S2380

SAT-MOD-20180305-00019

IB2018000541

Intelsat License LLC

Intelsat 9

File # SAT-MOD- 20180305-000 19

Approved by OMB 3060-0678

Term Dates

Date & Time Filed: Mar 5 2018 2:42:15:810PM

File Number: SAT-MOD-20180305-00019

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM

FCC Use Only

FCC 312 MAIN FORM FOR OFFICIAL USE ONLY

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu: Application to Modify Authorization for Intelsat 9 (Call Sign S2380)

1–8. Legal Name of Applicant

Name:

Intelsat License LLC

Phone Number:

703-559-7848

DBA

Fax Number:

703-559-8539

Name: Street:

c/o Intelsat Corporation

E-Mail:

susan.crandall@intelsat.com

7900 Tysons One Place

City:

McLean

State:

VA

Country:

USA

Zipcode:

22102

Attention: Susan H. Crandall

-5972

Intelsat License LLC IBFS File No. SAT-MOD-20180305-00019

IBFS File No(s):	SAT-MOD-20180305-00019	GRANTED-		
Licensee/Grantee:	Intelsat License LLC	With Conditions		
Call Sign:	S2380			
Satellite Name:	Intelsat 9	AT COMMUNICA		
Orbital Location:	66.15° E.L.	E E		
(required station-	(+/- 0.05 degrees east-west station keeping)			
keeping tolerance)		COMMISSION		
Administration:	United States of America	_		
	United Kingdom (ITU) ¹	International Bureau		
Nature of Service:	Fixed-Satellite Service (FSS)	Satellite Division		
Scope of Grant:	Authority to modify the authorization for the Intelsat 9 spa	ace station to specify operation at		
	the 66.15° E.L. orbital location, instead of Intelsat 9's curr			
	29.5° W.L., to provide FSS. Authority to conduct telemet			
	(TT&C) operations necessary to drift Intelsat 9 from 29.5°	W.L. to 66.15° E.L. and to		
	maintain Intelsat 9 at 66.15° E.L. ² in inclined orbit. ³ The	Intelsat 9 license term is		
	extended through July 31, 2021.			
Previous Grant(s):	IBFS File No. SAT-LOA-19990812-00081, grant by Orde			
	1489 (released July 6, 2000). IBFS File No. SAT-MOD-20120703-00110, grant stamp,			
	May 21, 2014; IBFS File No. SAT-MOD-20150430-00032, grant stamp, July 9, 2015;			
	IBFS File Nos. SAT-MOD-20161110-00105, SAT-AMD-20170208-00016, grant stamp,			
	May 4, 2017; IBFS File No. SAT-STA-20180509-00041, grant stamp, May 20, 2018.			
Service Area(s):	00-4200 MHz (space-to-Earth): Central Africa			
	5925-6425 MHz (Earth-to-space): Central Africa.			
	11.45-11.7 GHz (space-to-Earth): Africa and China	(D) 1 12 1		
	11.7-12.2 GHz (space-to-Earth): Indian Ocean, North Afri			
	14.0-14.5 (Earth-to-space): Indian Ocean, Africa and Chin			
	Also, see Schedule S Tech Report, Legal Narrative at 5, and 8.	nd Engineering Statement at 1, 2,		
Frequencies:	3700-4200 MHz (space-to-Earth)			
Frequencies.	5925-6425 MHz (Earth-to-space)			
	11.45-11.7 GHz (space-to-Earth)			
	11.7-12.2 GHz (space-to-Earth)			
	14.0-14.5 (Earth-to-space)			
	2 110 2 110 (Zatur to opace)			
	TT&C:			
	11.7005 & 11.7020 GHz (space-top-Earth)			
	14.4945 & 14.0005 GHz (Earth-to-space)			
	(

¹ Intelsat states that Intelsat 9 will operate in the 11700-12200 MHz frequency band under ITU network filing Intelsat KUEXT 66E held by the Administration of United Kingdom.

²Telemetry, tracking and command (TT&C) operations will be conducted through one or more of the following earth stations: Fuchsstadt, Germany; Hartebeeshoek, South Africa; or Fucino, Italy. Additionally, Intelsat is capable of remotely controlling Intelsat 9 from its facilities in McLean, VA or in Long Beach, CA. *See* Engineering Statement at 6.

³ On November 7, 2012, Intelsat notified the Commission of the commencement of inclined orbit operations for Intelsat 9. *See* Letter from Susan H. Crandall, Assistant General Counsel, Intelsat Corp., to Marlene H. Dortch, Secretary, Federal Communications Commission (dated Nov. 7, 2012), available in IBFS File No. SAT–MOD–20120703–00110. The last north/south station-keeping maneuver occurred on September 22, 2012. *Id*.

