

EXHIBIT NO. 1

{Reference: Item No. 4(F)}

The pulse duration is adjustable from 400 nanoseconds to 12 microseconds. 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

These values have been confirmed by measurement.

EXHIBIT NO. 3

{Reference: Item No. 5(B)}

The location is in a grassy area near building 1151 located on Ellington Field, Houston, Texas.

Enter Ellington Field from Old Galveston Road (State Highway 3) onto Robbins Road. Proceed on Robbins Road, turn left on Brantley Road, proceed to Johnson Road. Turn left on Johnson Road and continue to end of the road. The RADAR profiler is located approximately 350 yards southwest off the end of Johnson Road.

EXHIBIT NO. 4

(Reference: Item No. 6)

The antenna system will consist of one steerable micro-patch phased array planar antenna with sidelobe reduction fence. The antenna will be pointed vertically, with electrically switched delays introduced to point it 21° off vertical, in planes that are 90° from each other. The antenna will have a beamwidth of -9° by 9° , and -26 dB of gain.

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

EXHIBIT NO. 5

(Reference Item No. 10)

The system that would be operated under this requested license will collect wind and virtual temperature profile data at Ellington Field, Houston, Texas. The profiler will be used to support the Environmental Protection Agency's Photochemical Assessment Monitoring Station's requirements for non-attainment counties. This project's objective is to improve the technical basis for designing prudent and cost-effective ozone control strategies for the Houston-Galveston and Beaumont-Port Arthur-Orange areas of Southeast Texas.

In this particular study, the radar will collect temperature and wind profile data for use as input to urban airshed models with emphasis on those days with maximum ozone pollution concentrations. These conditions normally exist under a near stagnant atmosphere or with wind flow roughly parallel to the coast. Collecting detailed meteorological data both in time and space are essential ingredients to this effort. Data gathered from the network will be hourly profiles of low level winds, temperatures, and stability categories among other parameters.