

EXHIBIT NO. 1

Radant Technologies, Inc. intends to use the requested station authorization to conduct tests on antennas and radomes which it builds. Such tests will include measurement of radiation patterns, gain, efficiency, bandwidth and directional accuracy.

The antennas will be tested in the receive mode, using the transmit station as a source and the transmission characteristics inferred from the reciprocity principle. Specifically, an antenna to be tested will be mounted on an antenna positioner in an anechoic bay located at the rear of our facilities at 255 Hudson Road in Stow, MA. Antennas undertest will be illuminated by a radio wave transmitted from the source antenna mounted on a tower located 460 meters distant.

The radiation pattern of the antenna under test will be measured by rotating it about its axes using the positioner and recording the response. Analysis of the measured patterns will allow determination of mainbeam symmetry, sidelobe structure, depth of nulls, relative gain, and front-to-back ratio. Comparing the gain of the test antenna with that of a standard gain horn due to the same illumination will allow the absolute gain of the test antenna to be

Exhibit No. 1 (continued)

determined. By varying the frequency of the illuminating wave over a reasonable range the useable bandwidth of the test antenna will be found. Typical bandwidths for antennas of this type are +/-6% about some design center frequency..

The specific objectives of this developmental station are to design, build, test, and market phased arrays, reflector antennas and radomes.

This program is not strictly one of experimentation. However, the phased array antennas which Radant Technologies builds are based on a novel technology, in the field of periodic apertures and as such do not need large quantities of expensive phase shifters. For this reason they offer a real chance to reduce the cost and weight of phased arrays and thereby increase the feasibility of their being used for radar systems, particularly airborne systems. Increased use of phased arrays will increase the effectiveness of the radar systems because of the versatility of the arrays in the areas of multiple target tracking and rapid beam placement.