

COMSAT, Inc.

Request for Special Temporary Authority to
Operate Santa Paula Teleport 12.8 Meter Hub Antennas to
Communicate with Inmarsat 3F2 Satellite to
Support Inmarsat Testing During Drift of Satellite

File Number SES-MFS-20190425-00550
Call Sign KB34

COMSAT, Inc. (“COMSAT”) respectfully requests a grant of Special Temporary Authority (“STA”) effective March 2, 2020 to allow COMSAT to operate its Santa Paula, California Teleport 12.8 Meter Hub Antennas (SAPA 12.8M) to communicate with the Inmarsat 3F2 Satellite (I3F2) using L-band and C-band frequencies to support Inmarsat testing during drift of I3F2.

I3F2 was formerly located at 15.5 west longitude and was authorized by the Commission for U.S. Market Access and was on the ISAT list. Inmarsat has advised COMSAT that I3F2 is reaching the end of its operational life and that Inmarsat is conducting operational tests to look at potential ways of extending its life further. Inmarsat has elected not to deorbit the satellite at this time, and Inmarsat retains full control of the spacecraft and its current orbit is specified in the CARABINER filings submitted to the ITU by the UK administration.¹ Inmarsat has contracted with COMSAT to support testing of the satellite during that part of its drift arc in which it can be seen from COMSAT’s Santa Paula teleport. Inmarsat states that the satellite is not being drifted to a new GEO slot and Inmarsat is not seeking market access for I3F2 in its new orbit at this time. This STA is sought only for limited testing purposes in the new orbit.

The STA that is needed for this purpose is to operate the SAPA12.8M antennas to communicate with I3F2 during its drift utilizing the following emissions:

#	Frequency (MHz)	Polarization	Emission	Tx/Rx	Max EIRP (dBW)	Max EIRP /Carrier Density (dBW/4kHz)	Modulation
Pilot	1638.900	RHC	N0N	T	33	33	Pilot
Test Carrier 1	1639.180	RHC	10K0G1E	T	42	38	PSK
Test Carrier 2	1639.220	RHC	10KG01E	T	42	38	PSK
Test Carrier 3	1537.290	RHC	5K00G1E	R			PSK

¹ The API and CR/C filings may be found on the Space Network Systems Online database at https://www.itu.int/online/sns/nongeo.sh?ntc_id=119545143&sat_type=N&ie=&wic_no=2912&categ=A and https://www.itu.int/online/sns/nongeo.sh?ntc_id=119520185&sat_type=N&ie=&wic_no=2913&categ=C, respectively.

Test Carrier 4	1537.295	RHC	5K00G1E	R			PSK
Omni TT&C 1	6421.500	RHC	800KFXD	T	80	57	FSK
Omni TT&C 2	6423.500	LHC	800KFXD	T	80	57	FSK
TM1	3950.600	RHC	800KFXD	R			FSK
Global TT&C 1	6339.500	RHC	800KFXD	T	73	50	FSK
Global TT&C 2	6341.500	RHC	800KFXD	T	73	50	FSK
Aux TM	3928.500	LHC	800KFXD	R			FSK

The SAPA 12.8M antennas to be used for these communications (one as the primary and the second as the back-up) are currently authorized per COMSAT's KB34 (the primary) and KA31 (the back-up, File Number SES-MOD-20151009-00715) licenses to communicate in the L-band and C-band with ISAT list satellites generally as well as specifically named Inmarsat satellites within the view of the Santa Paula teleport. The antennas have been successfully coordinated for C-band transmissions across the entire satellite arc (46.0 W.L. – 190.0 W.L. and 48.0 W.L. – 190.0 W.L., respectively). The power levels and other particulars used for the testing will be well within the levels authorized by the licenses.

Inmarsat has notified other operators of the ongoing drift maneuver. C-band transmissions will only be utilized for telemetry, telecommand, and control operations. Inmarsat will observe a one degree command hinder silence to affected satellites. Inmarsat will further endeavor to notify and coordinate if any commanding or ranging is needed within this one degree window.

Grant of the STA for the testing is in the public interest because Inmarsat services supported by I3 satellites include maritime services used for Safety at Sea as well as services used by various U.S. agencies. It is therefore respectfully requested that STA as described above be granted for a period of 60 days, effective March 2, 2020.

Any questions with respect to this matter may be directed to James G. Lovelace at 571-599-3643.