Exhibit A

Technical Analysis

Viasat submits the following showing to demonstrate that the proposed gateway-type earth station, or satellite access node ("SAN"), located in Long County, GA, is compatible with Upper Microwave Flexible Use Service ("UMFUS") operations in accordance with Section 25.136(a)(4) and therefore should be authorized with the rights and protections afforded by Section 25.136(a).

The Viasat SAN antenna is configured to operate with the ViaSat-3-class satellite at 88.9 W.L., and this configuration provides the relevant operational azimuth and elevation angles. The antenna parameters used in the analysis are identified in the FCC Form 312 application and supporting exhibits and reflect measured gain patterns for the proposed earth station antenna.

A. Computation of pfd Contour

In most cases, terrain and objects on the Earth's surface provide for additional attenuation of the signal emitted from the earth station antenna in the direction of the horizon around the earth station over and above the expected free space and atmospheric attenuation. The additional attenuation of the radio frequency signal from terrain and surface features further reduces the power flux density (pfd) of the region around the SAN antenna.

To determine whether terrain or surface obstructions around the SAN antenna would provide any further reduction of the pfd at a 10 meter reference height, an analysis was performed using Recommendation ITU-R P.452[1]. Recommendation P.452, Prediction procedure for the evaluation of interference between stations on the surface of the Earth at frequencies above about 100 MHz, provides a propagation model and methodology for computing signal attenuation based on input parameters. In the computation of the contour, the attenuation above free space in the vicinity of the earth station is strongly driven by terrain and surface features rather than by atmospheric effects. To accurately predict the expected attenuation, LIDAR surface data with 1 meter resolution from Intermap was used to provide both clutter height and terrain information.

The computation of the contour around the antenna used the nominal input power density to the SAN antenna along with measured antenna gain information to determine the e.i.r.p. density along a particular azimuth. Next, path and clutter/terrain losses were taken into consideration for all the locations around a SAN site along with polarization discrimination to

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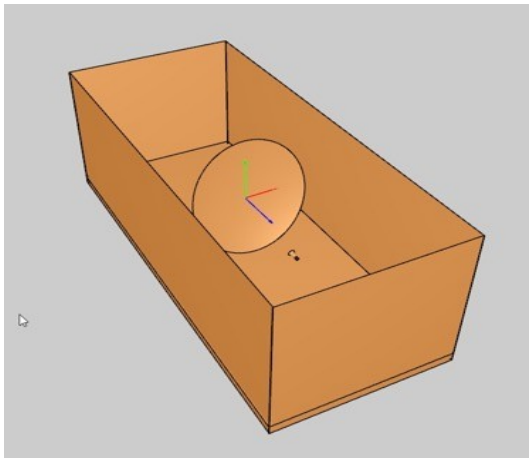
[1] In the initial application Viasat used the NTIA Irregular Terrain Model ("ITM") to demonstrate compliance with Section 25.136 of the Commission's rules—an approach that the Commission has approved in numerous earth station applications. Although Viasat used the ITU-R P.452 propagation model in the instant application, use of the ITM would yield similar results.

determine which blocks around the SAN site exceed the -77.6 dB(mW/(m^2 * MHz)) limit at the 10 meter reference height.

For this SAN antenna, shielding was used for additional reduction in the pfd over and above that from terrain and clutter in the area around a SAN antenna. The attenuation from shielding was computed using the TICRA Tools antenna analysis program which is the latest version of the industry standard GRASP analysis software. The attenuation is computed for each degree of azimuth around the earth station antenna and ranges from 7 dB to 34 dB around the antenna with an average attenuation of 22 dB.

The approach uses a Geometrical Theory of Diffraction (GTD) analysis whereby the total RF energy in the direction of the interference source (or victim) antenna was computed for various wall dimensions and compared to the total RF energy when no shield wall was present. The shield wall was modeled as a perfect conductor and diffraction was allowed to occur on the top and sides of the wall. The bottom edge was assumed to be below grade so no bottom edge diffraction was included. The wall dimensions and position were adjusted until the required shielding level was reached. For 1.8 m antennas Viasat uses a wall height of 8 feet and for 2.4 m antennas Viasat uses a wall height of 10 feet. The nominal shielding design uses solid corrugated steel walls in a rectangular configuration around the antenna. The standard enclosure is 25 feet long and 12 feet wide as depicted below. The dimensions provide sufficient room for the antenna beam to clear the wall at the operating elevation angle and also provide room for ancillary equipment to be located behind the antenna.



