

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
STA - Paumalu, HI 19m Antenna (LEOP)

1. Applicant

Name:	Inmarsat Hawaii Inc.	Phone Number:	202-248-5155
DBA Name:		Fax Number:	202-248-5186
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 20131017-00876

Call Sign **K4AS** Grant Date **11-20-13**

(or other identifier)

Term Dates From **12-5-13** To **11-4-14**

Approved *Chris Murphy*



GRANTED
International Bureau

Applicant: Inmarsat Hawaii Inc.
Call Sign: KA25
File No.: SES-STA-20131017-00876
Special Temporary Authority (STA)

Inmarsat Hawaii Inc. is granted, under the following conditions, STA for 30 days, commencing upon launch of the Inmarsat-5 F1 satellite to operate its 19-meter antenna earth station at Haleiwa, Hawaii at geographical coordinates 21 deg 40' 14.6 " N.L. and 158 deg 02' 03.1" W.L. to provide C-band telemetry, tracking and control (TT&C) communicate in the 4199.0 and 4199.5 MHz (space-to-Earth) using linear vertical and circular LH and 5926.5 and 6422.5 MHz (Earth-to-space) linear horizontal and circular RH, 89 dBW maximum EIRP with Inmarsat-5 F1 satellite at its permanent orbital location 63.0 degrees E.L Inmarsat Hawaii Inc. must notify the FCC of the specific launch date or changes in this launch window that may affect the timing of the authority requested.

1. All operations shall be on an unprotected and non-harmful interference basis, Inmarsat Hawaii Inc., KA25, 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. All operations under this grant of special temporary authority must be on an unprotected and non-harmful interference basis, *i.e.*, Inmarsat Hawaii Inc. must not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating station.
3. In the event of any harmful interference under this grant of special temporary authority, Inmarsat Hawaii Inc. must cease operations immediately upon notification of such interference, and must inform the Commission, in writing, immediately of such an event.
4. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at Inmarsat Hawaii Inc.'s risk.
5. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately.



File #	SES-STA-20131017-00876		
Call Sign	KA25	Grant Date	11-20-13
(or other identifier)		Term Dates	
From	12-5-13	To	1-4-14
Approver's	[Handwritten signatures]		

2. Contact

Name: Chris Murphy **Phone Number:** 202.248.5158
Company: Inmarsat **Fax Number:**
Street: 1101 Connecticut Ave., NW **E-Mail:** chris.murphy@inmarsat.com
Suite 1200
City: Washington **State:** DC
Country: USA **Zipcode:** 20036 -
Attention: Chris Murphy **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 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
12/05/2013

7. City Haleiwa

8. Latitude
(dd mm ss.s h) 21 40 14.6 N

9. State HI	10. Longitude (dd mm ss.s h) 158 2 3.1 W
11. Please supply any need attachments. Attachment 1: Exhibit A 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.) See Exhibit A (narrative).	
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 "party to the application"; for these purposes. Yes <input checked="" type="radio"/> No <input type="radio"/>	
14. Name of Person Signing Chris Murphy	15. Title of Person Signing Sr. Director
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (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).	

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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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 AND PETITION FOR WAIVER OF SECTIONS 25.137 AND 25.114

I. DESCRIPTION OF STA REQUEST

Inmarsat Hawaii Inc. (“Inmarsat Hawaii”) hereby requests special temporary authority (“STA”) to use its 19 meter earth station antenna located in Paumalu, Hawaii and operated pursuant to Call Sign KA25 (the “19m Antenna”) to permit C-band telemetry, tracking, and control (“TTAC”) communications with the Inmarsat-5 F1 spacecraft during its Launch and Early Orbit Phases (LEOP).¹ Operations of the 19m Antenna during this LEOP period would be consistent with the technical parameters of the existing license for KA25, although Inmarsat-5 F1 is not currently a licensed point of communication for the 19m Antenna.

