

SAT-STA-20160722-00065 IB2016001682  
Intelsat License LLC  
Intelsat 904



File # SAT-STA-2016 0722-00065  
Call Sign S2408 Grant Date 11/03/16  
(or other identifier)  
Term Dates period of  
From 02/01/17 To: 180 days  
Approved: Stephen J. Duall  
Stephen J. Duall  
Chief, Satellite Policy Branch

Approved by OMB  
3060-0678

Date & Time Filed: Jul 22 2016 12:05:25:453PM  
File Number: SAT-STA-20160722-00065  
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 904 to, and Operate at, 45.0 E.L. and 45.1 E.L. Call Sign S2408


I. Applicant

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

**ATTACHMENT TO GRANT**

Intelsat License LLC

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<b>IBFS File No(s):</b>	SAT-STA-20160722-00065	<p align="center"><b>GRANTED – With Conditions</b></p>  <p align="center"><b>International Bureau Satellite Division</b></p>
<b>Licensee/Grantee:</b>	Intelsat License LLC	
<b>Call Sign:</b>	S2408	
<b>Satellite Name:</b>	Intelsat 904	
<b>Orbital Location: (required station-keeping tolerance)</b>	45.0 ° E.L. and 45.1 ° E.L. (+/- 0.05 degrees east/west)	
<b>Administration:</b>	United States of America	
<b>Nature of Service:</b>	Fixed Satellite Service	
<b>Scope of Grant:</b>	Special temporary authority for a period of 180 days to (1) conduct telemetry, tracking, and command operations necessary to drift the Intelsat 904 space station from the 60.1° E.L. orbital position, first to the 45.0° E.L. orbital location, and then to the 45.1° E.L. orbital location, and to maintain it at these locations; and, (2) provide fixed-satellite service via Intelsat 904, first at the 45.0° E.L. orbital location, and then during the drift to the 45.1° E.L. orbital location. <sup>1</sup>	
<b>Service Area(s):</b>	See Item S6 of Schedule S and accompanying .gxt files	
<b>Frequencies:</b>	<p>During the drift to and at 45.0 ° E.L. and 45.1 ° E.L.:</p> <p>3625-3700 MHz, 3700-4200 MHz, 10.95-11.2 GHz, 11.45-11.7 GHz (space-to-Earth) 5850-5925 MHz, 5925-6425 MHz, 14.0-14.5 MHz (Earth-to-space)</p> <p>TT&amp;C center 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).</p>	
<p><b>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:</b></p> <ol style="list-style-type: none"> <li>1. Operations pursuant to this authority must be on an unprotected and non-harmful interference basis, i.e., the Intelsat 904 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.</li> <li>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.</li> <li>3. Intelsat must operate Intelsat 904 at the 45.0 ° E.L. orbital location in compliance with all existing or future coordination agreements for this location.</li> <li>4. While at the 45.0 ° E.L. and 45.1° E.L. orbital locations, Intelsat must maintain the Intelsat 904 spacecraft with an east/west longitudinal station-keeping tolerance of +/- 0.05 degrees.</li> <li>5. The United States remains the licensing administration of the Intelsat 904 spacecraft and its communications payloads for purposes of International Telecommunication Union (ITU) Radio Regulation 18.1 and is the administration responsible for the operations of Intelsat 904. Intelsat will operate Intelsat 904 at the nominal 45.0° E.L. orbital location pursuant to Germany’s EUROPESTAR-BSS-45E and EUROPESTAR-45E-A filings. The U.S. Administration will not object to use of the Intelsat 904 satellite by the German Administration for claiming bringing into use or continuing the use</li> </ol>		

<sup>1</sup> In a separate application, Intelsat requested authority to modify the authorization for the Intelsat 904 space station to specify operations at the 45.1° E.L. orbital location, instead of Intelsat 904's currently authorized location of 55.6° W.L., to provide fixed-satellite service. That application was granted at the same time as the instant STA. See IBFS File No. SAT-MOD-20160805-00079.

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Intelsat License LLC

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of orbital assignments at 45.0° E.L. This grant does not in any way express a view concerning, or agreement as to, the validity or lack of validity of any ITU filing at or in the vicinity of the 45.0° E.L. orbital location.

