

E4132

SES-STA-20160314-00240

Intelsat License LLC

Approved by OMB  
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
Request for STA To Use Fillmore, California Earth Station E4132 for IRNSS-IG LEOP

1. Applicant

|                   |   |                      |                             |
|-------------------|---|----------------------|-----------------------------|
| <b>Name:</b>      | Intelsat License LLC                              | <b>Phone Number:</b> | 703-559-7848                |
| <b>DBA Name:</b>  |   | <b>Fax Number:</b>   | 703-559-8539                |
| <b>Street:</b>    | c/o Intelsat Corporation<br>7900 Tysons One Place | <b>E-Mail:</b>       | susan.crandall@intelsat.com |
| <b>City:</b>      | McLean  | <b>State:</b>        | VA                          |
| <b>Country:</b>   | USA   | <b>Zipcode:</b>      | 22102 -5972                 |
| <b>Attention:</b> | Susan H. Crandall                                 |                      |                             |

File # SES-STA-20160314-00240  
E4132 Call Sign 33016 Grant Date 3-15-16  
(or other identifier)  
Term Dates From: 3-15-16 To: 5-15-16  
Approved: [Signature]



Applicant: Intelsat License LLC  
Call Sign: E4132  
File No.: SES-STA-20160314-00240  
Special Temporary Authority (STA)

Intelsat License LLC ("Intelsat") is granted Special Temporary Authority, beginning April 15, 2016 for 30 days to operate its fixed earth station E4132 at Fillmore, CA, to provide launch and early orbit phase (LEOP) services for IRNSS-1G satellite licensed by India at permanent orbital location and the in-orbit testing location 129.5° E.L. in the following frequency bands: 5856.988 MHz and 5858.968 MHz (Earth-to-space) and 4197.504 MHz and 4198.272 MHz (space-to-Earth) under the following conditions:

1. The LEOP operations must be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path. All operators of satellites in that path will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs. Currently the 24x7 contact information for the IRNSS-1G satellite LEOP mission is as follows: Ph: (703) 559-7701- East Coast Operations Center (primary); (310) 525-5591-West Coast Operations Center (back-up). Request to speak with Harry Burnham or Kevin Bell.
2. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future Intelsat License LLC applications.
3. All operations under this grant of STA shall be on an unprotected and non-harmful interference basis. Intelsat's E4132 shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radio communication system.
4. In the event of any harmful interference as a result of operations under this grant of STA, Intelsat shall cease operations immediately upon notification of such interference and shall immediately inform the Commission, in writing, of such an event.
5. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat License LLC's risk.

This grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.



File # SES-STA-20160314-00240  
Call Sign E4132 Grant Date 3-30-16  
(or other identifier)  
Term Dates  
From: 4-15-16 To: 5-15-16  
Approved: Paul E. Adams

**2. Contact**

**Name:** Cynthia J. Grady      **Phone Number:** 703-559-6949  
**Company:** Intelsat Corporation      **Fax Number:** 703-559-8539  
**Street:** 7900 Tysons One Place      **E-Mail:** cynthia.grady@intelsat.com  
**City:** McLean      **State:** VA  
**Country:** USA      **Zipcode:** 22102 -5972  
**Attention:**      **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

7. City Fillmore      8. Latitude  
(dd mm ss.s h)    34 24 22.0 N

|   |   |
|---|---|
| 9. State CA   | 10. Longitude<br>(dd mm ss.s h) 118 53 34.0 W                           |
| 11. Please supply any need attachments.<br>Attachment 1: STA Request      Attachment 2: Exhibit A      Attachment 3: Exhibit B  |   |
| 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.)<br><div style="border: 1px solid black; padding: 5px;"> <p>Intelsat License LLC herein requests a grant of Special Temporary Authority for 30 days, commencing March 31, 2016, to use its Fillmore, California C-band earth station, call sign E4132, to provide launch and early orbit phase services for the Indian Regional Navigational Satellite System 1G satellite. IRNSS-1G is expected to be launched no earlier</p> </div> |   |
| 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<br>Cynthia J. Grady  | 15. Title of Person Signing<br>Regulatory Counsel, Intelsat Corporation |
| WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT<br>(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION<br>(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).   |   |

