## 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. 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.<sup>2</sup>

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, 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.

<sup>&</sup>lt;sup>1</sup> 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).

<sup>&</sup>lt;sup>2</sup> See, Inmarsat Mobile Networks, Inc., Granted March 30, 2015, (Call Sign E120072; IBFS File No. SES-LIC-20120426-00397) ("Lino Lakes Order").

<sup>&</sup>lt;sup>3</sup> 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.<sup>4</sup>

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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

<sup>&</sup>lt;sup>4</sup> 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.