EXHIBIT NO. 1

(Reference: Item No. 4(F))

The pulse duration is adjustable from 400nanoseconds to 12 nanoseconds. Bi-phase (180°) modulation may be employed in minimum intervals of 400 nanoseconds.

The pulse repetition frequency is also adjusted to the mode of operation, but cannot exceed 50 kHz.

EXHIBIT NO. 2

(Reference: Item No. 4(G))

Simple calculation using the minimum 400 nanosecond pulse/code cell durations yields:

Signal Level Below Peak:	**Bandwidth:**
-3 db	2.2 MHz
-10 db	3.7 MHz
-20 db	12.7 MHz

EXHIBIT NO. 3

(Reference: Item No. 5b)

The radar profiler is located on private property adjacent to the Piney Run Reservoir, which services the city of Frostburg, Maryland. From the Frederick Municipal Airport in Maryland, take Interstate 70 West to Interstate 68 West. Exit 29 North towards Finzel. Bear left down access road to Piney Run Road or turn left on Route 40 towards Piney Run Road. Turn right to go North on Piney Run Road. Turn left into Piney Run Reservoir. Follow reservoir access road past attendant's house and past the pump house. On top of the hill above the pump house is the profiler location.

EXHIBIT NO. 4

(Reference: Item No. 6)

The antenna system will consist of one steer-able four-panel micro-patch phased array planar antenna with side-lobe reduction fence. The antenna will be pointed vertically with electrically switched delays introduced to point it 23.5° off vertical in planes that are 90° from each other. The antenna will have a beam width of 11 by 11 and 24 dBi of gain.

Normal operation will consist of sequential transmissions in each of three (two oblique and one vertical) or five (four oblique and one vertical) directions.

EXHIBIT NO. 5

(Reference: Item No. 10)

The Maryland Department of the Environment (MDE) is a partner in a cooperative agreement with the Environmental Protection Agency (EPA) to use the wind profiling technology to better understand the transport of ozone. Wind profiling radar depend on the scattering of a transmitted signal by irregularities in the index of refraction of the air. The irregularities are caused by turbulent eddies created by the wind. By receiving the scattered signal and determining the Doppler frequency, the speed of the wind can be determined. Temperature data can also be obtained by measuring the velocity of propagation of an acoustic signal in the axis of the vertical radar beam. The hardware involved will be a receiver/modulator, a final amplifier/preamplifier, a digital control and data processor, and an antenna system directed to zenith. These items were developed at NOAA and were fabricated by Radian International.

This experimental license will be used in support of other wind profiling radar equipment in the Mid-Atlantic States, put in place by the NARSTO-NE group in the summer of 1997. The license will also be used to support airplane flights by the University of Maryland at College Park that measure ozone on high ozone days in the summer. The license will also be used to support the ground level of ozone by the MDE at 16 existing sites throughout Maryland. The object of the study is to obtain a clearer picture of ozone in the upper atmosphere and to fulfill a federal mandate to measure surface level ozone and operate a wind profiler.