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June 6, 2019

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

Re: Request for Special Temporary Authority
7.3m S-band Antenna, Paumalu, Hawaii

Dear Ms. Dortch:

Intelsat License LLC ("Intelsat") herein requests an additional 30 days of Special Temporary Authority ("STA")[1] previously granted to Intelsat[2] to utilize a 7.3m S-band antenna located at its Paumalu, Hawaii teleport for initial verification of the S-band ground station equipment using the Carbonite-1 ("CBNT-1") satellite.[3]

This testing is being performed in preparation for use of the S-band antenna to provide telemetry, tracking, and command ("TT&C") services to the General Atomics Orbital Test Bed ("OTB") satellite during its launch and early orbit phase ("LEOP") and in-orbit testing ("IOT").[4] Both CBNT-1 and OTB are a low-Earth orbit ("LEO") non-geostationary orbit satellites ("NGSO"). OTB will launch as part of the U.S. Air Force's Space Technology Program (STP-2) and will carry the National Aeronautics and Space Administration's ("NASA") Deep Space Atomic Clock, the U.S. Air Force's Modular Solar Array, and other payloads.[5] OTB is currently scheduled to launch June 24, 2019.

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[1] Intelsat has filed its STA request, an FCC Form 159, a $210.00 filing fee, and this supporting letter electronically via the International Bureau's Filing System ("IBFS").

[2] *See Satellite Communications Services Information, Actions Taken,* Report No. SES-02161, File No. SES-STA-20181010-03042 (May 15, 2019) (Public Notice).

[3] CBNT-1 is licensed by the United Kingdom and shares many common design features with the OTB satellite such that advance testing with the CBNT-1 satellite will help assure success of OTB's LEOP. CBNT-1operates at an altitude of 650 km in sun-sync polar orbit.

[4] *See Satellite Communications Services Information, Actions Taken*, Report No. SES-02159, File No. SES-STA-20181010-03148 (May 8, 2019) (Public Notice).

[5] *See* http://www.ga.com/websites/ga/images/products/defense/space-systems/OTB_Satellite_DS_0818E.pdf for more information.

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The CBNT-1 operations will continue to be performed in the following frequencies: 2059.0 MHz and 2062.0 MHz in the uplink (RHCP); and 2240.0 MHz in the downlink (LHCP). The operations will be coordinated with all operators of satellites that use the same frequency bands and are in the flight paths of CBNT-1.[6] All operators of potentially affected satellites will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs.

The 24x7 contact information for the 7.3m S-band antenna operations is as follows:

Ph.: (703) 559-7701 – East Coast Operations Center (primary)
(310) 525-5591 – West Coast Operations Center (back-up)

Request to speak with Harry Burnham or Kevin Bell.

In support of this request, Intelsat incorporates by reference Exhibits A-C from its original request,[7] which contain technical information that demonstrates that the operation of the earth station will be compatible with its electromagnetic environment and will not cause harmful interference into any lawfully operating commercial terrestrial facility and waiver requests.

Additionally, below are the emission details for CBNT-1.

I. Uplink Signals

#	Frequency (MHz)	Polarization	Emission	Tx/Rx Mode	Max EIRP/Carrier (dBW)	Max EIRP Density (dBW/4 KHz)	Associated Antenna	Special Provisions (refer to section H)	Modulation Services
1	2059.0000	R	30K0FD	Tx	48	41.2	PAU	---	verification test
2	2062.0000	R	30K0FD	Tx	48	41.2	PAU	---	verification test

II. Downlink Signals

#	Frequency (MHz)	Polarization	Emission	Tx/Rx Mode	Downlink EIRP/Carrier (dBW)	Downlink Density (dBW/4 KHz)	Associated Antenna	Special Provisions (refer to section H)	Modulation Services
1	2059.0000	L	38K4MD	Rx	-14.8	-24.6	PAU	---	verification test

[6] ViaSat, Intelsat's customer, will handle coordination.

[7] *See supra* n. 2.

Grant of this STA extension request will allow Intelsat to ensure its 7.3m S-band antenna can provide support to U.S. Government missions aboard the OTB satellite and thereby promotes the public interest.

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

Respectfully submitted,

/s/ Cynthia J. Grady

Cynthia J. Grady
Senior Counsel
Intelsat US LLC

cc: Paul Blais