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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. All operations during the drift of Intelsat 9 to the 66.15° E.L. orbital location must be on an unprotected and non-harmful interference basis, *i.e.*, Intelsat must not cause harmful interference to, and must not claim protection from interference caused to it by, any other lawfully operating stations. In the event of any harmful interference, Intelsat shall 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 9 with existing geostationary space stations to ensure that no unacceptable interference results from its operations during drift to the 66.15° E.L. orbital location.
- 3. Intelsat must operate only the TT&C frequencies on Intelsat 9 during the space station's drift from 29.5° W.L. to 66.15° E.L.
- 4. Intelsat must operate Intelsat 9 at the 66.15° E.L. orbital location in accordance with any existing or future coordination agreements for this location. In the absence of a coordination agreement, such operations must comply with applicable provisions of the ITU Radio Regulations as the Commission cannot guarantee the success of the required coordination.
- 5. In connection with the provisions of service in any particular country, Intelsat is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.
- 6. While at the 66.15° E.L. orbital location, Intelsat must maintain the Intelsat 9 spacecraft with an east/west longitudinal station-keeping tolerance of +/- 0.05 degrees.
- 7. The U.S. Administration will not object to the use of the Intelsat 9 satellite by the United Kingdom Administration for claiming bringing into use or continuing the use of the United Kingdom's Intelsat KUEXT 66E filing at 66.15° E.L. in the 11.7-12.2 GHz frequency bands.
- 8. The operations of Intelsat 9 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 66.15° E.L. orbital location. Intelsat must also comport with the maximum power limits indicated in existing or future coordination agreements at 66.15° 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 66.15° E.L. involving approved communications with U.S.-licensed earth stations.
- 9. The power flux-density (PFD) at the Earth's surface produced by the emissions from the Intelsat 9 space station, in the 3700-4200 MHz and 11.45-11.7 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.
- 10. Intelsat 9's operations in the 5925-6425 MHz and 14-14.5 GHz (Earth-to-space) are subject to No. 5.457A of the ITU Radio Regulations; which states that earth stations located on board vessels may communicate with space stations of the fixed-satellite service. Such use shall be in accordance with Resolution 902 (WRC-03).
- 11. Intelsat's request for continued waiver of footnote NG 52 of Section 2.106, with respect to the domestic use of the 11.45-11.7 GHz band, is DISMISSED as moot, given that Intelsat 9 at 66.15° E.L. cannot see

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Region 2 and Intelsat proposes to provide FSS to Africa and China via Intelsat 9 at 66.15° E.L. in the 11.45-11.7 GHz band.⁴

- 12. Intelsat's use of the 11.45-11.7 GHz 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.
- 13. Operations of Intelsat 9 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.
- 14. Prior to commencing operations with the Intelsat 9 space station, Intelsat must file with the Commission the information required by section 25.172 of the Commission's rules, 47 CFR § 25.172.
- 15. We grant Intelsat's request for waivers of Sections 25.114(d)(14)(ii) and 25.283(c) of the Commission's rules, 47 CFR §§ 25.114(d)(14)(ii) and 25.283(c). These rules require an applicant to demonstrate that all stored energy will be removed at the spacecraft's end of life. Intelsat states that Intelsat 9 is a Boeing model 601 HP spacecraft that is not designed to vent all of its pressurized systems. Intelsat 9 was launched on July 28, 2000, and Intelsat states that following the completion of launch transfer orbit the pressurant tanks on Intelsat 9 were permanently sealed from other portions of the propulsion system. Intelsat states that Intelsat 9's two helium tanks have a total remaining pressure of 3200 KPa. As a result, Intelsat states that at the end of Intelsat 9's operational life a residual of 12 percent of the helium will remain in the two-tank system and this helium cannot be vented. We grant the requested waiver because Intelsat 9 was launched before Section 25.283(c) became effective and compliance would require direct retrieval of the spacecraft, which is not currently possible. In making this determination, however, we note that the information submitted in the application is not sufficient to support a finding that the intent of the rule would be satisfied by the described procedure for sealing the pressurant tanks.
- 16. Intelsat's operations of the Intelsat 9 space station at the 66.15° E.L. orbital location are subject to the following additional 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.
- 17. The license term for the Intelsat 9 space station is extended from July 31, 2019, through July 31, 2021.
- 18. Upon expiration of the license term, Intelsat is responsible for the proper disposal of Intelsat 9 by moving it to a minimum altitude of 150 kilometers above the geostationary arc.
- 19. Within 30 days of completion of the end-of-life maneuvers, Intelsat shall send a letter to the Chief, Satellite Division, International Bureau, indicating the apogee and perigee of the Intelsat 9 disposal orbit.

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.

⁴ See Schedule S Tech Report, Legal Narrative at 5, and Engineering Statement at 8.

