

S2704 SAT-STA-20180502-00040 IB2018001202
Intelsat License LLC



*with conditions

File # SAT-STA-20180502-00040
Call Sign S2704 Grant Date 06/14/18
(or other identifier)
Term Dates period of
From 06/14/18 To: 180 days
Approved: Stephen J. Duall

Approved by OMB
3060-0678

Date & Time Filed: May 2 2018 4:24:08:793PM
File Number: SAT-STA-20180502-00040
Callsign:

Stephen J. Duall
Chief, Satellite Policy Branch

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 180-Day Special Temporary Authority to Operate Intelsat 5 at 137.0 W.L., Call Sign S2704

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-20180502-00040

IBFS File No(s):	SAT-STA-20180502-00040	<p>GRANTED – With Conditions</p>  <p>International Bureau Satellite Division</p>
Licensee/Grantee:	Intelsat License LLC	
Call Sign:	S2704	
Satellite Name:	Intelsat 5	
Orbital Location: (required station-keeping tolerance)	137.0° W.L. (+/- 0.05 degrees east/west station keeping)	
Administration:	United States of America	
Nature of Service:	Fixed-Satellite Service (FSS)	
Scope of Grant:	Special temporary authority for a period of 180 days to provide FSS from the 137.0° W.L. orbital location in the 3700-4200 MHz (space-to-Earth), 5925-6425 MHz (Earth-to-space), 11.45-11.7 GHz (space-to-Earth), and 14.0-14.25 GHz (Earth-to-space) frequency bands. ¹	
Service Area(s):	Asia Pacific and Western United States. <i>See</i> IBFS File No. SAT-MOD-20180501-00036, Schedule S	
Frequencies:	3700-4200 MHz (space-to-Earth) 5925-6425 MHz (Earth-to-space) 11.45-11.7 GHz (space-to-Earth) 14.0-14.25 GHz (Earth-to-space) Telemetry, Tracking & Command center frequencies: 11.451 GHz; 11.452 GHz; 11.454 GHz (space-to-Earth) 14.498 GHz; 13.999 GHz (Earth-to-space)	

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:

1. Operations pursuant to this special temporary authority must be on an unprotected and non-harmful interference basis, i.e., the Intelsat 5 space station must not cause harmful interference to, and must 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 must inform the Commission, in writing, immediately of such an event.
2. While at the 137.0° W.L. orbital location, Intelsat must maintain the Intelsat 5 spacecraft with an east/west longitudinal station-keeping tolerance of +/- 0.05 degrees.
3. 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.
4. Intelsat must operate Intelsat 5 at the 137.0° W.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 coordinations.
5. The operations of Intelsat 5 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-

¹ Although Intelsat requested authority to drift and operate Intelsat 5 in its STA, Intelsat confirmed that the Intelsat 5 space station arrived at the 137.0° W.L. orbital location on May 31, 2018. As such no drift authority is necessary and we act only on Intelsat's request for authority to operate at this location.

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conforming operations with the operations of U.S.-licensed geostationary orbit space stations within 6 degrees of the 137.0° W.L. orbital location. Intelsat must also comport with the maximum power limits indicated in existing or future coordination agreements at 137.0° W.L. Non-conforming operation must also be coordinated with respect to those operations of non-U.S.-licensed space stations within 6 degrees of 137.0° W.L. involving approved communications with U.S.-licensed earth stations.

6. Intelsat's use of the 11.45-11.7 GHz (space-to-Earth) frequency band is subject to footnote US211 to the United States 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 US74.
7. Intelsat's request for waiver of footnote NG52 of the United States Table of Allocations, 47 C.F.R. § 2.106, to use the 11.45-11.7 GHz band to offer domestic services on an unprotected, non-interference basis in the United States IS GRANTED, as conditioned. We find that waiver does not undermine the purpose of the rule because the waiver involves only earth stations that are receive-only in the 11.45-11.7 GHz frequency band and thus are not capable of causing interference into fixed stations operating in this band. Furthermore, because Intelsat has agreed to accept any level of interference from fixed stations into receive operations of its earth stations in these bands, fixed station operators will not be required to coordinate their station operations with Intelsat's earth stations' operation.² Under these circumstances, we determine that an additional coordination burden is not placed upon fixed station operators and their ability to expand service in the future would not be restricted in any manner.³ Grant here, as conditioned, is consistent with prior Commission precedent.⁴
 - a. Intelsat's space-to-Earth transmissions in the 11.45-11.7 GHz band that provide domestic service are on an unprotected, non-harmful interference basis relative to fixed stations. As such, Intelsat must not cause harmful interference to, or claim protection from, fixed stations to which frequencies in the 11.45-11.7 GHz band have either been already assigned, or to which frequencies in the 11.45-11.7 GHz band may be assigned at a later date. Intelsat must terminate operations in the 11.45-11.7 GHz band upon notification that its operations are causing interference to fixed stations operating in this band, and must immediately inform the Commission, in writing, of such an event.
 - b. Intelsat must inform its customers, in writing, including end-users receiving service from resellers accessing capacity on the Intelsat 5 space station, that domestic service in the 11.45-11.7 GHz band is being provided on an uncoordinated basis, and that the potential exists that future

² See Legal Narrative, IBFS File No. SAT-MOD-20180501-00036.

³ *PanAmSat Licensee Corp. Application for Authority to Use the Extended Ku-Band Frequencies for Domestic Service*, Order and Authorization, 20 FCC Rcd 14642, 14646 (Sat. Div., Int'l Bur., 2005).

