S2847

SAT-STA-20120823-00141

IB2012001984

Intelsat License LLC

Intelsat 20

Date & Time Filed: Aug 23 2012 4:30:50:453PM File Number: SAT-STA-20120823-00141

Callsign:



Call Sign S2847 Grant Date 09/19/12
(or other identifier)

Term Dates Period of To: 30 days

Approved by OMB 3060-0678

Approved:\_

Stephen J. Duall Chief, Satellite Policy Branch

# FEDERAL COMMUNICATIONS COMMISSION APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY

### FOR OFFICIAL USE ONLY

## APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Request for Extension of STA to Perform LEOP/IOT and Drift for Intelsat 20 (Call Sign S2847)

1. Applicant

Name:

Intelsat License LLC

**Phone Number:** 

202-944-7848

**DBA Name:** 

Fax Number:

202-944-7870

Street:

c/o Intelsat Corporation

E-Mail:

susan.crandall@intelsat.com

-3006

3400 International Drive, N.W.

City:

Washington

State:

DC

**Country:** 

**USA** 

Zipcode:

20008

**Attention:** 

Susan H. Crandall

# Attachment to Grant IBFS File No. SAT-STA-20120823-00141 Call Sign: S2847

The application of Intelsat License LLC (Intelsat) for special temporary authority, IBFS File No. SAT–STA–20120823–00141, for a period of 30 days commencing on August 29, 2012, in connection with operations of the Intelsat 20 space station (Call Sign S2847) is GRANTED. Specifically, Intelsat is authorized to continue to conduct in-orbit testing (IOT) of Intelsat 20 at 63.15° E.L. in the 3700-4200 MHz (space-to-Earth), 5925-6675 MHz (Earth-to-space), 10.95-11.20 GHz (space-to-Earth), 11.45-11.70 GHz (space-to-Earth), 12.50-12.75 GHz (space-to-Earth), 13.75-14.50 GHz (Earth-to-space), 29.50-30.00 GHz (Earth-to-space) and 19.70-20.20 GHz (space-to-Earth). Intelsat is also authorized to operate Telemetry, Tracking, and Command (TT&C) using center frequencies of 12746.5 MHz, 12747.0 MHz, 12748.0 MHz, and 12748.5 MHz (space-to-Earth), and 13750.5 MHz and 14498.0 MHz (Earth-to-space) to support IOT operations at the 63.15° E.L. orbital location and to effect Intelsat 20's drift to its authorized location of 68.5° E.L. upon the completion of IOT at 63.15° E.L. Operations under this authorization must be in accordance with the terms and conditions contained in Intelsat's application, the Federal Communications Commission's rules not waived herein, and are subject to the following conditions:

- 1. All operations under this grant of special temporary authority shall be on an unprotected and non-harmful interference basis, i.e., Intelsat shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radiocommunication system.
- 2. In the event of any harmful interference as a result of the operations under this grant of special temporary authority, Intelsat shall cease operations immediately upon notification of such interference and shall immediately inform the Commission, in writing, of such an event.
- 3. Intelsat shall coordinate the operations of Intelsat 20 with existing geostationary space stations to ensure that no unacceptable interference results from its operations at the 63.15° E.L. orbital location or during drift to the 68.5° E.L. orbital location.
- 4. Intelsat 20's operations at 63.15° E.L. shall be limited to IOT and shall not include the provision of commercial services.
- 5. Intelsat shall operate only the TT&C frequencies on Intelsat 20 during the space station's drift from the 63.15° E.L. orbital location to the 68.5° E.L. orbital location.
- 6. During in-orbit testing, Intelsat shall maintain the Intelsat 20 space station within an east/west longitudinal station-keeping tolerance of  $\pm$  0.05 degrees of the 63.15° E.L. orbital location.
- 7. Intelsat is granted a waiver of the U.S. Table of Frequency Allocations to permit it to use the 12.70-12.75 GHz frequency band in ITU Region 2 in the space-to-Earth direction during IOT and drift from the 63.15° E.L. orbital location to the 68.5° E.L. orbital location. In Region 2, the U.S. Table of Frequency Allocations allocates the 12.70-12.75 GHz band to Fixed Service (FS), Mobile Service (MS), and Fixed-Satellite Service (FSS) in the Earth-to-space direction only. We find that the limited, short-term operations proposed by Intelsat in the 12.70-12.75 GHz band are unlikely to cause interference to other users of the band and justify a waiver of the U.S. Table of Frequency Allocations in this instance.

