

Exhibit A

10. (a) Description of Research Program

The Applicant is the inventor, developer, designer and manufacturer of a digital trunked radio system using digital modulation, digital voice coding and multi-site "cellular" operation for dispatch communications.

The Applicant is under contract to manufacture and export such systems to foreign companies, and is required to test such systems prior to shipment. The foreign systems operate at either 355-360 MHz or 422-427 MHz with 12.5 kHz channel spacing.

The research program is designed to take laboratory designs and prototypes and test them under actual real-life conditions.

10 (b) Specific Objectives

Study the characteristics of digitally modulated voice interleaved with error correction, transaction data and signaling bits in multi-channel digital trunked radio systems.

Develop and optimize hardware for the transmission of narrowband digital voice modulation to vehicles moving at high rates of speed.

Develop and optimize software for the transmission of narrowband digital voice modulation to vehicles moving at high rates of speed.

Study the characteristics of handing off low bit rate encoded voice transmission from channel to channel (and cell site to cell site).

Study the characteristics of narrowband digital modulated systems when installed at very high intermodulation communications sites.

Such additional tests and experiments as are necessary to develop and commercialize the technology.

10 (c) Contribution to the Radio Art

The research program, when concluded, will result in practical, low-cost, narrowband, high-capacity digital dispatch radio systems utilizing frequency reuse, suitable for both the Commission's intended "refarmed" UHF spectrum allocations, and for export customers worldwide.

Exhibit B