⁴ The Intelsat 9 space station, which is currently authorized to operate at 43.1° W.L., has this waiver as a condition of its current authorization. See IBFS File No. SAT-MOD-20120703-00110. On a number of other occasions, the Commission has authorized downlink of domestic service to customer receive-only earth stations in the 10.95-11.2 GHz and 11.45-11.7 GHz bands, subject to conditions. *PanAmSat Licensee Corp. Application for Authority to Use the Extended Ku-Band Frequencies for Domestic Service*, Order and Authorization, 20 FCC Rcd 14642 (Sat. Div., Int'l Bur., 2005); *EchoStar KuX Corporation Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-Band Frequencies in the Fixed-Satellite service at the 83° W.L. Orbital Location*, Order and Authorization, 20 FCC Rcd 919, 921-922, para. 9 (Sat. Div., Int'l Bur., 2004); *EchoStar Satellite LLC Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-Band Frequencies in the Fixed-Satellite Service at the 109° W.L. Orbital Location*, Order and Authorization, 20 FCC Rcd 930 (Sat. Div., Int'l Bur., 2004); *EchoStar KuX Corporation Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-Band Frequencies in the Fixed-Satellite Service at the 121° W.L. Orbital Location*, Order And Authorization, 20 FCC Rcd 942 (Sat. Div., Int'l Bur., 2004).

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licensed earth station may cause harmful interference to these unprotected earth stations.

8. Operations of Intelsat 5 in the 14.47-14.5 GHz (Earth-to-space) frequency band is subject to the terms of footnote US342 to the United States Table of Frequency Allocations, 47 CFR § 2.106, US342, which urge applicants to take all practicable steps to protect the radio astronomy service from harmful interference.
9. 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:	June 14, 2018
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Term Dates	From: June 14, 2018	To: period of 180 days
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Approved:



Stephen J. Duall
Chief, Satellite Policy Branch

2. Contact

Name:	Cynthia J. Grady	Phone Number:	703-559-6949
Company:	Intelsat Corporation	Fax Number:	703-559-8538
Street:	7900 Tysons One Place	E-Mail:	cynthia.grady@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 upon grant, of Special Temporary Authority to operate Intelsat 5 (Call Sign S2704) at 137.0 W.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
Cynthia J. Grady

11. Title of Person Signing
Regulatory 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.



INTELSAT

Envision. Connect. Transform.

May 2, 2018

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 Intelsat 5 at 137.0° W.L.
Call Sign: S2704

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein requests 180 days, commencing upon grant, of Special Temporary Authority (“STA”)¹ to operate Intelsat 5 (Call Sign S2704) at 137.0° W.L.

Subject to receipt of Federal Communications Commission (“FCC” or “Commission”) approval, the satellite will be relocated to 137.0° W.L. Intelsat 5 is currently drifting to 93.2° W.L.² and its permanently licensed location is 156.9° E.L.³ The drift to 137.0° W.L. should be completed by the end of May.

The FCC recently made available for reassignment the C-band frequencies at 137° W.L.,⁴ which provides a new opportunity for the Intelsat 5 satellite. Intelsat has filed to modify the authorization for the Intelsat 5 satellite to redeploy Intelsat 5 to 137.0° W.L.⁵ In support of this relocation, Intelsat concurrently will be requesting 30 days of STA to drift Intelsat 5 to 137.0° W.L. and operate the satellite at 137.0° W.L.

The specific telemetry, tracking, and control (“TT&C”) frequencies for Intelsat 5 are as follows: 14498 MHz (H) and 13999 MHz (RHCP) in the uplink; and 11451 MHz (H, V, and RHCP), 11452 MHz (H, V, and RHCP), and 11454 MHz (RHCP, and LHCP) in the downlink.

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 File No. SAT-STA-20180410-00027 (granted Apr. 13, 2018).

³ See *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01236, File No. SAT-MOD-20170331-00057 (May 5, 2017).

⁴ See *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01313 (Apr. 27, 2018).

⁵ See *Intelsat License LLC Modification of Authorization to Redeploy to, and Operate Intelsat 5 (S2704) at, 137.0 W.L.*, File No. SAT-MOD-20180501-00036 (filed May 1, 2018).

Ms. Marlene H. Dortch
May 2, 2018
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The communications frequencies for Intelsat 5 are: 5925-6425 MHz, 12750-13250 MHz, and 14000-14250 MHz in the uplink; and 3700-4200 MHz, 10700-10950 MHz, 11200-11450 MHz, and 11450-11700 MHz in the downlink.

Grant of this STA request will not result in increased risk of harmful interference. Once on-station at 137.0° W.L., Intelsat will operate the communications payload in conformance with FCC rules and any relevant coordination agreements.

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 5 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 5 at 137.0° W.L. Finally, Intelsat is not aware of any system with an overlapping station-keeping volume with Intelsat 5 that is the subject of an International Telecommunication Union (“ITU”) filing and that is either in orbit or progressing towards launch.

In addition, Intelsat requests that the waiver previously granted to Intelsat 5 at 156.9° E.L. be extended to the satellite at 137.0° W.L. Specifically, Intelsat requests that the waiver of Section 25.114(c)(4)(vi)(A) of the FCC’s rules, requiring applicants to provide predicted space station antenna gain contours for each transmit and receive antenna beam requested, previously granted for Intelsat 5 be extended to the satellite at 137.0° W.L.⁶

Grant of this STA request is in the public interest because it will allow Intelsat to provide new capacity from the 137.0° W.L. orbital location.

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) 559-6949.

Sincerely,

/s/ Cynthia J. Grady

Cynthia J. Grady
Regulatory Counsel
Intelsat Corporation

cc: Stephen Duall
Jay Whaley
Cindy Spiers

⁶ See 47 C.F.R. § 25.114(c)(4)(vi)(A); *Application of Intelsat License LLC to Modify Authorization for Intelsat 5 (S2704)*, Stamp Grant, File No. SAT-MOD-20170331-00057, Condition 9 (May 4, 2017).