Exhibit A

I. <u>DESCRIPTION OF STA REQUEST</u>

ISAT US, Inc. ("ISAT") hereby requests special temporary authority ("STA") to operate three earth station user terminal antennas at five different locations: two locations in New York, New York, two locations in Fort Lauderdale, Florida, and one location in Orlando Florida to facilitate testing of the Inmarsat Global Xpress Ka band network components using the Inmarsat 5 F2 satellite ("I5 F2") located at 55° W.L. beginning <u>October 20, 2015 for a thirty-day period</u>.

II. <u>ANTENNAS</u>

ISAT plans to use the following four earth station antenna types:

- 1. Model 5075, manufactured by Cobham plc (75 cm diameter)
- 2. Model Atom 65 AA, manufactured by Skyware Technologies (65 cm diameter)
- 3. Model Sailor 60GX, manufactured by Cobham plc (60 cm diameter)

(Collectively the "Antennas").

ISAT has previously submitted an application to the Commission (File No. SES-LIC-20150625-00383) for the Cobham 5075 and the Skyware Atom 65AA antennas (numbers 1 and 2 above), and wishes to incorporate the technical specifications listed in that application by reference herein.¹ The Cobham Sailor 60GX (number 3 above) has not been part of a previous application by ISAT and the technical details showing compliance with Section 25.138 of the Commission's rules for this antenna are provided as Annex 1 to this STA application.

III. OPERATIONS

Operations of the Antennas during this period would be within the envelope of the technical parameters of the existing license applications. All Antennas will be operated through the Lino Lakes Satellite Access Station authorized under call sign E120072. The OSAT will be conducted in the following frequencies:

Transmit: 29.5-30.0 GHz Receive: 19.7 – 20.2 GHz

ISAT wishes to conduct testing of the proposed Antennas at the following fixed locations. ISAT plans to use each of the four Antenna types at each of the five locations listed below:

- 1. Orlando, Florida Site: 28.57 North Latitude / 81.21 West Longitude
- 2. Fort Lauderdale, Florida Site: 26.19 North Latitude / 80.17 West Longitude

¹ See, ISAT US, Inc., GX user terminal land earth station application, Cobham 5075 and Atom 65AA, filed June 22, 2015, Public Notice Aug. 26, 2015 (Call Sign E150097; IBFS File No. SES-LIC-20150625-00383).

- 3. Fort Lauderdale, Florida Site: 26.12 North Latitude / 80.11 West Longitude
- 4. New York, New York Site: 40.76 North Latitude / 74.00 West Longitude
- 5. New York, New York Site: 40.78 North Latitude / 73.99 West Longitude

I5 F2 and the Lino Lakes Satellite Access Station have both been authorized for U.S. market access from the 55° W.L. orbital location.²

ISAT confirms that the operation of the Antennas will comply with §25.138 of the Commission's rules. ISAT will be responsible for the technical aspects of the user terminal support. The user terminal operations will be closely monitored by the Inmarsat Network Operations Center (NOC) and various engineering teams associated with the proposed testing to ensure compliance with the requested testing authority.

* * * * *

Grant of the requested STA will serve the public interest, convenience and necessity because it will enable ISAT to conduct essential network testing. Inmarsat Mobile Networks respectfully requests that the Commission grant STA beginning <u>October 20, 2015</u> for a period of 30 days.

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

Annex 1

Plots for Cobham Satcom terminals model Sailor 100GX

The following attachment contains all the plots requested for showing the compliance of the Cobham terminals above with the requirements established by FCC §25.138 and §25.209. The plots refer to the frequencies listed in Table 1 below.

Tx frequencies (§25.138)	29.5 GHz	29.75 GHz	30.0 GHz
Rx frequencies (§25.209)	19.2 GHz	19.7 GHz	20.2 GHz

Each plot is compared with the relevant mask derived from the FCC references above.

