

**NSL Ground Station
Description of Research Project
Exhibit for License Modification Application 0070-EX-CM-2020**

The existing ground station license 0105-EX-CM-2019 is requested to be modified to include transmitting to the cubesat BSS1. BSS1 file number is 0500-EX-ST-2020.

Purpose:

The NSL Ground Station (NSLGS) will provide basic telecommands to experimental satellites, supporting positive control of the transmitters on those satellites.

Location and Operation:

The ground station is located near Upland, Indiana, about 2 miles south of Taylor University, in a rural area with a mix of forests and fields. It is a 1.5 meter diameter dish antenna, beam width 5.3 degrees, 30 dBi gain, and will operate on 2467 MHz. The elevation will be constrained to 60 degrees or above at all times, to hold Doppler shift within acceptable limits.

Future:

In the longer term, it is expected that development of Globalstar supported receivers for the educational satellites will support this function, and supplant the use of the NSL ground station.