

EXHIBIT A
HNS License Sub, LLC
FCC Form 312
Amendment
July 2011

Description of Application

HNS License Sub, LLC (“Hughes”) hereby amends its pending application for modification of the earth station license for Call Sign E060445 (File No. SES-MFS-20100419-00452 (“Modification Application”) to request authority to add two new types of temporary-fixed transmit/receive antennas to its Ka-band VSAT license. In particular, Hughes proposes to add 1,000 AvL Technologies Model 1010K 98 centimeter temporary-fixed transmit/receive antennas and 1,000 AvL Technologies Model 1210K 1.2 meter temporary-fixed transmit/receive antennas. Both types of antennas would operate only in the 19.7-20.2 GHz (space-to-Earth) and 29.5-30 GHz (Earth-to-space) fixed-satellite service (“FSS”) bands. The requested antennas, like the other antennas already on the license, will operate in a mesh network and provide digital services.

The Ka-band frequencies in which these facilities are to be licensed are not shared with terrestrial users. Each of the new proposed antenna types is compliant with the Commission’s Ka-band service rules of Section 25.138 and 25.209(a) and (b).

Points of Communication

Hughes requests authority to communicate via the proposed antennas with the SPACEWAY 3 satellite operated by Hughes’s parent company, Hughes Network Systems, LLC. This means that the current SPACEWAY 3 authorization from the Commission, and the proposed re-flagged SPACEWAY 3 satellite as described in the Modification Application would need to be identified as points of communication for the new antennas.

Hughes also proposes to add AMC-15 and AMC-16 as points of communication for the new antennas, and also for all currently-authorized antennas on the license for Call Sign E060445. In the Form 312 amendment application to which this exhibit is attached, Hughes provides only the information it needs for the current antennas to show the new points of communications. There are no technical changes to any of the currently-authorized antennas -- just the addition of the points of communication. In each case, all existing authorized information is incorporated by reference.

Remote Control

All of the terminals requested here will be remotely controlled by Hughes from its Germantown, Maryland network operations center.

Radiation Hazard Analyses

A radiation hazard analysis with regard to the two proposed new antenna types has been carried out using the predictive methodology identified in OET Bulletin 65. The results are provided in Exhibits B-1 and B-2 to this Amendment.

The analysis was based on clear sky radiation levels for which a maximum RF power at the antenna flange of 3.3 Watts for the 1 meter antenna and 4.6 Watts for the 1.2 meter antenna. The maximum uplink power control power was not considered in this analysis as it is used only for very short periods of time during rain. Both the time averaging of the RF power received by a human body during a short but intense rain event combined with the unlikely possibility that a person would stand immediately in front of the transmitter during a heavy rain storm construe to make this an unrealistic scenario.

The clear sky results included in Exhibits B-1 and B-2 show that the average exposure levels for the protection of the general public are met in the near field, transition field, far field as well as between the reflector and ground. As is typically the case with parabolic antennas, the average exposure level for the protection of the general public is exceeded between the feed horn and the reflector.

Since these are auto-deploying antennas terminals which are to be installed on the roof of larger vehicles, the bottom of the beam of the antenna will always be above the head of anyone standing by the vehicle, making it difficult to access those areas of the antenna where the exposure limit is exceeded. To ensure that members of the general public which may be in proximity to the vehicle do not accidentally access the hazardous area between the horn and reflector, warning labels will be applied to the antenna feed arm, warning of the possible radiation hazard.

New antenna pattern information

Antenna pattern information for the AvL Technologies Model Nos. 1010K and 1210K antennas is provided in Exhibit C below.