Intelsat
inspiring connections

13 February 2006

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Intelsat LLC Request for Special Temporary Authority
File No.: SES-STA-20060131-00188

Dear Ms. Dortch:

This letter supplements Intelsat LLC's ("Intelsat") above referenced request for Special Temporary Authority ("STA") to use its Ka-band antenna to provide in-orbit testing ("IOT") service to the Spainsat satellite following the satellite's launch. The National Telecommunications and Information Administration ("NTIA") requested that Intelsat provide this letter to the FCC.

Because the Spainsat IOT service will be conducted in Federal spectrum, i.e., 20.2-21 and 30-31 GHz ("Ka-band"), coordination with the Department of Defense ("DOD") was required. Since the filing of the STA request, Intelsat, together with Space Systems Loral ("Loral"), the satellite's manufacturer, and Hispasat, representing the satellite's operator, have discussed this IOT service with NTIA and DOD. During a conference call between the parties on 3 February 2006, DOD advised that it appears technically feasible to allow this short-term IOT service, subject to certain conditions.

During the discussion, Intelsat and Loral provided clarification regarding the planned IOT transmissions. Specifically, Intelsat and Loral explained that two types of signals will be used for the IOT. One type of signal will be modulated with a bandwidth spread of at least 1 MHz, to reduce the power density. Continuous wave (CW) signals will also be employed; however, the CW tests will be performed with a much lower e.i.r.p. (approximately 15 dB backoff), which will help to minimize interference.

As a result of the discussions, Loral agreed to the following:

1. Loral will provide at least 24 hours notice to the U.S. Government of any change in the start date for the IOT. The current plan is to commence testing on 6 March. (This date is later than the date of 3 March provided to FCC in the STA application due to an update to the launch and test plan schedules.) The actual start date is dependent upon the successful launch date and the weather, because Ka-band testing must have reliable weather for the duration of testing.

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2. Loral will provide notice to the U.S. Government upon completion of the Ka-band IOT, where upon the temporary authorization will automatically become void.

3. The duration of the Ka-band IOT activities will be a maximum of five (5) days.

4. Intelsat will maintain a 24-hours-per-day contact point at the IOT earth station (Clarksburg, MD) during the IOT, for a designated U.S. Government official(s) to contact the test team in the event of interference or any other emergency situation, in order to immediately shut down the IOT transmissions. This contact is as follows:

Clarksburg Earth Station
Phone: 301-428-1501/1502

5. Signal levels and characteristics during the IOT will be as discussed with NTIA/DOD (see attached Annex) and provided in the STA application filed with the FCC, file number SES-STA-20060131-00188.

Should the FCC require additional information regarding the discussions with NTIA and DOD, please do not hesitate to contact the undersigned at your earliest convenience.

Sincerely,

Humberto Henriques

cc: Scott Kotler
Karl Kensinger

Annex: Details of the IOT transmissions as discussed with NTIA and DOD

The ITU name of the satellite is HISPASAT-2B 30KA (for the Ka-band). The IOT will be performed while the satellite is located at 30.3° W.L. and final on-orbit operations will take place with the satellite located at 30° W.L.

The Intelsat earth station to be used for this IOT is located in Clarksburg, Maryland, USA.

The technical parameters for Space-to-Earth transmissions are as follows:

1. Number of the channels:	1
2. Bandwidth of the channel:	36 MHz
3. Center frequency of the channel:	20,347 MHz
4. Lower frequency of the channel:	20,329 MHz
5. Upper frequency of the channel:	20,365 MHz
6. Maximum transmit antenna gain:	44.35 dBi
7. Maximum transmit power (modulated):	44.16 W (16.45 dBW)
8. Maximum transmit EIRP (modulated):	60.8 dBW
9. Maximum transmit power EIRP density:	60.8 dBW/MHz
10. Maximum transmit power in the CW mode:	1.4 W (1.45 dBW)
11. Maximum transmit EIRP in the CW mode:	45.8 dBW

The technical parameters for Earth-to-Space transmissions are as follows:

1. Center frequency of the channel:	30,147 MHz
2. Lower frequency of the channel:	30,129 MHz
3. Upper frequency of the channel:	30,165 MHz
4. Maximum S/S receive antenna gain:	47.74 dBi
5. E/S antenna transmit gain:	54.6 dBi
6. E/S antenna pattern:	$29-25\log(\theta)$
7. Max power (at E/S antenna feed) (modulated):	100 W (20 dBW)
8. Max power density (at E/S feed, modulated or CW):	-4dBW/4kHz
9. Max power (at E/S feed, CW):	0.4 W (-4 dBW)

For the unmodulated beacon in Ka-Band, the characteristics are as follows:

1. Frequency:	20,450 MHz
2. Frequency stability (24 hrs):	+/- 1 ppm
3. Coverage:	Global
4. Maximum EIRP:	17.5 dBW