

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

EXPERIMENTAL

(Nature of Service)

WI9XOM

(Call Sign)

XT FX MO

(Class of Station)

0146-EX-ST-2016

(File Number)

NAME Solar Impulse

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:

Communications to support around-the-world solar-powered aircraft flight.

Station Locations

- (1) Kalaeloa (HONOLULU), HI - NL 21-18-30; WL 158-04-25; MOBILE: Kaleloa JRF airport, within 5 km
- (2) New York (NEW YORK), NY - NL 40-39-00; WL 73-49-00; MOBILE: New York JFK airport, within 5 km
- (3) Phoenix (MARICOPA), AZ - NL 33-26-00; WL 112-01-00; MOBILE: Phoenix PHX airport, within 5 km
- (4) Smyrna (RUTHERFORD), TN - NL 36-00-30; WL 86-31-10; MOBILE: Smyrna MQY Airport, within 5 km
- (5) Saint Louis (ST LOUIS), MO - NL 38-44-50; WL 90-22-10; MOBILE: Saint Louis STL Airport, within 5 km
- (6) Topeka (SHAWNEE), KS - NL 38-57-20; WL 95-39-40; MOBILE: Topeka Forbes FOE Airport, within 5 km
- (7) Montoursville (LYCOMING), PA - NL 41-14-50; WL 76-55-31; MOBILE: Williamsport Regional Airport IPT, within 5 km
- (8) Allentown (LYCOMING), PA - NL 40-39-14; WL 75-26-43; MOBILE: Allentown-Bethlehem-Easton airport ABE, within 5 km
- (9) Pittsburgh (ALLEGHENY), PA - NL 40-29-49; WL 80-13-50; MOBILE: Pittsburgh International Airport PIT, within 5 km

This authorization effective March 09, 2016 and
will expire 3:00 A.M. EST August 01, 2016

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Kalaeloa (HONOLULU), HI - NL 21-18-30; WL 158-04-25; MOBILE: Kalaeloa JRF airport, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
140.9875-141.0125 MHz	MO	12K5F7E	2 W (ERP)	2 %
150.9125-150.9375 MHz	MO	12K5F3E	2 W (ERP)	2 %
151.9875-152.0125 MHz	MO	12K5F3E	2 W (ERP)	2 %
155.5125-155.5375 MHz	MO	12K5F3E	2 W (ERP)	2 %
159.8125-159.8375 MHz	MO	12K5F3E	2 W (ERP)	2 %
164.4125-164.4375 MHz	MO	12K5F7E	2 W (ERP)	2 %
2223-2237 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2243-2257 MHz	MO	7M00G2W	500 mW (ERP)	2 %
4167.11-4179.11 MHz	MO	6M00D2D	80 W (ERP)	2 %
6414.695-6426.695 MHz	MO	6M00D2D	80 W (ERP)	2 %

Frequency Information

New York (NEW YORK), NY - NL 40-39-00; WL 73-49-00; MOBILE: New York JFK airport, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
140.9875-141.0125 MHz	MO	12K5F7E	2 W (ERP)	2 %
150.9125-150.9375 MHz	MO	12K5F3E	2 W (ERP)	2 %
151.9875-152.0125 MHz	MO	12K5F3E	2 W (ERP)	2 %
155.5125-155.5375 MHz	MO	12K5F3E	2 W (ERP)	2 %
159.8125-159.8375 MHz	MO	12K5F3E	2 W (ERP)	2 %
164.4125-164.4375 MHz	MO	12K5F7E	2 W (ERP)	2 %
2223-2237 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2243-2257 MHz	MO	7M00G2W	500 mW (ERP)	2 %
4167.11-4179.11 MHz	MO	6M00D2D	80 W (ERP)	2 %
6414.695-6426.695 MHz	MO	6M00D2D	80 W (ERP)	2 %

