SAT-LOA-20171027-00145 Intelsat License LLC Intelsat 15R

IB2017003088

GRANTED* International Bureau + with conditions

File # SAT-LOA-20171027-00145

Call Sign 53022 Grant Date 12/04/18

(or other identifier)

sec From conditions

Term Dates 5cc To: conditions

Approved by OMB 3060-0678

Approved:

epken J. Duall

Chief, Satellite Policy Branch

Date & Time Filed: Oct 27 2017 11:18:11:550AM

File Number: SAT-LOA-20171027-00145

Callsign/Satellite ID: S3022

APPLICATION FOR SATELLITE SPACE STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY

FCC Use Only

APPLICANT INFORMATION

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

Application for Authority to Launch and Operate Intelsat 15R, a Replacement Satellite with new Frequencies at 85.0 E.L.

1-8. Legal Nan	e of Applicant
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Name:

Intelsat License LLC

Phone Number:

703-559-7848

DBA Name:

Fax Number:

703-559-8539

Street:

c/o Intelsat Corporation

E-Mail:

susan.crandall@intelsat.com

-5972

7900 Tysons One Place

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McLean

State:

VA

Country:

USA

Zipcode:

22102

Attention:

Susan H. Crandall

Intelsat License LLC

IBFS File No. SAT-LOA-20171027-00145 *RE-ISSUED TO REFLECT SURRENDER OF FREQUENCIES*

IBFS File No(s):	SAT-LOA-20171027-00145 ¹ GRANTED					
Licensee/Grantee:	Intelsat License LLC With Conditions					
Call Sign:	022					
Satellite Name:	Intelsat 15R	COMMUNIC				
Orbital Location:	85.0° E.L.					
(required station-	(+/- 0.05 degrees east/west)					
keeping tolerance)		Commission				
Administration:						
Nature of Service:	f Service: Fixed-Satellite Service (FSS) International					
		Satellite Division				
Scope of Grant:	Authority to construct, deploy, and operate a geostationary orbit (GSO) space station					
Previous Grant(s):	us Grant(s): N/A					
Service Area(s):	ea(s): See Schedule S Tech Report					
Frequencies:						
	11.45-11.7 GHz (space-to-Earth)					
	11.7-12.2 GHz (space-to-Earth)					
12.5-12.75 GHz (space-to-Earth)						
13.75-14.5 GHz (Earth-to-space)						
	Tracking, telemetry and command center frequencies:					
11.188, 11.090, 11.092 GHz (space-to-Earth); 14.002, 14.0045 (Earth-to-space)						
Timber -4b	000 11	,				

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. Intelsat must prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, coordination, due diligence, and notification process of this space station, in accordance with the ITU Radio Regulations. Intelsat will be held responsible for all cost-recovery fees associated with ITU filings. No protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, coordination agreements are successfully completed. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. See 47 CFR § 25.111(b).
- 2. 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.
- 3. Intelsat must operate Intelsat 15R at the 85.0° E.L. orbital location in compliance with all existing or future coordination agreements for this location. In the absence of a coordination agreement, such

¹ On December 4, 2018, the Satellite Division authorized Intelsat to operate the Intelsat 15R space station at the 85° E.L. orbital location using the 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 11.7-12.2 GHz (space-to-Earth), 12.5-12.75 GHz (space-to-Earth), 17.8-20.2 GHz (space-to-Earth), 13.75-14.0 GHz (Earth-to-space), 14.0-14.5 GHz (Earth-to-space), 17.3-17.8 GHz (Earth-to-space), and 27.5-30.0 GHz (Earth-to-space) frequency bands. On December 20, 2018, Intelsat notified the Commission that it was surrendering the 17.3-17.8 GHz (Earth-to-space), 17.8-20.2 GHz (space-to-Earth), and 27.5-30.0 GHz (Earth-to-space) frequency bands and the 20.180 GHz telemetry, tracking, and command frequency. See letter from Jennifer D. Hindin, Counsel, Intelsat License LLC, to Marlene H. Dortch, Secretary, FCC, dated Dec. 20, 2018. This grant, as reissued, removes the Ka-band frequencies and associated conditions for the Intelsat 15R space station.

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operations must comply with applicable provisions of the ITU Radio Regulations as the Commission cannot guarantee the success of the required coordination.

