

REGARDING THE INSTANT APPLICATION FOR AUTHORITY

Iridium Satellite LLC (“Iridium”) hereby respectfully requests permanent experimental authority to continue testing a transmitter in the manner specified below. Iridium had initially sought, and the Office of Engineering and Technology (“OET”) had granted, an application permitting Iridium to initiate its testing program on the basis of Special Temporary Authority (“STA”).¹

At the request of the OET staff, Iridium is herein seeking to convert its STA to permanent authority, permitting Iridium to continue with its test program for up to an additional twelve (12) months, in lieu of an extension of its STA.²

Nature of Experimental Operations.

Iridium has been using an unlicensed boresight transmitter for testing purposes. The transmitter is positioned in the vicinity of one of Iridium’s gateway earth stations (E960244). The sends point-to-point test signals to the gateway earth station for brief intervals during periods when the gateway earth station is not otherwise in service. These test signals have been enabling Iridium to calibrate a software defined modem that is to be installed on the gateway earth station.

The boresite is an emitter in Iridium’s receive frequency range (19.4 GHz to 19.6 GHz). The purpose of this arrangement is to test the tracking capabilities of the Iridium earth station. The boresite is also being used to make adjustments to the earth station tracking subsystem while Iridium integrates a new tracking receiver function in its recently redeveloped Software Defined Modem. Boeing is providing hardware and engineering support to Iridium during this testing.

Technical Details Relating to the Operations.

The test signals consist of unmodulated (CW) emissions having a bandwidth of 100 Hz. The transmissions operate on a single frequency at 19.5 GHz that is tunable over a range of +/- 100 MHz. The maximum output power of the test signals is 0.05

¹ FCC File No. 0512-EX-ST-2010 (Call Sign WE9XPE), sub. Oct. 22, 2010, granted Nov. 19, 2010. Extension of STA FCC File No.

² FCC File No. 0329-EX-ST-2011.

watts and the maximum ERP is 0.305 watts. The boresight antenna has an elevation angle of -0.8 degrees and an azimuth of 148 degrees. It operates with a beamwidth of 9 degrees.

Iridium's proposed operations have been coordinated by Comsearch. A copy of Comsearch's coordination report is attached to this exhibit.