



Special Temporary Authority to Test Radar Instrumentation

**FRN: 0021252267
Form 442, File Number: 0708-EX-ST-2015**

**Jawad Obaid
Center for Remote Sensing of Ice Sheets (CReSIS)
University of Kansas, Lawrence, Kansas
23 June 2015**

Table of Contents

A. Purpose of Operation and Need for License	3
B. Locations of Proposed Operation	3
C. Technical Specifications	4
1. Frequency of Operation	4
2. Effective Radiated Power (ERP)	4
3. Modulation Signal Description and Emissions	4
4. Equipment Utilized.....	4
5. Station Class	4
D. Contact Information	4
E. Appendix.....	4
1. Arctic Management Area Coordinates.....	4

A. Purpose of Operation and Need for License

The purpose of this application is to request authorization from the FCC for CReSIS (Center for Remote Sensing of Ice Sheets) at the University of Kansas to operate a UAV (Unmanned Aerial Vehicle) radar systems during test flights (1-4 hours each flight) between July 27th and December 31st, 2015, near the Clinton Lake area in Lawrence, Kansas

B. Locations of Proposed Operation

The STA is requested to allow the collection of data using UAV-mounted radar and for the calibration and testing of the radar. The height of the transmitter will be at a nominal flight altitude of 500 feet AGL. The locations of operation are outlined in Table 1.

Table 1 – Summary of Proposed Operation Locations

Proposed Location	Notes
1. Clinton Lake Area	Within 0.5 mile radius of the described coordinates in section E.

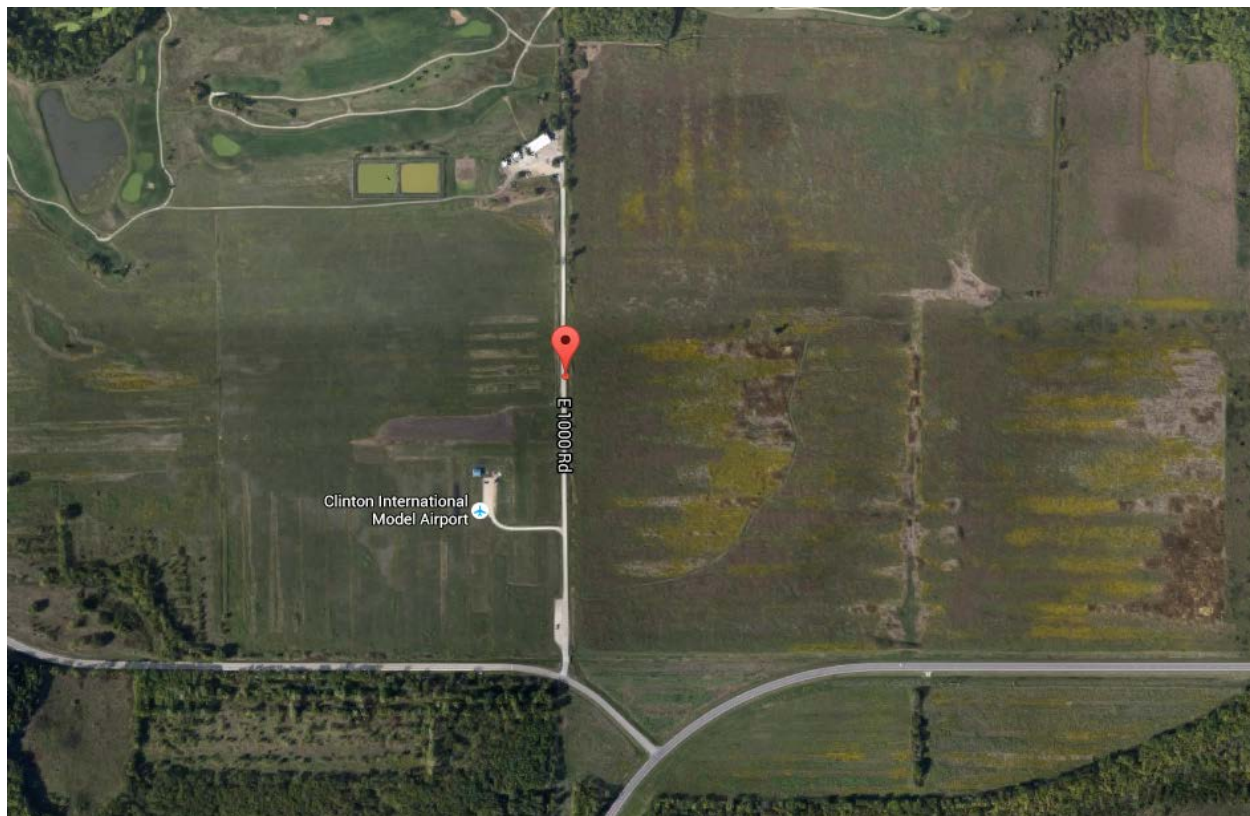


Figure 1 - Proposed Site (Clinton Lake Area)

C. Technical Specifications

1. Frequency of Operation

CReSIS requests authorization to operate from 12 – 16 MHz, and 30 – 40 MHz bands.

2. Effective Radiated Power (ERP)

The effective radiated power (ERP) will not exceed 20 W peak for 12 – 16 MHz

The effective radiated power (ERP) will not exceed 20 W peak for 30 – 40 MHz

3. Modulation Signal Description and Emissions

The emission designator for 12 – 16 MHz signal is 1M00N0N.

The emission designator for 30 – 40 MHz signal is 5M00N0N.

4. Equipment Utilized

Equipment used for these systems are custom built at CReSIS. One unit will be used for each frequency band under this STA application.

5. Station Class

This station will be Aeronautical Mobile in the areas described in section B, with a nominal altitude of 500 feet AGL.

D. Contact Information

For questions about this application or in the unlikely event interference concerns should arise, please contact:

Jawad Obaid
Center for Remote Sensing of Ice Sheets (CReSIS)
The University of Kansas
2335 Irving Hill Rd
Lawrence, KS 66045
Telephone: (785) 864-4655
jobaid@ku.edu

E. Appendix

1. Arctic Management Area Coordinates

Below is all the coordinates that make up the Management Area. Please see above picture for a more general idea.

38° 55' 00.0" N, 95° 19' 00.0" W