# Attachment to Grant IBFS File No. SAT-STA-20120823-00141 Call Sign: S2847

- 8. IOT operations in the 3700-4200 MHz (space-to-Earth), 5925-6675 MHz (Earth-to-space), 10.95-11.20 GHz (space-to-Earth), 11.45-11.70 GHz (space-to-Earth), 12.50-12.75 GHz (space-to-Earth), 13.75-14.00 GHz (Earth-to-space), 14.0-14.50 GHz (Earth-to-space), 19.70-20.2 GHz (space-to-Earth), and 29.5-30.0 GHz (Earth-to-space) frequency bands at 63.15° E.L. must comply with the conditions imposed in IBFS File No. SAT-LOA-20111024-00208 (granted July 26, 2012).
- 9. Any action taken or expense incurred as a result of operations pursuant to this grant of special temporary authority is at Intelsat's own risk.
- 10. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately.



2. Contact					
Name:	Susan H. Crandall	Phone Number:	202-944-7848		
Company:	Intelsat Corporation	Fax Number:	202-944-7870		
Street:	3400 International Drive, N.W.	E-Mail:	susan.crandall@intelsat.com		
City:	Washington	State:	DC		
Country:	USA	Zipcode:	20008 -3006		
Attention:	Susan H. Crandall	□elation [hip:	Legal Counsel		
application. Please enter 3. Reference File Num 4a. Is a fee submitted	only one.) nber or Submission ID □ith this application□ l attach FCC Form 159. If No, ind y Noncommercial educationa n):	licate reason for fee exempt I licensee	er the file number or the IB Submission ID of the related tion (see 47 C.F.R.Section 1.1114).		
	CRY – Space Station (□eostationar	y) 			
5. Type Request  Change Station Location  Extend Expiration Date  Other					
6. Temporary Orbit Location			7. Requested Extended Expiration Date 2012–09–27 00:00:00.0		

8. Description (If the complete description does	es not appear in this box,	please go to the end of t	he form to vie□ it in its entirety	·.)			
Intelsat License LLC herein requests an additional 30 days, from August 29, 2012 through September 27, 2012, of the Special Temporary Authority previously granted Intelsat for its Intelsat 20 satellite (Call Sign S2847) to (1) seek a waiver of the U.S. Table of Frequency Allocations to permit launch and early orbit phase operations using downlink							
9. By chec ing Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of " party to the application " for these purposes.							
10. Name of Person Signing	11. Title of Person Signing						
Susan H. Crandall	Asst. □eneral Counsel, Intelsat Corporation						
12. Please supply any need attachments.		4	MANAGEMENT AND				
Attachment 1: STA Request Attachment 2:		Attachment 3:					
	<u> </u>		I				
WILLFUL FALSE STATEMENTS M (U.S. Code, Title 18, Sectio (U.S. Code, Title 47, Secti	on 1001), AND/OR RE	OCATION OF ANY STA		MENT			

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Intelsat License LLC herein requests an additional 30 days, from August 29, 2012 through September 27, 2012, of the Special Temporary Authority previously granted Intelsat for its Intelsat 20 satellite (Call Sign S2847) to (1) seek a waiver of the U.S. Table of Frequency Allocations to permit launch and early orbit phase operations using downlink frequencies in the 12700-12750 MHz band in Region 2; (2) conduct in-orbit testing at 63.15 E.L.; and (3) drift the satellite to its permanent location of 68.5 E.L.



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

Re: Request for Extension of Special Temporary Authority for Intelsat 20, File No. SAT-LOA-20111024-00208, Call Sign S2847

Dear Ms. Dortch:

Intelsat License LLC ("Intelsat") herein requests an additional 30 days —from August 29, 2012 through September 27, 2012 — of the Special Temporary Authority ("STA") previously granted Intelsat for its Intelsat 20 satellite (Call Sign S2847) to (1) seek a waiver of the U.S. Table of Frequency Allocations to permit launch and early orbit phase ("LEOP") operations using downlink frequencies in the 12700-12750 MHz band in Region 2;<sup>2</sup> (2) conduct in-orbit testing ("IOT") at 63.15° E.L.; and (3) drift the satellite to its permanent location of 68.5° E.L.<sup>3</sup> Intelsat 20 was launched on August 2, 2012 and currently is undergoing in-orbit testing.