1. Plots for terminal type Sailor 60GX

1.1 Transmit plots (compliance with FCC §25.138)

1.1.1 Plots for Azimuth Co-Pol (Range: {-180 : 180} deg)

Figure 1 - Plot for 29.5 GHz

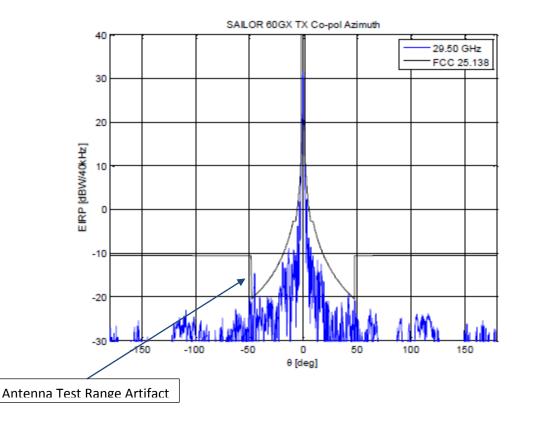
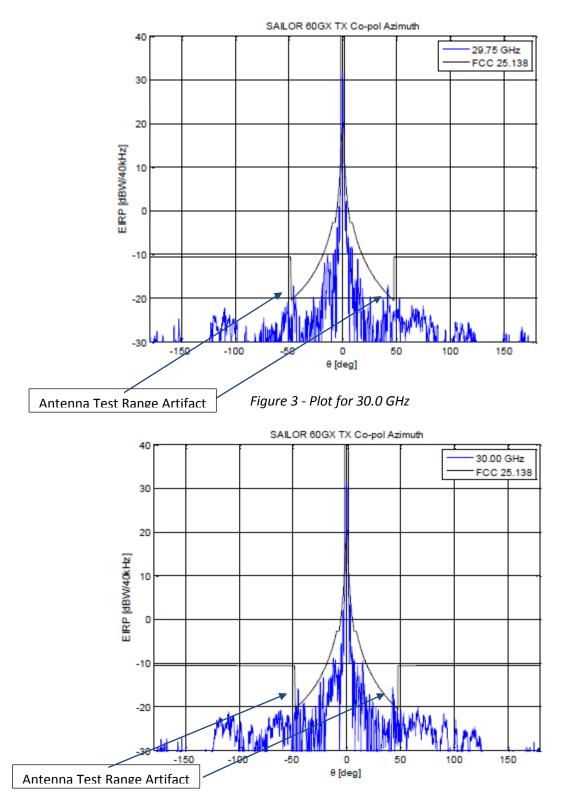


Figure 2 - Plot for 29.75 GHz



1.1.2 Plots for Azimuth Co-Pol (Range: {-10 : 10} deg)

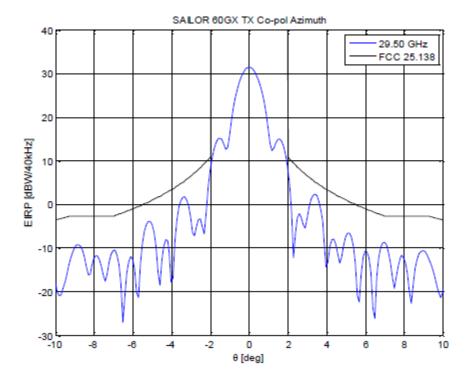
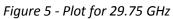
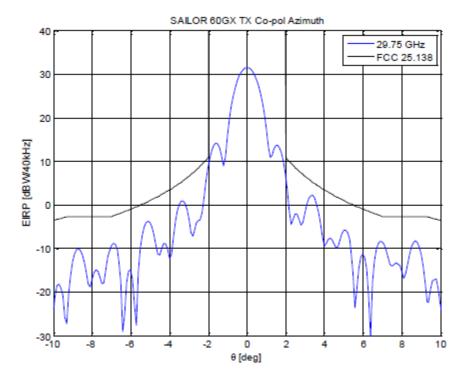
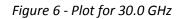


