

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XD MO

(Class of Station)

WE2XVR

(Call Sign)

0198-EX-ML-2013

(File Number)

NAME ImSAR LLC

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(j) of the Commission's Rules

Station Locations

- (1) MOBILE: Boardman, OR, within 16 km, centered around NL 45-44-52; WL 119-46-52
- (2) MOBILE: Springville, UT, within 100 km, centered around NL 40-09-12; WL 111-38-58
- (3) MOBILE: China Lake, CA, within 64 km, centered around NL 35-38-17; WL 117-40-12
- (4) MOBILE: Whidbey Island, WA, within 32 km, centered around NL 48-19-17; WL 122-38-12
- (5) MOBILE: Arlington, OR, within 32 km, centered around NL 45-42-56; WL 120-11-39
- (6) MOBILE: McDonough, GA, within 30 km, centered around NL 33-24-02; WL 84-09-43
- (7) MOBILE: Avon Park, FL, within 16.1 km, centered around NL 27-38-37; WL 81-16-25
- (8) MOBILE: Camp Atterbury, IN, within 16.1 km, centered around NL 39-20-18; WL 86-01-46
- (9) MOBILE: Fort Drum, NY, within 16.1 km, centered around NL 44-08-47; WL 75-38-41
- (10) MOBILE: Fort McCoy, WI, within 16.1 km, centered around NL 44-04-15; WL 90-38-51
- (11) MOBILE: Eglin AFB, FL, within 16.1 km, centered around NL 30-32-48; WL 86-43-52
- (12) MOBILE: Yuma, AZ, within 100 km, centered around NL 33-12-09; WL 114-02-56
- (13) MOBILE: Dugway, UT, within 16.1 km, centered around NL 40-12-01; WL 112-56-51
- (14) MOBILE: Camp Roberts, CA, within 16.1 km, centered around NL 35-43-00; WL 120-45-53
- (15) MOBILE: Utah
- (16) MOBILE: Fort Polk, LA, within 20 km, centered around NL 31-04-25; WL 93-12-09
- (17) MOBILE: Fairbanks, AK, within 80 km, centered around NL 64-50-16; WL 147-42-58
- (18) MOBILE: Barrow, AK, within 80 km, centered around NL 71-17-25; WL 156-47-19
- (19) MOBILE: Wallops Island, VA, within 50 km, centered around NL 37-52-53; WL 75-26-15
- (20) MOBILE: Patuxent River, MD, within 50 km, centered around NL 38-16-41; WL 76-25-23
- (21) MOBILE: Hood River, OR, within 10 km, centered around NL 45-40-18; WL 121-32-29

This authorization effective April 23, 2014 and
will expire 3:00 A.M. EST January 01, 2018

**FEDERAL
COMMUNICATIONS
COMMISSION**



Station Locations

(22) MOBILE: North Slope Borough, AK, including 12 nmi offshore, within 130 km, centered around NL 70-11-52; WL 148-27-38

(23) MOBILE: Anchorage, AK, within 80 km, centered around NL 61-13-00; WL 149-54-02

Frequency Information

MOBILE: Boardman, OR, within 16 km, centered around NL 45-44-52; WL 119-46-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Springville, UT, within 100 km, centered around NL 40-09-12; WL 111-38-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
435 MHz	MO	30M0Q0N	5 W (ERP)	
550 MHz	MO	200MQ0N	5 W (ERP)	

Frequency Information

MOBILE: Springville, UT, within 100 km, centered around NL 40-09-12; WL 111-38-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
650-758 MHz	MO	108MQ0N	5 W (ERP)	
769-788 MHz	MO	19M0Q0N	5 W (ERP)	
879.5 MHz	MO	161MQ0N	5 W (ERP)	
1625-1850 MHz	MO	4M79G1D 9M58G1D 28M7G1D	1 W (ERP)	
10.25 GHz	MO	500MF0N 14M0D2W 7M00D2W 3M50D2W 1M75D2W 0M87D2W	2 W (ERP)	
16.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: China Lake, CA, within 64 km, centered around NL 35-38-17; WL 117-40-12

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
450-650 MHz	MO	200MQ0N	2 W (ERP)	

Frequency Information

MOBILE: China Lake, CA, within 64 km, centered around NL 35-38-17; WL 117-40-12

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	

MOBILE: Whidbey Island, WA, within 32 km, centered around NL 48-19-17; WL 122-38-12

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	19M0Q0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	

Frequency Information

MOBILE: Whidbey Island, WA, within 32 km, centered around NL 48-19-17; WL 122-38-12

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Arlington, OR, within 32 km, centered around NL 45-42-56; WL 120-11-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

Frequency Information

MOBILE: McDonough, GA, within 30 km, centered around NL 33-24-02; WL 84-09-43

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10.25 GHz	MO	500MF0N	2 W (ERP)	
16.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Avon Park, FL, within 16.1 km, centered around NL 27-38-37; WL 81-16-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	

Frequency Information

MOBILE: Avon Park, FL, within 16.1 km, centered around NL 27-38-37; WL 81-16-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Camp Atterbury, IN, within 16.1 km, centered around NL 39-20-18; WL 86-01-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	

Frequency Information

MOBILE: Camp Atterbury, IN, within 16.1 km, centered around NL 39-20-18; WL 86-01-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Fort Drum, NY, within 16.1 km, centered around NL 44-08-47; WL 75-38-41

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

Frequency Information

MOBILE: Fort McCoy, WI, within 16.1 km, centered around NL 44-04-15; WL 90-38-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Eglin AFB, FL, within 16.1 km, centered around NL 30-32-48; WL 86-43-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	