Frequency Information

Phoenix (MARICOPA), AZ - NL 33-26-00; WL 112-01-00; MOBILE: Phoenix PHX airport, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
140.9875-141.0125 MHz	MO	12K5F7E	2 W (ERP)	2 %
150.9125-150.9375 MHz	MO	12K5F3E	2 W (ERP)	2 %
151.9875-152.0125 MHz	MO	12K5F3E	2 W (ERP)	2 %
155.5125-155.5375 MHz	MO	12K5F3E	2 W (ERP)	2 %
159.8125-159.8375 MHz	MO	12K5F3E	2 W (ERP)	2 %
164.4125-164.4375 MHz	MO	12K5F7E	2 W (ERP)	2 %
2223-2237 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2243-2257 MHz	MO	7M00G2W	500 mW (ERP)	2 %
4167.11-4179.11 MHz	MO	6M00D2D	80 W (ERP)	2 %
6414.695-6426.695 MHz	MO	6M00D2D	80 W (ERP)	2 %

Frequency Information

Smyrna (RUTHERFORD), TN - NL 36-00-30; WL 86-31-10; MOBILE: Smyrna MQY Airport, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
140.9875-141.0125 MHz	MO	12K5F7E	2 W (ERP)	2 %
150.9125-150.9375 MHz	MO	12K5F3E	2 W (ERP)	2 %
151.9875-152.0125 MHz	MO	12K5F3E	2 W (ERP)	2 %
155.5125-155.5375 MHz	MO	12K5F3E	2 W (ERP)	2 %
159.8125-159.8375 MHz	MO	12K5F3E	2 W (ERP)	2 %
164.4125-164.4375 MHz	MO	12K5F7E	2 W (ERP)	2 %
2223-2237 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2243-2257 MHz	MO	7M00G2W	500 mW (ERP)	2 %
4167.11-4179.11 MHz	MO	6M00D2D	80 W (ERP)	2 %
6414.695-6426.695 MHz	MO	6M00D2D	80 W (ERP)	2 %

Frequency Information

Saint Louis (ST LOUIS), MO - NL 38-44-50; WL 90-22-10; MOBILE: Saint Louis STL Airport, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
140.9875-141.0125 MHz	MO	12K5F7E	2 W (ERP)	2 %
150.9125-150.9375 MHz	MO	12K5F3E	2 W (ERP)	2 %
151.9875-152.0125 MHz	MO	12K5F3E	2 W (ERP)	2 %
155.5125-155.5375 MHz	MO	12K5F3E	2 W (ERP)	2 %
159.8125-159.8375 MHz	MO	12K5F3E	2 W (ERP)	2 %
164.4125-164.4375 MHz	MO	12K5F7E	2 W (ERP)	2 %
2223-2237 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2243-2245 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2246-2252 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2253-2257 MHz	MO	7M00G2W	500 mW (ERP)	2 %

Frequency Information

Saint Louis (ST LOUIS), MO - NL 38-44-50; WL 90-22-10; MOBILE: Saint Louis STL Airport, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
4167.11-4179.11 MHz	MO	6M00D2D	80 W (ERP)	2 %
6414.695-6426.695 MHz	MO	6M00D2D	80 W (ERP)	2 %

Topeka (SHAWNEE), KS - NL 38-57-20; WL 95-39-40; MOBILE: Topeka Forbes FOE Airport, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
140.9875-141.0125 MHz	MO	12K5F7E	2 W (ERP)	2 %
150.9125-150.9375 MHz	MO	12K5F3E	2 W (ERP)	2 %
151.9875-152.0125 MHz	MO	12K5F3E	2 W (ERP)	2 %
155.5125-155.5375 MHz	MO	12K5F3E	2 W (ERP)	2 %
159.8125-159.8375 MHz	MO	12K5F3E	2 W (ERP)	2 %
164.4125-164.4375 MHz	MO	12K5F7E	2 W (ERP)	2 %
2223-2237 MHz	MO	7M00G2W	500 mW (ERP)	2 %

Frequency Information

Topeka (SHAWNEE), KS - NL 38-57-20; WL 95-39-40; MOBILE: Topeka Forbes FOE Airport, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2243-2257 MHz	MO	7M00G2W	500 mW (ERP)	2 %
4167.11-4179.11 MHz	MO	6M00D2D	80 W (ERP)	2 %
6414.695-6426.695 MHz	MO	6M00D2D	80 W (ERP)	2 %