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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	July 17, 2018	
Term Dates	From: July 17, 2018	To: July 31, 2021
Approved:	Kathyrn J. Medley	Chief, Satellite Engineering Branch

9–16. Name of Contact Representative

Name:

Jennifer D. Hindin

Phone Number:

202−719−4975

Company: Wiley Rein LLP

Fax Number:

202−719−7207

Street:

1776 K Street, N.W.

E-Mail:

jhindin@wileyrein.com

City:

Washington

State:

DC

Country:

USA

Zipcode:

20006-

Attention: Jennifer D. Hindin

Relationship:

Legal Counsel

CLASSIFICATION OF FILING

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

o al. Earth Station

a2. Space Station

(N/A) b1. Application for License of New Station

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

b 3. Amendment to a Pending Application

6 b4. Modification of License or Registration

b5. Assignment of License or Registration

b6. Transfer of Control of License or Registration

b7. Notification of Minor Modification

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

(N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States

(N/A) b10. Other (Please specify)

(N/A) b11. Application for Earth Station to Access a Non-U.S.satellite Not Currently Authorized

to Provide the Proposed Service in the Proposed Frequencies in the United States

(N/A) b12. Application for Database Entry

6 b13. Amendment to a Pending Database Entry Application

o b14. Modification of Database Entry

17c. 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):					
17d. Fee Classification BFY – Space Station M	odification(Geostationary)				
18. If this filing is in reference to an existing station, enter:(a) Call sign of station: S2380	19. If this filing is an amendment to a pending ap modification please enter only the file number: (a) Date pending application was filed:	(b) File number:			
		SATMOD2016111000105			

TYPE OF SERVICE

se the following type(s) of service(s): Select all that apply:
If earth station applicant, check all that apply.
Using U.S. licensed satellites
Using Non-U.S. licensed satellites
e, see instructions regarding Sec. 214 filings. Choose one. Are these
c Switched Network N/A
able frequency band(s).
requencies in an attachment)

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.	
a. Fixed Earth Station	
o b. Temporary-Fixed Earth Station	
o c. 12/14 GHz VSAT Network	
d. Mobile Earth Station	
e. Geostationary Space Station	
f. Non–Geostationary Space Station	
• g. Other (please specify)	
26. TYPE OF EARTH STATION FACILITY:	
Transmit/Receive Transmit-Only Receive-Only N/A	
"For Space Station applications, select N/A."	

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)
a — authorization to add new emission designator and related service
b — authorization to change emission designator and related service
c — authorization to increase EIRP and EIRP density
d — authorization to replace antenna
e — authorization to add antenna
f — authorization to relocate fixed station
g — authorization to change frequency(ies)
h — authorization to add frequency
i — authorization to add Points of Communication (satellites & countries)
j — authorization to change Points of Communication (satellites & amp; countries)
k — authorization for facilities for which environmental assessment and
radiation hazard reporting is required
■ 1 — authorization to change orbit location
m — authorization to perform fleet management
n — authorization to extend milestones
o — Other (Please specify)

ENVIRONMENTAL POLICY

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronateronautical fixed radio station services are not required to respond to Items 30–34.	autic	al en	rout	te or		
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	•	No	-	
30. Is the applicant an alien or the representative of an alien?	0	Yes	•	No	0	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	•	No	0	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?	0	Yes	0	No	0	N/A

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.

O Yes O No

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 ○ No ○ 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 foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.	Engineering Statemt
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.	
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 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.	O Yes	No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attemptiing 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	○ Yes	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.	O 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	O 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.	○ Yes	⊚ No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, wh coordinated or is in the process of coordinating the space station?	at administra	ation has

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, pursuant to Section 25.117 of the rules of the Federal Communications Commission, hereby seeks to modify the authorization for the Intelsat 9 satellite (Call Sign S2380). Specifically, this modification seeks authority to (i) redeploy Intelsat 9 to, and operate the satellite in inclined orbit at, 66.15 E.L.

Narrative & Exhibits

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.	● A
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.	O B
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.	o c

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 applicable resp	ponse.)
o Individual	
Unincorporated Association	
• Partnership	
O Corporation	
Governmental Entity	
Other (please specify)	
45. Name of Person Signing	46. Title of Person Signing
Susan H. Crandall	Assoc. General Counsel, Intelsat Corporation
>	
(U.S. Code, Title 18, Section 1001), AND	FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT D/OR REVOCATION OF ANY STATION AUTHORIZATION ND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

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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.

43. Description. (Summarize the nature of the application and the services to be provided).

Intelsat License LLC, pursuant to Section 25.117 of the rules of the Federal Communications Commission, hereby seeks to modify the authorization for the Intelsat 9 satellite (Call Sign S2380). Specifically, this modification seeks authority to (i) redeploy Intelsat 9 to, and operate the satellite in inclined orbit at, 66.15 E.L. (293.85 W.L), and (ii) further extend the Intelsat 9 license term, and previously granted waivers, through July 2021.