

Request for Special Temporary Authority

Iridium hereby requests special temporary authority (“STA”) commencing on January 2, 2019, and continuing for a period of one hundred and eighty (180) days, to transmit from its space stations to Technical Educational Satellite -8 (“TechEdSat-8”) in the 1618.725–1626.5 MHz band. For reasons stated below, Iridium asks that its STA request be granted no later than September 19, 2018.

The National Telecommunications and Information Administration (“NTIA”) has authorized the National Aeronautics and Space Administration (“NASA”) to conduct experiments with the Technical Educational Satellite -8 (“TechEdSat-8”) low earth orbit nanosatellite. A copy of that authorization is attached hereto.

In connection with these experiments, NASA will operate an Iridium satellite phone that it will host on TechEdSat-8. The satellite phone will transmit from TechEdSat-8 to space stations in Iridium’s “Big LEO” constellation.¹ The transmissions will, among other goals, utilize Iridium’s constellation as a tracking and data relay satellite (“TDRS”) for nanosatellites.

Iridium seeks an STA for transmissions in the reverse direction, from its satellites to TechEdSat-8.² 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, are used in the form that this exhibit accompanies. The only change for which Iridium seeks an STA is adding TechEdSat-8 as a point of communication. Iridium’s Part 25 space station license does not cover space-to-space communications.

Iridium and NASA just learned that TechEdSat-8 has been added to the launch manifest for SpaceX-16, which is scheduled to be launched on December 1, 2018, and will deliver cargo to the International Space Station (“ISS”). TechEdSat-8 would be jettisoned from the ISS on January 15, 2018, to begin a three-month mission.³

The spacecraft launch integrator for SpaceX-16 is requiring that TechEdSat-8 have all spectrum approvals in place by the hand-off for integration, which is scheduled for September 20, 2018. Accordingly, Iridium respectfully requests that its STA be granted no later than September 19, 2018.

¹ The form that this narrative accompanies states that two satellite phone units will be used. This statement reflects the fact that there will be a primary unit and a back-up unit. But only a single unit will be operational at any given time.

² 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.

³ Iridium is seeking authority beginning on January 2, and covering the maximum 180 days, in case there are changes to the launch schedule or the mission schedule.