

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

EXPERIMENTAL

(Nature of Service)

WI2XNL

(Call Sign)

XD MO

(Class of Station)

0041-EX-CN-2016

(File Number)

NAME Mirage Systems, 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(j) of the Commission's Rules

Station Locations

- (1) MOBILE: Mounted to helicopter, at Dugway Proving Ground, within 3 km, centered around NL 40-05-11; WL 112-58-55

Frequency Information

MOBILE: Mounted to helicopter, at Dugway Proving Ground, within 3 km, centered around NL 40-05-11; WL 112-58-55

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
800-960 MHz	MO	160MF3N	15.72 W (ERP)	
1610-2300 MHz	MO	690MF3N	15.72 W (ERP)	

Special Conditions:

- (1) Operation in the 1695-1780 MHz, 1915-1920 MHz, 1995-2020 MHz or 2110-2200 MHz band requires consent of local Advanced Wireless Service (AWS) licensee(s) to avoid interference.
- (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.

This authorization effective October 17, 2016 and
will expire 3:00 A.M. EST November 01, 2018

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (4) 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.
- (5) Coordinate with the local SBE frequency coordinator prior to operation in 800-960 MHz, and 1610-2300 MHz.
- (6) Coordinate with the Fixed Microwave Service licensees prior to operation in 800-960 MHz
- (7) Antenna height not to exceed 500 ft AGL.
- (8) Operation is subject to consent of the following incumbent licensees within 50 miles of the test area:
 - o All Cellular licensees (824-849 MHz/869-894 MHz)
 - o Commercial Air-Ground licensee (849-851 MHz/894-896 MHz)
 - o SMR licensees (806-821 MHz/851-866 MHz)
 - o SMR licensees (896-901 MHz/935-940 MHz)
 - o All Broadband PCS licensee (1850-1910 MHz/1930-1990 MHz)
- (9) Prior to the start of operations in the 1610 - 2300 MHz band, experimental licensee must notify all eighteen (18) National Spectrum Managers Association (NSMA) frequency coordinator by e-mail. The notice must include the name and contact information of the stop buzzer personnel. It must also include the testing parameters, day and times of each testing. Below is the website that has all of the frequency coordinator point of contact information.
NSMA contact information can be found in the website:
http://wireless.fcc.gov/services/index.htm?job=licensing_1&id=microwave
- (10) Prior to the start of operations in the 1610 - 2300 MHz band, experimental licensee must notify GlobalStar and Iridium. The notice must include the name and contact information of the stop buzzer personnel. It must also must include the testing parameters, day and times of each testing.
GlobalStar
Mr. David Weinreich
(Email) David.Weinreich@globalstar.com
Iridium
Name: Maureen McLaughlin
Email: Maureen.McLaughlin@iridium.com.
- (11) Licensee when operating in the 1610 - 2300 MHz, the maximum aircraft altitude above ground level must be maintained at or below 500 feet and the antenna angle of inclination must be maintain at or greater than 45 degrees below the horizon.
- (12) Due to anticipated interferences to multiple federal stations, operation in 406-750 MHz is prohibited.
- (13) Operation is subject to notification of the following incumbent licensees within 50 miles of the test area:
 - o Narrowband PCS licensees (901-902 MHz)
 - o Location & Monitoring Service licensees (902-928 MHz)