

**Exhibit A**  
**HNS License Sub, LLC**  
**Call Sign E000166**  
**Modification of License Application**  
**December 2010**

**Description of Application**

HNS License Sub, LLC (“Hughes”) hereby requests a modification to its earth station license under Call Sign E000166 in the following respects:

- A.** Modification of frequencies assigned to the Hub H antenna in Hagerstown, MD
- B.** Administrative Correction to include Galaxy 16 as a POC list for TR 74 CM antennas
- C.** Addition of Galaxy 25 at 93° W.L. as a POC to replace Galaxy 26 which was relocated by the operator
- D.** Remove unused remote antenna type
- E.** Modification to remote earth terminal antennas to reflect changes in Hughes model numbers, inclusion of narrow receive carriers, and removal of r.f. carriers not required under Sections 25.275(c) and (d)

**A. Modification of Frequencies Assigned to the Hub H Antenna in Hagerstown, MD**

In its April 2007 modification of license application for Call Sign E000166, Hughes proposed the addition of a new 11.1 meter hub antenna in Hagerstown, MD. Hughes noted that it had entered into a contractual arrangement with Intelsat Global Services Corporation (“Intelsat”) whereby Hughes was to gain exclusive rights to access Intelsat’s Galaxy 26 satellite on certain frequencies from the hub antenna that Intelsat LLC (a corporate sibling of Intelsat Global Services Corporation) now operates in Hagerstown, MD under Call Sign E030051. Hughes listed the series of transmit and receive frequencies for which it had contracted with Intelsat for exclusive use for the duration of the contract. Hughes included with the application a statement from Intelsat that acknowledged, among other things, that Intelsat would not use the

same frequencies on this antenna under Call Sign E030051 while a license for the use of the same frequencies by Hughes remains in effect. Upon the grant of the April 2007 modification application, the identified frequencies on the current Intelsat antenna under Call Sign E030051 became exclusively available to Hughes for operation under Call Sign E000166 via remote control. *See* File No. SES-MFS-20070419-00489, Exhibit A.

In July 2008, Intelsat notified Hughes that because of an issue with the condition of the Galaxy 26 satellite, the frequencies assigned exclusively for Hughes's use through the Hub H antenna needed to be changed in the short term, and that alternative Galaxy 26 frequencies from those licensed would be assigned for Hughes's use once Intelsat completed its assessment of the satellite's condition. The amount of spectrum Hughes was to use on Hub H to access Galaxy 26 on an interim basis was not to exceed the amount of spectrum Hughes requested in the April 2007 modification of license application, and there were no changes in the technical operating parameters of the antenna – either in terms of pointing or power – that extend beyond the limits of the Hughes's licenses for the Hub H antenna.

Hughes was granted a request for special temporary authority to use different frequencies on Hub H from those authorized pursuant to File No. SES-MFS-20070419-00489 in July 2008 (*see* File No. SES-STA-20080702-00875). The STA was extended in July 2008 (*see* File No. SES-STA-20080730-01005), and has been extended on a bi-monthly basis ever since.

Intelsat was able to stabilize the situation with Galaxy 26 (eventually replacing the satellite at the 93° W.L. location with Galaxy 25 pursuant to a fleet maneuver), and informed Hughes of the frequencies that would be made available for its permanent use under the contractual arrangement. For the duration of this contract, and subject to Commission approval,

Hughes alone will be able to use the following frequencies on the existing 11.1 meter hub antenna at Hagerstown:

**Transmit:**

**Vertical Polarization:**

14,122.000 to 14,158.000 MHz  
14,162.000 to 14,198.000 MHz  
14,282.000 to 14,318.000 MHz

**Horizontal Polarization:**

14,102.000 to 14,174.000 MHz

**Receive:**

**Horizontal Polarization:**

11,822.000 to 11,858.000 MHz  
11,862.000 to 11,898.000 MHz  
11,982.000 to 12,018.000 MHz

