EXHIBIT 1

Description Of Research Program

The system is intended to meet the requirements of public safety and transit authorities for highly integrated ITS (Intelligent Transportation Systems) systems that provide fleet vehicle monitoring and location tracking, route assignment and schedule adherence, passenger information systems and dispatch center control functions including two way messaging. The system will serve fixed-route transit systems, para-transit systems, and police and emergency service fleets.

Differential position corrections, data messages and polling requests will be continuously transmitted from the base stations to the mobiles. Each base station operates in a full duplex mode, simultaneously transmitting and receiving on one frequency pair for maximum efficiency. The mobile units respond to the polling requests and transmit information on a time division multiple access basis. The mobiles operate in the half duplex mode, quickly switching from receive to transmit and back to receive. To substantially improve polling speed, one mobile radio is dekeying at the same time the next radio is keying. Spectrally efficient Gaussian Minimum Shift Keying (GMSK) is utilized for all data transmissions. The system accomplishes high data rates, 4800 to 9600 BPS, at high polling rates, with standard low cost analog mobile radios.

The system consists of fixed base equipment (communication equipment and computers) and mobile equipment (mobile data terminals, differential GPS receivers and communications equipment) along with associated computer software.

For the purposes of the proposed experimental operations, the requested frequencies will be used in the following manner.

Frequency pairs Tx 464.500 **B** Rx 469.500 and Tx 464.550 - Rx 469.550 MHz will be used at a fixed site at 5265 Rockwell Drive, Cedar Rapids, Iowa, in conjunction with three mobile transmitters (Tx 469.500 **B** Rx 464.500 and Tx 469.550 – Rx 464.550), to design a very highly loaded data system. A very efficient algorithm is required to achieve high throughput in very large implementations of the system. All mobile vehicles, will be sent data including position correction information and each vehicle will be polled and respond in rapid succession. For testing purposes, the three mobile radios will be connected to a controller that will cause the mobile radios to simulate a very large fleet.

NOTE: Siemens has picked the requested frequency pairs because they are Part 90 Private Land Mobile itinerant frequencies and do not require coordination.

Objectives Sought to be Accomplished

The objective to be accomplished is the development and testing of a highly efficient high speed, single-channel data system with rapid polling to enhance the operation, command and control of large pubic safety and transit fleets. It is intended to continuously service fleets exceeding 400 vehicles. The system will be capable of providing both high speed data and voice with one radio. It is our objective to substantially reduce system voice communications required by dispatchers and dramatically increase the collection of vehicle data. This data may then be used to increase the operating efficiency of the fleet. These goals have already been accomplished by our existing system on smaller single channel, single site deployments. The requested frequencies are required to develop and test future enhancements of the system.

How the Program Will Increase the Utilization of the Radio Art

Through this experimental program, our fleet management and communication system will increase the utilization of the radio art by accomplishing all of the following requirements:

1. High data rate messages
2. High polling rates
3. Two way data messaging
4. Data and voice radio operation on one radio

Many current public safety and transit fleet management systems are deficient in one or more of the above requirements. To meet the needs of very large fleets with very limited radio frequencies available, all these requirements must be met or exceeded.