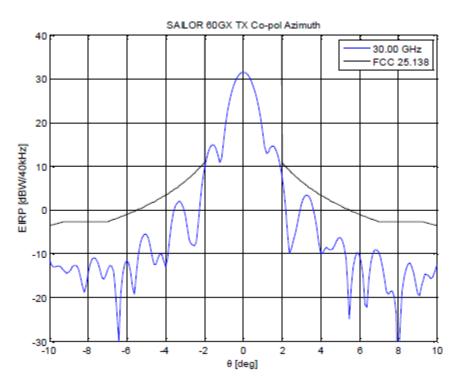
Figure 4 - Plot for 29.5 GHz





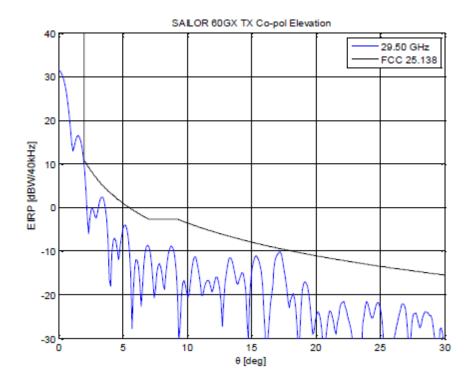
yure 5 - Piol joi 29.75 GH2





1.1.3 Plots for Elevation Co-Pol (Range: {0 : 30} deg)

Figure 7 - Plot for 29.5 GHz



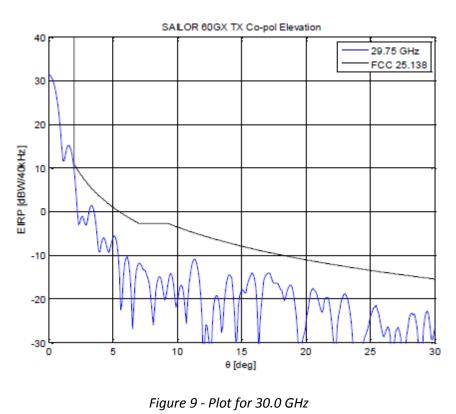
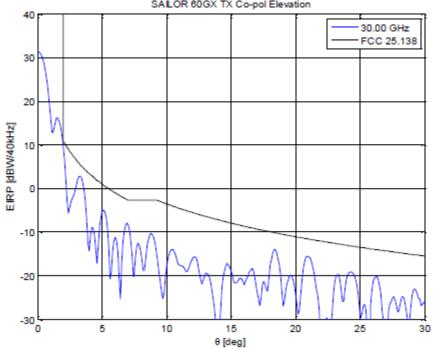


Figure 8 - Plot for 29.75 GHz



SALOR 60GX TX Co-pol Elevation

1.1.4 Plots for Azimuth X-Pol (Range: {-10 : 10} deg)

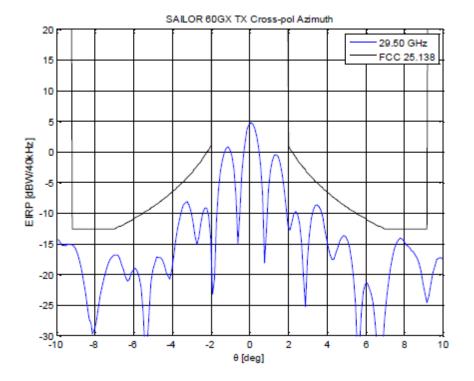
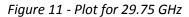
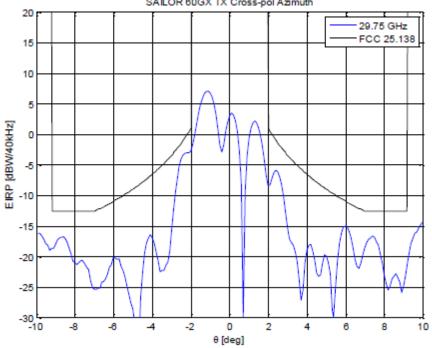