**Vertical Polarization:**

11,802.000 to 11,874.000 MHz

In the original letter from Intelsat that Hughes supplied with its modification of license application in File No. SES-MFS-20070419-00489, Intelsat stated its understanding that Intelsat will not use the same frequencies on this antenna under Call Sign E030051 while a license for the use of the same frequencies by Hughes remains in effect. Hughes emphasized that it would promptly surrender the Hagerstown hub antenna element of its license under Call Sign E000166 once it no longer has authority from Intelsat to access the Intelsat 93° W.L. satellite through the Hagerstown, MD earth station. The same consideration holds true for the modified frequencies that Hughes now exclusively uses from the Hagerstown hub antenna to communicate with Galaxy 25. Hughes intends to amend this Modification Application to include a supplement to

the original letter that specifies the modified frequencies. Thus, upon the grant of this Modification Application, the above-referenced frequencies on the current Intelsat antenna under Call Sign E030051 will replace the frequencies added in the 2007 modification application, and will be exclusively available to Hughes for operation under Call Sign E000166 via remote control. Hughes emphasizes that there are no changes to the Hub H operating parameters other than the frequency assignments.

As was the case in the 2007 application, the physical antenna Hughes is using is currently authorized by the Commission and operational under Call Sign E030051. Thus, Hughes does not include here a radiation hazard analysis for the “new” hub antenna frequencies. Instead, Hughes incorporates by reference the “Analysis of Non-Ionizing Radiation for an 11.1 Meter Earth Station System” that was included with the initial license application for Call Sign E030051 in 2003. *See* Application of Intelsat LLC, File No. SES-LIC-20030311-00288, at Exhibit B.

**B. Administrative Correction to Include Galaxy 16 on the POC list for TR 74 CM Antennas**

In preparing the modifications to Hughes antenna model numbers and r.f. carriers that is described in Section D of this Exhibit A, Hughes discovered that one point of communication (“POC”) for one of the 74 centimeter remote antenna types on Hughes’s license under Call Sign E000166 had inadvertently been left off of the license. Galaxy 16 (a replacement for Galaxy 4R at 99° W.L). is properly listed as a POC for several Hughes antennas that are not compliant with Section 25.209(a) and (b) of the Commission’s Rules, but were shown by Hughes to be, and accepted by the Commission as, compliant with two-degree spacing operations in both the transmit and receive bands. In particular, Galaxy 16 is properly listed as a POC for the TFTR 74 CM, TR 74-2 CM, TFTR 74-2 CM, TR 98 CM, and TFTR 98 CM antenna types. Galaxy 16 is

not listed, however, as a POC for the TR 74 CM antenna type (which is identical to the TFTR 74 CM antenna type). This omission with respect to the TR 74 CM antenna type appears to have been an administrative oversight that occurred when Galaxy 16 replaced Galaxy 4R in 2006. Hughes notes that Galaxy 16 is properly listed as a POC for the TR 74 CM antenna on Hughes license under Call Sign E940460 at North Las Vegas, NV, so there is no absence of authority with respect to operation of this antenna type in the Hughes network. Hughes asks the Commission administratively add Galaxy 16 as a POC for the TR 74 CM antenna type on the license for Call Sign E000166.

**C. Addition of Galaxy 25 at 93° W.L. as a POC to Replace Galaxy 26 which was Relocated by the Operator.**

In 2009, Intelsat replaced the Galaxy 26 satellite at the 93° W.L. orbital location with the Galaxy 25 satellite as a consequence of the anomaly described in Section A of this Modification Application. To the extent that the Commission has not already done so, Hughes asks that the non-conforming remotes authorized on the license for Call Sign E000166 include the replacement Galaxy 25 satellite at 93° W.L. as an authorized point of communication in lieu of the relocated Galaxy 26.

**D. Remove Unused Remote Antenna Type**

The remote antenna type with the site identifier “R 1.2 M” on the license for Call Sign E000166 is a 1.2 meter receive-only earth station antenna. Hughes is authorized to deploy ten of these antennas on a blanket-licensed basis. Hughes no longer has a customer requirement for licensed receive-only 1.2 meter terminals. As a result, the R 1.2 M antenna type should be removed from the Call Sign E000166 license.