6. The operations of Intelsat 904 and associated earth stations must comport with the applicable uplink limits in 47 CFR §§ 25.138, 25.211, 25.218, 25.221, 25.222, 25.226, and/or 25.227 of the Commission's rules, and the applicable downlink limits in 47 CFR §§ 25.138 and/or 25.212 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 nominal 45.0° E.L. orbital location. Intelsat must also comport with the maximum power limits indicated in its application. Non-conforming operation must also be coordinated with respect to those operations of non-U.S.-licensed space stations within 6 degrees of the nominal 45.0° E.L. orbital location involving approved communications with U.S.-licensed earth stations.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. Operations of Intelsat 904 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

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Intelsat License LLC

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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 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).

<b>Action Date:</b>	November 3, 2016	
<b>Term Dates</b>	<b>From:</b> February 1, 2017	<b>To:</b> Period of 180 days

**Approved:**



Stephen J. Duall  
Chief, Satellite Policy Branch

2. Contact

<b>Name:</b>	Intelsat License LLC	<b>Phone Number:</b>	703-559-7848
<b>Company:</b>		<b>Fax Number:</b>	703-559-8539
<b>Street:</b>	c/o Intelsat Corporation	<b>E-Mail:</b>	susan.crandall@intelsat.com
	7900 Tysons One Place		
<b>City:</b>	McLean	<b>State:</b>	VA
<b>Country:</b>	USA	<b>Zipcode:</b>	22102 -5972
<b>Attention:</b>		<b>Relationship:</b>	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 December 1, 2016, of Special Temporary Authority for a two-phase relocation of the Intelsat 904 (Call Sign S2408) satellite. In the first phase, Intelsat seeks authority to drift Intelsat 904 from 60.0 E.L. to 45.0 E.L. and to operate at 45.0 E.L. temporarily for traffic transfer purposes.

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. Gen. 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**

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PER, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

**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.**

## **8. Description**

Intelsat License LLC herein requests 180 days, commencing December 1, 2016, of Special Temporary Authority for a two-phase relocation of the Intelsat 904 (Call Sign S2408) satellite. In the first phase, Intelsat seeks authority to drift Intelsat 904 from 60.0 E.L. to 45.0 E.L. and to operate at 45.0 E.L. temporarily for traffic transfer purposes. In the second phase, Intelsat seeks authority to drift Intelsat 904 from 45.0 E.L. to 45.1 E.L., while carrying communications traffic, and to operate the satellite at 45.1 E.L. At the nominal 45 E.L. location, Intelsat will operate Intelsat 904 pursuant to the International Telecommunication Union filing of the German Administration held by EUROPE\*STAR Gesellschaft fur Satellitenkommunikation mbH, a joint venture that is 51 percent owned by a sister entity of Intelsat, PanAmSat Europe Corporation.



July 22, 2016

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Re: Request for Special Temporary Authority to Drift Intelsat 904 to, and Operate at, 45.0° E.L. and 45.1° E.L.  
Call Sign: S2408

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein requests 180 days, commencing December 1, 2016, of Special Temporary Authority (“STA”)<sup>1</sup> for a two-phase relocation of the Intelsat 904 (Call Sign S2408) satellite. In the first phase, Intelsat seeks authority to drift Intelsat 904 from 60.0° E.L. to 45.0° E.L. and to operate at 45.0° E.L. temporarily for traffic transfer purposes. In the second phase, Intelsat seeks authority to drift Intelsat 904 from 45.0° E.L. to 45.1° E.L., while carrying communications traffic, and to operate the satellite at 45.1° E.L. At the nominal 45° E.L. location, Intelsat will operate Intelsat 904 pursuant to the International Telecommunication Union filing of the German Administration held by EUROPE\*STAR Gesellschaft für Satellitenkommunikation mbH (“Europe\*Star”), a joint venture that is 51 percent owned by a sister entity of Intelsat – PanAmSat Europe Corporation (“PanAmSat Europe”).<sup>2</sup>

Intelsat 904 is currently operating at 60.0° E.L.<sup>3</sup> Subject to receipt of FCC approval, the satellite will be relocated initially to 45.0° E.L.—with an anticipated drift start date of December 1, 2016. The drift to

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<sup>1</sup> Intelsat has filed this STA request, an FCC Form 159, and a \$930.00 filing fee electronically via the International Bureau’s Filing System.