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## **12. Description**

Intelsat License LLC herein requests a grant of Special Temporary Authority for 30 days, commencing March 31, 2016, to use its Fillmore, California C-band earth station, call sign E4132, to provide launch and early orbit phase services for the Indian Regional Navigational Satellite System 1G satellite. IRNSS-1G is expected to be launched no earlier than April 18, 2016.

## Exhibit B

### Request for Waiver of Footnote US245 to Section 2.106 of the U.S. Table of Frequency Allocations

To the extent necessary, Intelsat requests a waiver of footnote US245 to the U.S. Table of Frequency Allocations, which limits the use of the 3600 - 3650 MHz, 4500 – 4800 MHz, and 5850 – 5925 MHz frequency bands to “international inter-continental systems.”<sup>1</sup> Intelsat seeks a waiver to permit its Fillmore, California earth station (E4132) to communicate with the Indian Regional Navigational Satellite System (“IRNSS”) 1G satellite during its launch and early orbit phase (“LEOP”) mission.

The Commission may grant a waiver for good cause shown,<sup>2</sup> and typically grants a waiver where the particular facts make strict compliance inconsistent with the public interest.<sup>3</sup> In granting a waiver, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.<sup>4</sup> Waiver is therefore appropriate if special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest.

Good cause exists here to grant a waiver of US245 to allow E4132 to provide LEOP services to IRNSS-1G in the 5850 – 5925 MHz band. A waiver of the Table of Allocations is generally granted “when there is little potential interference into any service authorized under the Table of Frequency allocations and when the nonconforming operator accepts any interference from authorized services.”<sup>5</sup> Here, there is little potential for interference given that the uplink transmissions in question will be intermittent and will only occur over an approximately 10-day period.

In addition, waiver is appropriate on hardship grounds. If a commanding link and a telemetry link are considered as a pair, Intelsat cannot practically comply with US245 for TT&C during a LEOP mission because all antennas in the satellite’s footprint with line of sight receive telemetry, regardless of continent. For example: if commanding is being uplinked to a satellite from a U.S. earth station, telemetry is being received by all assigned LEOP mission antennas with line of sight at the same time. Although one of those mission antennas receiving telemetry

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<sup>1</sup> See 47 C.F.R. § 2.106 fn. US245.

<sup>2</sup> 47 C.F.R. §1.3.

<sup>3</sup> *N.E. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (“*Northeast Cellular*”).

<sup>4</sup> *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

<sup>5</sup> See *The Boeing Company*, Order and Authorization, 16 FCC Rcd 22645, 22651 (Int’l Bur. & OET 2001); *Application of Fugro-Chance, Inc. for Blanket Authority to Construct and Operate a Private Network of Receive-Only Mobile Earth Stations*, Order and Authorization, 10 FCC Rcd 2860 (Int’l Bur. 1995) (authorizing MSS in the C-band); see also *Application of Motorola Satellite Communications, Inc. for Modification of License*, Order and Authorization, 11 FCC Rcd 13952-13956 (Int’l Bur. 1996) (authorizing service to fixed terminals in bands allocated the mobile satellite service).

may be located on a another continent, another may be located in the United States – depending on where the satellite is at any given time in the orbit-raising phase.

Finally, grant of this STA request will allow Intelsat to help safely launch the IRNSS-1G satellite. This, in turn, will help provide navigational services to India and neighboring areas from the 129.5° E.L. orbital location and thereby promotes the public interest. Given these particular facts, the waiver sought herein is plainly appropriate.



