

From: Memula, Mukesh [mukesh.memula@lmco.com]
Sent: Monday, July 18, 2005 9:22 AM
To: donald.bristol@faa.gov
Cc: charles.cassella@faa.gov; John Kennedy
Subject: Call Sign: WC2XR0

Don,

I have been requested to coordinate information regarding Call Sign: WC2XR0 to the FAA Eastern Region Office (FCC File#: 0092-EX-RR-2005). The attached document contains the requested information. Please forward a coordination number for this call sign once your review is completed.

If you need further information, please contact me.

Thank You,

Mukesh Memula
Systems Engineer
Lockheed Martin - MS2, Syracuse
EP5-D5, MD45
Phone: 315-456-1022
Email: mukesh.memula@lmco.com

- Frequencies:
 - 1030 MHz
 - 1261 MHz – 1289 MHz
 - 1335 MHz – 1348 MHz
 - 1353 MHz – 1392 MHz
- Peak Power: **24.75 kW**
- Type of antenna: **Solid State Phased Array**
- Transmit antenna gain: **39.5 dB**
- Elevation above sea level of the antenna site: **137 m**
- Height above sea level of the focal point of the antenna: **146.9 m**
- Antenna polarization: **Horizontal**
- The azimuth that the antenna is pointed or appropriate designator to indicate whether the antenna is rotating, non-directional, etc.:
 - **Orientation in horizontal plane: Capable of full 360° positioning (rotating)**
- 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:
 - **Variable PRF – pseudo random – Also fixed. Typically between 250 to 2000 Hz**
- Pulse width:
 - **Short Range (SR) and Long Range (LR) subpulse pairs**
 - **SR: 2 51.2µs sub-pulses with 100ns gap**
 - **LR: 2 409.6µs sub-pulses**
- Equipment nomenclatures: **AN/FPS-117 Long Range Solid State Radar**
- Whether the equipment is capable of blanking transmissions in certain azimuths and any limitations with respect to blanking:
 - **Capable of controlling RF inhibit by sector. A sector is 2.8125° (128°/360°)**
- Radius of operations if appropriate:
 - **Syracuse, NY at coordinates NL 43-06-43, WL 76-11-18 (1km radius)**
- Detailed description of the proposed operation to include any technical parameters that will be altered during operations:
 - **Primarily utilized for test of delivered radars as well as trouble shooting and evaluation of radar performance. The parameters that are altered are PRF and staggers. In addition, rotation of the antenna is sometime disabled.**

- The operation of the standard IFF system on the FPS-117 requires the 1030 MHz authorization
 - The transmitter power: 32 dbW
 - Antenna Gain: 27 dBi
 - Polarization: Vertical
 - Modes of operation: Mode-1, Mode-2, Mode-3A, Mode-C, Mode-S
 - Pulse Characteristics: PRF 100-250 Staggered