Figure 10 - Plot for 29.5 GHz





SAILOR 60GX TX Cross-pol Azimuth

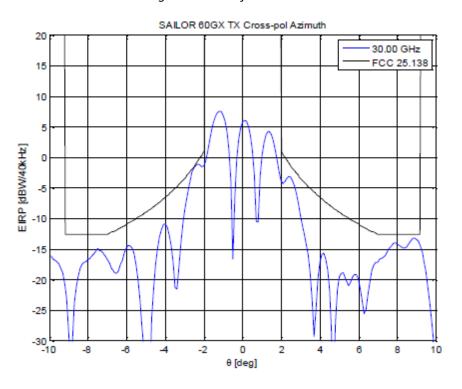
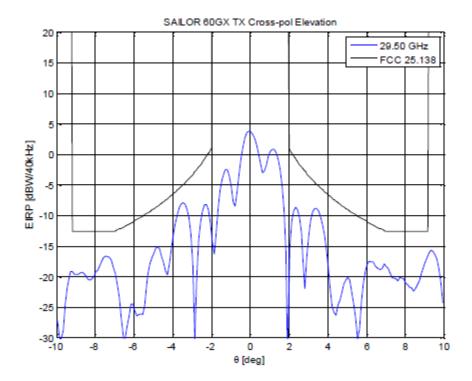
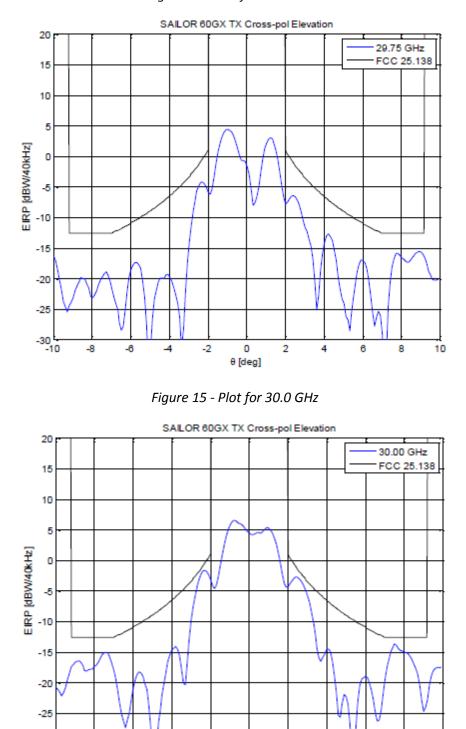


Figure 12 - Plot for 30.0 GHz

1.1.5 Plots for Elevation X-Pol (Range: {-10 : 10} deg)

Figure 13 - Plot for 29.5 GHz





-2

-4

0

θ [deg]

2

4

6

8

10

-30 -10

-8

-6

Figure 14 - Plot for 29.75 GHz

1.2 Receive plots (compliance with FCC §25.209)

1.2.1 Plots for Azimuth Co-Pol (Range: {-180 : 180} deg)

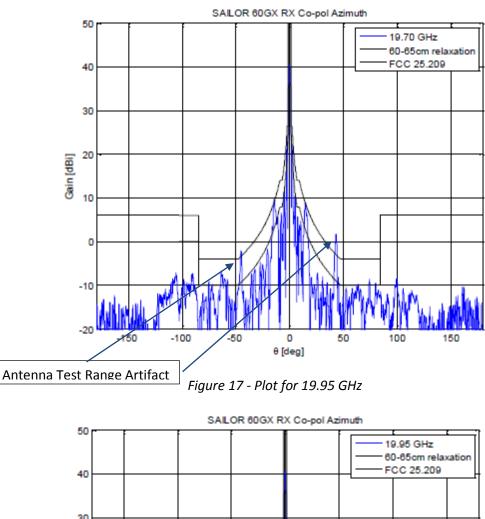


Figure 16 - Plot for 19.7 GHz

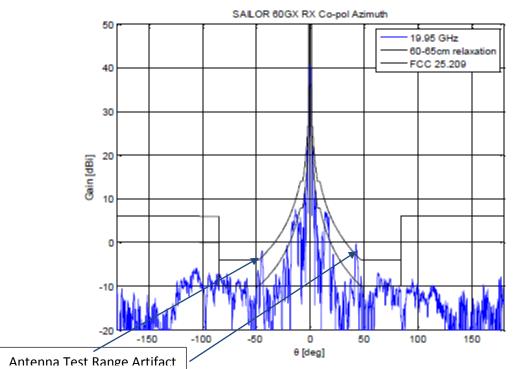
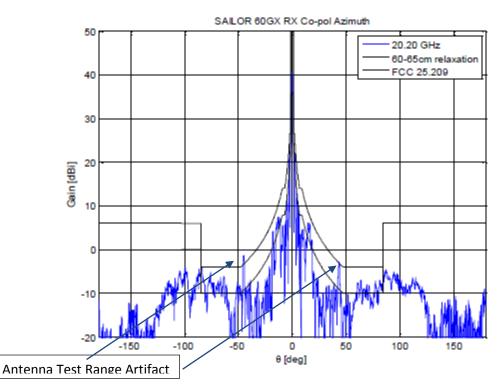
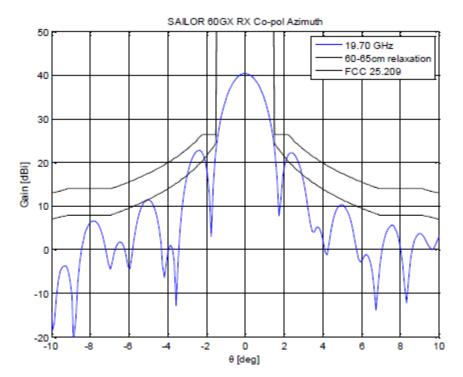


