Exhibit 1
Particulars Of Operation (Section 4)

The attached application is for authorization to operate equipment under experimental radio service, in order to validate the design and verify performance. Specifically, the equipment to be operated is a subsystem of an airborne pulsed doppler radar system. This exhibit provides additional information to that already included in section 4 of the application, in particular, part G.

The necessary bandwidth is determined by the compressed pulse width needed to achieve a given radar range "resolution". It is computed as

$$B = \frac{C}{2\rho}$$

where C = speed of light, and ρ = intended radar range resolution. The various bandwidths listed in the application support several different range resolutions.

The occupied bandwidth of the signal is a function of the necessary bandwidth and the Time Bandwidth (TB) product of the phase modulation within the pulse. As TB becomes large, the spectrum approaches a rectangle, equal in width to the necessary bandwidth. In order to aid in the application process, calculated emission spectra are included in this exhibit for each of the listed modes of operation.

Figure (1) 1245M-8M33Q3N-25μS

Figure (2) 1255M-25M0Q3N-25μS

Figure (3) 1270M-50M0Q3N-25μS

Figure (4) 9565M-8M33Q3N-60μS

Figure (5) 9575M-25M0Q3N-60μS

Figure (6) 9590M-50M0Q3N-60μS

Figure (7) 9610M-83M3Q3N-50μS