

Request for Experimental Authority

Iridium Satellite LLC (“Iridium”) hereby requests a one-year experimental license to transmit from its space stations to the PACE -2 low earth orbit CubeSat in the 1618.725–1626.5 MHz band.¹ The PACE-2 launch is scheduled for October 2022. Iridium asks that a grant of its experimental license application be issued no later than June 15, 2022, to satisfy launch integrator requirements, and that the grant cover the one-year period beginning October 1, 2022, which should be sufficient to account for any possible launch or other technical delays common to spacecraft missions.

The National Telecommunications and Information Administration (“NTIA”) has authorized the National Aeronautics and Space Administration (“NASA”) to conduct experiments with PACE -2. A copy of that authorization is attached hereto.

The Payload Accelerator for CubeSat Endeavors (PACE) program utilizes NASA’s Advanced Development Projects avionics system platform, which is a modular, low-cost avionics architecture built from commercial off-the-shelf components. Payloads for PACE missions come from within NASA or other U.S. Government agencies, small businesses and other industry, academic institutions, and research laboratories.

As with the PACE-1 mission,² the PACE-2 cubesat is a 6U spacecraft that seeks to demonstrate the functionality and measure the performance of improved avionics systems and to characterize the spacecraft radiation environment. In connection with these experiments, NASA will operate an Iridium satellite modem (model no. 9603-1) hosted on PACE-2 to transmit state-of-health information via the Iridium “Big LEO” constellation. The PACE-2 CubeSat will operate in a sun synchronous orbit.

There will be no change during the experiment in the operating parameters of Iridium’s space stations, which are licensed as Part 25 space stations under Call Sign S2110. For this reason, no operating parameters, other than effective radiated power and emission designator, are used in the form that this exhibit accompanies. The only change for which Iridium seeks an STA is adding PACE-1 as a point of communication. Iridium’s Part 25 space station license does not cover space-to-space communications.

¹ Iridium’s constellation is comprised of 66 satellites, any one of which may be used as part of the experiment at any point in time.

² See Iridium Satellite LLC, *Application for Special Temporary Authority to add PACE-1 as a Point of Communication*, Callsign WS9XOS, OET File No. 1152-EX-ST-2021.