

S2923 SAT-LOI-20140326-00034 IB2014000556
Inmarsat Hawaii Inc.
INMARSAT-KA 63W



File # SAT-LOI-20140326-00034

Call Sign S2923 Grant Date 09/18/14

(or other identifier)

see Term Dates see

From conditions To: conditions

Approved by OMB
3060-0678

Approved: _____

Stephen J. Duall
Stephen J. Duall
Chief, Satellite Policy Branch

Date & Time Filed: Mar 26 2014 2:46:16:100PM
File Number: SAT-LOI-20140326-00034
Callsign/Satellite ID: S2923

APPLICATION FOR SATELLITE SPACE STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Letter of Intent for 63 WL Ka band Satellite

1-8. Legal Name of Applicant			
Name:	Inmarsat Hawaii Inc.	Phone Number:	202-248-5158
DBA Name:		Fax Number:	202-248-5177
Street:	1101 Connecticut Avenue NW Suite 1200	E-Mail:	chris.murphy@inmarsat.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036 -
Attention:	Chris Murphy		

Inmarsat Hawaii Inc.
IBFS File No. SAT-LOI-20140326-00034
Call Sign S2923

The Letter of Intent filed by Inmarsat Hawaii Inc., IBFS File No. SAT-LOI-20140326-00034, to access the United States market using a proposed Ka-band geostationary orbit (GSO) space station, INMARSAT-KA 63W (Call Sign S2923), which will operate under the authority of the United Kingdom at the 62.85° W.L. orbital location, is GRANTED.¹ Accordingly, Inmarsat Hawaii is granted access to the U.S. market to provide Fixed-Satellite Service (FSS) from the 62.85° W.L. orbital location using the 18.3-18.8 GHz and 19.7-20.2 GHz (space-to-Earth), and the 28.35-28.6 GHz and 29.5-30.0 GHz (Earth-to-space) frequency bands on a primary basis; the 28.1-28.35 GHz and 28.6-29.1 GHz (Earth-to-space) frequency bands on a secondary basis; and the 18.8-19.3 GHz (space-to-Earth) frequency band on a non-conforming basis.² Communications between U.S.-licensed earth stations and the INMARSAT-KA 63W space station must be in accordance with the terms, conditions, and technical specifications set forth in Inmarsat Hawaii's Letter of Intent, the Federal Communications Commission's rules not waived herein, and the following conditions:

1. This grant does not include provision of any direct-to-home (DTH) services, Direct Broadcast Satellite (DBS) Service, or Digital Audio Radio Service (DARS) to, from, or within the United States.
2. INMARSAT-KA 63W must be maintained with an east/west longitudinal station-keeping tolerance of ± 0.05 degrees of the 62.85° W.L. orbital location.
3. Communications between U.S.-licensed earth stations and the INMARSAT-KA 63W space station must be in compliance with all existing and future space station coordination agreements reached between the United Kingdom and other Administrations.³

¹ This application was placed on public notice. Policy Branch Information, Satellite Space Applications Accepted for Filing, Public Notice, Report No. SAT-01014 (May 9, 2014). In response, Telesat Canada filed a Petition for Imposition of Conditions relating to international coordination issues, but did not oppose grant of the application. Telesat Canada, Petition for Imposition of Conditions, filed April 21, 2014. *See n. 3 infra*. In addition, HNS License Sub, LLC filed a Petition for Clarification of certain information contained in Inmarsat Hawaii's application. Inmarsat Hawaii filed supplemental information on June 20, 2014. Letter to Marlene H. Dortch, Secretary, FCC, from Christopher J. Murphy, Vice President, Government Affairs, Inmarsat Hawaii Inc. HNS License Sub, LLC withdrew its Petition on July 2, 2014. Letter to Marlene H. Dortch, Secretary, FCC, from Steven Doiron, Senior Director, Regulatory Affairs, Hughes Network Systems.

² Inmarsat Hawaii states that it does not anticipate that any telemetry, tracking, and command (TT&C) earth stations will be located in the United States. Inmarsat Hawaii, SAT-LOI-20140326-00034 (Inmarsat Hawaii LOI), Attachment A, page 2.

³ Telesat Canada requests that any Commission grant of Inmarsat's request for market access be conditioned to require Inmarsat to cease providing service from INMARSAT-KA 63W once Telesat Canada's proposed Ka-band space station is placed into operation at 63° W.L. orbital location. Both Telesat Canada and Inmarsat propose operations pursuant to satellite network information filed by the United Kingdom with the International Telecommunication Union. Under the circumstances, we decline to specify detailed conditions concerning scenarios in which the operators and their Administration are unable to resolve the matter. We expect the operators to work in good faith to resolve any dispute and Inmarsat to seek modification of its market access grant should the need for modification arise as a result of dispute resolution. *See Hughes Network Systems, LLC, Declaratory Ruling, 26 FCC Rcd 8521 paragraph 24-26 (Int'l Bur. 2011)*.

