

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
STA for User Terminal OSAT with I5F2

1. Applicant

Name:	ISAT US Inc.	Phone Number:	202-248-5158
DBA Name:		Fax Number:	202-248-5186
Street:	1101 Connecticut Avenue NW Suite 1200	E-Mail:	chris.murphy@inmarsat.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036
Attention:	Mr Chris Murphy		




File # SES-STA-20150716-00456
 Call Sign 8-14-15 Grant Date 8-14-15
 (or other identifier)
 Temp Dates
 From: 8-14-15 To: 9-13-15
 Approved: Paul E. Hays

Applicant: ISAT US Inc.
Call Sign: N/A
File No.: SES-STA-20150716-00456
Special Temporary Authority (STA)

ISAT US Inc. is granted STA, beginning August 14, 2015, for 30 days, for over-the-air site acceptance testing of Seatel GX60 and Skyware Atom65 antenna terminals located in Lino Lakes, Minnesota; Palm Bay, Florida; and Chantilly, Virginia, using the Inmarsat 5 F2 satellite at the 55° WL orbital location at frequency bands, 29.4 – 29.5 GHz, (Earth-to-space) and 19.6 - 20.2 GHz, (space-to-Earth) under the following conditions:

1. Operations must comply with the technical parameters specified in its underlying application, IBFS File no. SES-LIC-20141030-00832.
2. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future ISAT US Inc.
3. All operations under this grant of STA shall be on an unprotected and non-harmful interference basis. ISAT US Inc- shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radio communication system.
4. In the event of any harmful interference as a result of operations under this grant of STA, ISAT US Inc- shall cease operations immediately upon notification of such interference and shall immediately inform the Commission, in writing, of such an event.
5. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at ISAT US Inc's risk.
6. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future ISAT US Inc. applications.

This grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.

 GRANTED International Bureau	File # <u>STA-20150716-00456</u>
	Call Sign _____ Grant Date <u>8-14-15</u> (or other identifier)
	Term Dates From: <u>8-14-15</u> To: <u>9-13-15</u>
	Approved: <u>Paul E. Blas</u>

2. Contact	
Name: Chris Murphy	Phone Number: 202-248-5158
Company: Inmarsat	Fax Number: 202-248-5186
Street: 1101 Connecticut Avenue NW Suite 1200	E-Mail: chris.murphy@inmarsat.com
City: Washington	State: DC
Country: USA	Zipcode: 20036
Attention:	Relationship: Same
(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?	
<input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).	
<input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee	
<input type="radio"/> Other (please explain):	
4b. Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input checked="" type="radio"/> Other	
6. Requested Use Prior Date 08/14/2015	
7. City	
8. Latitude (dd mm ss.s h) 0 0 0.0	

9. State	10. Longitude (dd mm ss.s h) 0 0 0.0
11. Please supply any need attachments. Attachment 1: Exhibit A Attachment 2: Attachment 3:	
12. 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.) <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">Request for STA for over-the-air site acceptance testing of Seatel GX60 and Skyware Atom65 antenna terminals using the Inmarsat 5 F2 satellite at 55 WL.</div>	
13. 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. <p style="text-align: right;">Yes <input checked="" type="radio"/> No <input type="radio"/></p>	
14. Name of Person Signing Christopher J. Murphy	15. Title of Person Signing Vice President, Government Affairs
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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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.

Exhibit A

DESCRIPTION OF STA REQUEST

I. DESCRIPTION OF STA REQUEST

ISAT US, Inc. (“ISAT US”) hereby requests special temporary authority (“STA”) to operate two earth station user terminal antenna types located in Lino Lakes, Minnesota, Palm Bay, Florida, and Chantilly, Virginia, to facilitate over-the-air site acceptance testing (OSAT) of the Inmarsat Global Xpress Ka band network components using the Inmarsat 5 F2 (I5 F2) satellite located at 55W. The earth station antenna types are the Seatel GX60 and the Skyware Atom65 (“Antennas”). Operations of the Antennas during this OSAT period would be within the envelope of the technical parameters of the existing license applications for the respective Antennas, with the exception of additional frequency bands discussed below.¹ All operations would be at fixed locations. The Inmarsat Global Xpress I5 F2 satellite and the Lino Lakes Satellite Access Station have both been authorized for US market access from the 55W orbital location.²

ISAT US will be responsible for the technical aspects of the user terminal support, using the Ka-band portion of the satellite prior to its commercial operation. The user terminal operations will be closely monitored by the Inmarsat Network Operations Center (NOC) and various engineering teams associated with the OSAT campaign to ensure compliance with the requested testing authority. It is expected that the Antennas will be used starting August 14, 2015 for up to 30 days.

