

ICEYE US, Inc.
File No. SAT-LOA-20210212-00021
Supplemental Response
April 15, 2021

On February 12, 2021, ICEYE US, Inc. (ICEYE) filed the above-referenced application pursuant to the streamlined small satellite licensing procedures, requesting authority to launch, deploy, and operate six satellites that would operate in the Earth-Exploration Satellite Service (EESS), conducting synthetic aperture radar (SAR) imaging.

ICEYE provides the following additional information in order to assist in the Commission's review of this application:

Item 1: Operational Strategies to Avoid Collision with the International Space Station during De-Orbiting

Please provide a statement in response to Section 25.122(d)(5) of the Commission's rules, which requires a description of the design and operational strategies that will be used to avoid in-orbit collision with spacecraft capable of having crew aboard. For example, what operational strategies will ICEYE use while de-orbiting the space stations through the International Space Station altitude?

ICEYE will coordinate with the 18th Space Control Squadron on both position and planned maneuvers, including de-orbiting.

Each spacecraft is equipped with a low thrust propulsion system comprised of multiple separate thrusters. Sufficient propellant will remain at the planned end-of-life of the spacecraft to use the propulsion system for collision avoidance during re-orbiting through the International Space Station orbit.

Item 2: Calculation of Worst-Case PFD into the Geostationary Orbit

Power Flux Density = Max Power Spectral Density into antenna system + Antenna System Gain + Free Space Loss + 4 kHz band

PFD at GSO (worst case) = -70.1 dB(W/Hz) + 17 dBi - 163.6 dB(/m²) + 36 dB(Hz) = -180.7 dB(W/m²)