

Request for PRF Rate

Purpose for Request:

Currently, we are under contract to develop Remote Threat Simulators for the Italian Air Force/Government.

This request is directly related to contract requirements established between DRS and the Italian Air Force: Design and Development, Integration and Test. This request is necessary to develop and test software requirements for the Italian Radar Program. We do understand the nature and criticality of IFF and will be willing to use sector blanking if and when necessary.

Essential Technical Parameters

Equipment Type/Nomenclature (Transceiver): AN/TPX-56 IFF Interrogator Set, AIMS Certified, U.S. DoD 97-1000 certified; MFG: Raytheon

Necessary Bandwidth: 7.95 MHz; 0.35 rise time (Based on Guidance for Determination of Necessary Bandwidth, ANNEX J, 5/2003 (Rev. 9/2004); PULSED Radar – Non-FM pulsed radars (including spread spectrum or coded pulse radars): If , then: $B_n = B(-20\text{dB}) = 1.79/\sqrt{t_r}$, Otherwise: $B_n = B(-20\text{dB}) = 6.36/t_r$

Bandwidth (3 dB): 8 – 10 MHz

Frequency: Transmit Frequency – 1030 +/- 0.1 MHz; Receiver Frequency – 1090 +/-0.2 MHz

Transmit Power: 200 watt and 500-watt peak transmitter power variants

State and County of location of Transmitter: State – Florida; County - Okaloosa

Ground Transceiver Coordinates (DRS facility): 30° 26' 26.7 N
086° 38' 17.5 W

Station Class (Experimental Class): Fixed

Emission Designation: We believe it to be 7M95M1D

Temporary License will not exceed: 6 months

Required Date: January 18, 2005

Expiration Date: July 18, 2005

Transceiver Antenna Name (use with AN/TPX-56): FAI-52S Antenna; Antenna Associates, Inc.

Antenna Gain: Gain Sum = 19.5 dBi

Antenna Elevation: Sum Elevation B.W. = 25.0 Deg. Nominal

Antenna Azimuth: Sum Azimuth B.W. = 9.0 Deg. Nominal

Antenna Feed point height:

Antenna Polarization: Vertical

Antenna Location: (DRS facility, Beal Street)

GPS Coordinates (Deg-Min-Sec): 30° 26' 26.7 N
 086° 38' 17.5 W

Radar /IFF method of Tunability: Fixed

Pulse Duration: 0.8 microseconds, Rise Time – 0.5 microseconds, Fall Time – 0.2 microseconds.

Transceiver: (This transceiver will be used to determine orientation of location.)

Fixed (DRS facility): LAT 30.253819
 LONG 86.397822

Name of Antenna: AIL DM N170

Gain of Antenna: 2 dBi

Name of Transceiver: AT155 TSO Transponder

Receiver Coordinates: 30° 25' 23 N
 086° 39' 46 W

Transceiver: These are potential transceivers within our expected 100 mile radius.

Airborne: Not known

Distance (Max radius of plane interrogator): 100 miles

Fri 1/21/2005 1:40 PM

FCC File # 0037-EX-ST-2005 [Reference Number: 3382]

Dear Mr. Jimmy Harris:

Please complete the Transmitter section of this application by entering the frequency, peak effective radiated power, tolerance as a percentage, the station class and the complete emission designator which includes the necessary bandwidth.

Confirmation Number: EL561661
jkennedy@fcc.gov

01/24/05

Answers:

John,

I have entered the information below in the transmitter section of the FCC application.
Here is the information your requested:

Transmit/receiver Frequency: 1030 and 1090 Mhz

ERP: 73 dBm or 200.25 W

Tolerance: +25 %

Station Class: Fixed

Emission Designator: 7M95M1D