Frequency Information

MOBILE: Eglin AFB, FL, within 16.1 km, centered around NL 30-32-48; WL 86-43-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Yuma, AZ, within 100 km, centered around NL 33-12-09; WL 114-02-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0F0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	

Frequency Information

MOBILE: Yuma, AZ, within 100 km, centered around NL 33-12-09; WL 114-02-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Dugway, UT, within 16.1 km, centered around NL 40-12-01; WL 112-56-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	

Frequency Information

MOBILE: Dugway, UT, within 16.1 km, centered around NL 40-12-01; WL 112-56-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Camp Roberts, CA, within 16.1 km, centered around NL 35-43-00; WL 120-45-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

Frequency Information

MOBILE: Utah

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	5 W (ERP)	
450-650 MHz	MO	200MQ0N	5 W (ERP)	
650-758 MHz	MO	108MQ0N	5 W (ERP)	
769-788 MHz	MO	19M0Q0N	5 W (ERP)	
879.5 MHz	MO	161MQ0N	5 W (ERP)	
1.625-1.85 GHz	MO	4M79G1D 9M58G1D 28M7G1D	1 W (ERP)	
10-10.5 GHz	MO	500MF0N 14M0D2W 7M00D2W 3M50D2W 1M75D2W 0M87D2W	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

Frequency Information

MOBILE: Fort Polk, LA, within 20 km, centered around NL 31-04-25; WL 93-12-09

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Fairbanks, AK, within 80 km, centered around NL 64-50-16; WL 147-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	

Frequency Information

MOBILE: Fairbanks, AK, within 80 km, centered around NL 64-50-16; WL 147-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Barrow, AK, within 80 km, centered around NL 71-17-25; WL 156-47-19

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-450 MHz	MO	30M0Q0N	2 W (ERP)	
450-650 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	

Frequency Information

MOBILE: Barrow, AK, within 80 km, centered around NL 71-17-25; WL 156-47-19

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10-10.5 GHz	MO	500MF0N	2 W (ERP)	
15.4-17.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Wallops Island, VA, within 50 km, centered around NL 37-52-53; WL 75-26-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
435 MHz	MO	30M0Q0N	2 W (ERP)	
550 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10.25 GHz	MO	500MF0N	2 W (ERP)	

Frequency Information

MOBILE: Wallops Island, VA, within 50 km, centered around NL 37-52-53; WL 75-26-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Patuxent River, MD, within 50 km, centered around NL 38-16-41; WL 76-25-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
435 MHz	MO	30M0Q0N	2 W (ERP)	
550 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10.25 GHz	MO	500MF0N	2 W (ERP)	
16.4 GHz	MO	2G00F0N	2 W (ERP)	

Frequency Information

MOBILE: Hood River, OR, within 10 km, centered around NL 45-40-18; WL 121-32-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
435 MHz	MO	30MQ0N	2 W (ERP)	
550 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19MQ0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10.25 GHz	MO	500MF0N	2 W (ERP)	
16.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: North Slope Borough, AK, including 12 nmi offshore, within 130 km, centered around NL 70-11-52; WL 148-27-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
550 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	

Frequency Information

MOBILE: North Slope Borough, AK, including 12 nmi offshore, within 130 km, centered around NL 70-11-52; WL 148-27-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	
10.25 GHz	MO	500MF0N	2 W (ERP)	
16.4 GHz	MO	2G00F0N	2 W (ERP)	

MOBILE: Anchorage, AK, within 80 km, centered around NL 61-13-00; WL 149-54-02

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
435 MHz	MO	30M0Q0N	2 W (ERP)	
550 MHz	MO	200MQ0N	2 W (ERP)	
650-758 MHz	MO	108MQ0N	2 W (ERP)	
769-788 MHz	MO	19M0Q0N	2 W (ERP)	
879.5 MHz	MO	161MQ0N	2 W (ERP)	

Frequency Information

MOBILE: Anchorage, AK, within 80 km, centered around NL 61-13-00; WL 149-54-02

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
10.25 GHz	MO	500MF0N	2 W (ERP)	

Special Conditions:

- (1) Subject to prior coordination with American Society for Healthcare Engineering of the American Hospital Association (ASHE/AHA): Dale Woodin, ASHE Advocacy Director; American Hospital Association, One North Franklin; Chicago, IL 60606; (312) 422-3812, (312) 422-4571 (fax), dwoodin@aha.org.
- (2) All operations subject to coordination with the Gulf Area Frequency Coordinator located at Eglin AFB, Florida, prior to use with the area bounded by 27 degrees N. 33 degrees 30' N; and 83 degrees W. 90 degrees W.
- (3) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (4) 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.
- (5) Operation is subject to prior coordination with the Society of Broadcast Engineers, Inc. (SBE); ATTN: Executive Director; 9102 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.
- (6) All operations in China Lake CA are subject to prior coordination with Western Area Frequency Coordinator at (760) 939-6948.
- (7) The designated point-of-contact to terminate transmissions if interference occurs is Mr. Adam Robertson, at (801) 762-7263.
- (8) During transmission, aircraft shall not exceed the altitude of 10000 feet.
- (9) Due to anticipated harmful interferences to NASA's operations in China Lake, CA, operations prohibited in 16.4 GHz.
- (10) The request in support of an Air Force contract in 380 MHz should be processed through the prospective Air Force Program office.
- (11) Operations in the upper and lower 700 MHz bands must be prior coordinated with existing and new Part 27 and Part 90 licensees to avoid interference.
- (12) Operation must be prior coordinated with MID AFC at (301) 342-1194.
- (13) Operations in the frequency band 15.4-17.4 GHz is not permitted due to anticipated harmful interference to the FAA operations in Anchorage, AK.