

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

EXPERIMENTAL

(Nature of Service)

WK2XEW

(Call Sign)

XC MO

(Class of Station)

0185-EX-CM-2019

(File Number)

NAME Leidos, Inc

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(c) of the Commission's Rules

Station Locations

- (1) MOBILE: Manassas, VA. Airborne Operations Around Manassas VA, within 370 km, centered around NL 38-43-15; WL 77-30-54
- (2) MOBILE: Manassas, VA. Ground Operations Manassas VA, within 1 km, centered around NL 38-43-15; WL 77-30-54
- (3) MOBILE: Airborne Operations Around Bridgewater VA, within 370 km, centered around NL 38-22-00; WL 78-57-37
- (4) MOBILE: Ground Operations Bridgewater VA, within 1 km, centered around NL 38-22-00; WL 78-57-37

Frequency Information

MOBILE: Manassas, VA. Airborne Operations Around Manassas VA, within 370 km, centered around NL 38-43-15; WL 77-30-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
27-33.1 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
45-51.55 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	

This authorization effective January 06, 2020 and
will expire 3:00 A.M. EST June 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Manassas, VA. Airborne Operations Around Manassas VA, within 370 km, centered around NL 38-43-15; WL 77-30-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
84-90.9 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
158-159 MHz	MO	25K0F3E	20 W (ERP)	
174-175.2 MHz	MO	25K0F3E	20 W (ERP)	
223-225 MHz	MO	25K0F1D 1M20G1D 25K0F3E	20 W (ERP)	
437-443 MHz	MO	25K0F3E	20 W (ERP)	
507-513 MHz	MO	25K0F3E	20 W (ERP)	
528-534 MHz	MO	25K0F3E	20 W (ERP)	
946-952 MHz	MO	25K0F3E	20 W (ERP)	

Frequency Information

MOBILE: Manassas, VA. Ground Operations Manassas VA, within 1 km, centered around NL 38-43-15; WL 77-30-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
27-33.1 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
45-51.55 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
84-90.9 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
158-159 MHz	MO	25K0F3E	20 W (ERP)	
174-175.2 MHz	MO	25K0F3E	20 W (ERP)	
223-225 MHz	MO	25K0F1D 1M20G1D 25K0F3E	20 W (ERP)	
437-443 MHz	MO	25K0F3E	20 W (ERP)	
507-513 MHz	MO	25K0F3E	20 W (ERP)	
528-534 MHz	MO	25K0F3E	20 W (ERP)	

Frequency Information

MOBILE: Manassas, VA. Ground Operations Manassas VA, within 1 km, centered around NL 38-43-15; WL 77-30-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
946-952 MHz	MO	25K0F3E	20 W (ERP)	

MOBILE: Airborne Operations Around Bridgewater VA, within 370 km, centered around NL 38-22-00; WL 78-57-37

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
27-33.1 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
45-51.55 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
84-90.9 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
158-159 MHz	MO	25K0F3E	20 W (ERP)	
174-175.2 MHz	MO	25K0F3E	20 W (ERP)	
223-225 MHz	MO	25K0F1D 1M20G1D 25K0F3E	20 W (ERP)	

Frequency Information

MOBILE: Airborne Operations Around Bridgewater VA, within 370 km, centered around NL 38-22-00; WL 78-57-37

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
437-443 MHz	MO	25K0F3E	20 W (ERP)	
507-513 MHz	MO	25K0F3E	20 W (ERP)	
528-534 MHz	MO	25K0F3E	20 W (ERP)	
946-952 MHz	MO	25K0F3E	20 W (ERP)	

MOBILE: Ground Operations Bridgewater VA, within 1 km, centered around NL 38-22-00; WL 78-57-37

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
27-33.1 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
45-51.55 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
84-90.9 MHz	MO	16K0F3E 25K0F3E	20 W (ERP)	
158-159 MHz	MO	25K0F3E	20 W (ERP)	

Frequency Information

MOBILE: Ground Operations Bridgewater VA, within 1 km, centered around NL 38-22-00; WL 78-57-37

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
174-175.2 MHz	MO	25K0F3E	20 W (ERP)	
223-225 MHz	MO	25K0F1D 1M20G1D 25K0F3E	20 W (ERP)	
437-443 MHz	MO	25K0F3E	20 W (ERP)	
507-513 MHz	MO	25K0F3E	20 W (ERP)	
528-534 MHz	MO	25K0F3E	20 W (ERP)	
946-952 MHz	MO	25K0F3E	20 W (ERP)	

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 station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (4) Coordinate with the Fixed Microwave Service licensees in accordance with 47 CFR. Part 101.103 (d) prior to operation in 946-952 MHz band.
- (5) Coordinate with the local SBE frequency coordinator prior to operation in 84-90.9 MHz, 174-175.2 MHz, 507-513 MHz, 528-534 MHz and 946-952 MHz bands.

Special Conditions:

- (6) Prior to commencing any operations, the licensee must obtain consent from the following within 190 miles of the contours of the testing area:
Paging Service licensees in 158 MHz
Paging Service licensees in 152 MHz/158 MHz
700 MHz Lower Band "A" Block licensees (698-704 MHz/728-734 MHz);
700 MHz Lower Band "E" Block licensees (722-728 MHz)
- (7) Leidos, Inc. may not operate in the 148 – 158 MHz, 162 – 174 MHz, and the 225 – 400 MHz bands due to these bands being extremely congested in the requested areas.
- (8) Leidos, Inc. may not operate in the 115 – 141 MHz band due to 25 kHz emissions being unacceptable, no discrete frequencies available, and the 115 – 118 MHz band is for aeronautical radionavigation not aeronautical mobile communications.
- (9) The authorized station herein must not be used for air traffic control communications.
- (10) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (11) STOP BUZZER CONTACTS:
Noah Quay (530) 415-7139
Isaac Wiggins (907) 315-1760
Clarence Simpson (540) 831-0261
Brandi Moomau (540) 470-7151
- (12) 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 numbers W56KGY-16-D-0001, W911QX-16-C-0012, W15P7T-10-D-D420/0007, and CRN315177W909MY-15-C-0031. 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.
- (13) Operations in Bridgewater, VA require The National Radio Quiet Zone (NRQZ) consent letter for NSF.
- (14) New wideband not authorized in 138-150.8 MHz and 162-174 MHz bands.