Exhibit 1

Item 4 - Particulars of Operation

(A) ~~142.25 MHz~~
(B) 5 watts
(C) Effective Radiated Power (ERP): 28 dBmi. A 5 watt, RF output isn't needed for this application. We plan to insert 20 db of in-line attenuation on the transmission line to decrease the ERP. The ERP was determiend as follows: The transmitter output is 37 dBm. 20 db of attenuation is inserted n the transmission line. The antenna gain is 11 dbi. The ERP is calculated as follows:

37 dBm - 20 dB + 11 dBi = 28 dBmi 631mW(ERP) 385mW(ERP)

(D) Peak
(E) Emission: F3D
(F) 2400 baud,
(G) Necessary Bandwidth: +/- 3 kHz

How is the bandwidth determined? The value listed above (+/- 3kHz) was determined by measuring the output of the candidate transmitter system.

(A) 144.64 MHz
(B) 5 watts
(C) Effective Radiated Power (ERP): 28 dBmi. A 5 watt, RF output isn't needed for this application. We plan to insert 20 db of in-line attenuation on the transmission line to decrease the ERP. The ERP was determiend as follows: The transmitter output is 37 dBm. 20 db of attenuation is inserted n the transmission line. The antenna gain is 11 dbi. The ERP is calculated as follows:

37 dBm - 20 dB + 11 dBi = 28 dBmi

(D) Peak
(E) Emission: F3D
(F) 2400 baud,
(G) Necessary Bandwidth: +/- 3 kHz

How is the bandwidth determined? The value listed above (+/- 3kHz) was determined by measuring the output of the candidate transmitter system.

(A) 151.640 MHz
(B) 5 watts
(C) Effective Radiated Power (ERP): 28 dBmi. A 5 watt, RF output isn't needed for this application. We plan to insert 20 db of in-line attenuation on the transmission line to decrease the ERP. The ERP was determiend as follows: The transmitter output is 37 dBm. 20 db of attenuation is inserted n the transmission line. The antenna gain is 11 dbi. The ERP is calculated as follows:

37 dBm - 20 dB + 11 dBi = 28 dBmi

(D) Peak
(E) Emission: F3D
(F) 2400 baud,
(G) Necessary Bandwidth: +/- 3 kHz

How is the bandwidth determined? The value listed above (+/- 3kHz) was determined by measuring the output of the candidate transmitter system.

(A) 151.5125 MHz
(B) 5 watts
(C) Effective Radiated Power (ERP): 28 dBmi. A 5 watt, RF output isn't needed for this application. We plan to insert 20 db of in-line attenuation on the transmission line to decrease the ERP. The ERP was determiend as follows: The transmitter output is 37 dBm. 20 db of attenuation is inserted n the transmission line. The antenna gain is 11 dbi. The ERP is calculated as follows:

37 dBm - 20 dB + 11 dBi = 28 dBmi

(D) Peak
(E) Emission: F3D
(F) 2400 baud,
(G) Necessary Bandwidth: +/- 3 kHz

How is the bandwidth determined? The value listed above (+/- 3kHz) was determined by measuring the output of the candidate transmitter system.

Exhibit 2

Item 9 - Is Authorization Used to Provide Essential Communications to a Research Project

(a) Nature of Research Project. System Innovations, Inc. (SII) has an R&D project with the Virginia Department of Transportation (VDOT) to develop and demonstrate a remote highway monitoring system that requires no support infrastructure (AC power or telephone lines) along a highway.

Various SII developed assemblies were merged to create a prototype system that monitors traffic flow, roadbed conditions and meteorological data. Video monitoring of the highway is also performed. A duplex, VHF data link is used for system wake-up, command and site status functions. A spread spectrum RF modem is powered up and used to transfer highway conditions, when required. A field installation/demonstration is needed to collect and analyze data on how the various data acquisition/electronic components will function under real world conditions.

The demonstration must show that highway information collected by the system can be transmitted to a relay location (situated where there is access to the commercial infrastructure) and transferred over a dial-up modem link to a monitoring station to validate system design concepts. The information in item 5 of the FCC Form 442 reflects the relay location (situated at a Stafford county highway maintenance facility). The remote site where the highway conditions data is collected is located on I-95 near the Enon road overpass, at North Latitude: 38° 22 : 09, West Longitude: 077° 27 : 56 in Stafford county.

Analysis of the impact of weather and other environmental conditions on the prototype is important to ensure the system operates properly, is reliable and has a high mean time between failures (mtbf). Data gathered will be utilized to make the system design more robust. Once a final configuration and system design is determined, we can work toward making the system compliant with FCC technical, certification and licensing standards.

(b) Show Communications Necessary to Research Project. Point-to-point RF communications are essential to demonstrate data can be transferred reliably from highway monitoring sites located in austere (mountainous and isolated) areas back to central locations where road closure and snow removal decisions are made.

(c) Show Existing Communications Facilities Are Inadequate. Demonstrating reliable, standalone communications (between the remote site and the relay station) is essential to validate the system design and satisfy VDOT desires. Reliable, energy efficient RF communications are essential for any system that is developed. Commercial phone lines won't be installed in all the locations VDOT needs to monitor. Other state transportation agencies (Idaho and Montana) and

a DOD agency have stated their desire to purchase a system similar to the prototype. Independence from the commercial infrastructure is tantamount to successful monitoring of highway conditions in the remote locations. A significant part of this research project is the development of a rugged, power efficient, RF modems that can operate under harsh environmental conditions and meet FCC technical standards.