Renewal of Experimental Authority

Iridium Satellite LLC ("Iridium") hereby requests a two-year renewal of its experimental license to transmit from its space stations to the CU Aerospace Dual Propulsion Experiment ("DUPLEX") smallsat in the 1618.725–1626.5 MHz band.¹

The DUPLEX is a 6U cubesat mission run by CU Aerospace to test and establish flight heritage for two polymer fiber propulsion systems in low earth orbit. The mission as described in Iridium's initial application was unavoidably delayed and renewal of authority is necessary to complete the mission. This companion application is to allow the DUPLEX to communicate via the Iridium constellation to allow for TT&C and downlink of critical payload data.

As set forth in the CU Aerospace application and subsequent modification,² the DUPLEX carries two Near Space Launch ("NSL") EyeStar S4 transceivers that will be used to transmit to space stations in Iridium's "Big LEO" constellation in order to relay payload data. The experiment will be launched no earlier than June 15, 2025. Once the DUPLEX is deployed, DUPLEX will be inserted into low earth orbit as described in CU's application for experimental authority.

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, were identified in Iridium's original request for an experimental license. The only change for which Iridium seeks experimental authority is adding the DUPLEX as a point of communication. Iridium's Part 25 space station license does not cover space-to-space communications.

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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 CU Aerospace, Call sign WN2XGP, OET File No.0048-EX-CN-2023 (granted Mar. 9, 2023); as modified in OET File No. 0292-EX-CM-2024 (filed Sept. 26, 2024) as amended.