

COMSAT, Inc.

Request for Extension of Special Temporary Authority to  
Operate Santa Paula Teleport 12.8 Meter Hub Antennas to  
Communicate with Inmarsat 3F1 Satellite to  
Support Inmarsat Testing During Drift of Satellite

File Number SES-STA-20210129-00174  
Call Sign KB34

COMSAT, Inc. (“COMSAT”) respectfully requests extension, effective March 9, 2022, of the Special Temporary Authority (“STA”) for COMSAT to operate its Santa Paula, California Teleport 12.8 Meter Hub Antennas (SAPA 12.8M) to communicate with the Inmarsat 3F1 Satellite (I3F1) using L-band and C-band frequencies.

I3F1 was formerly located at 64.5 east longitude. Inmarsat has advised COMSAT that I3F1 is reaching the end of its operational life and that Inmarsat has been 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. Inmarsat states that its current orbit is specified in the CARABINER filings submitted to the ITU by the UK administration<sup>1</sup> and has contracted with COMSAT to support testing of the CARABINER satellites during that part of the drift arc in which they can be seen from COMSAT’s Santa Paula teleport. Inmarsat states that the satellites are not being drifted to a new GEO slot and Inmarsat is not seeking market access for CARABINER at this time. The STA is only for limited testing purposes. As explained in other filings with the Commission and in calls with Commission staff, I3F1 is one of three identical I3F satellites (the others being I3F2 and I3F3) drifting one behind the other in what is known as CARABINER and so it is requested that the STA extension cover all three.

Extension of the STA will enable COMSAT to continue to operate the SAPA 12.8M antennas to communicate with CARABINER utilizing the following emissions:

| #              | Frequency<br>(MHz) | Polarization | Emission | Tx/Rx | Max<br>EIRP<br>(dBW) | Max<br>EIRP<br>Density<br>(dBW/4kHz) | Modulation |
|----------------|--------------------|--------------|----------|-------|----------------------|--------------------------------------|------------|
| Pilot          | 1638.900           | RHC          | N0N      | T     | 33                   | 33                                   | Pilot      |
| Test Carrier 1 | 1639.180           | RHC          | 10K0G1E  | T     | 42                   | 38                                   | PSK        |

<sup>1</sup> 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](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](https://www.itu.int/online/sns/nongeo.sh?ntc_id=119520185&sat_type=N&ie=&wic_no=2913&categ=C), respectively.

|                |          |     |         |   |    |    |     |
|----------------|----------|-----|---------|---|----|----|-----|
| Test Carrier 2 | 1639.220 | RHC | 10KG01E | T | 42 | 38 | PSK |
| Test Carrier 3 | 1537.290 | RHC | 5K00G1E | R |    |    | PSK |
| 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 |

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) 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.

Extension of the STA is in the public interest because Inmarsat services historically supported by I3F 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 extension of the STA as described above be granted for a period of 60 days, effective March 9, 2022.

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