

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL

(Nature of Service)

XT FX MO

(Class of Station)

WA9XEK

(Call Sign)

0751-EX-ST-2026

(File Number)

NAME The Boeing Company

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

Purpose Of Operation:

Communication with CST-100 Crew Capsule during mission.

Station Locations

- (1) Cape Canaveral (BREVARD), FL - NL 28-35-00; WL 80-34-58
- (2) MOBILE: International Space Station, SP, centered around NL 0-00-00; WL 0-00-00

Frequency Information

Cape Canaveral (BREVARD), FL - NL 28-35-00; WL 80-34-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2203.2 MHz	FX	6M16D7W	12.45 W (ERP)	
2287.5 MHz	FX	6M16D7W	130.3 W (ERP)	

This authorization effective July 01, 2026 and
will expire 3:00 A.M. EST December 17, 2026

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COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: International Space Station, SP, centered around NL 0-00-00; WL 0-00-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2203.2 MHz	MO	6M16D7W	12.45 W (ERP)	
2287.5 MHz	MO	6M16D7W	130.3 W (ERP)	

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) Stop buzzer, Keegan Van Wyk (321) 447-1766.
- (3) This STA is limited to the telemetry, tracking, and command operations for the CST-100 capsule during its mission to the International Space Station. This STA will expire when the CST-100 capsule begins its re-entry and landing operations or 16 December 2026, whichever occurs first. Any future missions or further extension of this mission must submit new applications to the FCC to be coordinated with the NTIA and federal agencies.
- (4) Transmissions using a center frequency of 2203.2 MHz must be limited to space-to-space communication with the International Space Station (ISS) during approach and departure mission phases while within 30 km of the ISS. Any other operation employing this frequency is strictly prohibited unless it has been successfully coordinated and approved by the NASA Johnson Space Center (JSC) Spectrum Management Office (jsc-dl-spectrum-management@mail.nasa.gov) with no less than 14 days prior to the planned event.
- (5) The Boeing Company should be aware that any future requests for use of links centered at 2287.5 MHz that have time overlap with NASA Artemis mission(s) will be subject to further technical constraints.
- (6) Sixty (60) days prior to transmitting at Cape Canaveral, The Boeing Company must coordinate and schedule their operations with Range Scheduling (1ropschd@us.af.mil, 321-853-5941), Jamie Bjornbak (James.P.Bjornbak@nasa.gov, 321-867-6905, NASA KSC SMO), and NASA GSFC Spectrum Office (NASA-DL-GSFC-Spectrum-Management@mail.nasa.gov), and provide a copy of the FCC license, any changes to the launch mission trajectory/telemetry data, and Stop Buzzer POC to the 45th Space Wing Spectrum Management Office, 321-853-8408, email: 45sw.erfmo@us.af.mil and DoD EAFC, 321-853-8426, email: 45sw.dodeafc@us.af.mil.

Special Conditions:

- (7) As soon as possible, but no later than 60 business days prior to the planned launch, The Boeing Company is required to provide, as a minimum, launch date/time/window and planned first- and second stage trajectory, transmission frequencies with associated duration/cut-off time to David Stringham (david.stringham.2@spaceforce.mil, USSF SSC 2 ROPS/DOPS), Dave Everett (david.everett.16@spaceforce.mil, USSF SSC 2 ROPS/DOPS), James Davis (james.davis.144.ctr@spaceforce.mil, USSF W-LTRS/RGNext), Sigfredo Santiago (sigfre.santiagohernandez.1@spaceforce.mil, USSF SSC SLD 45), DoD Eastern AFC (45sw.dodeafc@us.af.mil), SLD 45 SMO (45sw.erfmo@us.af.mil), Nicole Teague (nicole.teague@us.af.mil, AFSMO), Shaobei Xu (shaobei.xu.1@us.af.mil, AFSMO), Christian Amey (christian.v.amey@nasa.gov, NASA WFF), NASA GSFC Spectrum Office (NASA-DL-GSFCspectrum-management@mail.nasa.gov), Michael Ferens (michael.t.ferens@nasa.gov, NASA LaRC), NOAA Satellite Operations Control Center (Matt.G.Sullivan@noaa.gov), and NASA JSC Spectrum Office (JSC-DL-Spectrum Management@mail.nasa.gov). In the event of last-minute changes, 48-hour notice is required.
- (8) All transmissions in the band 2200-2290 MHz must comply with the power-flux density (PFD) limits of International Telecommunications Union (ITU) Radio Regulations Article 21, the Deep-Space Research Earth Station protection requirements of Recommendation ITU-R SA.1157-1, and the Maximum Unwanted Emission requirements for space services specified in Section 5.6.2 of the NTIA Manual, except in cases where expected non-compliance is pre-coordinated and agreed. Analyses documenting the expected compliance or exceedance of these requirements (PFD, Deep-Space Earth Station protection, and Maximum Unwanted Emissions) must be included in the FCC STA application and provided in the request to the NTIA for US Government review and assessment.
- (9) During CST-100 on-orbit mission phase (after lift-off/ascent, free flight, or attached to the International Space Station), The Boeing Company must provide the radio frequency operation plan to the NASA JSC Spectrum Manager, Cathy Sham (catherine.c.sham@nasa.gov), for coordination with authorized users at least 7 business days prior to any planned transmission operation.
- (10) For CST-100 departure operations, requests for coordination with authorized users must be provided to the NASA JSC Spectrum Manager, Cathy Sham (catherine.c.sham@nasa.gov), at least 14 business days prior to communications activation related to pre-departure checkout, departure preparation, or departure operation. Requests for coordination must include (as a minimum) planned communication timelines with start/end time, receiving station location, transmit/receive parameters/power/bandwidth, and spacecraft trajectory/orbital locations.
- (11) The STOP BUZZER POC information for launch operations must be provided to NTIA (ravery@ntia.gov). This phone must be manned 24/7.
- (12) The Boeing Company must keep a log of all transmissions in the band 2200-2290 MHz and provide to the NTIA (ravery@ntia.gov) after the mission. This log must include (as a minimum) date, time, frequency, EIRP density, and the pointing direction of all antennas.

Special Conditions:

- (13) Further requests for extension of the authority granted herein must be filed on Form 442, "Application for New or Modified Radio Station Authorization under Part 5 of FCC Rules - Experimental Radio Service." Future STA requests to extend this authorization will not be considered.