

S2368 SAT-STA-20161018-00099 IB2016002292
Intelsat License LLC
Intelsat 1R



*with conditions

File # SAT-STA-20161018-00099

Call Sign S2368 Grant Date 03/22/17
(or other identifier)

From 03/22/17 Term Dates see grant conditions
To: grant conditions

Approved: Stephen J. Duall

Stephen J. Duall
Chief, Satellite Policy Branch

Approved by OMB
3060-0678

Date & Time Filed: Oct 18 2016 4:07:03:940PM
File Number: SAT-STA-20161018-00099
Callsign:

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY

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APPLICANT INFORMATION


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

Request for Special Temporary Authority to Drift Intelsat 1R to, and Operate at, 169.2 E.L. S2368

1. Applicant

Name:	Intelsat License LLC	Phone Number:	703-559-7848
DBA Name:		Fax Number:	703-559-8539
Street:	c/o Intelsat Corporation 7900 Tysons One Place	E-Mail:	susan.crandall@intelsat.com
City:	McLean	State:	VA
Country:	USA	Zipcode:	22102 -5972
Attention:	Susan H. Crandall		

ATTACHMENT TO GRANT
Intelsat License LLC
IBFS File No. SAT-STA-20161018-00099

IBFS File No(s):	SAT-STA-20161018-00099	<p>GRANTED – With Conditions</p>  <p>International Bureau Satellite Division</p>
Licensee/Grantee:	Intelsat License LLC	
Call Sign:	S2368	
Satellite Name:	Intelsat 1R	
Orbital Location: (required station-keeping tolerance)	169.2 ° E.L. ¹ (+/- 0.05 degrees east/west)	
Administration:	United States of America	
Nature of Service:	Fixed-Satellite Service	
Scope of Grant:	Special temporary authority to provide fixed-satellite service via Intelsat 1R upon arrival at the 169.2° E.L. orbital location.	
Previous Grant(s):	Special temporary authority for a period of 180 days to conduct telemetry, tracking, and command operations necessary to drift the Intelsat 1R space station from the 50.1° W.L. orbital position to the 169.2° E.L. orbital location and to maintain it at that location.	
Service Area(s):	Ku-band covers the Asia-Pacific Region and the C-band provides global coverage	
Frequencies:	5925-6425 MHz (Earth-to-space) 3700-4200 MHz (space-to-Earth) 13.75-14.50 GHz (Earth-to-space) 10.95-11.20 GHz (space-to-Earth) 11.45-11.95 GHz (space-to-Earth) TT&C center frequencies: 13.995 GHz and 14.4985 GHz (Earth-to-space) 11.696 GHz and 11.697 GHz (space-to-Earth)	
<p>Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission's rules not waived herein. This grant is also subject to the following conditions:</p> <ol style="list-style-type: none"> 1. Operations pursuant to this special temporary authority must be on an unprotected and non-harmful interference basis, i.e., the Intelsat 1R space station must not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating station. In the event of any harmful interference, Intelsat must cease operations immediately upon notification of such interference, and shall inform the Commission, in writing, immediately of such an event. 2. Intelsat must coordinate the operations of Intelsat 1R with existing geostationary space stations to ensure that no unacceptable interference results from its operations during drift to the 169.2° E.L. orbital location. 3. Intelsat must operate only the TT&C frequencies on Intelsat 1R during the space station's drift from the 50.1° W.L. orbital location to the 169.2° E.L. orbital location. 4. In connection with the provision of service in any particular country, Intelsat is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country. 5. Intelsat must operate Intelsat 1R at the 169.2° E.L. orbital location in compliance with all existing or future coordination agreements for this location. In the absence of a coordination agreement, such communications must comply with applicable provisions of the ITU Radio Regulations as the Commission cannot guarantee the success of the required conditions. 6. While at the 169.2° E.L. orbital location, Intelsat must maintain the Intelsat 1R spacecraft with an 		

¹ Intelsat will operate Intelsat 1R at the 169.2° E.L. orbital location in inclined-orbit mode. *See* Letter from Cynthia J. Grady, Regulatory Counsel, Intelsat Corporation, to Marlene H. Dortch, Secretary, FCC (dated Jan. 18, 2017).

ATTACHMENT TO GRANT
Intelsat License LLC
IBFS File No. SAT-STA-20161018-00099

east/west longitudinal station-keeping tolerance of +/- 0.05 degrees.

