Exhibit A

Description of Application

Viasat, Inc. ("Viasat") seeks authority to operate 1.8 meter and 2.4 meter earth stations on a blanket licensed basis in the Ka band to communicate with the ViaSat-3[1] satellite, which is expected to be launched by 2021, and enter into commercial service later that year.

The earth stations will operate in the 18.3–19.3 GHz and 19.7–20.2 GHz downlink frequencies, and the 28.35–29.1 GHz and 29.5–30.0 GHz uplink frequencies. ViaSat-3, which will operate under the authority of the United Kingdom and the U.S., has been approved to serve the United States in the 17.7–20.2 GHz and 27.5–30.0 GHz band segments.[2] The ViaSat-3 Authorization allows the spacecraft to operate in the 18.3–18.8 GHz, 19.7–20.2 GHz, 28.35–28.6 GHz, and 29.5–30.0 GHz frequencies on a primary basis, and in the 28.6–29.1 GHz frequencies on a secondary basis to NGSO systems. ViaSat-3 is also authorized to operate in the 18.8–19.3 GHz frequencies, which the Commission has designated for GSO FSS operations on a secondary basis to NGSO systems.[3]

I. CONSISTENCY WITH CO-FREQUENCY OPERATIONS

The proposed operations are compatible with the operation of adjacent GSO systems, as well as co-frequency NGSO systems.

A. GSO Operations

Pursuant to Section 25.2115(g)(2) of the Commission's rules, Viasat certifies that the 1.8 meter and 2.4 meter antennas are compliant with section 25.209(a) and (b) off-axis antenna gain masks, and the input power density to the antennas will not exceed 3.5 dBW/MHz.[4] Further, as established in the Commission's authorization for the ViaSat-3 satellite, the power flux-density at the earth's surface produced by emissions from ViaSat-3 are within the -118 dBW/m^2/MHz

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1 VIASAT-3 (call sign S2917) and VIASAT-89US (call sign S3050) operate on a common chassis and collectively are referred to here as ViaSat-3.

2 *See* Call Sign S2902, IBFS File Nos. SAT-LOI-20140204-00013, SAT-AMD-20140218-00023 (granted June 18, 2014); SAT-MOD-20150618-00037 (granted Oct. 21, 2015); SAT-MOD-20190617-00047 (granted May 28, 2020); Call Sign S3050, IBFS File No. SAT-LOA-20190617-00048 (granted May 27, 2020) (collectively, "ViaSat-3 Authorization").

3 *See 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, 32 FCC Rcd 7809, ¶ 14 (2017); 47 C.F.R. § 2.106 n.NG165.

4 47 C.F.R. §§ 25.115(g)(2), 25.212(e).

limit set forth in Section 25.140(a)(3)(iii).[5] Thus, the earth station is fully two-degree compliant in each of the requested band segments.

B. NGSO Operations

ViaSat-3 will operate in the United States in the 18.8-19.3 GHz and 28.6-29.1 GHz frequency bands on a secondary basis with respect to NGSO FSS systems. NGSO systems are designated as primary in the U.S. in these frequencies. 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.

II. RADIATION HAZARD ANALYSIS

A radiation hazard analysis for the proposed antenna is attached hereto as Exhibit D. As demonstrated by the results of the analysis, harmful levels will not be present in areas occupied by the general population, and the antenna does not present a risk to trained personnel in the controlled area in the immediate vicinity of the antenna.

III. FAA NOTIFICATION

The proposed 1.8 meter and 2.4 meter antennas are exempt from notification to the FAA under Section 17.7(e)(3) of the Commission's rules because the height of the antenna is less than 6.1 meters above ground level.

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[5] *Id.* at § 25.140(a)(3)(iii).

DECLARATION

I hereby declare that:

1. I am the technically qualified person responsible for preparation of the engineering information contained in this application and that I am familiar with Part 25 of the Commission's rules.

2. In accordance with Section 25.132(a)(1) of the Commission's rules, I have reviewed the results of a series of radiation pattern measurements, and the measurement results demonstrate that the 1.8 m antenna, Viasat part number 13138xx, and 2.4 m, Viasat part number 13001xx, antennas meet relevant off-axis gain standards in Section 25.209 of the Commission's rules.

The foregoing is true and correct to the best of my knowledge, information and belief.

Daryl T. Hunter, P.E.
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August 10, 2020