Approved by OMB
3060–0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATIONEnter a description of this application to identify it on the main menu:
180–day STA To Use Castle Rock, Colorado Earth Station KL92 to Provide LEOP and TT&C Services for the Eutelsat–7C

1. Applicant

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

180 days "with conditions"

GRANTED
International Bureau

File # SES-STA-20190516-00667

Call Sign KL92 Grant Date 08/07/2019
(or other identifier)

Term Dates
From: 08/07/2019 To: 02/03/2020

Approved: Paul E Blais

2. Contact

Name:	Cynthia J. Grady	**Phone Number:**	703−559−6949
Company:	Intelsat US LLC	**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. CityCastle Rock	8. Latitude (dd mm ss.s h) 39 16 38.0 N

9. State CO	10. Longitude (dd mm ss.s h) 104 48 26.9 W

11. Please supply any need attachments.

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.)

Intelsat License LLC herein requests a grant of Special Temporary Authority for 180 days, commencing upon grant, to use its Castle Rock, Colorado Ku-band earth station (Call Sign KL92) to provide launch and early orbit phase service for Eutelsat-7C, and telemetry, tracking, and command services during in-orbit testing and drifting of the satellite to

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 ( ) No

14. Name of Person Signing Cynthia J. Grady	15. Title of Person Signing Senior Counsel, Intelsat US LLC

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).

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12. Description

Intelsat License LLC herein requests a grant of Special Temporary Authority for 180 days, commencing upon grant, to use its Castle Rock, Colorado Ku-band earth station (Call Sign KL92) to provide launch and early orbit phase service for Eutelsat-7C, and telemetry, tracking, and command services during in-orbit testing and drifting of the satellite to its final location.

180 days "With Conditions"

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From: 08/07/2019 To: 02/03/2020

Approved: Paul E Black

Applicant: Intelsat License LLC-
File No.: SES-STA-20190516-00667
Call Sign: KL92
Special Temporary Authority

Intelsat License LLC ("Intelsat") was granted special temporary authority for 180 days, beginning August 7, 2019, to operate its fixed earth station in Castle Rock, CO to provide launch and early orbit phase (LEOP) services for the Eutelsat-7C satellite and conduct telemetry, tracking and command services during in-orbit testing and as it drifts to its final orbital location. LEOP operations will be performed on the following center frequencies: 11199.0 MHz, 11200.6 MHz, 11698.2 MHz, and 11699.0 MHz (space-to-Earth); and 13750.40 MHz, 13999.25 MHz, 14250.00 MHz, and 14499.80 MHz (Earth-to-space) under the following conditions:

1. Operations will not exceed the operational power levels and parameters.

2. All operations under this grant of special temporary authority shall be on an unprotected and non-harmful interference basis. Intelsat shall not cause harmful interference to and shall not claim protection from interference caused to it by, any other lawfully operating radio communication system.

3. In the event of any harmful interference under this grant of special temporary authority, Intelsat must cease operations immediately upon notification of such interference, and must inform the Commission, in writing, immediately of such an event.

4. All operators of satellites 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 Intelsat's Eutelsat-7C mission is 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.

5. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at Intelsat's risk.

6. Intelsat's operations to the date of this grant were authorized pursuant to Section 1.62 of Commission's rules 47 C.F.R. of Commission's rules 47 C.F.R.

7. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future Intelsat applications.

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.

INTELSAT.
Envision. Connect. Transform.

May 16, 2019

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Request for Special Temporary Authority
Castle Rock, Colorado Earth Station KL92

Dear Ms. Dortch:

Intelsat License LLC ("Intelsat") herein requests a grant of Special Temporary Authority ("STA")[1] for 180 days, commencing upon grant, to use its Castle Rock, Colorado Ku-band earth station (Call Sign KL92) to provide launch and early orbit phase ("LEOP") service for Eutelsat-7C, and telemetry, tracking, and command ("TT&C") services during in-orbit testing and drifting of the satellite to its final location. Eutelsat-7C is expected to launch on June 20, 2019.[2] Intelsat expects to provide LEOP and TT&C services for approximately 210 days.[3]

The Eutelsat-7C LEOP operations will be performed at the following frequencies: 11199.0 MHz, 11200.6 MHz, 11698.2 MHz, and 11699.0 MHz (LHCP) in the downlink; and 13750.40 MHz, 13999.25 MHz, 14250.00 MHz, and 14499.80 MHz (RHCP) in the uplink. The LEOP operations will be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path.[4] 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 Eutelsat-7C LEOP mission is as follows:

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1 Intelsat has filed its STA request, FCC Form 159, a $210.00 filing fee, and this supporting letter electronically via the International Bureau's Filing System ("IBFS").