## Exhibit A

### PETITION FOR WAIVER OF SECTIONS 25.137 AND 25.114

Pursuant to Section 25.137 of the Federal Communications Commission's ("Commission" or "FCC") rules, earth station applicants "requesting authority to operate with a non-U.S. licensed space station *to serve the United States*" must demonstrate that effective competitive opportunities exist and must provide the same technical information required by Section 25.114 for U.S.-licensed space stations.<sup>1</sup> Intelsat License LLC ("Intelsat") herein seeks authority to provide launch and early orbit phase ("LEOP") services—not commercial services—to the United States, and thus believes that Section 25.137 does not apply.<sup>2</sup>

To the extent the Commission determines, however, that Intelsat's request for authority to provide LEOP services on a special temporary basis is a request to serve the United States with a non U.S.-licensed satellite, Intelsat respectfully requests a waiver of Sections 25.137 and 25.114 of the Commission's rules.<sup>3</sup> The Commission may grant a waiver for good cause shown.<sup>4</sup> The Commission typically grants a waiver where the particular facts make strict compliance inconsistent with the public interest.<sup>5</sup> In granting a waiver, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.<sup>6</sup> 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 exists for a waiver of both Section 25.137 and Section 25.114. With respect to Section 25.114, Intelsat seeks authority only to provide LEOP services for the Indian Regional Navigational Satellite System ("IRNSS") 1G satellite. The information sought by Section 25.114 is not relevant to LEOP services. Moreover, Intelsat does not have—and would not easily be able to obtain—such information because Intelsat is not the operator of the IRNSS-1G satellite, nor is Intelsat in contractual privity with that operator. Rather, an affiliate of Intelsat has a contract with the Indian Space Research Organisation ("ISRO"), the manufacturer of the IRNSS-1G satellite, to conduct LEOP services for the satellite.

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<sup>1</sup> 47 C.F.R. § 25.137 (emphasis added).

<sup>2</sup> See *EchoStar Satellite Operating Company Application for Special Temporary Authority Related to Moving the EchoStar 6 Satellite from the 77° W.L. Orbital Location to the 96.2° W.L. Orbital Location, and to Operate at the 96.2° W.L. Orbital Location*, DA 13-593, File No. SAT-STA-20130220-00023 (released Apr. 1, 2013) (noting that operating TT&C earth stations in the United States with a foreign-licensed satellite does not constitute "DBS service").

<sup>3</sup> 47 C.F.R. §§ 25.137 and 25.114.

<sup>4</sup> 47 C.F.R. §1.3.

<sup>5</sup> *N.E. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) ("*Northeast Cellular*").

<sup>6</sup> *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

The information that Intelsat is not including is not required to determine potential harmful interference. The Schedule S information for this satellite would pertain to the operation of the IRNSS-1G satellite at its final orbital location. However, the present application for LEOP services involves communications *prior* to the satellite attaining its final location in the geostationary orbit. In other words, during the LEOP mission, the earth station will not be communicating with a satellite located in the geostationary orbit. Rather, it will be transmitting to a satellite traveling on its “transfer orbit” or “LEOP path,” which starts immediately following its separation from a launch vehicle, and ends when the satellite reaches its geostationary orbital location. Moreover, as with any STA, Intelsat will perform the LEOP services on a non-interference basis.

Because it is not relevant to the service for which Intelsat seeks authorization, and because obtaining the information would be a hardship, Intelsat seeks a waiver of all the information required by Section 25.114. Intelsat has provided in this STA request the required technical information that is relevant to the LEOP services for which Intelsat seeks authorization.

Good cause also exists to waive Section 25.137. 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; it is simply being placed in its orbital location after separating from the launch vehicle. 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.<sup>7</sup> 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 Intelsat to post a bond in order to provide approximately 10 days of LEOP services to the IRNSS-1G satellite.