- 4. Intelsat must maintain the Intelsat 15R space station within an east/west longitudinal station-keeping tolerance of ± 0.05 degrees of the 85.0° E.L. orbital location.
- 5. The operations of Intelsat 15R 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 85.0° E.L. orbital location. Non-conforming operation must also be coordinated with respect to those operations of non-U.S.-licensed space stations within 6 degrees of 85.0° E.L. involving approved communications with U.S.-licensed earth stations.
- 6. Intelsat's use of the 10.95-11.2 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.
- 7. Operations in the 10.95-11.2 GHz and 11.45-11.7 GHz frequency bands are 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. Although not a condition to this authorization, we also note that RAS frequently makes use of observations (passive) in bands not allocated to the RAS service. This practice is a result of scientifically valuable signals being subject to the Doppler Effect and shifted in frequency outside radio astronomy-allocated bands. For assistance with coordination or information about RAS sites, please contact the NSF Spectrum Management Unit: esm@nsf.gov.
- 8. 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 15R space station in the 13.75-13.8 GHz (Earth-to-space) frequency band is required to coordinate through the National Telecommunications and Information Administration (NTIA) Interdepartment Radio Advisory Committee (IRAC) Frequency Assignment Subcommittee (FAS) to minimize interference to the National Aeronautics and Space Administration (NASA) Tracking and Data Relay Satellite System, including manned space flight.
- 9. In the 13.75-14.0 GHz (Earth-to-space) frequency band, receiving space stations in the FSS must not claim protection from radiolocation transmitting stations operating in accordance with footnote US356 to the United States Table of Frequency Allocations, 47 CFR § 2.106, US356.
- 10. Operations of any earth station in the United States and its possessions communicating with the Intelsat 15R space station in the 13.75-14.0 GHz (Earth-to-space) frequency band must comply with footnote US356 to the 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 (e.i.r.p.). Operations of any earth station located outside the United States and its possessions communicating with the Intelsat 15R space station in the 13.75-14.0 GHz (Earth-to-space) frequency band must be consistent with No. 5.502 of the ITU Radio Regulations, which specifies a mandatory minimum antenna diameter of 1.2 meters for earth stations of a geostationary satellite orbit network and specifies mandatory power limits.
- 11. Operations of any earth station in the United States and its possessions communicating with the Intelsat 15R space station in the 13.77-13.78 GHz (Earth-to-space) frequency band must comply with footnote US357 to United States Table of Frequency Allocations, 47 CFR § 2.106, US357, which specifies that the maximum e.i.r.p. density of emissions not exceed 71 dBW in any 6 MHz band within the 13.77-13.78 GHz (Earth-to-space) frequency band for communications with a space station in geostationary-satellite

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orbit. Operations of any earth station located outside the United States and its possessions communicating with the Intelsat 15R space station in the 13.77-13.78 GHz (Earth-to-space) frequency band must comply with No. 5.503 of the ITU Radio Regulations, which specifies a required maximum e.i.r.p. density of emissions (limit is dependent on antenna diameter) for communications with a space station in geostationary-satellite orbit.

- 12. Operations of Intelsat 15R in the 14.47-14.5 GHz (Earth-to-space) frequency band is subject to the terms of footnotes 5.149 and US342 to the United States Table of Frequency Allocations, 47 CFR §2.106, 5.149, US342, which urge applicants to take all practicable steps to protect the radio astronomy service from harmful interference. For assistance with coordination or information about RAS sites, please contact the NSF Spectrum Management Unit: esm@nsf.gov.
- 13. The FSS operations of Intelsat 15R and associated earth stations must comport with the parameters of the Appendix 30/30A satellite networks, USABSS-29 and USABSS-48, filed with the ITU for operation in the 11.7-12.2 GHz (space-to-Earth) frequency band and any additional conditions resulting from the coordination of this network.
- 14. The power flux-density (PFD) at the Earth's surface produced by the emissions from the Intelsat 15R space station, in the 10.95-11.2 GHz, 11.45-11.7 GHz and the 12.5-12.75 GHz frequency bands (space-to-Earth), must not exceed the applicable power flux-density limits contained in No. 21.16 in Article 21 of the ITU Radio Regulations.
- 15. Prior to commencing operations with the Intelsat 15R space station, Intelsat must file with the Commission the information required by Section 25.172 of the Commission's rules, 47 CFR § 25.172.
- 16. Intelsat 15R must begin providing service at the 85.0° E.L. orbital location in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz, 12.5-12.75 GHz (space-to-Earth) and 13.75-14.0 GHz, 14.0-14.5 GHz (Earth-to-space) frequency bands before the satellites it is replacing, Intelsat 15 (Call Sign S2789) and Horizons 2 (Call Sign S2423), discontinue service at the nominal 85.0° E.L. orbital location. Failure to meet this condition will render this authorization to operate in these frequency bands NULL and VOID.²
- 17. Intelsat's operation in the 10.95-11.20 GHz, 11.45-11.70 GHz, 12.5-12.75 GHz and 14.0-14.5 GHz frequency bands at the 85.0° E.L. orbital location is subject to the following conditions:
 - a. Intelsat shall remain a signatory to the Public Services Agreement between Intelsat and the International Telecommunications Satellite Organization (ITSO) that was approved by the ITSO Twenty-fifth and Thirty-seventh Assembly of Parties, as amended.
 - b. No entity shall be considered a successor-in-interest to Intelsat under the ITSO Agreement for licensing purposes unless it has undertaken to perform the obligations of the Public Services Agreement approved by the Twenty-fifth and Thirty-seventh Assembly of the Parties, as amended.
- 18. The license term for the space station is 15 years and will begin on the date that Intelsat certifies to the Commission that Intelsat 15R has been successfully placed into orbit and its operations fully conform to the terms and conditions of this authorization. Intelsat is directed to file its certification of commencement of operation with the Commission within five business days of Intelsat 15R being placed into operation at the 85.0° E.L. orbital location.

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.