Montoursville (LYCOMING), PA - NL 41-14-50; WL 76-55-31; MOBILE: Williamsport Regional Airport IPT, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
140.9875-141.0125 MHz	MO	12K5F7E	2 W (ERP)	2 %
150.9125-150.9375 MHz	MO	12K5F3E	2 W (ERP)	2 %
151.9875-152.0125 MHz	MO	12K5F3E	2 W (ERP)	2 %
155.5125-155.5375 MHz	MO	12K5F3E	2 W (ERP)	2 %
159.8125-159.8375 MHz	MO	12K5F3E	2 W (ERP)	2 %
164.4125-164.4375 MHz	MO	12K5F7E	2 W (ERP)	2 %

Frequency Information

Montoursville (LYCOMING), PA - NL 41-14-50; WL 76-55-31; MOBILE: Williamsport Regional Airport IPT, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2223-2237 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2243-2257 MHz	MO	7M00G2W	500 mW (ERP)	2 %
4167.11-4179.11 MHz	MO	6M00D2D	80 W (ERP)	2 %
6414.695-6426.695 MHz	MO	6M00D2D	80 W (ERP)	2 %

Allentown (LYCOMING), PA - NL 40-39-14; WL 75-26-43; MOBILE: Allentown-Bethlehem-Easton airport ABE, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
140.9875-141.0125 MHz	MO	12K5F7E	2 W (ERP)	2 %
150.9125-150.9375 MHz	MO	12K5F3E	2 W (ERP)	2 %
151.9875-152.0125 MHz	MO	12K5F3E	2 W (ERP)	2 %
155.5125-155.5375 MHz	MO	12K5F3E	2 W (ERP)	2 %
159.8125-159.8375 MHz	MO	12K5F3E	2 W (ERP)	2 %

Frequency Information

Allentown (LYCOMING), PA - NL 40-39-14; WL 75-26-43; MOBILE: Allentown-Bethlehem-Easton airport ABE, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
164.4125-164.4375 MHz	MO	12K5F7E	2 W (ERP)	2 %
2223-2237 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2243-2257 MHz	MO	7M00G2W	500 mW (ERP)	2 %
4167.11-4179.11 MHz	MO	6M00D2D	80 W (ERP)	2 %
6414.695-6426.695 MHz	MO	6M00D2D	80 W (ERP)	2 %

Pittsburgh (ALLEGHENY), PA - NL 40-29-49; WL 80-13-50; MOBILE: Pittsburgh International Airport PIT, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
140.9875-141.0125 MHz	MO	12K5F7E	2 W (ERP)	2 %
150.9125-150.9375 MHz	MO	12K5F3E	2 W (ERP)	2 %
151.9875-152.0125 MHz	MO	12K5F3E	2 W (ERP)	2 %
155.5125-155.5375 MHz	MO	12K5F3E	2 W (ERP)	2 %

Frequency Information

Pittsburgh (ALLEGHENY), PA - NL 40-29-49; WL 80-13-50; MOBILE: Pittsburgh International Airport PIT, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
159.8125-159.8375 MHz	MO	12K5F3E	2 W (ERP)	2 %
164.4125-164.4375 MHz	MO	12K5F7E	2 W (ERP)	2 %
2223-2237 MHz	MO	7M00G2W	500 mW (ERP)	2 %
2243-2257 MHz	MO	7M00G2W	500 mW (ERP)	2 %
4167.11-4179.11 MHz	MO	6M00D2D	80 W (ERP)	2 %
6414.695-6426.695 MHz	MO	6M00D2D	80 W (ERP)	2 %

Special Conditions:

- (1) Licensee is required to coordinate operations with existing microwave users in the area to avoid interference.
- (2) Operation is subject to prior coordination with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator. Consult the list at http://freq.sbe.org/pdf_files/coordinators.pdf to find the appropriate coordinator.
- (3)
 1. In Honolulu, HI, Solar Impulse must notch out the following:
 - a. 2224 MHz
 2. In St. Louis, MO, Solar Impulse must notch out the following:
 - a. 2245 - 2246 MHz
 - b. 2252 - 2253 MHz
 3. In Topeka, KS and Allentown, PA, Solar Impulse must notch out the following:
 - a. 164.425 MHz
- (4) Solar Impulse must notify any public safety entity within 32 km radius of the listed coordinates and which operates in the frequency band 155.5125-155.5375 MHz.