

Request for Experimental Authority

Iridium Satellite LLC (“Iridium”) hereby requests a two-year experimental license, beginning on or before January 1, 2024, to transmit from its space stations to the Veery-0E low-Earth orbit 1U cubesat operated by Care Weather Technologies (“Care Weather”) in the 1618.725–1626.5 MHz band.¹ To satisfy the requirements of the launch aggregator, Iridium requests that the license be issued before November 1, 2023.

The Veery-0E communications subsystem includes an Iridium 9603 modem that will relay communications via the Iridium system to Care Weather mission control. Care Weather is concurrently seeking experimental authority to transmit from the Iridium 9603 modem to Iridium’s satellites.² This companion application is to allow the Veery-0E to communicate via the Iridium constellation to allow for TT&C and downlink of payload data.

The Veery-0E mission will perform orbital testing and validation of the custom nanosatellite bus and radar technologies developed by Care Weather in its successful Veery RL-1 and Veery-FS-1 missions.³ The experimentation enables Care Weather to develop U.S. weather remote sensing capabilities that will be integrated with its satellite-based wind-sensing radar system.

There will be no change during the experiment in the operating parameters of Iridium’s space stations. For this reason, no operating parameters, other than effective radiated power and an emission designator, are shown in the form that this exhibit accompanies. The only change for which Iridium seeks an experimental license is adding Veery-0E as a point of communication for Iridium’s satellite constellation. Iridium’s Part 25 space station license does not cover space-to-space communications.

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¹ Iridium’s constellation licensed under Callsign S2110 is comprised of 66 satellites, any one of which may be used as part of the experiment at any point in time.

² Care Weather’s application for experimental license is under OET File No. 0675-EX-CN-2023.

³ See experimental authorizations under OET callsign WM2XBY, File No. 0720-EX-CN-2021 and OET call sign WN2XCJ, File No. 1248-EX-CN-2022, respectively. Iridium was granted companion licenses for these under OET callsign WM2XKP, File Nos. 1167-EX-CN-2021 and OET call sign WN2XCD, File No. 1259-EX-CN-2022, respectively.