7. The operations of Intelsat 1R and associated earth stations must comport with the applicable uplink and downlink limits in 47 CFR § 25.140(a)(3) of the Commission's rules, unless Intelsat coordinates any non-conforming operations with the operations of U.S.-licensed geostationary orbit space stations within 6 degrees of the 169.2° E.L. orbital location. Intelsat must also comport with the maximum power limits indicated in existing or future coordination agreements at 169.2° E.L. Non-conforming operation must also be coordinated with respect to those operations of non-U.S.-licensed space stations within 6 degrees of 169.2° E.L. involving approved communications with U.S.-licensed earth stations.
8. Intelsat's use of the 10.95-11.2 GHz and 11.45-11.7 GHz frequency bands is subject to Footnote US211 to the Table of Frequency Allocations, 47 CFR § 2.106, US211, which urges applicants for airborne or space station assignments to take all practicable steps to protect radio astronomy observations in the adjacent bands from harmful interference, consistent with footnote US 74.
9. Intelsat's operation of the Intelsat 1R space station in the 10.95-11.2 GHz and 11.45-11.7 GHz frequency bands is limited to international operations in accordance with footnote NG52 to the United States Table of Frequency Allocations. 47 CFR § 2.106, NG52.²
10. In the 13.75-14.0 GHz band (Earth-to-space), receiving space stations in the Fixed-Satellite Service shall not claim protection from radiolocation transmitting stations operating in accordance with the United States Table of Frequency Allocations.
11. Pursuant to footnote US337 of the United States Table of Frequency Allocations, 47 CFR § 2.106, US337, any earth station in the United States and its possessions communicating with the Intelsat 1R space station in the 13.75-14.0 GHz band (Earth-to-space) is required to coordinate through National Telecommunications and Information Administration's (NTIA's) Interdepartment Radio Advisory Committee's (IRAC's) Frequency Assignment Subcommittee (FAS) to minimize interference to the National Aeronautics and Space Administration Tracking and Data Relay Satellite System, including manned space flight.
12. Operations of any earth station in the United States and its possessions communicating with the Intelsat 1R space station in the 13.75-14.0 GHz band (Earth-to-space) shall comply with footnote US356 to United States Table of Frequency Allocations, 47 CFR § 2.106, US356, which specifies a mandatory minimum antenna diameter of 4.5 meters and recommended minimum and maximum equivalent isotropically radiated powers (EIRP). Operations of any earth station located outside the United States and its possessions communicating with the Intelsat 1R space station in the 13.75-14.0 GHz band (Earth-to-space) are subject to footnote 5.502 to the ITU Radio Regulations, which allows a minimum antenna diameter of 1.2 meters for earth stations of a geostationary satellite orbit network and specifies mandatory power limits.
13. Operations of any earth station in the United States and its possessions communicating with the Intelsat 1R space station in the 13.75-14.0 GHz band (Earth-to-space) shall comply with footnote US357 to United States Table of Frequency Allocations, 47 CFR § 2.106, US357, which specifies that a required maximum EIRP density of emissions not exceeded 71 dBW in any 6 MHz band for communications with a space station in geostationary-satellite orbit. Operations of any earth station located outside the United States and its possessions communicating with the Intelsat 1R space station in the 13.75-14.0 GHz band (Earth-to-space) are subject to footnote 5.503 to the ITU Radio Regulations, which specifies a required maximum EIRP density of emissions (limit is dependent on antenna diameter) for communications with a

² We find Intelsat's request that all waivers previously granted to Intelsat 1R at 50.0° W.L. be extended to the satellite at 169.2° to be unnecessary for operations pursuant to special temporary authority in this case. See SAT-MOD-20160219-00019. Moreover, as Intelsat notes, many of the waivers are no longer applicable because the rules have been changed or eliminated. See *Comprehensive Review of Licensing and Operating Rules for Satellites Services*, Second Report and Order, 30 FCC Rcd 14713 (2015).

ATTACHMENT TO GRANT
Intelsat License LLC
IBFS File No. SAT-STA-20161018-00099

space station in geostationary-satellite orbit.

14. Pursuant to footnote US342 of the United States Table of Frequency Allocations, 47 CFR § 2.106, services operating in the 14.47-14.50 GHz band shall take all practicable steps to protect the radio astronomy service from harmful interference.

15. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at Intelsat's own risk.


Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

Action Date:	March 22, 2017	
Term Dates	From: March 22, 2017	To: Period of 180 days from January 1, 2017

Approved:


Stephen J. Duall
Chief, Satellite Policy Branch

2. Contact

Name:	Susan H. Crandall	Phone Number:	703-559-7848
Company:	Intelsat Corporation	Fax Number:	703-559-8539
Street:	7900 Tysons One Place	E-Mail:	susan.crandall@intelsat.com
City:	McLean	State:	VA
Country:	USA	Zipcode:	22102 -5972
Attention:		Relationship:	Legal Counsel

(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)

3. Reference File Number or Submission ID

4a. Is a fee submitted with this application?

