

Request for Special Temporary Authority

Iridium hereby requests special temporary authority (“STA”) to add the soon-to-be-launched CACTUS-1 cubesat as a point of communication to Iridium’s Big LEO constellation. For the reasons set forth below, Iridium requests STA for a period of 180 days, beginning September 1, 2019, and requests that this authority be granted prior to August 1, 2019.

Iridium’s request is made to support Capitol Technology University’s (“CTU”) CACTUS-1 cubesat mission. This is the same cubesat mission Iridium proposed to support when it sought an STA in June 2018.¹ A different launch vehicle had been contemplated at that time, and subsequently there was a change in launch vehicles and the schedule for the mission.

The technical characteristics of the mission remain the same from the perspective of Iridium’s STA. The mission still will utilize a single Iridium 9603 modem to transmit to space stations in Iridium’s Big LEO constellation, as described in CTU’s experimental license and subsequent modification.² The CACTUS-1 cubesat is currently scheduled to be launched in September 2019, but the launch aggregator is requiring all regulatory approvals to be in place by August 1, 2019. Although the overall CACTUS-1 mission is scheduled to continue past 180 days, the portion of the mission involving the Iridium modem will be concluded within the six month period requested for Iridium’s STA.

Iridium’s space station constellation is licensed under Call Sign S2110.³ Because Iridium will be operating under the requested STA in accordance with the parameters of this license, no operating parameters, other than effective radiated power and an emission designator, were used in the form that this exhibit accompanies. The only change from Iridium’s licensed operations is that Iridium will be adding the CACTUS-1 cubesat as a point of communication. Iridium’s space station license does not cover intersatellite communications in the 1618.725–1626.5 MHz band.

¹ See Iridium Satellite LLC, Call sign WM9XYM, FCC File No. 1137-EX-ST-2018.

² See Capitol Technology University, Application for Experimental Authority, Callsign WJ2XBN, FCC File No. 033-EX-CN-2017 granted Apr 23, 2018; as modified by FCC File No. 0092-EX-CM-2019 filed Apr 11, 2019.

³ 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.