

Spaceflight, Inc. SAT-STA-20180523-00042 IB2018001780



File # SAT-STA-20180523-00042

Call Sign _____ Grant Date 10/12/18

(or other identifier)

From see conditions To: see conditions

Approved: Stephen J. Duall

Chief, Satellite Policy Branch

Approved by OMB 3060-0678

Date & Time Filed: May 23 2018 2:04:15:700PM
File Number: SAT-STA-20180523-00042
Callsign:

*with conditions

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY


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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
SSO-A space station STA 05/23/18

1. Applicant
Name: Spaceflight, Inc. Phone Number: (425) 478-2848
DBA Name: Fax Number:
Street: 1505 Westlake Ave. North, Ste 600 E-Mail: KristinaH@SpaceflightIndustries.com
City: Seattle State: WA
Country: USA Zipcode: 98109
Attention: Kristina Hloptsidis

ATTACHMENT TO GRANT
Spaceflight Inc.
 IBFS File No. SAT-STA-20180523-00042

IBFS File No(s):	SAT-STA-20180523-00042 ¹	<p>GRANT – With Conditions</p>  <p>International Bureau Satellite Division</p>
Licensee/Grantee:	Spaceflight Inc.	
Satellite Names:	Upper Free Flyer (UFF) and Lower Free Flyer (LFF)	
Orbital Location: (required station- keeping tolerance)	NGSO in a sun-synchronous circular orbit with a mean altitude of 575 km and a 97.75° inclination.	
Administration:	United States of America	
Nature of Service:	Space Operations	
Scope of Grant:	Authority to transmit for a period of one hour, 34 minutes from the UFF and three hours, 31 minutes from the LFF, ² in order to deploy spacecraft described in the Spaceflight SSO-A manifest. ³	
Service Area(s):	Two earth stations: Fairbanks, Alaska, U.S. and Awarua, New Zealand, on a receive-only basis. ⁴ Space station(s) in the Globalstar Licensee LLC constellation, also on a receive-only basis. ⁵	
Frequencies:	Telemetry and Tracking frequencies: ⁶ Downlink (UFF): Transmission center frequency 401.5 MHz OR 401.375 MHz, ⁷ 22 kHz bandwidth (space-to-Earth) Downlink (LFF): Transmission center frequency 401.5 MHz OR 401.375 MHz, ⁸ 22 kHz bandwidth (space-to-Earth)	

¹ The application was placed on public notice on July 20, 2018. *Policy Branch Information Satellite Space Station Applications Accepted for Filing*, Public Notice, Report No. SAT-01331 (July 20, 2018).

² See Letter from Henry Goldberg and Jonathan L. Weiner, Attorneys for Spaceflight, Inc., to Marlene H. Dortch, Secretary, FCC, Attach. NOAA Letter at 4-5 (filed Aug. 24, 2018) (Spaceflight NOAA Letter). Spaceflight is required to operate timing devices on the UFF and LFF as described in the attachment to this letter, to ensure that the transmissions occur for time periods no longer than specified above.

³ Spaceflight filed a manifest on July 12, 2018 listing 74 spacecraft. See Spaceflight, Inc., Supplemental Exhibit B (filed July 12, 2018). Spaceflight has indicated that the UFF and LFF will deploy no more than 22 and 48 spacecraft, respectively. Spaceflight, Supplemental Filing, SSO-A Long-Term Recontact Probability, at 3 (filed Aug. 14, 2018). In addition, two of the onboard spacecraft will each deploy an additional secondary spacecraft following the initial release from the UFF or LFF. See *id.* at 3, n.1.

⁴ See Spaceflight Inc., Supplemental Submission (filed Oct. 4, 2018).

⁵ These operations are authorized pending approval of the following application: Globalstar, Inc., ELS File No. 1366-EX-ST-2018 (filed July 31, 2018).

⁶ These frequencies are assigned for special temporary authority only, for a period not to exceed that specified in the scope of grant.

⁷ Spaceflight's initial application materials requested to transmit from the UFF using a transmission center frequency of 401.875 MHz. Spaceflight subsequently indicated that it was willing to change the center frequency to achieve coordination with Federal operations. Spaceflight ultimately requested authorization to transmit from the spacecraft using a center frequency of either 401.375 MHz or 401.5 MHz. Spaceflight Inc., Supplemental Submission (filed Oct. 4, 2018). Spaceflight's assigned center frequency is consistent with the outcome of Federal coordination.