The Inmarsat-5 F1 satellite will be launched by a Proton launch vehicle from the Baikonur facility in Kazakhstan. Inmarsat Hawaii and its affiliates will provide a network of ground stations around the globe that will provide communication with the spacecraft during the LEOP. The Inmarsat Hawaii facility at Paumalu, Hawaii will form part of the Inmarsat Hawaii ground station network for this launch support using the 19m Antenna. Launch is currently scheduled for December 8th, 2013.

Inmarsat Hawaii will be responsible for the technical aspects of the launch support, using the C-band portion of the satellite prior to its commercial operation. The mission control center will be located at the Inmarsat premises in London, England and all the mission operations will be conducted under Inmarsat Global Ltd. (“Inmarsat Global”) control with support from the Boeing Satellite Company (USA). It is expected that the Paumalu 19m Antenna will be used intermittently during the first few days of support (typically 8 to 12) for limited periods when the spacecraft is visible from the Paumalu station.

The final geostationary operational location for Inmarsat-5 F1 will be at or near 63° E.L. Following the LEOP phase and before entering commercial service, Inmarsat-5 F1 will undergo a 5 to 6 weeks electrical propulsion orbit raising phase followed by a one month In-Orbit Test (IOT) phase both at (or close to) the geostationary location of 63° E.L. No operations with Inmarsat-5 F1 will be possible from the Paumalu ground station when the satellite is undergoing electrical propulsion orbit raising or IOT or once it becomes operational given the lack of visibility to the relevant orbital locations. Therefore, Inmarsat Hawaii’s support to Inmarsat Global using the Paumalu station and 19 m Antenna will be limited to the LEOP portion of the mission only.

¹ The Inmarsat-5 F1 satellite is a Boeing 702 Ka-band satellite (with dual-band C-band and Ka-band TT&C transponder) which will be operated from the 63° E.L. orbital location.

II. TO THE EXTENT THEY APPLY, GOOD CAUSE EXISTS FOR AWAIVER OF CERTAIN PORTIONS OF SECTIONS 25.137 AND 25.114

Inmarsat Hawaii is providing the following legal and technical information to support this STA request and certain waiver requests that are necessary in order to communicate from the 19m Antenna to the Inmarsat-5 F1 spacecraft as the spacecraft is not listed as a point of communications on Inmarsat Hawaii's license for the antenna.

Pursuant to Section 25.137 of the Federal Communications Commission's ("Commission" or "FCC") rules, the same technical information required by Section 25.114 for U.S.-licensed space stations, and certain legal information, must be submitted by earth station applicants "requesting authority to operate with a non-U.S. licensed space station to serve the United States..."² Inmarsat Hawaii seeks authority to support the needed TTAC during the LEOP of the Inmarsat-5 F1 spacecraft from shortly after launch to low earth and transfer orbits. Inmarsat Hawaii does not request authority to provide commercial service to the United States, and thus believes that Section 25.137 does not apply.

To the extent the Commission determines, however, that Inmarsat Hawaii's request for authority to provide LEOP on a special temporary basis is a request to serve the United States with a non-U.S.-licensed satellite, Inmarsat Hawaii respectfully requests a waiver of Sections 25.137 and 25.114 of the Commission's rules, to the extent that Inmarsat Hawaii has not herein provided the information required by these rules.³ The Commission may grant a waiver for good cause shown.⁴ A waiver is therefore appropriate if special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest.

In this case, good cause for a waiver of portions of Section 25.114 exists. Inmarsat Hawaii seeks authority only to conduct LEOP support for Inmarsat-5 F1. Thus, any information sought by Section 25.114 is not relevant to the LEOP – e.g., antenna patterns, energy and propulsion and orbital debris.

As evidenced by Inmarsat Hawaii's license for the 19m Antenna, Inmarsat Hawaii has the requisite authority to perform the LEOP of the Inmarsat-5 F1 satellite, except for the point of communication. Moreover, as with any STA, Inmarsat Hawaii will conduct the operations on an unprotected, non-interference basis.

