David J. Den Herder, 1030 15th Street, NW, Suite 220 E, Washington, DC 20005,

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL	WF9XGI
(Nature of Service)	(Call Sign)
XD FX MO	0657-EX-ST-2011
(Class of Station)	(File Number)

NAME Space Exploration Technologies Corp. (SpaceX)

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:
The purpose of this operation is to demonstrate a low-cost, commercial capability to transport cargo to the International Space Station (ISS) and return it safely to the Earth. The nominal

Station Locations
(1) MOBILE: Space: DRAGON (Dragon S-Band Directional Array)
(2) MOBILE: Space: DRAGON (Dragon S-Band Omni)
(3) South Point (HAWAII), HI - NL 19-00-50; WL 155-39-47
(4) Mingeneu, AUSTRALIA, UM
(5) Kennedy Space Center (BREVARD), FL - NL 28-37-25; WL 80-41-11
(6) Wallops Island (ACCOMACK), VA - NL 37-55-38; WL 75-28-30
(7) SINGAPORE, UM
(8) MOBILE: Space: TDRSS (TDRS SA Antenna)
(9) MOBILE: Space: DRAGON (CUCU Patch Hemispherical)
(10) MOBILE: Space: ISS (ISS UHF Antenna)

This authorization effective February 08, 2012 and
will expire 3:00 A.M. EST May 19, 2012

FEDERAL COMMUNICATIONS COMMISSION

Frequency Information

MOBILE: Space: DRAGON (Dragon S-Band Directional Array)

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2216 MHz	MO	546KG1D	20 W (ERP)	

MOBILE: Space: DRAGON (Dragon S-Band Omni)

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2205.5 MHz	MO	406KF1D	20 W (ERP)	
2216 MHz	MO	7K76G1D 12K4G1D	20 W (ERP)	
2231.5 MHz	MO	2M32F1F	20 W (ERP)	

South Point (HAWAII), HI - NL 19-00-50; WL 155-39-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2040.5675 MHz	FX	54K0G2D	2000 W (Output Power)	

Frequency Information

Mingeneu, AUSTRALIA, UM

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2040.567 MHz	FX	54K0G2D	200 W (Output Power)	

Kennedy Space Center (BREVARD), FL - NL 28-37-25; WL 80-41-11

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2040.5675 MHz	FX	54K0G2D	100 W (Output Power)	

Wallops Island (ACCOMACK), VA - NL 37-55-38; WL 75-28-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2040.5675 MHz	FX	54K0G2D	200 W (Output Power)	

SINGAPORE, UM

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2040.5675 MHz	FX	54K0G2D	100 W (Output Power)	

Frequency Information

MOBILE: Space: TDRSS (TDRS SA Antenna)

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2040.5675 MHz	MO	54K0G2D	5 W (Output Power)	

MOBILE: Space: DRAGON (CUCU Patch Hemispherical)

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
400.5 MHz	MO	338KG1D	1.5 W (ERP)	

MOBILE: Space: ISS (ISS UHF Antenna)

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
400.5 MHz	MO	338KG1D	1.5 W (ERP)	

Special Conditions:

(1) Operation is subject to prior coordination with the Society of Broadcast Engineers, Inc. (SBE); ATTN: Executive Director; 9247 North Meridian Street, Suite 305; Indianapolis, IN 46260; telephone, (866) 632-4222; FAX, (317) 846-9120; e-mail, executivedir @ sbe.org; information, www.sbe.org.

(2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

(3) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.

(4) The station identification requirements of Section 5.115 of the Commission's Rules are waived.

(5) Use of this STA is for the demonstration of a low-cost, commercial capability to transport cargo to the International Space Station (ISS) and return it safely to the Earth mission only. It can’t be used for any other mission/purpose. This STA is not to exceed 19 May 2012.

Special Conditions:

(6) SpaceX is required to inform Air Force, Mr. Michael Wyatt, Email: Michael.Wyatt@pentagon.af.mil, Comm 301-225-3746, at least 48 hours prior to the planned operations and provide Air Force with a cease buzzer POC while the frequencies are in use.

(7) All operations shall be on an unprotected basis and NIB to Air Force operations.

(8) SpaceX has agreed to keep a log of all transmissions on 400.5 MHz and in the band 2200-2290 MHz that would be provided to NTIA after the mission. This log should include at least date, time, frequency, eirp density, and pointing direction of the antenna. The log should be provided to the following people at NTIA: skotler@ntia.doc.gov and edavison@ntia.doc.gov.

(9) SpaceX shall provide STOP BUZZER POC information to steven.f.schindler@nasa.gov, vincent.s.galbraith@nasa.gov, mbielucki@mail.wsc.nasa.gov, and catherine.c.sham@nasa.gov prior to FCC granting this STA.

(10) When docked to the ISS, 2216 MHz Omni-directional antenna to TDRSS and to Ground operation may be used on a noninterference basis (NIB) only.

(11) When not docked to the ISS, 2205.5 MHz may be used without further operating schedule coordination during window February 1, 2012 through May 19, 2012 or the termination of the specified mission, whichever is sooner. Usage schedule information to be provided to Michael Bielucki at mbielucki@mail.wsc.nasa.gov (575-527-7010) with copy to Vincent Galbraith at vincent.s.galbraith@nasa.gov.

(12) When docked to the International Space Station (ISS), 2205.5 MHz Omni-directional antenna to ground may be used on a noninterference basis (NIB) only.

(13) All frequency use at KSC and Cape Canaveral Air Force Station (CCAFS) must be scheduled through the Eastern Range Scheduling office.

(14) After receiving an approved FCC STA and prior to transmitting at KSC, SpaceX must contact the KSC spectrum manager (Steve Schindler, steven.f.schindler@nasa.gov) to receive a KSC local RFA that will detail specific local operational requirements.

(15) At Kennedy Space Center (KSC), Brevard county, FL, 2040.5675 MHz transmissions from shall be operationally coordinated in advance with NASA to avoid interference to missions supported from Poker Flat, AK and Wallops Flight Facility, (VA). Operational coordination contacts are Bruce Thoman ((301) 286-3353, bruce.e.thoman@nasa.gov) and John Jackson ((301) 286-4924, john.t.jackson-1@nasa.gov).

Special Conditions:

(16) At South Point, HI, 2040.5675 MHz power shall be limited to 200W consistent with other earth sites.