File # SAT-STA-20191114-00132

Call Sign S2406 Grant Date 01/16/20
(or other identifier)

Term Dates period of
From 01/16/20 To: 180 days

Approved: Stephen J. Duall
Chief, Satellite Policy Branch

GRANTED*
International Bureau
* with conditions

Approved by OMB
3060-0678

Date & Time Filed: Nov 14 2019 4:38:36:283PM
File Number: SAT-STA-20191114-00132
Callsign:

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPACE STATION SPECIAL TEMPCRARY AUTHORITY

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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
Request for 180-day Grant of Special Temporary Authority to Drift Intelsat 902 to and Operate at 309.9 E.L.

1. Applicant

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

ATTACHMENT TO GRANT
Intelsat License LLC
SAT-STA-20191114-00132

IBFS File No(s):	SAT-STA-20191114-00132	**G R A N T E D – With Conditions**
Licensee/Grantee:	Intelsat License LLC	
Call Sign:	S2406	
Satellite Name:	Intelsat 902	
Orbital Location: (required station-keeping tolerance)	50.1° W.L. (+/- 0.05 degrees east/west)	
Administration:	United States of America	
Nature of Service:	Fixed-Satellite Service	**International Bureau Satellite Division**
Scope of Grant:	Special temporary authority for a period of 180 days to (1) conduct telemetry, tracking, and command (TT&C) operations necessary to drift the Intelsat 902 space station from the 62.0° E.L. orbital location to the 50.1° W.L orbital location, and to maintain it at this location; and (2) provide fixed-satellite service via Intelsat 902 once the satellite is located at the 50.1° W.L. orbital location.	
Service Area(s):	C-band: North and South Americas; Europe: Africa; Greenland; and Middle East Ku-band: CONUS and Canada	
Frequencies:	3625-4200 MIIz (space-to-Earth) 5850-6425 MHz (Earth-to-space) 10.95-11.2 GHz (space-to-Earth) 11.45-11.7 GHz (space-to-Earth) 14.0-14.5 GHz (Earth-to-space) Telemetry, Tracking and Command frequencies: 6173.7 MHz and 6176.3 MHz (Earth-to-space); 3947.5 MHz, 3948.0 MHz, 3952.0 MHz, and 3952.5 MHz (space-to-Earth).	

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 authority must be on an unprotected and non-harmful interference basis, i.e., the Intelsat 902 space station shall 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 shall cease operations immediately upon notification of such interference, and shall inform the Commission, in writing, immediately of such an event.
2. Intelsat must only operate Intelsat 902 in its telemetry, tracking, and command frequencies during the drift of Intelsat 902 from 62.0° E.L. to 50.1° W.L.
3. All other operations of Intelsat 902 at the 50.1° W.L. orbital location must be in accordance with its current authorization, IBFS File No. SAT–MOD–20160816–00084.
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 902 at the 50.1° W.L. orbital location in compliance with all existing or future coordination agreements for this location.
6. While at the 50.1° W.L. orbital location, Intelsat must maintain the Intelsat 902 spacecraft with an east/west longitudinal station-keeping tolerance of +/- 0.05 degrees.
7. The operations of Intelsat 902 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 50.1° W.L. orbital location. Intelsat must also comport with the maximum power limits

indicated in existing or future coordination agreements at the 50.1° W.L. orbital location. Non-conforming operations must also be coordinated with respect to those operations of non-U.S.-licensed space stations within 6 degrees of 50.1° W.L. involving approved communications with U.S.-licensed earth stations.

8. Intelsat's use of the 3625-3650 MHz (space-to-Earth) band is subject to footnote US107, which limits FSS operations within the United States in the 3600-3650 MHz band on a primary basis to earth stations authorized prior to, or granted as a result of an application filed prior to, July 23, 2015 and constructed within 12 months of initial authorization. Additionally, applications filed after July 23, 2015 to modify these earth stations will not be accepted except for changes in polarization, antenna orientation, or ownership; and increases in antenna size for interference mitigation purposes. All other FSS earth station operations in the 3625-3650 MHz band must be on a secondary basis.

9. Intelsat's use of the 3625-3650 MHz (space-to-Earth) band is subject to GN Docket No. 12-354, which limits FSS communications within the United States in the 3600-3650 MHz band on a primary basis to existing earth stations or to new earth stations within 10 miles of existing earth stations.[1] All other FSS earth station operations in the band 3600-3650 MHz must be on a secondary basis.

10. Intelsat's use of the 3625-3650 MHz (space-to-Earth) band is subject to footnote US245 of the United States Table of Frequency Allocations, 47 CFR § 2.106, US245, which states that, in the 3600-3650 MHz band, use of the non-Federal FSS is limited to international inter-continental systems and is subject to case-by-case electromagnetic compatibility analysis.

11. Intelsat's use of the 3650-3700 MHz frequency band is limited to international inter-continental systems in accordance with footnote NG185 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, NG185.

12. Intelsat's use of the 3650-3700 MHz (space-to-Earth) band is subject to footnote NG169 of the United States Table of Frequency Allocations, which states that after December 1, 2000, operations on a primary basis by the FSS (space-to-Earth) in the 3650-3700 MHz band must be limited to grandfathered earth stations. All other FSS earth station operations in the band 3650-3700 MHz must be on a secondary basis.

13. The power flux-density (PFD) at the Earth's surface produced by the emissions from the Intelsat 902 space station in the 3400-4200 MHz frequency band (space-to-Earth), must not exceed the applicable power flux-density limits contained in Section 25.208(a), 47 CFR § 25.208(a), and in Article 21.16 of the ITU Radio Regulations.

