

EXHIBIT 1. PURPOSE OF EXPERIMENTAL RADAR

Drug enforcement and military users have a need for airborne radar which will penetrate forest canopies to find hidden buildings and vehicles. Frequencies around 200-700 MHz are known to have less foliage attenuation than microwave frequencies. This experimental radar has been built to use the synthetic aperture principle to improve the azimuth resolution, reducing the size of the clutter cell.

The objectives of operating the radar are to measure coherent attenuation and backscatter from forested areas and to provide data on the signal-to-noise ratio of vehicles and calibration reflectors placed in the forests. All the bandwidth from 420 to 450 MHz is needed to minimize the clutter cell size.

The planned program will extend results of prior investigations by using finer range and azimuth resolution.