

Iridium Satellite LLC
Narrative Exhibit
Request for Experimental License

The Air Force Institute of Technology (“AFIT”) seeks to operate an Iridium 9602 short-burst data (“SBD”) transceiver (the “Iridium 9602”) that it will host on a satellite expected to be launched April 30, 2018 (the “AFIT Satellite”). The Iridium 9602 will transmit from the AFIT Satellite to space stations in Iridium’s “Big LEO” constellation. The transmissions will all be less than 300 bytes and occur 5-25 times per week. The transmissions are needed to complete the AFIT Satellite’s primary objective, which is to transmit telemetry and data from orbit. A secondary mode of operation will be to ping the network for received signal strength indication (“RSSI”) and map the strength of coverage in Low Earth Orbit (“LEO”).

Iridium hereby requests an experimental license, in connection with the AFIT experiment, for the transmission of data from the AFIT Satellite to the Big LEO constellation in the 1618.725–1626.5 MHz band. The technical characteristics of these transmissions will be identical to the technical characteristic of Iridium’s already-licensed space station transmissions in the 1618.725–1626.5 MHz band. Please note that 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.¹

Iridium’s space station constellation is licensed under Call Sign S2110. Because Iridium will be operating under the requested experimental license in accordance with the parameters of its license, no operating parameters, other than effective radiated power, were used in the form that this exhibit accompanies. Iridium’s space station license does not cover inter-satellite communications in the 1618.725–1626.5 MHz band.

It is anticipated that the AFIT Satellite will be in orbit for two years, and that the authority sought by this instant license will be needed for two years, from May 1, 2018 until April 30, 2020.

¹ The parameters of this request for experimental license are similar to those of the special temporary authority granted to Iridium for the TechEdSat 5 experiment. See OET File No. 0083-EX-ST-2017.