

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

EXPERIMENTAL

(Nature of Service)

XC FX

(Class of Station)

KA2XAG

(Call Sign)

0233-EX-RR-2009

(File Number)

NAME RAYTHEON COMPANY

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(b) of the Commission's Rules

Station Locations

(1) Tucson (PIMA), AZ - NL 32-06-06; WL 110-56-49

Frequency Information

Tucson (PIMA), AZ - NL 32-06-06; WL 110-56-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
155 MHz	FX	2M00P0N	43 W (ERP)	5.0E-7 %
815 MHz	FX	2M00P0N	2495 W (ERP)	5.0E-7 %
1300 MHz	FX	2M00P0N	28119 W (ERP)	5.0E-7 %
2000-4000 MHz	FX	2M00P0N	66222 W (ERP)	5.0E-7 %

This authorization effective November 01, 2009 and
will expire 3:00 A.M. EST April 30, 2011

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Tucson (PIMA), AZ - NL 32-06-06; WL 110-56-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
4000-8000 MHz	FX	2M00P0N	36392 W (ERP)	5.0E-7 %
8000-12000 MHz	FX	2M00P0N	58884 W (ERP)	5.0E-7 %
12000-18000 MHz	FX	2M00P0N	62517 W (ERP)	5.0E-7 %
32000-39000 MHz	FX	2M00P0N	2884 W (ERP)	5.0E-7 %

Special Conditions:

- (1) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by . 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.
- (2) All customers participating in the experiment shall be informed that this operation is for experimental purposes only and can be cancelled at any time.
- (3) Operation is subject to prior coordination with the Society of Broadcast Engineers, Inc. (SBE); ATTN: Executive Director; 9247 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.
- (4) Subject to coordination with the Area Frequency Coordinator, located at the Army Electronic Proving Ground, Ft. Huachuca, Arizona, prior to use within the State of Arizona. Phone: 602-538-6423.
- (5) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (6) 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.
- (7) The station identification requirements of Section 5.115 of the Commission's Rules are waived.

Special Conditions:

- (8) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by U.S. Navy Contract number: N00019-09-D-2103. 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.
- (9) Please call at the Control Room (Tucson Test Facility) at (520) 794-7675 to terminate transmissions if interference occurs.
- (10) Assignment in frequency bands 960-1400, and 2000-18000 MHz was coordinated prior to authorization with the FAA Western Coordinator, Los Angeles, CA. Use of frequencies under the authority of this assignment is subject to such further coordination with the FAA Western Coordinator, Los Angeles, CA, as necessary to ensure compatibility with existing uses.
- (11) The transmission is LIMITED to antenna height of no more than 10 ft AGL, and the direction of 237 degrees referenced to True North and at 70 nsec per pulse.