

December 18, 2016

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

Re: Request for Special Temporary Authority to Operate a 2.4 meter Ka-band Antenna at Intelsat's Hagerstown, Maryland Teleport

Dear Ms. Dortch:

Intelsat License LLC ("Intelsat") herein requests a grant of Special Temporary Authority ("STA")¹ for 30 days, from February 8, 2016 through March 8, 2016, to allow Intelsat to utilize a 2.4 meter Ka-band antenna located at its Hagerstown, Maryland teleport to provide in-orbit testing ("IOT") services for the Intelsat 29e satellite (S2913) at 49.7° W.L. Intelsat 29e is expected to be launched on January 27, 2016.

Upon launch and subject to receipt of FCC approval, Intelsat 29e will be located temporarily at 49.7° W.L. for IOT.² The satellite's permanent location will ultimately be 50.5° W.L.³ The proposed IOT operations will be performed using the following frequencies: 29.50 – 30 GHz (Earth-to-space) and 19.70 – 20.20 GHz (space-to-Earth).

The maximum uplink EIRP per carrier will be 70 dBW. The majority of the IOT testing will be performed using an unmodulated carrier with an EIRP of 45 to 50 dBW. The Gain Transfer test, which will have a duration of 2 minutes after initial calibration, will require an EIRP of 70dBW at 29750 MHz, with a corresponding downlink EIRP of 39.9dBW at 19950 MHz. Additional testing with a 40 MHz carrier will require a modulated carrier with an EIRP of 70 dBW spread across a 40 MHz bandwidth.

The proposed operations will be coordinated with all operators of satellites that use the same frequency bands and are potentially affected by these operations at the IOT location. Specifically, Intelsat has completed coordination of the proposed transmissions with Inmarsat-5F2 at 55° W.L. Additionally, Intelsat understands that NTIA coordination is required for Government systems in the band 17.7-20.2 GHz. In the extremely unlikely event that harmful interference should occur, Intelsat will take all reasonable steps to eliminate the interference.

¹ Intelsat has filed its STA request, an FCC Form 159, a \$195.00 filing fee, and this supporting letter electronically via the International Bureau's Filing System ("IBFS").

² Request for Special Temporary Authority to Conduct In-Orbit Testing of the Intelsat 29e Satellite, File No. SAT-STA-20151211-00082 (filed Dec. 11, 2015).

³ See *Policy Branch Information; Actions Taken*, Report No. SAT-01086, File No. SAT-LOA-20130722-0097 (May 22, 2015) (Public Notice).

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In further support of this request, Intelsat provides three exhibits, which contain the relevant technical parameters, antenna patterns, and a radiation hazard report.

The provision of IOT services to the Intelsat 29e satellite at 49.7° W.L. is a critical step in ensuring that the satellite will be fully operational at 50.5° W.L. This, in turn, will ensure continuity of service to customers at the 50.5° W.L. location, and thereby promotes the public interest.

Please direct any questions regarding this STA request to the undersigned at (703) 559-6949.

Respectfully submitted,

A handwritten signature in cursive script, reading "Cynthia J. Grady". The signature is written in black ink and is positioned above the typed name and title.

Cynthia J. Grady
Regulatory Counsel
Intelsat Corporation

Cc: Paul Blais