

Exhibit A

Narrative Statement describing:

A) The complete program of research and experimentation proposed including description of equipment and theory of operation

Research is to be conducted in search of a solution of the “First Responder” problem, namely precisely locating emergency personnel within a building. Building propagation experiment are to be conducted in various ISM bands such as 13.56 MHz, 902 – 928 MHz, 2.4 – 2.485 GHz at EIRP levels consistent with the rules pertaining to spread spectrum devices. Specifically, maximum EIPR will be limited to 36 dBm and spreading techniques will be employed (such as direct sequence with minimum 10 dB process gain or frequency hopping with the required minimum numbers of channels for a given band of operation). Propagation (penetration) data is to be collected and approaches to mitigate multipath error will be investigated. Initially, Transmitters will be made using commercial signal generators and receivers will be designed using commercially available scanning receivers. As specific techniques are proven successful, prototype hardware will be designed and tested.

B) The specific objectives sought to be accomplished:

The goal of this experimentation is the identification of a commercially viable “First Responder” personnel location system design approach.

C) How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated:

Many approaches to the solution of the “First Responder” are described in the literature. Most of these approaches require either vast infrastructure or are “Ultra Wideband (UWB) in nature, operate low in frequency and thus are not permitted under the FCC regulations. The intent of this reasearch is to identify an approach that overcomes these difficulties.

Trimble has performed research over the years to identify the strength and weaknesses of terrestrial ranging systems. Most of this research has been in “free-space” without the complicating effects of the building environment. Cellular telephone companies have also conducted research on in-building propagation but with the goal of solving the less stringent “E-911” requirement.

Certainly RF ranging systems can be designed. It is the purpose of this research to identify a cost effective, adequately accurate in-building positioning system.