

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

EXPERIMENTAL

(Nature of Service)

WG2XMT

(Call Sign)

XC FX MO

(Class of Station)

0231-EX-CM-2017

(File Number)

NAME Chemring Sensors and Electronic 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(c) of the Commission's Rules

Station Locations

- (1) Dulles (LOUDOUN), VA - NL 38-58-47; WL 77-29-03; MOBILE: 23031 Ladbrook Drive, Dulles, VA 20166, within 0.5 km, centered around NL 38-58-47; WL 77-29-03
- (2) Charlotte (MECKLENBURG), NC - NL 35-08-21; WL 80-58-32; MOBILE: 4205 Westinghouse Commons Drive, within 0.5 km, centered around NL 35-08-21; WL 80-58-32

Frequency Information

Dulles (LOUDOUN), VA - NL 38-58-47; WL 77-29-03; MOBILE: 23031 Ladbrook Drive, Dulles, VA 20166, within 0.5 km, cente

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
200-7000 MHz	MO	6G80P0N	1.2 mW (ERP)	

Charlotte (MECKLENBURG), NC - NL 35-08-21; WL 80-58-32; MOBILE: 4205 Westinghouse Commons Drive, within 0.5 km,

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
200-7000 MHz	MO	6G80P0N	1.2 mW (ERP)	

This authorization effective February 08, 2018 and
will expire 3:00 A.M. EST December 01, 2019

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (1) 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.
- (2) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (3) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (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) One or more frequency assignments were coordinated prior to authorization with FAA Headquarters, 800 Independence Avenue, S.W., Washington, DC 20591; Telephone: 202-267-8699.
- (6) PER CLEARANCE-USE OF THIS FRQ OR BAND UNDER THE AUTHORITY OF THIS ASSIGN IS SUBJ TO FURTHER COORDINATION WITH THE AFC, PATUXENT RIVER, MARYLAND, AS NECESSARY TO ENSURE COMPATIBILITY WITH EXISTING USES
- (7) PER CLEARANCE -USE OF THIS FREQUENCY UNDER THE AUTHORITY OF THIS ASSIGNMENT IS SUBJECT TO FURTHER COORDINATION WITH HQ USAF FRQ COORDINATOR ALEXANDRIA, VA., TO ENSURE COMPATIBILITY WITH EXISTING USES
- (8) Contract W909MY-12-D-0010
Contracting Officer: Tina Patterson, tristina.l.patterson.civ@mail.mil, 703-704-0861
- (9) Due to emission levels exceeding the required limits per FCC Part 15 and NTIA Annex K in the 960-2210 MHz range, the proponent will operate with lower power and/or shielding to reduce risk to nearby FAA operations. This is especially important for Dulles since the location is within the required distance separation.
- (10) License POC certifies that the Governor-appointed FirstNet Single Point of Contact within the proposed Band 14 authorization location will be notified (contact information available at www.firstnet.gov/consultation).
- (11) Licensee must accept interference from any other user of Band 14 and must coordinate operation with other authorized Band 14 operations. Failure to effectively coordinate shall result in immediate suspension of the authorization until such time, as determined by FirstNet, that project may continue.
- (12) Licensee must not cause interference to FirstNet operations or those approved to operate in Band 14 per license (i.e. AT&T testing or public safety entities authorized to operate on Band 14). Failure to effectively coordinate shall result in FirstNet seeking immediate suspension of the authorization; reinstitution of the authorization would require re-coordination with FirstNet.
- (13) License POC certifies that it has verified with reasonable supporting detail no current potential for interference with FirstNet operations or those approved to operate in Band 14 per STA/EL or license (i.e. AT&T and or public safety entities licensed to operate on Band 14).
- (14) License POC must be established and sent to FirstNet upon authorization issuance with "kill switch" authority; license POC agrees to immediately cease operations as directed by FirstNet upon receipt (in any form and for any reason) of notification to kill switch POC until such time, as determined by FirstNet, that Band 14 frequency use may continue.

Special Conditions:

- (15) Stop buzzer contacts is William Cummings at 571-230-3085 and E-Mail Address: wcummings@chemringsensors.com
- (16) Operation is subject to consent of the following licensees within 50 miles of the test areas:
 - o 700 MHz licensees (698-758 MHz/775-788 MHz)
 - o SMR licensees (809-824 MHz/854-869 MHz)
 - o Cellular licensees (824-849 MHz/869-894 MHz)
 - o Commercial Air-Ground licensee (849-851 MHz/894-896 MHz)
 - o SMR licensees (896-901 MHz/935-940 MHz)
 - o Narrowband PCS licensees (901-902 MHz)
 - o Location & Monitoring Service licensees (902-928 MHz)
 - o Broadband PCS licensees (1850-1910 MHz/1930-1990 MHz)
 - o WCS licensees (2305-2320 MHz/2345-2360 MHz)
- (17) Operation is subject to notification of the following licensees within 50 miles of the test area:
 - o 218-219 MHz Service licensees
 - o 220 MHz Service licensees
 - o 220-222 MHz Service licensees
 - o Paging Service licensees in 454MHz/459 MHz
 - o General Aviation Air-Ground Service in 454 MHz/459 MHz
 - o Paging Service licensees in 929 MHz and 931 MHz
 - o 1390-92 MHz Band Licensees
 - o 1392-1395 MHz/1432-1435 MHz Band licensees
 - o 1670-1675 MHz Band licensee (Crown Castle International,) and the lessee (Ligado Networks)
- (18) 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 W909MY-12-D-0007. 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.
- (19) This frequency assignment in one of the bands 1435-1535 or 2310-2390 MHz was coordinated with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the AFC as necessary to ensure compatibility with existing uses.
- (20) Prior to commence operation, Chemring Sensors and Electronic Systems:
 - a. Secure consents from the Advance Wireless Service licensees.
 - b. Obtain consents from the Educational Broadband Service and the Broadband Radio Service licensees
 - c. Coordinate with the local Society of Broadcast Engineers frequency coordinator.
 - d. Coordinate with Fixed Microwave Service licensees.
 - e. Maintain operation separation from the grandfathered earth stations as defined in Part 90, Subpart Z, or coordinate an agreement with the grandfathered earth station licensees.
 - f. Consult the ULS database to ensure that the operation will not cause harmful interference to any existing registered stations in the 3650-3700 MHz band, and notify the registered users in the proposed geographic areas.