

Exhibit A

Description of Application and Waiver Request

ViaSat, Inc. (“ViaSat”) seeks to modify its current authorization to add blanket authority to operate three new temporary-fixed antenna types. The new antennas will communicate with the ViaSat-1 satellite, utilizing the 28.35-29.1 GHz and 29.5-30.0 GHz (uplink) bands and the 18.3-19.3 GHz and 19.7-20.2 GHz (downlink) bands. ViaSat-1 is U.S. licensed and authorized to serve the U.S. in these bands. ViaSat also seeks authority to operate these earth station antennas with the WildBlue-1 and Anik-F2 satellites using the 29.5-30.0 GHz (uplink) band and the 19.7-20.2 GHz (downlink) band. WildBlue-1 and Anik-F2 are Canadian licensed and are authorized to serve the U.S. in these bands.¹

The new AVL 1280KFH antenna is a variation of the previously authorized 1.2 m temporary-fixed antennas on this license and the antennas authorized on ViaSat’s blanket license call sign E100143 (“ViaSat-1 Blanket License”).² The new 1280KFH antenna uses the same outdoor electronics and same feed as the previously authorized antenna in the ViaSat-1 Blanket License. The principal difference between the new antenna type and the antenna type authorized in the ViaSat-1 Blanket License is a segmented reflector which allows the antenna to be collapsed for fly-away and rapid deployment applications, such as emergency service restoral and satellite news gathering.

The new AVL 880KFH and 880KVH are variations of the same 85 cm antenna. The 880KFH antenna uses a segmented reflector assembly which allows the antenna to be collapsed for fly-away and rapid deployment applications. The 880KVH antenna uses a solid reflector designed for roof mount applications such as satellite news gathering. The two antennas use the same outdoor electronics and feed as the 1280KFH antenna described above and the previously authorized antenna in the ViaSat-1 Blanket License.

In granting the ViaSat-1 Blanket License and the authorization for the ViaSat-1 satellite, the Commission granted authority to operate on the 28.6-29.1 GHz band on a secondary allocation and granted a waiver of the U.S. Table of Frequency Allocations to use the 18.8-19.3 GHz band for GSO FSS downlink operations.³ In addition, the Commission permitted blanket licensing of earth stations in the 28.6-29.1 GHz and 18.8-19.3 GHz bands in the ViaSat-1

¹ See ViaSat, Inc., Call Sign E050033 (authorizing operation of user terminals on a blanket basis in the 19.7-20.2 GHz and 29.5-30.0 GHz bands on WildBlue-1 and Anik-F2).

² See File Nos. SES-LIC-20101217-01585; SES-AMD-20110128-00074 (granted Oct. 20, 2011) (authorizing the operation of user terminals on a blanket basis in the 18.3-19.3 GHz, 19.7-20.2 GHz, 28.35-29.1 GHz and 29.5-30.0 GHz bands using the ViaSat-1 satellite).

³ See ViaSat-1 Blanket License; *see also* File Nos. SAT-LOA-20110722-00132, as amended (granted Oct. 14, 2011); SAT-LOI-20080107-00006, as amended (granted Aug. 18, 2009) (“ViaSat-1 Authorization”).

Blanket License. The new antenna types requested by this modification application will operate on these same frequencies when communicating with ViaSat-1, and thus, ViaSat requests the same waivers, to the extent necessary. The bases for such waiver showings for this new terminal type are no different than those already approved in the ViaSat-1 Authorization and the ViaSat-1 Blanket License. ViaSat respectfully incorporates by reference those prior showings,⁴ and requests that the Commission permit operations and blanket licensing in the 18.8-19.3 GHz band in this case.

Antenna Performance

Each of the proposed antennas meets the performance requirements in Section 25.138(a), as illustrated by the off-axis EIRP spectral density plots attached hereto as Exhibit C. In addition, the power flux-density at the earth's surface produced by emissions from each of the satellite points of communication are within the -118 dBW/m²/MHz limit set forth in Section 25.138(a)(6). The proposed earth station terminal conforms to the antenna performance standards in Section 25.209 in the receive frequency bands as demonstrated by the antenna gain patterns attached hereto as Exhibit B.

Antenna pattern data for the 880KVH (solid reflector) was only available for the 29.5 – 30 GHz range. However, the performance of the solid reflector is equivalent to that of the segmented reflector. Therefore, the pattern data submitted for the 880KFH (segmented reflector) in the 28.35 – 29.1 GHz range also is applicable to the 880KVH (solid reflector).

Radiation Hazard Analysis

A radiation hazard analysis for each of the proposed antennas is attached hereto as Exhibit D. As demonstrated by the results of the analysis, the maximum permissible exposure limit (MPE) is met for protection of the General Population/Uncontrolled Exposures – 1 mW/cm² averaged over a thirty minute period. The automatic shut-down capabilities described in the analysis, coupled with the terminals' use of uplink power control and non-continuous operation, ensures that the general population will not be exposed to levels of electromagnetic radiation that exceed the Commission's limits.

⁴ See File Nos. SES-LIC-20101217-01585; SAT-AMD-20080623-00131.