

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

EXPERIMENTAL

(Nature of Service)

XC MO

(Class of Station)

WJ9XKH

(Call Sign)

0165-EX-ST-2016

(File Number)

NAME IMSAR LLC

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:

To investigate the capabilities and benefits of small synthetic aperture radars, in a variety of terrain, vegetation, and atmospheric conditions. UAV operation.

Station Locations

- (1) MOBILE: Boardman, OR. On aircraft at 6,000 feet AGL or below, within 16 km, centered around NL 45-44-52; WL 119-45-52

Frequency Information

MOBILE: Boardman, OR. On aircraft at 6,000 feet AGL or below, within 16 km, centered around NL 45-44-52; WL 119-45-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
350-1600 MHz	MO	1G25Q0N	15 W (ERP)	
15400-17400 MHz	MO	2G00F0N	484 W (ERP)	

This authorization effective April 04, 2016 and
will expire 3:00 A.M. EST October 02, 2016

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (1) 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.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) The applicant must coordinate with the local SBE frequency coordinator and with the Fixed Microwave Service licensees in accordance with 47 CFR, Part 101.103(d) prior to operation in 350-1600 MHz band.
- (4) Operation must be consented by the following within 200 miles of the test area:
All 700 MHz licensees (698 -788 MHz)
All Cellular licensees (824-849 MHz / 869-894 MHz)
Air Ground Licensee (849-851 MHz / 894-896 MHz)
- (5) Applicant must notch 364.2 MHz +/- 3 KHz to protect military air operations in the area.
- (6) No operation permitted in the FirstNet bands 758-768 MHz and 788-798 MHz.
- (7) Applicant must notch 406-406.1 MHz +/- 8 KHz to protect Emergency Position-Indicating Radiobeacon stations. ITU Radio Regulations prohibit any and all possible interference to distress system frequencies.
- (8) The applicant must notch out 1030 MHz +/- 4.5 MHz and 1090 MHz +/- 3 MHz to protect Navy assignments in Boardman, OR
- (9) IMSAR LLC must be made aware that geographical frequency approval for this device doesn't constitute approval to fly the device within the NW Training Range Complex. Flight approval and scheduling for Special Use Airspace within the NWTRC shall be in accordance with NAS Whidbey Island Instruction 3770.1G.
- (10) Applicant must confine operations to Boardman Range.
- (11) The FAA will not support further development of this particular SAR unless (1) 15400-16200 MHz is notch out entirely to protect FAA radars, and (2) the proponent demonstrates that the radio will not adverse impact to L-bands operations such as GPS, DME/TACAN and radars. If both systems are to be used for Federal/military operations, the proponent should work with the U.S. Government contractor to obtain a NTIA certification.
- (12) Applicant must notch the 1400-1427 MHz band, which is allocated exclusively to passive space sensor services and in which no emissions are permitted. Additionally, emissions in the 1400-1427 MHz band will cause harmful interference to the European Space Agency's SMOS passive sensor in violation of RR No. 5.340.
- (13) Applicant must notch the 406.1-420 MHz band during this time of FIRE season so as to not impact safety of personnel and fire operations.
- (14) The NSF requests coordination of the 608 to 614 MHz band. Coordination POC:
Dr. Glen Langston
Email: glangso@nsf.gov
Phone: 703-292-4937
- (15) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by the U.S. Government; contract number W911QY-14-D-007. The use of this radio station in any other manner or for any other purpose will constitute a violation of the privileges herein authorized. Except as subsequently authorized by the Commission, this radio station shall not be operated after the expiration date of the contract designated in the related application and enumerated above.