Finally, once the analysis is completed, a GIS shape file of the resulting contour is created for import into Viasat's ArcGIS tool and can be examined with respect to population and other elements of Section 25.136. An illustration of the contour is included below as Figure 1, and is also included in a .kmz file attached separately in ICFS.

B. Satisfaction of Section 25.136 Criteria

a. Section 25.136(a)(4)(i)

The earth station location is in Long County, GA. A search of the ICFS database indicates that there are no other earth stations licensed in the 27.5-28.35 GHz band segment in that county.

Therefore, the earth station satisfies the requirement in Section 25.136(a)(4)(i) that there be no more than two other earth stations operating or authorized to operate in the 27.5-28.35 GHz band within the county on a protected basis under Section 25.136.

b. Section 25.136(a)(4)(ii)

The total population covered by the -77.6 dB(mW/(m^2 * MHz)) contour is below the applicable threshold specified in Section 25.136(a)(4)(ii).

Overlaying the -77.6 dB(mW/(m^2 * MHz)) contour on a map depicting census blocks, Viasat has calculated an estimate of the population covered by the contour using 2020 census data and assuming that the population coverage within a partially covered census block is equal to the percentage of the geographic area of the census block covered by the contour.[2] Figure 1 below contains a diagram depicting the contour overlaid on a census block map.

[2] This approach to estimating population coverage using the most recently available decennial census block data and the actual area method is consistent with the recommended approach in the Commission's updated guidance regarding earth station siting. *See Space Bureau Updates its Guidance on Siting Methodologies for Earth Stations Seeking to Operate in the 24.75-25.25 GHz, 27.5-28.35 GHz, 37.5-40 GHz, 47.2-48.2 GHz, and 50.4-51.4 GHz Bands to Demonstrate Compliance with Section 25.136*, DA 25-206 (rel. Mar. 10, 2025) ("2025 Siting Guidance").