II. ISAT US SEEKS AUTHORITY TO TEST THE ANTENNAS ON ADDITIONAL FREQUENCY BANDS (29.4-29.5 GHz/19.6-19.7 GHz)

In addition to the frequencies that ISAT US requested in the underlying pending user terminal applications (i.e., 29.5-30 GHz/19.7-20.2 GHz), ISAT US seeks authority to test on the following additional frequency bands: 29.4-29.5 GHz (uplink) and 19.6-19.7 GHz (downlink). ISAT US requests this authority on a non-interference and non-protected basis. ISAT US requests a waiver of the U.S. Table of Frequency Allocations,³ as necessary, to allow the proposed FSS STA operations in the 19.6-19.7 GHz frequencies. Grant of a waiver would serve the public interest because it would allow end-to-end network testing in conjunction with the OSAT, facilitating the deployment of satellite broadband services to commercial, government, military and consumer users. As discussed below, grant of the requested waivers would not undermine the policy objective of the rule, as the primary operators in these bands under the U.S. Table would be protected from harmful interference.

¹ See, ISAT US GX user terminal earth station applications, Seatel GX60, filed Feb. 24, 2014, Public Notice Mar. 4, 2015 (Call Sign E140029; IBFS File No. SES-LIC-20140224-00098)(no comments were filed on the application); Skyware Atom65, filed Jun. 25, 2015, (Call Sign E150097; IBFS File No. SES-LIC-20150625-00383).

² See, Inmarsat Mobile Networks, Inc., Granted March 30, 2015, (Call Sign E120072; IBFS File No. SES-LIC-20120426-00397) (“*Lino Lakes Order*”).

³ 47 C.F.R. § 2.106.

For clarity ISAT US provides the following technical parameters for the additional frequencies requested:

EARTH-to-SPACE:

Transmit Frequencies: 29.4-29.5 GHz and 29.5-30 GHz
Transmit Polarisation: RHCP
Maximum EIRP: 50.4 dBW
RF Modulation: 8 APSK (max)
Minimum Elevation for Transmission: 10 degrees

SPACE-to-EARTH:

Receive Frequencies: 19.6-19.7 GHz and 19.7-20.2 GHz
Receive Polarisation: LHCP
Maximum Spacecraft EIRP: 54dBW
RF Modulation: 16 APSK
Azimuth Range: 360 degrees

Duration of Communications: approximately 30 days

Space Station Coordination

The coordination of communications for the use of the additional frequencies (29.4-29.5 GHz/19.6-19.7 GHz) with the Inmarsat-5 F2 spacecraft at the 55W orbital location with existing spacecraft operators during OSAT is the responsibility of Inmarsat and ISAT US. ISAT US has undertaken coordination of communications for the support of the OSAT of Inmarsat-5 F2 with other spacecraft operators that may be potentially affected during OSAT.

All the preparatory activities and contacts for such coordination have been made and all issues have been satisfactorily resolved. ISAT US also has undertaken to review the need for coordination based on any changed circumstances that may occur. In accordance with normal industry practices, communications with other operators will be kept open in the period leading to and throughout the OSAT activities, to ensure that the OSAT will be conducted on a non-interference basis. There are currently no MSS feeder link operations in the 29.4-29.5 GHz and 19.6-19.7 GHz band segments, and grant of the proposed STA on a non-interference, non-protected basis would not prejudice any future operations in this band.

Moreover, the proposed STA operations in the 19.6-19.7 GHz frequencies are unlikely to cause interference into fixed service operations that are co-primary in that band segment. As the Commission acknowledged in granting market access for the Inmarsat-5 F2 spacecraft, the space-to-Earth transmissions comply with the pfd limits established under Article 21 of the ITU Radio Regulations established to protect all fixed earth stations.⁴

* * * * *

Grant of the requested STA will serve the public interest, convenience and necessity because it will enable ISAT US to conduct essential network testing and the Inmarsat-5 F2

⁴ *Lino Lakes Order* ¶ 27.

spacecraft, within technical parameters consistent with the parameters described herein using the identified Antennas, without creating any risk of harmful interference. ISAT US respectfully requests that the Commission grant STA beginning August 14, 2015 for a period of 30 days.