Because it is not relevant to the service for which Inmarsat Hawaii seeks authorization, Inmarsat Hawaii seeks a waiver of all the technical and legal information required by Section 25.114, to the extent it is not provided herein. As noted above, Inmarsat Hawaii has provided the required information to the extent that it is relevant to the LEOP service for which Inmarsat Hawaii seeks authorization.

² 47 C.F.R. § 25.137(a).

³ 47 C.F.R. §§25.137 and 25.114.

⁴ 47 C.F.R. §1.3.

Good cause also exists to waive portions of Section 25.137, to the extent the information required is not herein provided. Section 25.137 is designed to ensure that “U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services” in other countries. Here, there is no service being provided by the satellite; Inmarsat Hawaii is simply providing TTAC facilities while the satellite is in transfer orbit on the way to its final geostationary orbital location. Thus, the purpose of the information required by Section 25.137 is not implicated here. For example, Section 25.137(d) requires earth station applicants requesting authority to operate with a non-U.S.-licensed space station that is not in orbit and operating to post a bond.⁵ The underlying purpose in having to post a bond – i.e., to prevent warehousing of orbital locations by operators seeking to serve the United States – would not be served by requiring Inmarsat Hawaii to post a bond in order to conduct a limited period of LEOP support of the Inmarsat-5 F1 satellite.

Inmarsat Global has applied for a license to operate the Inmarsat-5 F1 spacecraft from the UK Space Agency. In keeping with current practice, Inmarsat does not anticipate that the UK Space Agency will issue the license until just prior to launch.

Inmarsat-5 F1 is a commercial communications satellite primarily supporting broadband data services to mobile users in the Middle East, Africa, Europe, Asia and Australia. The spacecraft is not meant to serve the United States. Thus, the purpose of Section 25.137 – to ensure that U.S. satellite operators enjoy “effective competitive opportunities” to serve foreign markets and to prevent warehousing of orbital locations serving the United States – will not be undermined by grant of this waiver request.

Finally, Inmarsat Hawaii notes that it expects to communicate with the Inmarsat-5 F1 satellite using the 19m Antenna for a maximum period of 12 days under nominal launch conditions. Requiring Inmarsat Hawaii to provide technical and legal information, where there is no risk of interference and the operation will normally cease within 12 days is unnecessary and would pose undue hardship without serving underlying policy objectives. Given these particular facts, Inmarsat Hawaii believes that the waiver sought herein is appropriate.

MISSION TECHNICAL PARAMETERS

Earth Station

Inmarsat Hawaii provides the following technical parameters for information only. The operations contemplated in this request fall within the existing license parameters for the 19m Antenna.

EARTH-to-SPACE:

Transmit Frequencies: 5926.5 MHz and 6422.5 MHz
Transmit Polarisation: Linear Horizontal and Circular RH
Maximum EIRP: 89 dBW
RF Modulation: FM

⁵ 47 C.F.R. §25.137(d)(4).

Minimum Elevation for Transmission: 10 degrees

SPACE-to-EARTH:

Receive Frequencies: 4199.0 MHz and 4199.5 MHz
Receive Polarisation: Linear Vertical and Circular LH
Maximum Spacecraft EIRP: 6 dBW within +/- 70 degrees
RF Modulation: PM

Azimuth Range: 360 degrees

Duration of Communications: Once or twice a day for a period of a few hours for about eight to twelve days assuming a nominal launch scenario.

Space Station Coordination

The coordination of communications for the support of the launch of the Inmarsat-5 F1 spacecraft with existing spacecraft operators during LEOP operations is the responsibility of Inmarsat. Inmarsat has undertaken coordination of communications for the support of the launch of Inmarsat-5 F1 with other spacecraft operators that may be potentially affected during LEOP operations.

All the preparatory activities and contacts for such coordination have been made and all issues have been satisfactorily resolved. 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 LEOP activities, to ensure that the LEOP 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 Hawaii to provide essential TTAC functions to the Inmarsat-5 F1 spacecraft, within technical parameters consistent with the licensed parameters of the 19m Antenna, without creating any risk of harmful interference. Inmarsat Hawaii respectfully requests that the Commission grant STA beginning December 5, 2013 for a period of 30 days.