

EXHIBIT 1

PROGRAM OF RESEARCH AND EXPERIMENTATION

Higher Ground LLC (“HG”), pursuant to Sections 5.54(a)(1) and 5.59(a)(1) of the FCC’s rules, requests to modify its conventional experimental license by:

- (1) expanding the Palo Alto, California area of operations from 16.09 to 75 km in radius;
- (2) expanding the Sierra Nevada Mts, California area of operations from 32.19 to 250 km in radius;
- (3) expanding the Washington, District of Columbia area of operations from 16.09 to 200 km;
- (4) adding a new White Bird, Idaho area of operations, within 40 km, centered around NL 45-45-41 and WL 116-17-60;
- (5) adding a new Anchorage, Alaska area of operations, within 100 km, centered around NL 61-13-12 and WL 149-59-24;
- (6) increasing the number of authorized SatPaq devices from 10 to 100; and
- (7) removing or waiving the existing license condition requiring prior coordination with fixed microwave service licensees in accordance with 47 C.F.R. § 101.103(d).¹

The proposed modifications will help facilitate HG’s ongoing experimental operations by expanding the areas of operations within which HG may test and develop new prototype SatPaq user terminals.

The proposed modifications also will remove an unnecessary and unduly restrictive license condition. As demonstrated in the accompanying Technical Annex and Joint Declarations, the SatPaq system’s use of self-coordination techniques, such as protection zones, frequency agility, and satellite diversity, are more than sufficient to avoid causing harmful interference to authorized fixed microwave systems. Thus, compliance with traditional prior coordination requirements is unnecessary and unduly burdensome.

To the extent required, Higher Ground requests a waiver of the Commission’s coordination rules.² The Commission may waive its rules upon good cause, 47 C.F.R. §

¹ HG concurrently is filing an application for blanket mobile earth terminal (“MET”) authority to operate SatPaq METs on C-band frequencies throughout the United States.

² See, e.g., 47 C.F.R. §§ 25.130(b), 25.203(c), 101.103. HG also requests a waiver of Note 6 to 47 C.F.R. § 101.147(a), which prohibits assignment of the 5925-6425 MHz band to mobile earth

1.3, when a waiver would not undermine the policy objective of the rule³ and would better serve the public interest than requiring strict compliance.⁴ Here, the experimental SatPaq operations will avoid harmful interference by using techniques that prohibit operations on frequencies used by nearby licensed fixed microwave facilities. Thus, strict compliance with traditional coordination requirements is unnecessary, and grant of the requested waiver would not undermine the underlying regulatory purpose of preventing harmful interference to authorized fixed microwave facilities.⁵ Moreover, a waiver would better serve the public interest by allowing HG to test and develop innovative, low-cost satellite-based text messaging services to U.S. consumers, while making more efficient use of spectrum resources.

stations. The restriction under Note 6 is intended to protect terrestrial FS from potential harmful interference and should be waived for the same reasons justifying a waiver of the coordination rules, as discussed herein.

³ See *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1166 (D.C. Cir. 1990).

⁴ See *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969).

⁵ See *Amendment of Part 25 of the Commission's Rules and Regulations to Reduce Alien Carrier Interference Between Fixed-Satellites at Reduced Orbital Spacings and to Revise Application Processing Procedures for Satellite Communication Services*, Second Report and Order and Further Notice of Proposed Rulemaking, 8 FCC Rcd 1316, ¶ 5 (1993) ("Interference between terrestrial facilities and earth stations is addressed by the current frequency coordination procedures of Part 21 and 25.").