Name:	Omnispace LLC	
Applicant:	Mindel De La Torre	
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Test Dates:	1/1/2024–1/1/2025	

By the accompanying application and pursuant to Section 5.61 of the Rules and Regulations of the Federal Communications Commission ("FCC"), Omnispace LLC ("Omnispace") hereby requests an Experimental Authorization for operation of conventional experimental radio service stations for a period of one year (12 months). This request continues to evolve the work that began under the Experimental Authorization granted under file number 0018-EX-CM-2023 (Call Sign WN2XEM) and is necessary to begin testing of new smaller prototype terminals that will communicate with an existing Medium Earth Orbit ("MEO") satellite.

Description of Equipment and Testing

The MEO satellite with which the terminals will communicate, referred to as "F2," was launched in June 2001 by ICO Global Communications ("ICO") but is now owned and operated by Omnispace LLC. The FCC has previously granted Omnispace a variety of STAs and Experimental Authorizations for testing with the F2 MEO satellite.

F2 operates in two frequency bands: the Telemetry, Tracking, and Command ("TTC") frequencies and the payload frequencies. The TTC frequencies are in the C Band – i.e., 5150-5250 MHz uplink and 7000-7025 MHz downlink are licensed by the FCC for the Brewster, Washington, gateway – and are notified at the International Telecommunication Union by OFCOM of the United Kingdom. The payload frequencies are in the S Band – i.e., 1985-2015 MHz uplink and 2170-2200 downlink, which are notified at the ITU by the National Information and Communication Technology Authority of Papua New Guinea ("PNG").

By this Experimental Authorization request, Omnispace proposes to transmit and receive signals via F2 with an experimental prototype terminal with the following specifications:

Uplink (Tx):	1995-1997 MHz
Downlink (Rx):	2198-2200 MHz
Emission Designator:	150KG7W
Max EIRP:	2W

The portion of the S Band to be used for prototype testing consists of uplink frequencies in the H block of the Personal Communications Service ("PCS") band and downlink in the AWS-4 band. Omnispace will coordinate its operations with the appropriate licensee in the H block and AWS-4 band respectively in the Gainesville, Georgia area, Tysons, Virginia area and the Brewster,

Washington gateway, and will cease operations immediately upon notification of harmful interference to their operations.

Upon grant of the requested Experimental Authorization, Omnispace will conduct testing within a 2.5 km radius of the remote location listed below on a non-interference basis. Omnispace will deploy one terminal at a time at the following locations:

Location	Address	County	Coordinates
Gainesville,	4929 Gair Loch Lane	Hall	N 34°38'90.51"
Georgia	Gainesville, GA 30506		W 84°82'15.57"

Upon grant of the requested amended Experimental Authorization, Omnispace will conduct testing within 5 km radius of the location listed below on a non-interference basis. Omnispace will deploy one terminal at a time at the following location:

Location	Address	County	Coordinates
Tysons, Virginia	8255 Greensboro Drive Tysons, VA 22102	Fairfax	N 38° 55' 19" W 77° 13' 49"

Upon grant of the requested amended Experimental Authorization, Omnispace will conduct testing at the location of Omnispace's gateway in Washington state listed below on a non-interference basis. Omnispace will deploy one terminal at a time at the following location:

Location	Address	County	Coordinates
Brewster, Washington	66C Teleport Drive Brewster, WA 98812	Okanogan	N 48° 08' 50" W 119° 41' 34"

Public Interest Statement

As a follow on to the testing that Omnispace and the U.S. Space Force conducted under the FCC's experimental STA 0800-EX-ST-2020 (Call Sign WQ9XMR) and begun under the Experimental Authorization granted under file number 0018-EX-CM-2023 (Call Sign WN2XEM), Omnispace continues to develop equipment to provide low cost, power efficient IoT services over satellite. This Experimental Authorization is required to field test promising solutions and to perfect the air interface (modulation and access layer) to ensure best performance to our current in-orbit F2 satellite from locations in Gainesville, Georgia, Tysons, Virginia and Brewster, Washington.

Omnispace has been focusing on state-of-the-art developments in the satellite industry and has been actively participating in the next generation non-terrestrial network standards at 3GPP that are included in Release 17. To that end, Omnispace would like to continue to test new advancements in air interfaces, including innovative small devices for satellite

communications. We believe this testing, which as noted above will be conducted on a non-interference basis, serves the public interest as it will be analyzing additional equipment to assist with building future communications capabilities for commercial use, as well as the U.S. military and government to further U.S. national security objectives.

If there are questions concerning this application, the FCC is asked to contact Mindel De La Torre, Chief Regulatory and International Strategy Officer for Omnispace, at mdelatorre@omnispace.com or 202-930-5935.