2 The IOT location for Eutelsat-7C, which Intelsat understands is licensed by France, will be 1.7° E.L. The satellite's final location will be 7° E.L.

3 Intelsat is seeking authority for 180 days to accommodate the longer orbit-raising time period required for an electric propulsion satellite.

4 SSL, the manager of the Eutelsat-7C mission, will handle the coordination.

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.

In further support of this request, Intelsat herewith attaches Exhibits A and B, which contain a 13 GHz report and waiver requests. 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 Eutelsat-7C LEOP mission SSL will serve as the mission manager. SSL 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 SSL. Intelsat will perform the ranging sessions by sending a tone to the spacecraft periodically. 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 Eutelsat-7C satellite and safely insert it into the geostationary arc. This will help provide services at the 7° E.L. location and thereby promotes the public interest.

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

Respectfully submitted,

/s/ Cynthia J. Grady

Cynthia J. Grady
Senior Counsel
Intelsat US LLC

cc: Paul Blais

Exhibit A

Intelsat License LLC
Castle Rock, Colorado

NEC Cassegrain 12.5 Meter Earth Station

1. Background

This Exhibit is presented to demonstrate the extent to which the Intelsat License LLC ("Intelsat") satellite earth station in Castle Rock, Colorado is in compliance with the Federal Communications Commision ("FCC") Report and Order 96-377. The potential inteference from the earth station to U.S. Navy shipboard radiolocation operations ("RADAR") and the National Aeronautics and Space Administration ("NASA") space research activities in the 13.75-14.0 GHz band is addressed in this exhibit. The parameters for the earth station are:

Coordinates (NAD83):	39° 16′ 38″ N, 104° 48′ 26.9″ W
Satellite Arc Range for Earth Station:	Eutelsat-7C at 32.6°W to 177°W
Frequency Band:	13.75-14.00 GHz
Polarizations:	Linear & Circular
Emissions:	1M00F2D
Modulation:	FM/BPSK/NRZ-L
Maximum Aggregate Uplink EIRP:	92dBW for all Carriers
Transmit Antenna Characteristics	
Antenna Size:	12.5 Meters in Diameter
Anenna Type/Model:	NEC Cassegrain
Gain:	64 dBi
RF Power into Antenna Flange:	28 dBW or 5 dBW/4kHz
Minimum Elevation Angle:	5.02° @ 101.48° Azimuth
	5.03° @ 258.51° Azimuth
Side Lobe Antenna Gain	FCC Reference Pattern

Because the above uplink spectrum is shared with the Federal Government, coordination in this band requires resolution data pertaining to potential interference between the earth stations and both U.S. Navy Department and NASA systems. Potential intefference from the earth station could impact the U.S. Navy and/or NASA systems in two areas. These areas are noted in GCC Report and Order 96-377 dated September 1996, and consist of (1) Radiolocation and Radio Navigation, (2) Data Relay Satellites.

Summary of Coordination Issues:

a.) Potential Impact to Government Radiolocation (Shipboard Radar)
b.) Potential Impact to NASA Tracking and Data Relay Satellite Systems ("TDRSS")

2. Potential Impact to Government Radiolocation (Shipboard Radar)

Radiolocation operations ("RADAR") may occur anywhere in the 13.4-14.0 GHz frequency band aboard ocean-going U.S. Navy ships. FCC order 96-377 allocates the top 250MHz of this 600 MHz band to the Fixed Satellite Service ("FSS") on a co-primary basis with the radiolocation operations and provides for an interference protection level of -167 dBW/m^2/4kHz.

