

Exhibit 1

- 4(F) Modulation signal – Spreading – quasi-band Limited MSK (QBL-MSK); Information-QPSK; Error control Coding –Convolutional.

Direct sequence Spread spectrum Modulation at 4 Mcips/sec

Maximum Channel Information rate : 375 kbps

Coded Channel Bit Rate: 500 kbps for $\frac{3}{4}$ rate $k=7$ convolutional code.

Carrier Frequency: 1800 possible channels in 125 kHz increments from 225-450 MHz

Base Station Antenna

Gain: 2-4 dBi

Height: ≤ 4 meters from ground to top of antenna

Vehicular station antenna

Gain: 2-4 dbi

Height: ≤ 4 meters from ground to top of antenna

List of possible frequency ranges:

225-250 MHz

290-310 MHz

340-370 MHz

420-450 MHz

Exhibit 2

7. Government Contract – Antenna TEP under US Army contract DAAB07-96-C-C760-A
Agency: Army PMTRCS
Narrative Statement describing project: See excerpts from Statement of Work below:

Task Description for NTDR Antenna Enhancements 6/3/98

This write-up describes the work that will be performed in response to paragraphs 2.3, 2.4, and 2.5 of the SOW for NTDR Technical Enhancements dated 27 April 1998. (See attached schedule for manhours and material cost.)

2.3 Under the T&M task, we will survey antenna vendors to determine the mechanical configuration, performance, and cost of commercially available UHF antennas that cover the NTDR frequency range (225 to 450 MHz). The survey results will be compiled into a trade table that compares the key electrical and mechanical parameters for each antenna against the performance of the existing NTDR antenna. Measured test data from our in-house evaluation of several different UHF antennas in 1997 will also be incorporated into the trade table.

2.4 Upon completion of the vendor survey, a subset of antennas will be selected for further system analysis. The impact of antenna gain on point-to-point communication range and network throughput and message delay will be determined using Longley-Rice and OPNET modeling. A report documenting the analysis along with recommendations and conclusions will be provided to the Government. A technical exchange meeting will also be held at either ITT's Ft. Wayne, IN or Clifton, NJ facility to review the findings and make a decision on which antenna or antennas to procure for test and evaluation.

2.5 A commercial-off-the-shelf antenna (quantity 6) will be purchased for test and evaluation. Gain and VSWR will be measured at our antenna range in Ft. Wayne, IN and compared against measured data for the existing NTDR antenna (Antenna Products, Model No. DPV-51x). In addition, range tests between 2 NTDR radios will be conducted in Ft. Wayne using the existing NTDR antenna and the purchased antenna at both ends of the link. Test results will be documented in a report and submitted to the Government for review.