites and gateway earth stations, and Viasat has made no showing of non-interference. This alone is sufficient basis for denying the Viasat blanket license request. Additionally, it is critical to note that Viasat is currently operating in these bands in clear violation of the terms of three other blanket earth station licenses, to the detriment of SpaceX and other NGSO systems with priority in those bands. The Commission cannot grant Viasat yet another license to operate in the NGSO Ka-Bands until Viasat has resolved

[1] *See* Exhibit A – Description of Application, IBFS File No. SES-LIC-20200811-00852 (Aug. 11, 2020) ("Viasat Application").

its existing non-compliance and demonstrated that its existing and proposed operations in those bands will not cause harmful interference to NGSO systems.

The Commission's rules and U.S. Table of Frequency Allocations designate the 18.8-19.3 GHz and 28.6-29.1 GHz bands for use by NGSO FSS systems (like Starlink) on a primary basis.[2] GSO FSS systems (like Viasat's) are secondary and shall not cause harmful interference to, or claim protection from, NGSO FSS systems.[3] As Viasat recognizes in its application, the ViaSat-3 authorization to provide service in the U.S. market is explicitly conditioned upon operating in this spectrum on a secondary basis to NGSO systems.[4] Given this requirement, one might have expected Viasat to provide with its earth station application a showing of exactly how its operations would protect NGSO systems against interference. Instead, Viasat provides a single sentence on this critical issue:

> Viasat's proposed earth station operations would not cause harmful interference into NGSO systems as a result of the conditions in the ViaSat-3 Authorization designed to protect NGSO systems in the 18.8–19.3 GHz downlink band segment and the associated 28.6–29.1 GHz uplink band segment.[5]

In other words, rather than provide any technical support, Viasat only asserts that it will not cause interference because its space station authorization prohibits it from doing so.

Viasat's circular reasoning would not be sufficient in the best of circumstances. But Viasat is not operating in the best of circumstances, considering its ongoing and

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2 *See* 47 C.F.R. § 2.106 n.NG165.

3 *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, 32 FCC Rcd. 7809, ¶ 14 and Appendix B (2017).

4 *See* Viasat Application at 1. *See also* Grant Stamp, IBFS File No. SAT-MOD-20150618-00037, Conditions 4, 8 (reissued Mar. 23, 2017) (imposing requirements to operate on a secondary basis in the NGSO Ka-Bands).

5 Viasat Application at 2.

flagrant violation of the conditions in three other earth station authorizations. Specifically, three blanket earth station licenses covering more than 4,000,000 deployable units nationwide prohibit Viasat from operating in the NGSO Ka-Bands unless and until it has (1) secured a coordination agreement from each NGSO FSS operator or (2) obtained appropriate relief from the Commission.[6] Notably, the Commission imposed these conditions on the earth station licenses even though the space stations they were authorized to communicate with included requirements to operate on a non-interference basis in the NGSO Ka-Bands.[7]

More importantly, Viasat utterly failed to comply with the terms of those licenses. SpaceX fully documented Viasat's failure to meet either pre-operating requirement in its request that the International Bureau issue an order to show cause why Viasat's licenses should not be revoked in part, why a cease and desist order should not be issued, and/or why monetary forfeitures should not be imposed in light of Viasat's impermissible operation in the NGSO Ka-Bands.[8] Yet according to Viasat's own certifications to the Commission, and as corroborated by recent measurements taken at SpaceX gateway facilities, Viasat continues to operate (and profit) despite its violation of the terms of its licenses.[9] Indeed, Viasat has knowingly and willfully continued to violate the terms of its

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6 *See* Radio Station Authorization, Call Sign E170088, Condition 90447 (issued Nov. 9, 2017); Radio Station Authorization, Call Sign E190201, Condition 90257 (issued Nov. 15, 2019); Radio Station Authorization, Call Sign E180006, Condition 90257 (issued Apr. 1, 2020).

7 *See* ViaSat-1 Authorization, IBFS File No. SAT-LOI-20080107-00006, Attachment at 1 (issued Aug. 18, 2009); ViaSat-2 Authorization, IBFS File No. SAT-LOI-20130319-00040, Attachment ¶ 9 (issued Dec. 12, 2013).