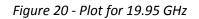
Figure 18 - Plot for 20.2 GHz

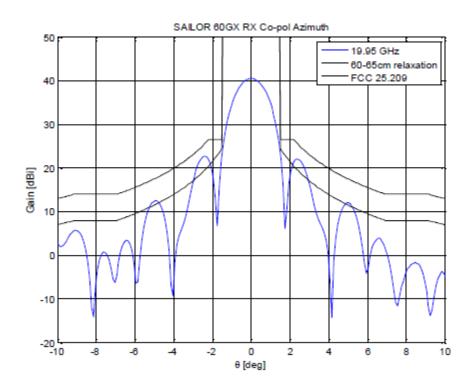


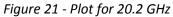
1.2.2 Plots for Azimuth Co-Pol (Range: {-10 : 10} deg)

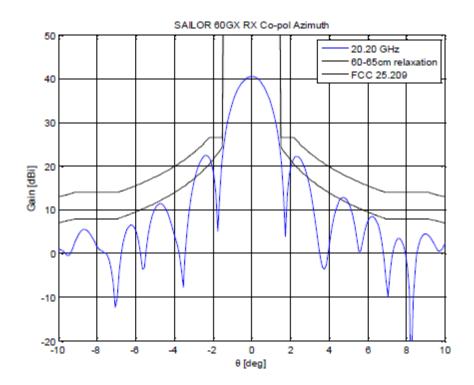
Figure 19 - Plot for 19.7 GHz











1.2.3 Plots for Elevation Co-Pol (Range: {0 : 30} deg)

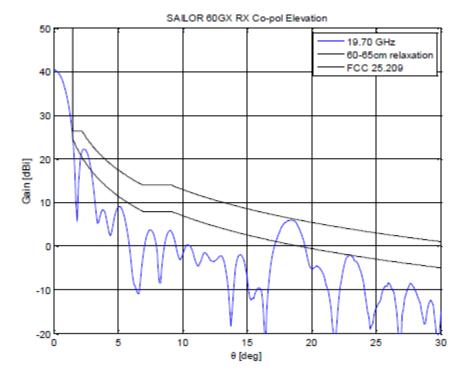
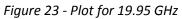
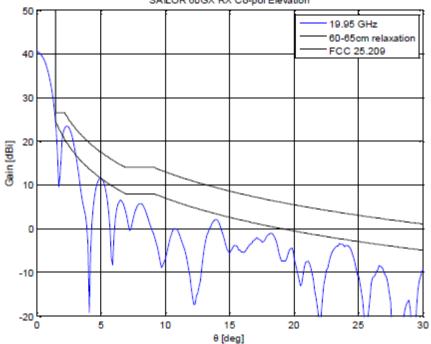


