



File Number **0447-EX-PL-2008**

Confirmation Number **EL131810**

Form 442 Question 7

A. This program is designed to demonstrate the use of Ground Wave propagation in the 500-515 KHz range to provide the following capabilities.

- Message receipt acknowledgement for one-way location and beacons systems.
- Low data rate command and control of remote sensors and related systems.
- SMS (Text Messages) capability for first responder, law enforcement, and military users.

B. Demonstrate the reliability and capability of the 500-515 KHz range. Configure a transmit site to generate the control signal. Deploy 6-10 remote receive sites within a 200km radius over the rugged and varied Arizona terrain. Measure and record signal strength and BER (Bit Error Rate) of the channel.

C. Provides another control system that does not rely on satellite system, line of site VHF/UHF, extensive infra-structure systems, such as cell phones, NVIS (Near Vertical Incident Sky wave) propagation, or HF propagation.