March 10, 2017

VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re:  Ex Parte Presentation, Higher Ground LLC
Blanket License Application for C-band Mobile Earth Terminals
IBFS File No. SES-LIC-20150616-00357

Dear Ms. Dortch:

On March 8, 2017, Rob Reis of Higher Ground and the undersigned met with Rachael Bender of Chairman Pai’s office with regard to the above-referenced proceeding. Higher Ground described the SatPaq, a satellite transceiver embedded in a smartphone case, connected via Bluetooth to a smartphone, and operated using an app that provides a standard messaging interface and seamless, real-time service. Higher Ground used the attached presentation to discuss: its authorization granted by the International Bureau, Wireless Telecommunications Bureau, and the Office of Engineering and Technology; its interference protection regime that will prevent harmful interference to C-band point-to-point microwave receivers; and its consolidated opposition to applications for review filed in the proceeding.

This letter is filed pursuant to Section 1.1206 of the Commission’s rules. Please contact the undersigned if you have any questions.

Respectfully submitted,

/s/ Adam D. Krinsky
Adam D. Krinsky
Counsel to Higher Ground

Enclosure
cc: Rachael Bender
Background

• Rob Reis
  • Founder and CEO

• Company History
  • Founded 2013. 30 employees. Intelsat investor/satellite partner

• California-based
  • Manufactured in U.S.A.
Higher Ground’s SatPaq Device

- Messaging service that extends beyond cell coverage areas to entire U.S.
- The SatPaq is a satellite transceiver embedded in a smartphone case, connected via Bluetooth to the consumer’s smartphone
Higher Ground’s Authorization

- IB, WTB, and OET Order after a year-and-a-half of study
- Authorizes SatPaq earth terminals on C-band spectrum:
  - 5925-6425 MHz (SatPaq transmit)
  - 3700-4200 MHz (SatPaq receive-only)
- Operation on a non-interference basis
- Waiver for mobile operations subject to rigorous conditions to protect fixed point-to-point (PtP) microwave operations
Interference Protection Regime Includes:

- Use of—(1) GPS location of SatPaq; and (2) FCC’s ULS database to identify and protect all C-band PtP microwave receivers, based on each receiver’s unique characteristics.

- Permission-based transmissions—operations only if SatPaq emissions are 6 dB below the noise level at any PtP receiver.

- 24/7 point-of-contact—can shut down SatPaq or entire network.

- Transmission log—will ensure record of all operations.

- Limited roll out—cap of 5,000 per quarter in first year, 50,000 in total.
Order’s Findings

• “The record in the proceeding indicates that there is little risk of harmful interference given the low power transmissions proposed and the comprehensive self-coordination safeguards developed by Higher Ground.”

• “Nor do we believe that a grant of this waiver will undermine the [prior coordination] rule, given that it is limited to a specific, unique type of operation and … is being authorized under a carefully drawn set of conditions designed to minimize any risk of interference due to operations under the waiver.”

FCC Order, ¶ 35
Procedural Status

• Applications for Review, Motion for Stay

• Higher Ground Consolidated Opposition
  • Grant does not undermine the rules to protect PtP links
  • Higher Ground’s interference protection regime will safeguard PtP operations
  • Petitioners’ few technical arguments are unavailing
  • The Bureaus acted well within their discretion in proceeding by waiver
Benefits

• Full-CONUS+ consumer messaging
• Smartphone innovation
• More efficient use of spectrum
• Other applications…
  • IoT in remote areas
  • Technology application for beyond-visual-line-of-sight (BVLOS) drone operations