

Request for Experimental Authority

Iridium Satellite LLC (“Iridium”) seeks an experimental license for a period of one (1) year, beginning January 1, 2024, to transmit in the 1618.725-1626.5 MHz band from its space stations¹ to the smallsat “M3” operated by Missouri University of Science and Technology.

Iridium requests that the license be issued by October 15, 2023, to satisfy the requirements of the launch integrators. The one-year license term requested herein takes into account the possibility of delays in the launch of the satellites or the start of the mission.

As stated in the Missouri University of Science and Technology companion application,² the goal of the M3 mission is demonstrate in the space environment a multi-mode-capable thruster. An Iridium transceiver modem (NearSpace Launch Eyestar S4) will be installed on the smallsat and will communicate with the Iridium constellation. Transmission from the M3 smallsat will begin 45 minutes after deployment of the spacecraft and cease after complete battery discharge, estimated to be no longer than 52 hours after deployment.

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 authority is adding the M3 smallsat 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 See Missouri University of Science and Technology, Application for Authority to Launch and Operate M3, OET File No. 0984-EX-CN-2023, filed June 25, 2023.