

E120072 SES-STA-20150713-00454  
Inmarsat Mobile Networks, Inc.

IB2015001303

Approved by OMB  
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
Request for STA to Support Inmarsat 5 F2 Drift

1. Applicant

Name:	Inmarsat Mobile Networks, Inc.	Phone Number:	202-248-5150
DBA Name:		Fax Number:	
Street:	1101 Connecticut Avenue, NW Suite 1200	E-Mail:	chris.murphy@inmarsat.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036
Attention:	Chris Murphy		



File # SES-STA-20150713-00454  
Call Sign E120072 Grant Date 7-22-15  
(or other identifier)  
From: 7-22-15 To: 8-26-15  
Term Dates  
Approved: Chris Murphy

Applicant: Inmarsat Mobile Networks, Inc.  
Call Sign: E120072  
File Nos.: SES-STA-20150713-00454  
Special Temporary Authority (STA)

Inmarsat Mobile Networks, Inc., (Inmarsat) is granted STA to operate its earth station, Call Sign E120072 in Lino Lakes, Minnesota for 30 days, to begin July 27, 2015 to permit Ka-band telemetry, tracking and control (TT&C) communications with the Inmarsat-5 F2 satellite at the 55.0° W.L. orbital location in frequencies 29494 MHz and 29468 MHz (Earth-to-space) and 19700.5 MHz and 19702.5 MHz (space-to Earth), under the following conditions:

1. All operations shall be on an unprotected and non-harmful interference basis. Inmarsat, E120072, shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference.
2. In the event of any harmful interference under this grant of STA, Inmarsat must cease operations immediately upon notification of such interference, and must inform the Commission, in writing, immediately of such an event.
3. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future Inmarsat applications.
4. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Inmarsat's risk.

This action is taken on delegated authority pursuant to Section 0.261 of the Commission's rules, 47 C.F.R. §0.261, and is effective immediately.



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From: 7-27-15 To: 8-26-15  
Approved: Paul S. Blas

**2. Contact**

Name:	Inmarsat Mobile Networks, Inc.	Phone Number:	202-248-5150
Company:		Fax Number:	
Street:	1101 Connecticut Avenue, NW	E-Mail:	louis.rosa@inmarsat.com
	Suite 1200		
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036
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 SESLIC2012042600397 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 CGX – Fixed Satellite Transmit/Receive Earth Station

5. Type Request

- Use Prior to Grant     Change Station Location     Other

6. Requested Use Prior Date  
07/27/2015

7. City/Lino Lakes

8. Latitude  
(dd mm ss.s) 45 7 56.0 N

9. State	MN	10. Longitude (dd mm ss.s h)	93 5 44.0	W
11. Please supply any need attachments. Attachment 1: STA Narrative.				
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.) Narrative describing STA request.				
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 &quot;party to the application&quot; for these purposes.				
14. Name of Person Signing Chris Murphy		15. Title of Person Signing Director		
<p><b>WILFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT</b>          (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).</p>				

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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**

Inmarsat Mobile Networks, Inc. (“Inmarsat Mobile Networks”) hereby requests special temporary authority (“STA”) to use its 13 meter earth station antenna located in Lino Lakes, Minnesota and operated pursuant to Call Sign E120072 (“Lino Lakes Antenna”) to permit Ka-band telemetry, tracking, and control (“TTAC”) communications with the Inmarsat-5 F2 spacecraft during its drift to the 55W orbital location.<sup>1</sup> STA is requested for a period of 30 days.

The Inmarsat-5 F2 satellite was launched by a Proton launch vehicle from the Baikonur facility in Kazakhstan in February 2015. The satellite will have completed in-orbit testing and will commence drift operations at the end of July.

Inmarsat Mobile Networks will be responsible for the technical aspects of the drift support, using the Ka-band portion of the satellite prior to its commercial operation. Operations of the Lino Lakes Antenna during this drift period would be within the envelope of the technical parameters described below. The mission control center will be located at the London Inmarsat headquarters and all the mission operations will be conducted by experienced Inmarsat engineers and controllers. It is expected that the Lino Lakes Antenna will be used intermittently from about July 27, 2015 until about August 14, 2015, or once the satellite comes into range for operations from the Lino Lakes Antenna.

Following the drift phase and before entering commercial service, Inmarsat-5 F2 will undergo an over the air site acceptance test (OSAT) phase that is the subject of a separate STA request. At the end of the OSAT, the satellite will commence operational service at 55W. Once Inmarsat-5 F2 enters operational service nominal on-station TT&C operations will be conducted in Ka-band from Lino Lakes pursuant to existing authority.

#### **II. MISSION PARAMETERS**

##### **Earth Station**

Inmarsat Mobile Networks provides the following technical parameters for the drift operations for use from the Lino Lakes Antenna.

EARTH-to-SPACE:

Transmit Frequencies/Polarisations: 29494.0 MHz (LHCP) and 29468.0 MHz (RHCP)  
Maximum EIRP: 45 dBW  
RF Modulation: FM  
Minimum Elevation for Transmission: 5 degrees

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<sup>1</sup> See, Inmarsat Mobile Networks, Inc., granted March 30, 2015, (Call Sign E120072; IBFS File No. SES-LIC-20120426-00397).

**SPACE-to-EARTH:**

Receive Frequencies: 19700.5 MHz and 19702.5 MHz

Receive Polarisation: Circular LH

Maximum Spacecraft EIRP: 35 dBW

RF Modulation: PM

Azimuth Range: 103 to 132 degrees

Duration of Communications: Occasional periods of up to a few hours over a period of approximately fifteen days, assuming a nominal drift scenario.

**Space Station Coordination**

The coordination of communications for the support of the drift of the Inmarsat-5 F2 spacecraft with existing spacecraft operators during the drift is the responsibility of Inmarsat. Inmarsat has undertaken coordination of communications for the support of the launch of Inmarsat-5 F2 with other spacecraft operators that may be potentially affected during drift operations.

All the preparatory activities and contacts for such coordination have been made and Inmarsat has reviewed any co-ordination requirements. Inmarsat 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 drift activities, to ensure that the drift will be conducted on a non-interference basis.

\* \* \* \*

Grant of the requested STA will serve the public interest, convenience and necessity because it will enable Inmarsat Mobile Networks to provide essential TTAC functions to the Inmarsat-5 F2 spacecraft, within the technical parameters described herein with the Lino Lakes Antenna, without creating any risk of harmful interference. Inmarsat Mobile Networks respectfully requests that the Commission grant STA beginning July 27, 2015 for a period of 30 days.