- If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).
- Governmental Entity Noncommercial educational licensee
- Other (please explain):

4b. Fee Classification CRY – Space Station (Geostationary)

5. Type Request

- Change Station Location Extend Expiration Date Other

6. Temporary Orbit Location

7. Requested Extended Expiration Date

8. Description (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Intelsat License LLC herein requests 180 days, commencing January 1, 2017, of Special Temporary Authority to drift Intelsat 1R (Call Sign S2368) from 50.1 W.L. to 169.2 E.L. and operate the satellite temporarily at 169.2 E.L.

9. By checking 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. Yes No

10. Name of Person Signing
Susan H. Crandall

11. Title of Person Signing
Assoc. General Counsel, Intelsat Corporation

12. Please supply any need attachments.

Attachment 1: STA Request

Attachment 2:

Attachment 3:

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.



October 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 Drift Intelsat 1R to, and Operate at, 169.2° E.L.
Call Sign: S2368

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein requests 180 days, commencing January 1, 2017, of Special Temporary Authority (“STA”)¹ to drift Intelsat 1R (Call Sign S2368) from 50.1° W.L. to 169.2° E.L. and operate the satellite temporarily at 169.2° E.L.

The Intelsat 1R satellite is currently operating at 50.1° W.L.² Subject to receipt of FCC approval, the satellite will be relocated to 169.2° E.L.—with the drift starting no earlier than January 1, 2017. The drift should take approximately four months. Intelsat is relocating the Intelsat 1R satellite to meet a potential service demand.

During the drift of the Intelsat 1R satellite from 50.1° W.L. to 169.2° E.L., Intelsat will utilize only the satellite’s telemetry, tracking, and control (“TT&C”) frequencies and will follow industry practices for coordinating TT&C transmission during the relocation process. The specific TT&C frequencies are: 13995 MHz and 14498.5 MHz (Earth-to-space); and 11696 MHz and 11697 MHz (space-to-Earth).

Once Intelsat 1R is located at 169.2° E.L., Intelsat will also operate the following communications frequencies on the satellite: 5925 – 6425 MHz, 13750 – 14500 MHz, and 11700 – 12200 MHz (Earth-to-space); and 3700 – 4200 MHz, 10950 – 11200 MHz, and 11450 – 11950 MHz (space-to-Earth).

Grant of this STA request will not result in increased risk of harmful interference. As noted above, Intelsat will operate only the above listed TT&C frequencies during the drift, and will coordinate its TT&C transmissions with operators of satellites in the drift path. Should any interference occur during the drift, Intelsat will take all reasonable steps to eliminate such interference. At 169.2° E.L., Intelsat will operate Intelsat 1R in conformance with Intelsat’s coordination agreements concerning the nominal 169° E.L. location.

¹ Intelsat has filed this STA request, an FCC Form 159, and a \$945.00 filing fee electronically via the International Bureau’s Filing System.

² See *Policy Branch Information; Actions Taken*, Report No. SAT-01156, File No. SAT-MOD-20160219-00019 (May 6, 2016) (Public Notice).

Ms. Marlene H. Dortch
October 18, 2016
Page 2

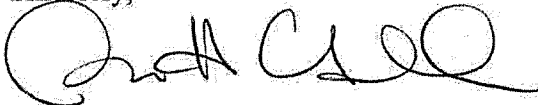
Further, Intelsat has assessed and limited the probability of the space station becoming a source of debris as a result of collisions with large debris or other operational space stations. Intelsat 1R will not be located at the same orbital location as another satellite or at an orbital location that 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 1R at 169.2° E.L. Finally, Intelsat is not aware of any system with an overlapping station-keeping volume with Intelsat 1R that is the subject of an ITU filing and that is either in orbit or progressing towards launch.

In addition, Intelsat requests that all applicable waivers previously granted to Intelsat 1R at 50.1° W.L. be extended to the satellite at 169.2° E.L.³ Specifically, Intelsat requests that the previously-granted waivers be extended for the reasons set forth in the previous grant.⁴

Grant of this STA request is in the public interest because it will allow Intelsat to meet a potential service demand at 169.2° E.L.

For the reasons set forth herein, Intelsat respectfully requests that the Commission grant this STA request. Please direct any questions regarding this supplement to the undersigned at (703) 559-7848.

Sincerely,



Susan H. Crandall
Associate General Counsel
Intelsat Corporation

cc: Stephen Duall
Jay Whaley
Cindy Spiers

³ Due to the modification of several technical rules, certain waivers previously issued to Intelsat for operation of the Intelsat 1R satellite are no longer required. E.g., Section 25.211(a), 25.202(g), Section 25.114(d)(3), and Section 25.283(c) recently have been eliminated or modified, so waivers are no longer required under the new Part 25 rules. *See Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, IB Docket No. 12-267, FCC 15-167 at ¶ 333 (rel. Dec. 17, 2015).

⁴ *See supra* n. 2.