It is Intelsat’s understanding that IRNSS-1G is licensed by India, which is a WTO-member country. It is also Intelsat’s understanding that at its permanent location of 129.5° E.L., IRNSS-1G will not see the United States. Thus, the purposes 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, Intelsat notes that it expects to operate with the IRNSS-1G satellite using its U.S. earth station for a period of approximately 10 days. Requiring Intelsat to obtain copious technical and legal information from an unrelated party, where there is no risk of harmful interference and the operations will cease after approximately 10 days, would pose undue hardship without serving underlying policy objectives. Given these particular facts, the waiver sought herein is plainly appropriate.

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<sup>7</sup> See 47 C.F.R. §25.137(d)(4).



**INTELSAT.**

*Envision. Connect. Transform.*

March 14, 2016

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

Re: Request for Special Temporary Authority  
Fillmore, California Earth Station E4132

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein requests a grant of Special Temporary Authority (“STA”)<sup>1</sup> for 30 days, commencing March 31, 2016, to use its Fillmore, California C-band earth station—call sign E4132—to provide launch and early orbit phase (“LEOP”) services for the Indian Regional Navigational Satellite System (“IRNSS”) 1G satellite. IRNSS-1G is expected to be launched no earlier than April 18, 2016.<sup>2</sup> The LEOP period is expected to last approximately 10 days.<sup>3</sup>

The IRNSS-1G LEOP operations will be performed in the following frequency bands: 5856.988 MHz and 5858.968 MHz in the uplink (CP), and 4197.504 MHz and 4198.272 MHz in the downlink (CP). The LEOP operations will be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path.<sup>4</sup> All operators of satellites in that path will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs.

The 24x7 contact information for the IRNSS-1G LEOP mission is as follows:

Ph.: (703) 559-7701 – East Coast Operations Center (primary)  
(310) 525-5591 – West Coast Operations Center (back-up)

Request to speak with Harry Burnham or Kevin Bell.

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<sup>1</sup> Intelsat has filed its STA request, an FCC Form 159, a \$195.00 filing fee, and this supporting letter electronically via the International Bureau’s Filing System (“IBFS”).

<sup>2</sup> The permanent orbital location and in-orbit testing location for IRNSS-1G, which Intelsat understands is licensed by India, will be at 129.5° E.L.

<sup>3</sup> Intelsat is seeking authority for 30 days to accommodate a possible launch delay.

<sup>4</sup> Indian Space Research Organization (“ISRO”), the manager of the IRNSS-1G LEOP mission, will handle the coordination.

Ms. Marlene H. Dortch  
March 14, 2016  
Page 2

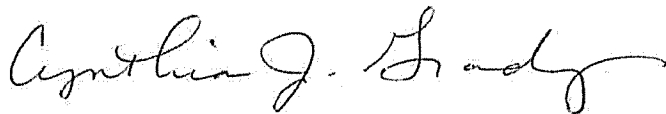
In further support of this request, Intelsat hereby attaches two waiver requests, Exhibits A and B. Intelsat also notes that for purposes of the IRNSS-1G LEOP mission, it is seeking to operate in the frequencies listed in the request at power levels not to exceed 34.0 dBW. In the extremely unlikely event that harmful interference should occur due to transmissions to or from its earth station, Intelsat will take all reasonable steps to eliminate the interference.

Finally, Intelsat clarifies that during the IRNSS-1G launch, ISRO will control the spacecraft. ISRO will build and send the commands to the Intelsat antenna, which will process and execute the commands. Telemetry received by Intelsat will be forwarded to ISRO. Intelsat will remain in control of the baseband unit, RF equipment, and antenna.

Grant of this STA request will allow Intelsat to help launch the IRNSS-1G satellite. This, in turn, will help provide navigation services to India and neighboring areas from the 129.5° E.L. orbital location and thereby promotes the public interest.

Please direct any questions regarding this STA request to the undersigned at (703) 559-6949.

Respectfully submitted,

A handwritten signature in cursive script, reading "Cynthia J. Grady".

Cynthia J. Grady  
Regulatory Counsel  
Intelsat Corporation

cc: Paul Blais