

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

EXPERIMENTAL

(Nature of Service)

XC MO

(Class of Station)

WH2XAO

(Call Sign)

0285-EX-PL-2013

(File Number)

NAME University of Hawaii at Manoa

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: LEO 470 km, 93 Deg incl
- (2) MOBILE: LEO 470 km, 93 Deg incl
- (3) MOBILE: LEO 470 km, 93 Deg incl

Frequency Information

MOBILE: LEO 470 km, 93 Deg incl

| Frequency         | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------------|---------------|---------------------|------------------|---------------------------|
| 437.26-437.28 MHz | MO            | 12K0F1D             | 3.2 W (ERP)      | 0.01 %                    |

MOBILE: LEO 470 km, 93 Deg incl

| Frequency         | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------------|---------------|---------------------|------------------|---------------------------|
| 145.97-145.99 MHz | MO            | 12K0F1D             | 1.6 W (ERP)      | 0.01 %                    |

This authorization effective April 17, 2014 and  
will expire 3:00 A.M. EST May 01, 2016

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

MOBILE: LEO 470 km, 93 Deg incl

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------|---------------|---------------------|------------------|---------------------------|
| 2415 MHz  | MO            | 7M04G1D             | 8.1 W (ERP)      | 0.0002 %                  |

## Special Conditions:

- (1) The occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by DoD contract no. W9113M-07-C-0150. 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.
- (3) Following launch of the satellite, the licensee must notify the FCC through electronic submission to the license file, of the status of the satellite (transmissions commenced, etc.), not later than 7 days after commencement or expected commencement of transmissions, and of termination of transmissions, not later than three months after such termination.