EXHIBIT — FCC FORM 442, QUESTION 7

Narrative Description of Program of Research and Experimentation

Applicant:	Breaker Industries
File Number:	0729-EX-CN-2026
FRN:	0038589362
Station Location:	311 E St Elmo Rd, Ste C, Austin, TX 78745 (30-12-54 N, 97-45-50 W)
Equipment:	GPS Source model GPSRKL1 L1 GPS repeater assembly (1 unit)
Contact:	Justin Petersheim, Mission Operations Specialist — (330) 317-7986 — justin.petersheim@breakerind

(a) Complete Program of Research and Experimentation; Equipment and Theory of Operation

Breaker Industries develops uncrewed and autonomous systems that depend on GPS for position, navigation, and timing. The proposed program consists of operating a single commercially manufactured GPS L1 re-radiator kit (GPS Source model GPSRKL1) entirely within the interior of the applicant's facility at 311 E St Elmo Rd, Ste C, Austin, TX, to provide a live GPS signal environment for benchtop and integration testing of GPS-dependent equipment.

Theory of operation: a roof-mounted passive receive antenna (approx. 3 dBi gain) captures the ambient GPS L1 signal (1575.42 MHz, received at approximately -130 dBm). The signal is amplified through the kit's LNA and distribution amplifier chain and re-radiated inside the building from a low-gain passive indoor antenna (approx. 3 dBi). The system employs self-adjusting automatic gain control. Effective radiated power at the indoor transmit antenna is approximately -77 dBm EIRP (20 pW). No signal is generated locally; the system only re-transmits the live GPS constellation signal with its native C/A code modulation (1.023 Mcps BPSK spread spectrum with 50 bps navigation data, emission designator 2M04G7D).

Containment: at this power level, accounting for building attenuation and free-space path loss, the re-radiated signal falls below approximately -144 dBm at 100 feet outside the building — well below the thermal noise floor of GPS receivers — and is therefore not usable or detectable outside the facility. Operation will not cause harmful interference to authorized GPS users outside the building.

(b) Specific Objectives Sought to Be Accomplished

(1) Functional testing, integration, and validation of GPS receivers embedded in uncrewed systems and related navigation hardware under development, without requiring repeated outdoor test evolutions; (2) verification of cold-start acquisition, tracking, and timing performance of GPS-dependent subsystems prior to field testing; (3) reduction of development cycle time and improvement of test repeatability by providing a controlled indoor live-sky GPS environment.

(c) Contribution to the Development, Extension, Expansion, or Utilization of the Radio Art

The program directly supports the development of GNSS-dependent autonomous and robotic systems, an area of active advancement of the radio art. Indoor re-radiation of live GPS signals for equipment test purposes is an established, minimally intrusive method of accelerating that development, and the applicant's use follows the same architecture and power levels employed in numerous prior Commission grants for GPS re-radiator test facilities.

Interference Mitigation / Stop Buzzer

Operation is indoor-only at picowatt ERP with automatic gain control. Stop-buzzer point of contact, available 24 hours: Justin Petersheim, (330) 317-7986. Transmissions will cease immediately upon notification of any suspected interference.