

A series of experimental investigations will be conducted regarding the operational maturity of a new unconventional compact transmitter technology. This technology uses a small explosive charge as a means of primary power generation, followed by appropriate power conditioning and coupling to a radiating structure (dipole antenna or loop antenna). The initial experimental phase will be followed by an engineering development effort that will require intermittent field validation testing. Each transmitter is intended for use as a single-shot expendable pod for the purposes of wideband radar-type and materials sensing applications. The characteristics of the emissions will be monitored by an array of sensitive free-field sensors connected to a centralized data acquisition, analysis, and archival system.