**IOT.** Intelsat will continue to conduct in-orbit testing of Intelsat 20 (Call Sign S2847) at 63.15° E.L. in the bands 3700-4200 MHz (downlink), 5925-6675 MHz (uplink), 10950-11200 MHz (downlink), 11450-11700 MHz (downlink), 12500-12750 MHz (downlink),13750-14500 MHz (uplink), 29500-30000 MHz (uplink) and 19700-20200 MHz (downlink). To Intelsat's knowledge, the only co-frequency satellites within plus/minus six degrees of 63.15° E.L. are Intelsat 904 at 60.0° E.L., Intelsat 902 at 62.0° E.L., Intelsat 906 at 64.15° E.L., Intelsat 17 at 66.0° E.L., Intelsat 7 at 68.65 E.L., Intelsat 10 at 68.5° E.L., and Inmarsat 3-F1 at 64.5°E.L. Intelsat will continue to coordinate with Inmarsat, the operator of Inmarsat 3-F1, regarding the Intelsat 20 IOT. With

<sup>&</sup>lt;sup>1</sup> Intelsat has filed this STA request, an FCC Form 159, a \$860.00 filing fee and this supporting letter electronically via the International Bureau's Filing System ("IBFS").

<sup>&</sup>lt;sup>2</sup> The authorization for the Intelsat 20 satellite does not seek authority to operate the Intelsat 20 satellite in the 12700-12750 MHz band in Region 2. *See Policy Branch Information; Actions Taken*, Report No. SAT-00886, File No. SAT-LOA-20111024-00208 (July 27, 2012) (Public Notice).

<sup>&</sup>lt;sup>3</sup> See Policy Branch Information; Actions Taken, Report No. SAT-00887, File No. SAT-STA-20120622-00104 (Aug. 3, 2012) (Public Notice). Only the TT&C frequencies will continue to be used during the satellite's drift from 63.15° E.L. to 68.5° E.L.

Marlene H. Dortch August 23, 2012 Page 2

regard to the remaining spacecraft, Intelsat will continue to internally coordinate the proposed testing with the operations of these satellites. In the unlikely event that harmful interference occurs, Intelsat will take all necessary steps to eliminate the interference.

Intelsat is aware that FSS operations are not authorized in the 12500-12750 MHz band in Region 2. In-orbit testing of Intelsat 20 will continue to be conducted by earth stations located outside the United States and will not affect satellite or terrestrial operations in the 12500-12750 MHz band in Region 2.

Intelsat has assessed and limited the probability of the space station becoming a source of debris as a result of collision with large debris or other operational space stations during in-orbit testing at 63.15° E.L. Intelsat 20 will not be located at the same orbital location as another satellite or at an orbital location that has an overlapping station-keeping volume with another satellite. Further, Intelsat is not aware of any other FCC licensed system, or any other system applied for and under consideration by the FCC, having an overlapping station-keeping volume with Intelsat 20. Finally, Intelsat is not aware of any system with an overlapping station-keeping volume with Intelsat 20 that is the subject of an ITU filing and that is either in orbit or progressing towards launch.

**<u>Drift.</u>** During the drift from 63.15° E.L. to 68.5° E.L., Intelsat will utilize only the satellite's TT&C frequencies and will follow industry practices for coordinating TT&C transmissions during the relocation process. The specific TT&C frequencies are as follows:

## Uplink:

13750.5 (V) 14498.0 (V) 13750.5 (LHCP) 14498.5 (LHCP)

#### Downlink:

12746.5 (V) 12747.0 (V) 12748.0 (V) 12748.5 (V) 12746.5 (LHCP) 12747.0 (LHCP) 12748.0 (LHCP) 12748.5 (LHCP) Marlene H. Dortch August 23, 2012 Page 3

Grant of this STA extension request will facilitate the continued in-orbit testing of Intelsat 20 at 63.15° E.L., which is a critical step in ensuring that the satellite will be fully operational at 68.5° E.L. The subsequent drift of the satellite to 68.5° E.L. will ensure continuity of service to customers, and thereby promotes the public interest.

For the reasons set forth herein, Intelsat respectfully requests that the Commission grant this extension request.

Sincerely,

Susan H. Crandall

Assistant General Counsel

Intelsat Corporation

cc: Robert Nelson

Kathyrn Medley Stephen Duall

Jay Whaley