

Exhibit 1

EXPLANATION OF MODIFICATION REQUEST

This modification application seeks to obtain Commission approval for expansion of the radius of operation on Antenna #1 (Mobile: Falls Church, VA, at Temporary Locations, centered around NL 38-53-15; WL 77-10-51) from 20km to 100 km.

Other than the above-described expansion of the radius of operation for Antenna #1, no other parameter on the license is requested to be modified pursuant to this application.

Directional Antennas

As specified in the underlying application for this Station, the following is provided with respect to the directionality/orientation of the transmissions related to this experiment:

The Antenna Registrations to the instant application asks: "Is a directional antenna (other than radar) used?". In response to this Item, SET has responded "No" because the instant experiment involves the use of radar emissions. However for the purpose of full disclosure, the following information is provided:

- Width of beam in degrees at the half-power point: 0.5-4.0 "pencil" beam
- Orientation in horizontal plane: The antenna may be oriented so as to point its main lobe in any direction within a horizontal plane.
- Orientation in vertical plane: The antenna is oriented such that its main lobe will be parallel to the ground +/-2 degrees.

Other Technical Information

This experiment involves the use of three apertures, not simultaneous use, with a variable attenuator in the transmit path between the transmitter and antenna:

First aperture : The attenuator is set to 0 dB;
CW transmit power is 40 mW (0.040 Watts);
Gain is 33 dBi, 6 inch diameter.

Second aperture : The attenuator is set to 6 dB;
CW transmit power is 10 mW (0.010 Watts);
Gain is 39 dBi, 12 inch diameter.

Third aperture: The attenuator is set to 12 dB;
CW power is 2.5 mW (0.0025 Watts);
Gain is 43.5 dBi, 24 inch diameter.

Prevention of Interference

SET hereby advises the Commission that John Reed and John Gorman will personally monitor the experiments for which authority is requested, and will act as a “stop buzzer” if any issues regarding interference arise during testing. Their wireless numbers for this purpose will be: John Reed (703-994-8778); John Gorman (703-587-1898).