



If all the answers to Items 4, 5, 6 are "NO", include as an exhibit a narrative statement describing in detail the following items:

- a. **The complete program of research and experimentation proposed including description of equipment and theory of operation.**

This program of research is an attempt to demonstrate beyond line of sight (BLOS) microwave communications using troposcatter propagation. The system sends a microwave signal above the horizon and particles in the upper troposphere randomly scatter a portion of the energy back toward earth. Using a high gain antenna, the signal can be received and used to create a highly secure data link.

- b. **The specific objectives sought to be accomplished.**

To demonstrate an effective link using BLOS communication and determine the technology's capabilities at higher frequencies.

- 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.**

Beyond line of sight (BLOS) communication has been demonstrated successfully in the past using lower frequencies. Demonstrating higher frequency communications links will allow BLOS systems to increase their bandwidth, achieve higher data rates, and continue to grow smaller in size for faster mobile deployments.