

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Conrad MT Ka Gateway Respacing STA Request

1. Applicant

Name:	SpaceX Services, Inc.	Phone Number:	202-649-2700
DBA Name:		Fax Number:	
Street:	1155 F Street, N.W.	E-Mail:	patricia.cooper@spacex.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20004
Attention:	Ms Patricia Cooper		

60 days "with conditions"

File # SES-STA-20190925-01227

Call Sign E190648 Grant Date 11/05/2019
(or other identifier)

Term Dates
From: 11/05/2019 To: 01/04/2020

Approved: *[Signature]*



with corrected conditions

2. Contact			
Name:	William M. Wiltshire	Phone Number:	202-730-1350
Company:	Harris, Wiltshire & Grannis LLP	Fax Number:	202-730-1301
Street:	1919 M Street, NW Suite 800	E-Mail:	wwiltshire@hwglaw.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036 -
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 SESLIC2019081601062 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 10/17/2019			
7. City/Conrad		8. Latitude (dd mm ss.s h) 48 12 11.9 N	

9. State MT	10. Longitude (dd mm ss.s h) 111 56 43.0 W
11. Please supply any need attachments. Attachment 1: Gateway STA Request 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.) SpaceX Services seeks special temporary authority for communications between its Ka-band gateway earth station and SpaceX NGSO satellites for 60 days after orbital injection.	
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 Patricia Cooper	15. Title of Person Signing Vice President, Satellite Government Affairs
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

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

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.

Applicant: SpaceX Services, Inc.
Call Sign: E190648
File No.: SES-STA-20190925-01227
Special Temporary Authority (STA)

SpaceX Services, Inc. ("SpaceX Services") is granted special temporary authority, beginning November 5, 2019 to operate its fixed earth station located in Conrad, MT to provide telemetry, tracking and command ("TT&C") services to its non-geostationary orbit ("NGSO") Starlink satellites (Call Signs S2983/3018) during the orbit-raising and on-orbit operations on frequencies 13925 MHz (Earth-to-space) and 12221 MHz (space-to-Earth); to test the communications payload on the Starlink satellites in frequency bands: 14000-14500 MHz (Earth-to-space), 10700-12700 MHz (space-to-Earth), **27500-29100 MHz** and 29500-30000 MHz (Earth-to-space), 17800-18600 MHz, 18800-19300 MHz (space-to-Earth), 19700-20200 MHz (space-to-Earth) under the following conditions:

1. Operations will not exceed the operational power limits and parameters requested and coordinated.
2. Operations in the 14470-14500 MHz are subject to footnote US342 to the U.S. Table of Frequency Allocations, 47 C.F.R. §2.106, US342, and all practicable steps must be taken to protect the radio astronomy service from harmful interference.
3. All operations under this grant of STA shall be on an unprotected, non-harmful interference basis. SpaceX Services 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 SpaceX Services shall cease operations immediately upon notification of such interference, and shall immediately inform the Commission, in writing, of such an event.
5. The use of space-to-Earth operations in the 17800-18600 MHz, 18800-19300 MHz, 19700-20200 MHz frequency bands must be in accordance with any signed coordination agreement between SpaceX and U.S. Federal operators in accordance with footnote US334 to the United States Table of Frequency Allocations, 47 CFR §2.106, prior to being used.
6. Operations in the 28350-28600 MHz and 29500-30000 MHz (Earth-to-space) frequency bands are on a secondary basis with respect to GSO FSS operations.
- 7. Operations in the 27500-28350 MHz frequency band are on a secondary basis to other services operating in this band.**
8. Current 24x7 contact information for the NGSO Starlink satellite mission is phone: 1+ (251) 257-0464 or an email may be sent to SpaceX Services can be reached at satellite-operators-pager@spacex.com, which links to the pagers of appropriate technical personnel 24/7.
9. The licensee shall take all necessary measures to ensure that the antenna does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR 1.1307(b) and 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. The FCC's OET Bulletin 65 (available

on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alert signs and protective equipment for workers.

10. Grant of this STA is without prejudice to any determination that the Commission may make regarding SpaceX Services pending application IBFS File No. SES-LIC-20190816-01062.

11. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at SpaceX Services' 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-20190925-01227

Call Sign E190648 Grant Date 11/05/2019
(or other identifier)

Term Dates
From 11/05/2019 To: 01/04/2020

Approved: Paul E. Black