14. Use of the 5850-5925 MHz frequency band must comply with the terms of footnote US245 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106, US245, and Section 2.108 of the Commission's rules, 47 CFR § 2.108, which states that, in the 5850-5925 MHz band, use of the non-Federal FSS is limited to international, intercontinental satellite systems and is subject to case-by-case electromagnetic compatibility analysis. Intelsat must not claim protection from radiolocation transmitting stations operating in accordance with footnote G2.

15. 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 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.

16. 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

[1] *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, GN Docket No. 12-354, Notice of Proposed Rulemaking and Order, 27 FCC Rcd 15594, 15646, para. 168 (2012).

NG52.

17. Operations of Intelsat 902 in the 14.47-14.5 GHz (Earth-to-space) frequency bands are 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.
18. 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 issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 2.106, and is effective immediately. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. § § 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

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:	January 16, 2020	
Term Dates	**From:** January 16, 2020	**To:** Period of 180 days

Approved:

Stephen J. Duall
Chief, Satellite Policy Branch

2. Contact

Name:	Cynthia J. Grady	**Phone Number:**	703-559-6949
Company:	Intelsat US LLC	**Fax Number:**	703-559-8539
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
309.9 E.L.	

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 herein requests a grant of Special Temporary Authority for 180 days, commencing upon grant, to drift Intelsat 902 (Call Sign S2406) to, and operate at, 309.9 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 &quot:party to the application" for these purposes.

(●) Yes ( ) No

10. Name of Person Signing	11. Title of Person Signing
Cynthia J. Grady	Senior Counsel, Intelsat US LLC

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).

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INTELSAT.
Envision. Connect. Transform.

November 14, 2019

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 902 to, and Operate at, 309.9° E.L.; Call Sign: S2406

Dear Ms. Dortch:

Intelsat License LLC ("Intelsat") herein requests a grant of Special Temporary Authority ("STA")[1] for 180 days, commencing upon grant, to drift Intelsat 902 (Call Sign S2406) to, and operate at, 309.9° E.L. (50.1° W.L). Intelsat recently filed a request for 30 days of STA to support the drift of Intelsat 902[2] and will be filing an application to modify the Intelsat 902 satellite license in support of this redeployment.

The Intelsat 902 satellite is currently operating in inclined orbit at 62.0° E.L.,[3] and upon receipt of Federal Communications Commission ("FCC" or "Commission") approval, Intelsat 902 will be relocated to 309.9° E.L. The drift of Intelsat 902 is expected to begin November 15, 2019[4] and will take approximately five months.

During the drift of Intelsat 902, Intelsat will only utilize 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 TT&C frequencies are as follows: 6173.7 MHz and 6176.3 MHz in the uplink; and 3947.5 MHz, 3948.0 MHz, 3952.0 MHz, and 3952.5 MHz in the downlink. Additionally,

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[1] Intelsat has filed this STA request, an FCC Form 159, and a $980.00 filing fee electronically via the International Bureau's Filing System.

[2] *See* Intelsat License LLC's Request for 30-day Grant of Special Temporary Authority to Drift Intelsat 902 to 309.9 E.L., File No. SAT-STA-20191104-00125 (filed Nov. 4, 2019).

[3] *See Policy Branch Information; Actions Taken*, Report No. SAT-01199, File No. SAT-MOD-20160816-00084 (Nov. 4, 2016) (Public Notice); *see* Letter from Cynthia J. Grady, Senior Counsel, Intelsat US LLC, to Marlene H. Dortch, Secretary, Federal Communications Commission, File No. SAT-MOD-20160816-00084 (Oct. 23, 2019).

[4] *See supra* n. 2

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once on-station at 309.9° E.L., the satellite will utilize the following communications frequencies: 5850-6425 MHz and 14000-14500 MHz in the uplink; and 3625-4200 MHz, 10950-11200 MHz, and 11450-11700 MHz in the downlink

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. Intelsat will operate Intelsat 902's communications payload and TT&C frequencies at 309.9° E.L. in conformance with existing coordination agreements and the FCC's rules governing operations vis-à-vis adjacent locations. Should any interference occur during the drift or on-station, Intelsat will take all reasonable steps to eliminate such interference.

Further, 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. Intelsat is not aware of any FCC licensed system, or any other system applied for and under consideration by the FCC, having an overlapping station-keeping volume with Intelsat 902 at 309.9° E.L.[5] Finally, Intelsat is not aware of any system with an overlapping station-keeping volume with Intelsat 902 that is the subject of an International Telecommunication Union filing and that is either in orbit or progressing towards launch.

Grant of this STA request is in the public interest because it will allow Intelsat to add capacity at the nominal 310° E.L. orbital location after the loss of Intelsat 29e.

For the reasons set forth herein, Intelsat respectfully requests that the Commission grant this STA request. Please direct any questions regarding this request to the undersigned at (703) 559-6949.

Sincerely,

/s/ Cynthia J. Grady

Cynthia J. Grady
Senior Counsel
Intelsat US LLC

cc: Stephen Duall
Jay Whaley
Jennifer Balatan

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[5] Intelsat 902 will be nominally collocated with Intelsat 9, which will operate at 310.0° E.L. *See* Intelsat License LLC's Request for Extension of Special Temporary Authority to Drift Intelsat 9 to 50.0 W.L., File No. SAT-STA-20191025-00120 (granted Nov. 14, 2019).