4. Inmarsat Hawaii's request for a waiver of Footnote NG165 to Section 2.106 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, to permit Inmarsat Hawaii to operate its GSO FSS INMARSAT-KA 63W space station in the 18.8-19.3 GHz (space-to-Earth) frequency band on a non-conforming basis is GRANTED. In the United States, the 18.8-19.3 GHz frequency band is designated for non-Federal, non-geostationary orbit (NGSO) FSS operations on a primary basis, with no designation for non-Federal GSO operations. The 18.8-19.3 GHz band is also allocated to Federal GSO and NGSO FSS operations on a primary basis. As a non-conforming user, Inmarsat Hawaii must accept any interference from any non-Federal NGSO FSS system, any Federal GSO FSS or NGSO FSS system, or any grandfathered co-primary fixed service stations authorized to use the 18.8-19.3 GHz frequency band. In addition, Inmarsat Hawaii must not cause harmful interference to any authorized non-Federal NGSO FSS system, any authorized Federal GSO FSS or NGSO FSS system, or any grandfathered co-primary fixed service stations, and must immediately cease operations upon notification of such harmful interference resulting from its operations.

5. Inmarsat Hawaii's request for a limited waiver of Section 25.114(d)(3) of the Commission's rules, to the extent it requires certain beam information in the Schedule S form in a .GXT format, is GRANTED. Inmarsat Hawaii states that it was not feasible to embed the large number of .GXT files into the Schedule S form associated with the application. Instead, Inmarsat Hawaii emailed the files and also submitted them as a .GXT attachment to the application. In this instance, we were able to complete our technical review of the antenna gain contour information and therefore grant Inmarsat a limited waiver of Section 25.114(d)(3).

6. Inmarsat Hawaii must coordinate its space-to-Earth operations in the 18.3-19.3 GHz and 19.7-20.2 GHz frequency bands with the U.S. Federal systems, including Federal operations to earth stations in foreign countries, in accordance with Footnote US334 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106. In addition to meeting the terms of the coordination agreement, the non-conforming INMARSAT-KA 63W operations in the 18.8-19.3 GHz band must not cause harmful interference to, nor claim protection from, present and future Federal GSO and NGSO systems, non-Federal NGSO systems or any non-conforming services previously authorized on a non-harmful interference basis.

7. The power flux-density (PFD) at the Earth's surface produced by the emissions from the INMARSAT-KA 63W space station for all atmospheric conditions, and for all methods of modulation in the 18.3-19.3 GHz and 19.7-20.2 GHz frequency bands (space-to-Earth), must not exceed a level of -118 dBW/m²/MHz at any angle of arrival.⁴

8. INMARSAT-KA 63W's use of the 28.1-28.35 GHz frequency band (Earth-to-space) is on a secondary basis and limited to gateway earth station operations only. This band is designated on a primary basis to the Local Multipoint Distribution Service (LMDS). *See Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, Third Report and Order, 12 FCC Red 22310 (1997). Accordingly, INMARSAT-KA 63W's operations must be on an unprotected, non-harmful interference basis relative to LMDS in accordance with 47 C.F.R. § 2.105(c)(2). INMARSAT-KA 63 W must not

⁴ Footnote US255 to the Table of Frequency Allocations, 47 C.F.R. § 2.106, requires that the PFD across the 200 megahertz of the 18.6-18.8 GHz band not exceed -95 dBW/m². Inmarsat Hawaii proposes to operate the INMARSAT-KA 63W space station with a maximum PFD of -118 dBW/m²/MHz in this band. This level corresponds with a maximum PFD of -95 dBW/m²/200 MHz. Consequently, INMARSAT-KA 63W's proposed operations meet the PFD limit in US255. INMARSAT-KA 63W's operations also meet other applicable PFD limits for transmitting Ka-band space stations. *See* 47 C.F.R. §§ 25.138(a)(6), 25.208(c) and 25.208(d).

cause harmful interference to, nor claim protection from, authorized LMDS stations in the 28.1-28.35 GHz frequency band that are presently assigned, or that may be assigned these frequencies in the future. Further, Inmarsat Hawaii must terminate operations immediately upon notification of such interference. In addition, Inmarsat Hawaii may not claim protection from interference from LMDS stations authorized to operate in this band.

9. INMARSAT-KA 63W's operations must not cause harmful interference to any non-Federal station authorized to operate on a primary basis in the 28.6-29.1 GHz frequency band, must accept any interference from these systems, and must terminate operations immediately upon notification of harmful interference.

10. Inmarsat Hawaii must coordinate the operations of INMARSAT-KA 63W with the Amazonas-3 space station to ensure that there is no harmful interference to Amazonas-3's carriers from the INMARSAT-KA 63W space station.⁵ Amazonas-3 has U.S. market access to operate in Ka-band frequencies from the 61° W.L. orbital location. *See* IBFS File No. SAT-MPL-20130319-00049 (granted Aug. 1, 2013).

11. This grant is based upon a finding that Inmarsat Hawaii is and will be subject to direct and effective regulation by the United Kingdom concerning orbital debris mitigation. This grant will become effective and remain effective only to the extent that launch and space operations are authorized by the United Kingdom Space Agency under the United Kingdom Outer Space Act. Inmarsat Hawaii must file evidence in the public record of this proceeding demonstrating grant of any such authorizations within five business days of action by the United Kingdom Space Agency.