<sup>2</sup> PanAmSat Europe is a Delaware company that is wholly owned by Intelsat Corporation. Certain members of the Shulte-Hillen family and other entities own the remaining 49 percent of Europe\*Star. The German representative of the Schulte-Hillen family is Beatrix von Wietersheim. The managing directors of Europe\*Star are Sajid Ajmeri and Mike Green. The officers and directors of PanAmSat Europe are: Kurt Riegelman – Director and Chairman, President & COO, Stephen Chernow – Director and VP & General Counsel, Mike Green – Director and VP & Controller, Henry Heuer, VP, Treasury and Tax, & Treasurer, and Sajid Ajmeri – VP & Secretary. Intelsat incorporates by reference the New Slot Usage Agreement between Europe\*Star and PanAmSat Europe previously filed with the FCC. *See Policy Branch Information; Actions Taken*, Report No. SAT-00476, File No. SAT-STA-20061102-00128 (Oct. 12, 2007) (Public Notice) (granting STA request to drift Intelsat 601 from 63.65° E.L. to 47.5° E.L.).

<sup>3</sup> *See Satellite Policy Branch Information; Applications Accepted For Filing*, Report No. SAT-00098, file No. SAT-MOD-20011221-00140 (Jan. 11, 2002) (Public Notice).

45.0° E.L. is expected to take approximately one month. Following transfer of traffic from Intelsat 12 to Intelsat 904, Intelsat will drift the latter to 45.1° E.L., while carrying communications traffic. Intelsat is relocating the Intelsat 904 satellite in order to ensure service continuity at the nominal 45° E.L. location, as Intelsat 12 is expected to be deorbited at the end of 2017.

During the drift of the Intelsat 904 satellite from 60.0° E.L. to 45.0° E.L., Intelsat will utilize only the satellite's telemetry, tracking, and control ("TT&C") frequencies. The specific TT&C frequencies are: 6173.7 MHz and 6176.3 MHz (uplink) and 3947.5 MHz, 3948.0 MHz, 3952.0 MHz, and 3952.5 MHz (downlink).

Once on-station at 45.0° E.L., while drifting to 45.1° E.L., and on-station at 45.1° E.L., Intelsat will also operate Intelsat 904 on the following communications frequencies: 3625-3700 MHz, 3700-4200 MHz, 5850-5925 MHz, 5925-6425 MHz, 10950-11200 MHz, 11450-11700 MHz, and 14000-14500 MHz.

Grant of this STA request will not result in increased risk of harmful interference. Intelsat will coordinate its TT&C transmissions with operators of co-frequency satellites in the drift path. Should any interference occur during the drift, Intelsat will take all reasonable steps to eliminate such interference. Although Intelsat 904 will drift between 45.0° E.L. and 45.1° E.L. while carrying communications traffic, there are no co-frequency satellites between 45.0° E.L. and 45.1° E.L., and Intelsat will coordinate the Intelsat 904 transmissions with those of Intelsat 12. On-station at both 45.0° E.L. and 45.1° E.L., and while drifting from the former to the latter, Intelsat will operate Intelsat 904 in conformance with Europe\*Star's coordination agreements concerning the nominal 45° E.L. location.

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. At 45.0° E.L., Intelsat 904 will be temporarily located at the same orbital location as Intelsat 12, a U.K.-licensed satellite, for purposes of traffic transition. 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 904 at either 45.0° E.L. or 45.1° E.L. Finally, Intelsat is not aware of any system with an overlapping station-keeping volume with Intelsat 904 at either 45.0° E.L. or 45.1° E.L. that is the subject of an ITU filing and that is either in orbit or progressing towards launch.

The redeployment of Intelsat 904 as requested herein will ensure service continuity at the nominal 45° E.L. orbital location. Accordingly, grant of this STA request is in the public interest.

Ms. Marlene H. Dortch  
July 22, 2016  
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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,

*/s/ Susan H. Crandall*

Susan H. Crandall  
Associate General Counsel  
Intelsat Corporation

cc: Stephen Duall  
Jay Whaley  
Cindy Spiers



INTELSAT

Envision. Connect. Transform.

September 28, 2016

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Re: Request for Special Temporary Authority to Drift Intelsat 904 (S2408) to, and Operate at,  
45.0° E.L. and 45.1° E.L.  
File No. SAT-STA-20160722-00065

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein supplements its above referenced Request for Special Temporary Authority to Drift Intelsat 904 (S2408) to, and Operate at, 45.0° E.L. and 45.1° E.L. to update the requested commencement date to February 1, 2017. The first sentence should now read:

Intelsat License LLC (“Intelsat”) herein requests 180 days, commencing *February 1, 2017*, of Special Temporary Authority (“STA”) for a two-phase relocation of the Intelsat 904 (Call Sign S2408) satellite.

Please direct any questions regarding this supplement to the undersigned at (703) 559-6949.

Respectfully submitted,

Cynthia J. Grady  
Regulatory Counsel  
Intelsat Corporation

cc: Stephen Duall  
Jay Whaley  
Cindy Spiers