

From: Frank L. Rees
To: John Kennedy
Date: February 14, 2005
Subject:
FCC File # 0039-EX-ST-2005

Message:

The following answers to FCC questions are submitted to support File # 0039-EX-ST-2005 for Special Temporary Authority:

- peak envelope power (PEP);

62 watts

- type of antenna;

Composite system of 7 small antenna horns

- transmit antenna gain;

Max gain 15 dB

- elevation above sea level of the antenna site;

1070 ft.

- height above ground of the focal point of the antenna;

56 ft.

- antenna polarization;

Linear

- the azimuth that the antenna is pointed or appropriate designator to indicate whether the antenna is rotating, non-directional, etc.;

Fixed experimental antenna system radiating in 90-degree azimuth sector

- pulse repetition rate (PRR) that the equipment is capable of operating on to include PRR stagger sequences if appropriate, whether the PRR is adjustable and what PRR's the equipment can accept, and any other information that would be helpful in understanding the pulse characteristics (staggered, jittered, fixed) of the equipment;

The PRR changes from 20kHz to 100kHz, based upon target range and closing rate. The pulse sequence maintains a duty cycle of approximately 6%, by changing pulse width appropriately with changes in PRR

- pulse width;

1, 2, 4 and 6 microseconds, adjustable based upon target range and closing rate, in order to keep constant (approximately 6%) duty cycle.

- equipment nomenclatures;

None

- whether the equipment is capable of blanking transmissions in certain azimuths and any limitations with respect to blanking;

Range within 150m and azimuths outside 90-degree sector blanked

- radius of operations if appropriate;

Approximately 2 nmi

- detailed description of the proposed operation to include any technical parameters that will be altered during operations.

Radar detection and localization of a single controlled aircraft executing planned trajectories. Based upon range and closing rate, PRR and pulse width to be altered to keep approximately constant 6% duty cycle.