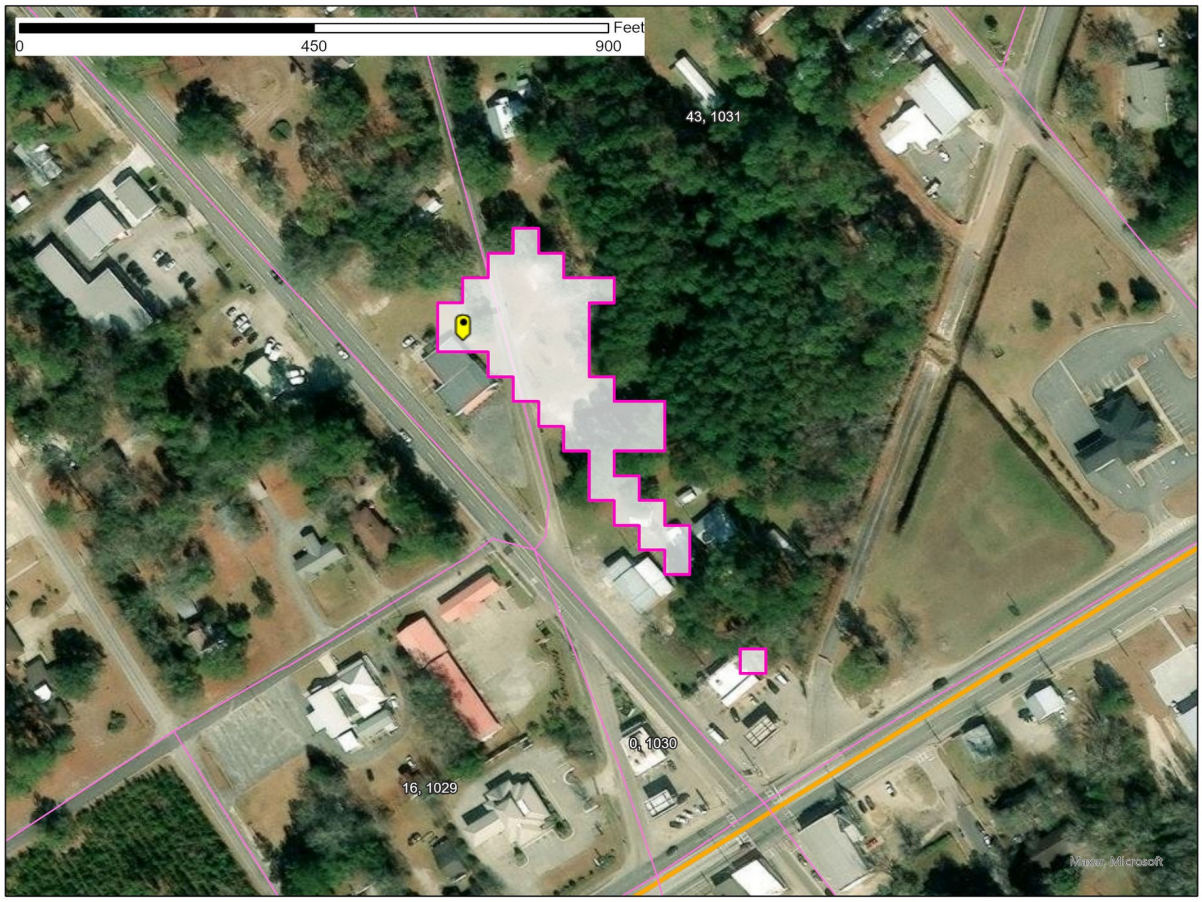


Figure 1 – Ludowici, GA SAN -77.6 dB(mW/(m2 * MHz)) pfd contour

The population of Long County is 16168, and thus the applicable population limit under Section 25.136(a)(4)(ii) is 450.

The following identifies the census block, population and the population coverage estimate as determined by the actual area method currently on file for this earth station.

Census Block Number	Total Population of Census Block	Population Coverage Estimate	Percent of Block Covered by Pattern
131839702011032	45	0	0.88%
131839702011031	43	2	3.65%
Total Estimated Population Coverage:		2	

Table 2 – Population Coverage Overview

The total estimated population covered by the contour thus is below the applicable population limit.

c. Section 25.136(a)(4)(iii)

The -77.6 dB(mW/(m^2 * MHz)) contour does not contain any major event venue, urban mass transit route, passenger railroad, or cruise ship port, or any road identified as an Interstate, Other Freeway and Expressway, or Other Principal Arterial road in the Federal Highway Administration Office of Planning, Environment, and Realty Executive Geographic Information System map.[3]

d. Section 25.136(a)(4)(iv)

Viasat has completed frequency coordination with the UMFUS licensees within the area covered by the -77.6 dB(mW/(m2 * MHz)) contour with respect to existing facilities constructed and in operation by the UMFUS licensees. The Prior Coordination Notice (PCN) was sent by Comsearch on 8/1/2025 and no objections were received within the notice period. The Comsearch coordination report is attached as Exhibit C.

[3] *See* Federal Highway Administration, Office of Planning, Environment, and Realty Executive Geographic Information System Map, *available at* https://hepgis-usdot.hub.arcgis.com/; *see also Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, Second Report and Order, 32 FCC Rcd 10988, App'x B (2017) ("[T]he roads listed in the revision to Section 25.136 . . . can readily be identified by consulting the Federal Highway Administration (FHWA) Office of Planning, Environment, and Realty Executive Geographic Information System (HEPGIS) map . . . . HEPGIS allows the user to enter any street address in the U.S. and display an interactive map with a legend that identifies road classifications as they are defined by the Department of Transportation at 23 C.F.R. Section 470.105 pursuant to 23 U.S.C. Sections 101 and 103."); 47 C.F.R. § 25.136(a)(4)(iii).