ATTACHMENT TO GRANT
Spaceflight Inc.
IBFS File No. SAT-STA-20180523-00042

	Inter-Satellite (UFF): Transmission center frequency 1616.25 MHz, 2.5 MHz bandwidth (space-to-space)
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Operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission’s rules not waived herein. This grant is also subject to the following conditions:

1. All operations under this grant of special temporary authority must be on an unprotected and non-harmful interference basis, *i.e.*, Spaceflight must not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating station.
2. Spaceflight’s request for waiver of Section 25.113(g) of the Commission’s rules, requiring orbital deployment approval and a license to be applied for and granted prior to orbital deployment and operation of a space station, is GRANTED.⁹ We find that the special circumstances presented here, including the short operational lifetime of the space stations, and the similarity of the space stations to an upper stage launch vehicle,¹⁰ justify waiver of the rule. Further, waiver of the rule would not undermine the policy objective of the rule. The Commission has described the intent of the rule to be “that the approval process [for space stations] involves a public interest review of proposed space station operation and debris mitigation plans before a space station is launched into orbit.”¹¹ Consistent with the intent of the rule, we have reviewed the description of space station operations and orbital debris mitigation plan submitted by Spaceflight, and make a finding that granting the requested STA is in the public interest. In light of these specific circumstances, we conclude that waiver would serve the public interest. The rule is waived herein without prejudice to any future applications by Spaceflight, or by any other operators seeking authority to operate space stations designed to deploy satellites.
3. Concerning telecommand and other methods for ceasing transmissions, this grant is based on the following findings:
 - A. The applicant has demonstrated that operations will be limited to this short period. The operator has provided multiple back-up methods of ensuring that, in the event of unanticipated avionics systems failures, transmissions will either not commence, will be terminated by automatic timers, or will cease promptly due to battery discharge. Under these circumstances, a telecommand capability or other capabilities to alter frequency operations are not necessary.
 - B. UFF and LFF operations will be limited to the proposed frequencies 401.375 MHz or 401.5 MHz

⁸ Spaceflight’s initial application materials requested to transmit from the LFF using a transmission center frequency of 401.625 MHz. Spaceflight subsequently indicated that it was willing to change the center frequency to achieve coordination with Federal operations. Spaceflight ultimately requested authorization to transmit from the spacecraft using a center frequency of either 401.375 MHz or 401.5 MHz. Spaceflight Inc., Supplemental Submission (filed Oct. 4, 2018). Spaceflight’s assigned center frequency is consistent with the outcome of Federal coordination.

⁹ 47 CFR § 25.113(g).

¹⁰ An upper stage launch vehicle would not be licensed by the Commission, to the extent that the vehicle falls within the authority of the Federal Aviation Administration (FAA). *See Mitigation of Orbital Debris*, Notice of Proposed Rulemaking, 17 FCC Rcd 5586, 5592-93, paras. 14-15 (2002) (citing the Commercial Space Launch Act of 1984, as amended, 49 U.S.C. § 70101 *et seq.*, and the FAA’s implementing regulations, codified at 14 CFR Ch. III, § 400 *et seq.*); *see also Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567, 11611, para. 105 (2004) (noting the Commission’s prior observation that “matters addressed under the Commercial Space Launch Act and its implementing regulations are most appropriately addressed by the FAA”).

¹¹ *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Further Notice of Proposed Rulemaking, 29 FCC Rcd 12116, 12155, para. 133 (2014).

ATTACHMENT TO GRANT
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 IBFS File No. SAT-STA-20180523-00042

which have been coordinated with NTIA to limit interference with respect to Federal government stations.

- C. Furthermore, UFF and LFF operations in this frequency range are being granted on an extraordinary basis and there shall be no expectation that similar applications for similar missions will be granted in the future.
4. This authorization is limited to operations of the UFF and LFF spacecraft and does not in any way grant authority for operations or express a view concerning the status of any satellite that will be deployed from the UFF or LFF. This authorization also does not cover any other satellites deployed from the launch vehicle.
 5. Spaceflight must provide information about the deployments from the UFF and LFF to the United States Air Force's 18th Space Control Squadron, to assist in identifying and tracking the space objects being deployed.
 6. Upon commencement of operations, Spaceflight must file a notification within one (1) day certifying to the Commission that the space stations have been placed in orbit and indicating whether the operations fully conform to the terms and conditions of this grant.

Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

Action Date: October 12, 2018

Term Dates **From:** see conditions

To: see conditions

Approved:



Stephen J. Duall
 Chief, Satellite Policy Branch

2. Contact

Name:	Jonathan L. Wiener	Phone Number:	703-216-9224
Company:	Goldberg Godles Wiener & Wright LLP	Fax Number:	
Street:	1025 Connecticut Ave, NW Ste 1000	E-Mail:	jwiener@g2w2.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036 -2413
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 CXW – Space Station (Non-Geostationary)

5. Type Request

- Change Station Location Extend Expiration Date Other

6. Temporary Orbit Location

7. Requested Extended Expiration Date

8. 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.)

Spaceflight Inc. requests Special Temporary Authority to permit it to communicate with a spacecraft and corresponding earth stations for a duration of no more than twenty-four (24) hours to take place in a single occurrence between 30 Sept. 2018 and 31 Oct. 2018.

9. 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

10. Name of Person Signing
Curt Blake

11. Title of Person Signing
President

12. Please supply any need attachments.

Attachment 1: Request for STA

Attachment 2: Confidential Req.

Attachment 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).

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