² Intelsat 15 operates in the 10.95-11.2 GHz, 11.45-11.7 GHz, 12.5-12.75 GHz (space-to-Earth) and 13.75-14.5 GHz bands. Horizons 2 operates in the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) bands. Intelsat Narrative at 3.

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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
December 4, 2018

Term Dates

From: see conditions

To: see conditions

Approved:

Stephen J. Duall Chief, Satellite Policy Branch

9-16. Name of Contact Representative

Name:

Street:

Jennifer D. Hindin

Company:

Wiley Rein

1776 K Street, NW

Phone Number:

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Fax Number:

202-719-7049

E-Mail:

jhindin@wileyrein.com

City:

Washington

USA

State:

DC

Zipcode:

20006 -5972

Country:
Attention:

Jennifer D. Hindin

Relationship:

Legal Counsel

CLASSIFICATION OF FILING

17. Choose the buttonnext to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

a.

(N/A) a1. Earth Station

a2. Space Station

b.

o bl. Application for License of New Station

(N/A) b2. Application for Registration of New Domestic Receive-Only Station

(N/A) b3. Amendment to a Pending Application

(N/A) b4. Modification of License or Registration

(N/A) b5. Assignment of License or Registration

(N/A) b6. Transfer of Control of License or Registration

(N/A) b7. Notification of Minor Modification

(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite

6 b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States

O b10. Replacement Satellite Application - no new frequency bands

6 b11. Replacement Satellite Application – new frequency bands (Not eligible for streamlined processing)

o b12. Petition for Declaratory Ruling to be Added to the Permitted List

(N/A) b13. Other (Please specify)

17c. Is a fee submitted with this application?	
f Yes, complete and attach FCC Form 159.	
If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114)).
O Governmental Entity Noncommercial educational licensee	
Other(please explain):	
17c. Fee Classification BNY - Space Station (Geostationary)	
18. If this filing is in reference to an existing station, enter:	
(a) Call sign of station:	
Not Applicable	
10 If this filing is an amandment to a set in the line.	
19. If this filing is an amendment to a pending application enter:	
(a) Date pending application was filed:	(b) File number of pending application:
Not Applicable	Not Applicable
	11

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provid	e or use the following type(s) of service(s): Select all that apply:
a. Fixed Satellite	
b. Mobile Satellite	
c. Radiodetermination Satellite	
d. Earth Exploration Satellite	
e. Direct to Home Fixed Satellite	•
f. Digital Audio Radio Service	
g. Other (please specify)	
21. STATUS: Choose thebutton next to the applicable status. Choose only one.	22. If earth station applicant, check all that apply. Not Applicable
O Common Carrier Non-Common Carrier	
23. If applicant is providing INTERNATIONAL COMMON CARRIER s facilities:	
O Connected to a Public Switched Network Not connected	
24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all a	applicable frequency band(s).
a. C-Band (4/6 GHz) b. Ku-Band (12/14 GHz)	
c.Other (Please specify upper and lower frequencies in MHz.)	
Frequency Lower: Frequency Upper: (Please specify addit	tional frequencies in an attachment)

TVDE OF CTATION

TYPE OF STATION
25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
(N/A) a. Fixed Earth Station (N/A) b. Temporary—Fixed Earth Station (N/A) c. 12/14 GHz VSAT Network (N/A) d. Mobile Earth Station a e. Geostationary Space Station.
f. Non-Geostationary Space Station
g. Other (please specify)
26. TYPE OF EARTH STATION FACILITY: Not Applicable
PURPOSE OF MODIFICATION
27. The purpose of this proposed modification is to: (Place an "X" in the box(es) next to all that Not Applicable apply.)
ENVIRONMENTAL POLICY
28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.

ALIEN OWNERSHIP

Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government?	O Yes	⊚ No	
30. Is the applicant an alien or the representative of an alien?	O Yes	No	O N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	O Yes	⊚ No	O N/A
32. Is the applicant a corporation of which more than one—fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	O Yes	No ·	O N/A
33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one—fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	⊗ Yes	O No	O N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or oreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.			
BASIC QUALIFICATIONS			

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	0	Yes	•	No	
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	•	Yes	0	No	
37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	0	Yes	•	No	
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances	0	Yes	8	No	
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	0	Yes	•	No	

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.				
41. 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	0	No
42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.	0	Yes	•	No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?				

43. Description. (Summarize the nature of the application and the services to be provided). (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 hereby applies to launch and operate a Ku-band replacement satellite with new frequencies, to be known as Intelsat 15R, at the 85.0 E.L. orbital location.

Legal Narrative

43a. Geographic Service Rule Certification
By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

Engineering Stmt

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to app	licable response.)
O Individual	
Unincorporated Association	
O Partnership	
O Corporation	
Governmental Entity	
Other (please specify) Limited Liability Compan	ny
45. Name of Person Signing Susan H. Crandall	46. Title of Person Signing Assoc. Gen. Counsel, Intelsat Corporation
47. Please supply any need attachments.	
1: 2:	3:
(U.S. Code, Title 18, Section 1001),	N THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT AND/OR REVOCATION OF ANY STATION AUTHORIZATION (1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

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