

Request for Experimental Authority

Iridium Satellite LLC (“Iridium”) seeks an experimental license for a period of 24 months, beginning on or before February 28, 2022, to transmit from its space stations to the Veery-RL1 low-Earth orbit 1U cubesat operated by Care Weather Technologies (“Care Weather”) in the 1618.725–1626.5 MHz band,¹ in the manner described below.

The Veery-RL1 mission performs orbital testing and validation of the custom satellite computing, power, and avionics electronics developed by Care Weather. 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.

The Veery-RL1 communications subsystem includes an Iridium 9603 modem that is used to relay communications via the Iridium system to Care Weather mission control. Care Weather holds experimental authority to transmit from the Iridium 9603 modem to Iridium’s satellites. Care Weather initially held experimental special temporary authority (“STA”) for this purpose, and after the Veery-RL1 mission was extended, Care Weather converted to an experimental license.²

Iridium holds an experimental STA to transmit in the reverse direction, from its satellites to the Iridium 9603 modem on the Veery-RL1 cubesat.³ In light of the Veery-RL1 mission’s extension, Iridium now seeks an experimental license as a companion to the one held by Care Weather.

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-RL1 as a point of communication for Iridium’s satellite constellation. Iridium’s Part 25 space station license does not cover space-to-space communications.

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 experimental license is under Callsign WM2XBY, File No. 0720-EX-CN-2021. Care Weather’s experimental STA was under Callsign WR9XNG.

³ Iridium currently holds an experimental STA, which expires February 28, 2022, under Callsign WR9XSF, OET File No. 1323-EX-ST-2021. Iridium’s experimental STA was originally granted under OET File No. 1931-EX-ST-2020.