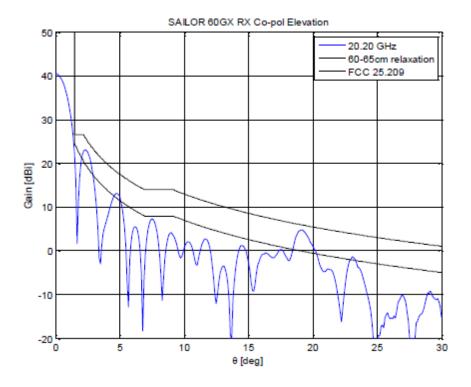
Figure 22 - Plot for 19.7 GHz





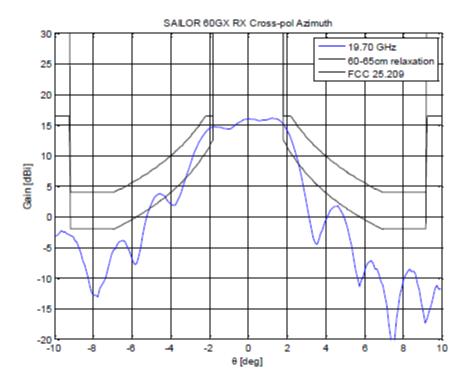
SAILOR 60GX RX Co-pol Elevation

Figure 24 - Plot for 20.2 GHz



1.2.4 Plots for Azimuth X-Pol (Range: {-10 : 10} deg)

Figure 25 - Plot for 19.7 GHz



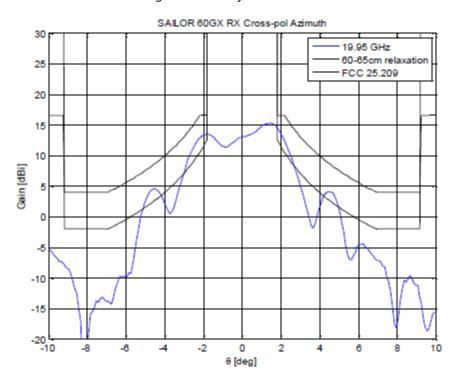
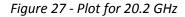
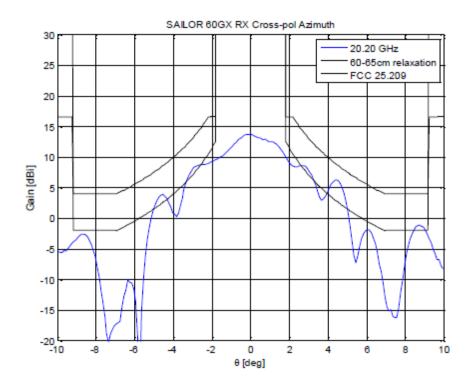


Figure 26 - Plot for 19.95 GHz





Plots for Elevation X-Pol (Range: {-10 : 10} deg) 1.2.5

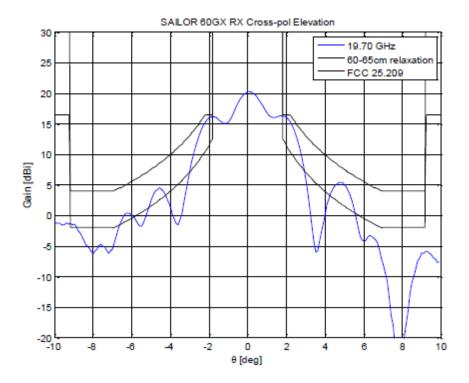
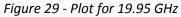
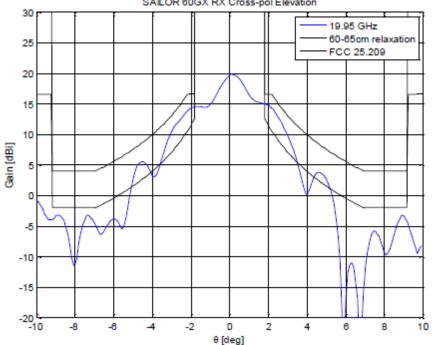


Figure 28 - Plot for 19.7 GHz





SAILOR 60GX RX Cross-pol Elevation

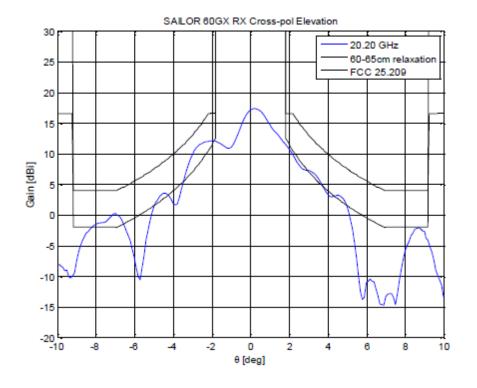


Figure 30 - Plot for 20.2 GHz