

Request for Special Temporary Authority

Iridium Satellite LLC (“Iridium”) seeks experimental special temporary authority (“STA”) for one hundred and eighty days to transmit in the 1618.725-1626.5 MHz band from its space stations¹ to the smallsat “Gluon” operated by Atomos Nuclear and Space Corporation (“Atomos”). Gluon will be launched from the SpaceX Transporter 10 Vehicle along with another spacecraft, Meson, which is an orbital transfer vehicle. The launch is currently scheduled for January 2024.

Iridium requests that its STA be granted beginning January 1, 2024, but that it be issued by November 1, 2023, to satisfy the requirements of the launch integrator.

As stated in Atomos’s companion application,² once Meson has lowered the two spacecraft (Meson and Gluon) to a new orbit, they will separate, after which Meson will perform a series of rendezvous and proximity operations that will culminate in Meson and Gluon docking. Once the docking procedure is complete, Atomos will test propellant transferring capabilities between Gluon and Meson. The rendezvous and proximity operations may be repeated under differing conditions. Gluon will communicate with the mission operations center via the Iridium constellation for command, telemetry, and tracking purposes.

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 authority is adding Gluon 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 Atomos Nuclear and Space Corporation, Application for Authority to Launch and Operate Gluon, OET File No. 0943-EX-ST-2023.