12. This grant and any licenses related thereto are subject to compliance with the provisions of the Agreement between Inmarsat and the U.S. Department of Justice and the Department of Homeland Security, dated September 23, 2008.⁶

13. This grant of market access for the INMARSAT-KA 63W space station at the 62.85° W.L. orbital location will be null and void with no further action on the Commission's part if the space station is not constructed, launched, and placed into operation in accordance with the milestone schedule in Section 25.164 and the bond requirement in Section 25.165 of the Commission's rules following the date of grant, as follows:


- a. Inmarsat Hawaii must file a bond with the Commission in the amount of \$3 million, pursuant to the procedures set forth in 47 C.F.R. § 25.165, within 30 days of this grant of U.S. market access;
- b. Enter into a binding non-contingent contract to construct INMARSAT-KA 63W within one year (Sept. 18, 2015);
- c. Complete critical design review within two years (Sept. 18, 2016);
- d. Commence construction within three years (Sept. 18, 2017); and
- e. Launch and begin operations within five years (Sept. 18, 2019).

14. Inmarsat Hawaii has 30 days from the date of this action to decline this grant of U.S market access, as conditioned. Failure to respond within this period will constitute formal acceptance of this grant, as conditioned.

⁵ *See* Inmarsat Hawaii LOI, Attachment A, at pp. 15-16.

⁶ Inmarsat Hawaii requested that the Commission include this condition in granting this Letter of Intent. Inmarsat Hawaii LOI, Narrative at page 8.

15. This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

 GRANTED ← International Bureau *with conditions	File # <u>SAT-LOI-20140326-00034</u>
	Call Sign <u>S2923</u> Grant Date <u>09/18/14</u> (or other identifier)
	From <u>see conditions</u> Term Dates <u>see</u> To: <u>conditions</u>
	Approved: <u>Stephen J. Duall</u> Stephen J. Duall Chief, Satellite Policy Branch

9-16. Name of Contact Representative

Name:	Chris Murphy	Phone Number:	202-248-5158
Company:	Inmarsat	Fax Number:	202-248-5177
Street:	1101 Connecticut Avenue NW Suite 1200	E-Mail:	chris.murphy@inmarsat.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036 -
Attention:	Chris Murphy	Relationship:	Same

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

a.

- (N/A) a1. Earth Station
 a2. Space Station

b.

- b1. Application for License of New Station
(N/A) b2. Application for Registration of New Domestic Receive-Only Station
(N/A) b3. Amendment to a Pending Application
(N/A) b4. Modification of License or Registration
(N/A) b5. Assignment of License or Registration
(N/A) b6. Transfer of Control of License or Registration
(N/A) b7. Notification of Minor Modification
(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
 b10. Replacement Satellite Application - no new frequency bands
 b11. Replacement Satellite Application - new frequency bands (Not eligible for streamlined processing)
 b12. Petition for Declaratory Ruling to be Added to the Permitted List
(N/A) b13. Other (Please specify)

17c. 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): Letter of Intent – No Fee Required

17c. Fee Classification

18. If this filing is in reference to an existing station, enter:

(a) Call sign of station:
Not Applicable

19. If this filing is an amendment to a pending application enter:

(a) Date pending application was filed:

Not Applicable

(b) File number of pending application:

Not Applicable

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:

- a. Fixed Satellite
- b. Mobile Satellite
- c. Radiodetermination Satellite
- d. Earth Exploration Satellite
- e. Direct to Home Fixed Satellite
- f. Digital Audio Radio Service
- g. Other (please specify)

21. STATUS: Choose the button next to the applicable status. Choose only one.

- Common Carrier Non-Common Carrier

22. If earth station applicant, check all that apply.
Not Applicable

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

- Connected to a Public Switched Network Not connected to a Public Switched Network N/A

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).

- a. C-Band (4/6 GHz) b. Ku-Band (12/14 GHz)
 c. Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: 18300

Frequency Upper: 30000

(Please specify additional frequencies in an attachment)

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

(N/A) a. Fixed Earth Station
(N/A) b. Temporary-Fixed Earth Station
(N/A) c. 12/14 GHz VSAT Network
(N/A) d. Mobile Earth Station
 e. Geostationary Space Station.
 f. Non-Geostationary Space Station
 g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Not Applicable

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an "X" in the box(es) next to all that apply.) Not Applicable

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments. Yes No

ALIEN OWNERSHIP

Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No
30. Is the applicant an alien or the representative of an alien?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote. Exhibit A	

BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules?
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

Yes No

GXT Files

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.

Yes No

Exhibit B

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.

Yes No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances

Yes No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.

Yes No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

41. 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 No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43. Yes No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station? United Kingdom

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Inmarsat Hawaii Inc. files this letter of intent seeking to use a spacecraft operated under the authority of the United Kingdom to access the United States using portions of the Ka band at the nominal 63 degrees W.L. orbital location.

Exhibit C

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

Attachment A

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing
Christopher J. Murphy

46. Title of Person Signing
Senior Director, Government Affairs

47. Please supply any need attachments.

1:

2:

3:

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).

Completed Schedule S

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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.