

Request for Experimental License

Iridium Satellite LLC (“Iridium”) hereby requests an experimental license to add the Thomas Jefferson Research and Education Vehicle for the Evaluation of Radio Broadcasts (“TJ REVERB”) as a point of communication to Iridium’s Big LEO constellation. For the reasons set forth below, Iridium requests experimental authority for the period between January 13, 2023, and August 1, 2023.

Iridium’s request is made to support the Thomas Jefferson High School Partnership Fund, Inc. (“TJHSPF”), run through Thomas Jefferson High School, as part of the Fairfax County Public School System in the Commonwealth of Virginia. TJHSPF was granted authority to operate a 2U experimental cubesat called TJ REVERB through August 1, 2023.¹ Following a launch delay, TJ REVERB is scheduled to be launched on November 18, 2022, and will be deployed from the International Space Station (“ISS”) on November 21, 2022.

Iridium was granted special temporary authority (“STA”) to support TJ REVERB through January 13, 2023.² In order to support communication with TJ REVERB through its authorized lifetime, an experimental license is requested to extend Iridium’s authorization to match the August 1, 2023, expiration of TJHSPF’s authorization. It is not expected that the cubesat will operate past that date.

TJHSPF’s cubesat carries an Iridium short burst data modem and patch antenna that is used to demonstrate and evaluate communications between the Iridium constellation and TJ REVERB, and for backup TT&C. The mission utilizes a single Iridium 9603 modem to communicate with space stations in Iridium’s Big LEO constellation, as described in TJHSPF’s experimental application.

Iridium’s space station constellation is licensed under Call Sign S2110.³ Because Iridium will be operating under the requested experimental authority 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

¹ See Thomas Jefferson High School Partnership Fund, Inc., call sign WJ2XXB, FCC File No. 0950-EX-CN-2018 (granted Aug 7, 2019). See also FCC File Nos. 0440-EX-CR-2020 (granted Jul 31, 2020) and 0443-EX-CR-2021 (granted Jul 29, 2021), and 0296-EX-CR-2022 (granted Aug 1, 2022).

² See Iridium Satellite LLC, call sign WT9XYS, FCC File No. 0595-EX-ST-2022 (granted Aug 1, 2022). See also Iridium Satellite LLC, call sign WK2XKD, FCC File No. 0553-EX-CN-2019 (granted Aug 7, 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.

be adding the TJ REVERB cubesat as a point of communication. Iridium's space station license does not cover intersatellite communications in the 1618.725-1626.5 MHz band.

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