8 *See* Request for Order to Show Cause, IBFS File Nos. SES-LIC-20170401-00357, SES-LIC-20190411-00503, and SES-MOD-20191216-01737 (Sept. 18, 2020). SpaceX has also filed a complaint with the Enforcement Bureau related to Viasat's ongoing violation of its licenses. *See* Letter from William M. Wiltshire to Marlene H. Dortch, IBFS File Nos. SES-LIC-20170401-00357, SES-LIC-20190411-00503, and SES-MOD-20191216-01737, Attachment (June 25, 2021).

9 *See* Petition to Deny of Space Exploration Holdings, LLC, IBFS File No. SES-MOD-20200923-01031, Attachment A at A-8 to A-12 (Apr. 16, 2021).

earth station licenses for many months even after SpaceX documented the violation to the Commission.

In these circumstances, the Commission cannot simply assume that Viasat will operate—or is even capable of operating—as required in these bands under the restrictions in its space station authorization. Moreover, as Viasat's documented past and ongoing behavior amply demonstrates, the Commission cannot simply include a non-interference condition in a blanket earth station authorization and expect that Viasat will comply. Rather, Viasat must show how it will comply. Further, the Commission cannot grant Viasat any new licenses until it has resolved Viasat's violation of its existing licenses.

But if the Commission were to consider issuing a new license to Viasat despite its ongoing disregard for Commission rules, it must at a minimum require Viasat to demonstrate how its operation of the earth stations proposed in this proceeding will not interfere with or require protection from authorized NGSO operations in the NGSO Ka-Bands. Such a demonstration is critical to ensure that the spectrum used by SpaceX and other NGSO operators will not be compromised by secondary users such as Viasat that have evidenced little regard for complying with the conditions of their licenses or the harm they cause to consumers.

SpaceX's NGSO satellite system is revolutionizing high-capacity, low-latency satellite broadband services for customers throughout the United States and the world, including in remote and otherwise underserved areas. The Commission has only designated two bands (18.8-19.3 GHz and 28.6-29.1 GHz) for use by NGSO systems on a primary basis. If it allows GSO systems to compromise that spectrum, the Commission will undermine the next step in satellite broadband innovation just as it is beginning to take root. Given Viasat's ongoing violation of its obligations to protect NGSO operations in

these bands, the Commission must deny this application unless and until Viasat (1) resolves its existing non-compliant operations in the NGSO Ka-Bands, and (2) provides a robust analysis demonstrating that its operations proposed herein will not result in harmful interference to licensed NGSO systems.

Respectfully submitted,

SPACE EXPLORATION HOLDINGS, LLC

By: */s/ David Goldman*
David Goldman
Director, Satellite Policy

William M. Wiltshire
Paul J. Caritj
HARRIS, WILTSHIRE & GRANNIS LLP
1919 M Street, N.W.
Suite 800
Washington, DC 20036
202-730-1300 tel
202-730-1301 fax

Counsel to SpaceX

SPACE EXPLORATION TECHNOLOGIES CORP.
1155 F Street, NW
Suite 475
Washington, DC 20004
202-649-2700 tel
202-649-2701 fax

July 16, 2021

ENGINEERING CERTIFICATION

The undersigned hereby certifies to the Federal Communications Commission as follows:

(i) I am the technically qualified person responsible for the engineering information contained in the foregoing Comments,

(ii) I am familiar with Part 25 of the Commission's Rules, and

(iii) I have either prepared or reviewed the engineering information contained in the foregoing Comments, and it is complete and accurate to the best of my knowledge and belief.

Signed:

/s/ Mihai Albulet

Mihai Albulet, PhD
Principal RF Engineer
SPACE EXPLORATION TECHNOLOGIES CORP.

July 16, 2021

Date

CERTIFICATE OF SERVICE

I hereby certify that, on this 16th day of July, 2021, a copy of the foregoing Petition to Deny was served via First Class mail upon:

Daryl T. Hunter, P.E.
ViaSat, Inc.
6155 El Camino Real
Carlsbad, CA 92009

/s/ *Hailey Stewart*
Hailey Stewart