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To: <chuie@fcc.gov>
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Subject: 0177-EX-PL-2002

Amendment

Following is a description of our transmitters and antenna systems we discussed yesterday. Hopefully you can fill in the blanks for me.

EQUIPMENT DESCRIPTION and GOVERNMENT USERS:

This equipment is designed to replicate hostile surface to air missile search and target track radars for use in training of helicopter, fighter aircraft, bomber and cargo aircraft crews from the US Airforce, Army and Air National Guard units at numerous bases within the territorial US, Alaska and presently, Germany. Some of the government contracts under which this equipment is being manufactured:

DAAH01-95-C-A015
DAAH01-98-C-A004
DAAH01-00-D-A102

Contact :

FREQUENCY BANDS IN IMMEDIATE NEED OF APPROVAL:

775-800 mhz	13.4-13.9 ghz
2.9-3.0 ghz	14.0-14.25 ghz
6.9-7.0 ghz	14.6-15.3 ghz
7.8-8.4 ghz	34.85-35.15 ghz
12.8-13.3 ghz	

Other frequency bands listed in the application can be put on hold for the present and be added as an amendment when needed.

EQUIPMENT LOCATION FOR GOVERNMENT ACCEPTANCE TESTING:

The threat simulators listed above would be built and/or tested at the location shown in the Antenna Registration form, item 2d for this file. High power RF radiation testing is done into dummy loads (98 % of the time) but for final testing, RF energy is radiated from their respective system antennas to assure there are no problems with interconnecting waveguide or coaxial cable and the antenna feeds. There are no long term periods of antenna radiation from this equipment. Periods run 5 to 15 minutes, usually scheduled for daylight operation and may occur several times a year, depending on which equipment is being built and / or refurbished.

NOTE: Transmitters can be tuned to specific frequencies within their bands of operation.

ANTENNA CHARACTERISTICS

All of the antennas used with these simulators are directional prime fed with parabolic reflectors that range in size from 26 inch to 78 inch diameter. The 'fixed' simulators are mounted on transportable pallets and the 'mobile' units are mounted on HUMMVEE vehicles.

Antenna HPBW in all cases is 2.5 degrees or less except for the 725-800 mhz unit which is 12 - 13 degrees. First sidelobe levels are at least 12 dbc which replicates most of the hostile SAM launcher antennas.

All emitter antennas when actually radiating will be pointed in a northerly direction, away from the Buffalo/Niagara International Airport, across northern Erie County. Range of these

emitters is usually less than 10 miles

If the need arises, you may contact Mr. Joseph Mroz who will be filling in for me while i'm on a 6 week vacation with my lovely wife. He may be reached at 716-631-7784 or e-mail at jmroz@sierra-idt.com. I shall be back on the 19th of Nov. Thanks so much for your help.

Regards,
Richard W. Brennan, RF engr.

Greetings

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