The closest distance to the shoreline from Castle Rock, Colorado earth station is approximately 1350 km. Therefore, there should be no interference to the US Navy RADAR from the Castle Rock, Colorado facility due to distance and terrain between Castle Rock and the shoreline.

3. Potential Impact to NASA's Tracking and Data Relay Satellite System

The geographic location of the Intelsat earth station in Castle Rock, Colorado is outside the 390 km radius coordination contour surrounding NASA's White Sands, New Mexico ground station complex. Therefore the TDRSS space-to-earth link will not be impacted by the Intelsat earth station in Castle Rock, Colorado.

The TDRSS space-to-space link in the 13.772 to 13.778 GHz band is assumed to be protected if an earth station produces and EIRP of less than 71 dBW/6MHz in this band. The 12.5 meter earth station antenna will not transmit in this band. Therefore, there will be no potential interference to the TDRSS space-to-space link.

4. Coordination Result Summary and Conclusions

The results of the analysis and calculation performed in this exhibit indicate that compatible operation between the earth station at the Castle Rock, Colorado facility and U.S. Navy and NASA TDRSS space-to-earth and space-to-space links are possible. No interference to U.S. Navy RADAR or NASA TDRSS operations from the Castle Rock, Colorado site earth station should occur.

Exhibit B

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 communicate with a non-U.S. licensed space station" to serve the United States must demonstrate that U.S.-licensed satellite systems have effective competitive opportunities to provide analogues services in certain countries and must provide the same legal and technical information for the non-U.S.-licensed space station as required by Section 25.114 for U.S.-licensed space stations.[1] 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.[2]

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.[3] The Commission may grant a waiver for good cause shown.[4] The Commission typically grants a waiver where the particular facts make strict compliance inconsistent with the public interest.[5] 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.[6] 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 of the FCC's rules. With respect to Section 25.114, Intelsat seeks authority only to provide LEOP services for the Eutelsat-7C satellite. The information sought by Section 25.114 is

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1 47 C.F.R. § 25.137.

2 *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*, Order and Authorization, 28 FCC Rcd. 4229 (2013) (noting that operating TT&C earth stations in the United States with a foreign-licensed satellite does not constitute "DBS service").

3 47 C.F.R. §§ 25.137 and 25.114.

4 47 C.F.R. § 1.3.

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

6 *WAIT Radio v. FCC*, 419 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

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 Eutelsat-7C satellite. Intelsat has a contract with SSL, the manufacturer of the Eutelsat-7C satellite, to conduct LEOP and TT&C services.

The information required under Section 25.114 of the FCC's rules is not necessary to determine potential harmful interference. The Schedule S information for this satellite would pertain to the operation of the Eutelsat-7C 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 and TT&C during in-orbit testing and drifting. 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 as well as in-orbit testing and drifting to the satellite's final location. Moreover, as with any STA, Intelsat will perform the 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 of the Commission's rules. Intelsat has provided in this STA request the required technical information that is relevant to the LEOP or TT&C services for which Intelsat seeks authorization.

Good cause also exists to waive Section 25.137 of the agency's rules. Section 25.137 is designed to ensure that "U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services" in other countries.[7] 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 Section 25.137 would not be served by applying these rules to LEOP services. For example, Section 25.137(d)(4) 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.[8] The underlying purpose of Section 25.137(d)(4)—to provide parity between U.S.-licensed and non-U.S.-licensed commercial satellite systems in discouraging orbital location warehousing—would not be served by requiring Intelsat to post a bond to provide approximately seven months of LEOP and TT&C services to the Eutelsat-7C satellite.

It is Intelsat's understanding that Eutelsat-7C is licensed by France, which is a WTO-member country. Thus, the purpose of Section 25.137—to ensure that U.S. satellite operators enjoy "effective competitive opportunities" to serve certain foreign markets—will not be undermined by grant of this waiver request.

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[7] 47 C.F.R. § 25.137(a).
[8] *See* 47 C.F.R. §25.137(d)(4).

Finally, Intelsat notes that it expects to operate with the Eutelsat-7C satellite using its U.S. earth station for a period of approximately seven months. 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 seven months, would pose undue hardship without serving underlying policy objectives. Given these particular facts, the waiver sought herein is plainly appropriate.