**E. Non-Substantive Modification to Remote Earth Terminal Antennas to Reflect Changes in Hughes Model Numbers, Inclusion of Narrow Receive Carrier, and Removal of R.F. Carriers not Required under Sections 25.275(c) and (d)**

Hughes has reorganized its equipment distribution process in recent months. As part of that organization, Hughes has assigned new model numbers to the remote earth station antennas it is authorized to deploy under its license for Call Sign E000166. Hughes emphasizes that these are the same antennas now authorized from Prodelin and Raven; the new model numbers are Hughes product codes for the antennas.

The following table shows the existing antenna (by site identifier in the license and antenna diameter), the current model name from the license, and the new Hughes model name for that antenna.

<b>Site Identifier</b>	<b>Antenna Diameter (meters)</b>	<b>Current Model Name</b>	<b>New Hughes Model Name</b>
TF TR 1.2M	1.20	1134	HNS-AN-120P-KU
TF TR 74CM	0.74	HANT-91TR	HNS-AN-074P-KU
TF TR 98CM	0.98	3981-226	HNS-AN-098P-KU
TF TR 98CM	0.98	9008688	HNS-AN-098P-KU
TF TR 98CM	0.98	HNS-AN-098R-KU	No Change
TFTR 74-2CM	0.74	HNS-1035610	HNS-AN-074R-KU
TFTR 74-2CM	0.74	1741	HNS-AN-074P-KU
TR 1.2M	1.20	1134	HNS-AN-120P-KU
TR 1.8M	1.80	1184	HNS-AN-180P-KU
TR 2.4M	2.40	1244	HNS-AN-240P-KU
TR 74-2 CM	0.74	HNS-1035610	HNS-AN-074R-KU
TR 74-2 CM	0.74	1741	HNS-AN-074P-KU
TR 74CM	0.74	HANT-91TR	HNS-AN-074P-KU
TR 98CM	0.98	3981-226	HNS-AN-098P-KU
TR 98CM	0.98	9008688	HNS-AN-098P-KU
TR 98CM	0.98	HNS-AN-098R-KU	No Change

Hughes requests that the Commission include the new Hughes model names for the respective earth terminal types in Section E of the license for Call Sign E000166. The model names listed in the table above should, as appropriate, replace the existing model names. The old model names should continue to be shown in parenthetical form as “former models” to provide a connection for anyone later looking for details on coordination of non-compliant antennas or radiation hazard information. Hughes emphasizes that there are no changes to the site identifiers on the license. The inclusion of the narrow receive carrier is for completeness only, and does not have any impact on the operation of the station or its interference profile.

For each of the remote earth station antenna types listed in the table above, Hughes is proposing to specify that the narrowest receive carrier each earth station antenna uses is a 400 kHz carrier with the emission designator 400KG7D. This proposal is reflected in the Schedule B portion of the modification application. The widest receive carrier remains a 36 MHz carrier in each case.

Hughes further uses the opportunity of this “clean-up” modification application to ask the Commission to remove from the license for Call Sign E000166 r.f. carriers and associated emission designators that are extraneous under the provisions of Sections 25.275(c) and (d) of the Commission’s Rules. These provisions specify, respectively, that “a licensee for a transmitting earth station will normally specify only the r.f. carriers having the highest e.i.r.p. density, the narrowest bandwidth, and the largest bandwidth authorized for transmission from that station[;]” and that “[o]nly the most sensitive emission(s) for which protection is being afforded from interference in the authorized receive frequency band(s) will be specified in the station authorization.” 47 C.F.R. §§ 25.275 (c) and (d). Many of the earth station antenna types listed in Section B of the Hughes license under Call Sign E000166 have unnecessary

intermediate bandwidth carriers listed. This adds unnecessarily to the length and complexity of the license.

In the Form 312, Schedule B submission of the instant Modification Application, Hughes provides the narrow range of information for each antenna type (including the new model names) that allows implementation of the provisions in Section 25.275(c) and (d). Hughes confirms that all information not provided with this Modification Application for any of the listed earth station antenna types is unchanged from the current authorization.