

FORM 442, QUESTION 6, DESCRIPTION OF RESEARCH PROJECT

a. A description of the nature of the research project being conducted.

The requested frequency will facilitate communications with SpaceICE (Space Interface Convective Effects), an experimental CubeSat.

SpaceICE will launch as a single 3U CubeSat and, once in orbit, conduct a materials science freeze-casting experiment. This is a CubeSat experiment for the purpose of demonstrating freeze-casting in Low Earth Orbit and better characterizing the process in micro-gravity.

b. A showing that the communications facilities requested are necessary for the research project.

The ground station is necessary to have access to the satellite system. The radio onboard the satellites is necessary to communicate with the ground station.

c. A showing that existing communications facilities are inadequate.

There is no communications channel currently available for this mission.