From: <u>Blitz, James</u>
To: <u>Laverentz, Jennifer</u>

Subject: RE: Additional request to coordinate within a .7-mile radius of Hillsdale Lake in Marysville, KS (38°40"21.8"N

94°54"42.7"W)

Date: Thursday, November 5, 2020 9:10:59 AM

Jennifer - Sirius XM has no objections to the CReSIS proposal for spectrum use in Marysville, KS as described in your email.

Jim Blitz

Sirius XM Radio/Pandora

From: Laverentz, Jennifer <jenlav@ku.edu> **Sent:** Wednesday, November 4, 2020 5:21 PM **To:** Blitz, James <James.Blitz@siriusxm.com>

Subject: Additional request to coordinate within a .7-mile radius of Hillsdale Lake in Marysville, KS

(38°40'21.8"N 94°54'42.7"W)

Jim

CReSIS is also seeking approval to test our Snow Radar in Kansas. We have a pending request with the FCC for a temporary license (1706-EX-ST-2020). They have asked us to coordinate with you for operations in the 2320-2345 band. Apologies for the two requests not being groups- I just received this request today. I have copied the details below. Please note that for this request we will operate at 2-8GHz and there will only be $1 \sim 1$ -2 hour flight.

Thank you for your time.

Best Regards,

Jennifer

Proposed Locations: Measurements will be conducted within a .7-mile radius of Hillsdale Lake in Marysville, KS (38°40'21.8"N 94°54'42.7"W). The KU Cessna C-172 will fly one 1-2 hour mission to test the radar. The radar will only be on while flying over the water. Ideally, all flights will be flown at 500 m above the highest terrain on the flight line, but we will coordinate this with the pilot. Assisting the pilot with flight line accuracy will be a radar engineer, using an existing GPS-based program and LED display.

Dates: 2 hours Nov 15, 2020-Jan 31, 2021 Exact date TBD

C. Technical Specifications

1. Frequency of Operation

CReSIS requests authorization to operate in 2-8 GHz bands.

2. Effective Radiated Power (ERP)

The effective radiated power (ERP) will not exceed 1 W

3. Modulation Signal Description and Emissions

The system is a frequency modulated continuous wave radar that emits a 2-8 GHz chirp. The chirp duration is 1 μ s and the pulse repetition frequency is 2 kHz. The primary emission designator is 16GOMON/16GOGON

4. Antenna Information

The antenna used directive horn antenna mounted on the wing struts of a C-172.

5. Equipment Utilized

Equipment used for this system is custom built at CReSIS.

6. Station Class

This station will be Aeronautical Mobile in the areas described in section C, with a nominal altitude of 1500-4500 feet AGL.

Jennifer Laverentz

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