

From: Sochurek, Jan E. [jan.sochurek@ngc.com]
Sent: Friday, April 22, 2005 5:25 PM
To: Charles Cassella (E-mail); Donald Bristol (E-mail)
Cc: John Kennedy; Vance Schuemann (E-mail); Carl Huie; Tim Pawlowitz (E-mail); Fremd, Rodney W.
Subject: FAA Coordination Support

Charles,

Once again we, Northrop Grumman Corporation, have some licenses/STAs up for renewal with the FCC which in turn require FAA coordination support. There are four licenses/STAs that simply need renewal, one license is being modified and one request is for a new STA.

The four licenses/STAs up for renewal are: 0501-EX-RR-2003, KA2XGP; 0089-EX-RR-2004, KB2XBJ; 0149-EX-RR-2004, KQ2XAK; and 0140-EX-ST-2005, WC9XAT.

The license that is to be modified is: 0037-EX-ML-2005, KA2XBU. Currently, the license is used for 1030MHz, 2700-2795MHz, and 2845-2880MHz, other characteristics are:

- authorized power; 1.9GW (2700-2795, 2845-2880MHz), 100kW (1030MHz)
- type of antenna; Non-Linear FM
- transmit antenna gain; 34 dBi Main, 27dBi MSSR
- elevation above sea level of the antenna site; 310 feet
 - height above ground of the focal point of the antenna; 60 feet
- the azimuth that the antenna is pointed or appropriate designator to indicate whether the antenna is rotating, non-directional, etc.; The antenna rotates 360 degrees
- 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; PRF is in 8 pulses, 1.03kHz to 1.08kHz
- pulse width; 55uSec
- equipment nomenclatures; ASR-12 Radar
- whether the equipment is capable of blanking transmissions in certain azimuths and any limitations with respect to blanking; Yes, the equipment can be set up for blanking, which is what we currently do due to our proximity to BWI Airport
- radius of operations if appropriate; 80 nautical mile radius around Linthicum, N39-10-54 W076-41-24; N39-11-08 W076-42-11; and N39-11-03 W076-41-09
- detailed description of the proposed operation to include any technical parameters that will be altered during operations. Testing will be performed using the ASR-12 for research and development; product capability enhancements/upgrades; troubleshoot hardware, software and any customer problem reports.

The new STA that we are requesting is file number: 0477-EX-ST-2004. We have a contract to develop and test a solid state version of the TPS-63 radar

system for a customer. Operation would be in the frequency range of 1215-1400MHz, other characteristics are:

- effected radiated power; 50.5MW
- type of antenna; Non-Linear FM
- transmit antenna gain; 30.5 dBi
- elevation above sea level of the antenna site; 290 feet
 - height above ground of the focal point of the antenna; 20

feet

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

The antenna rotates 360 degrees

- 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; PRF is staggered; 310Hz, 383Hz, 502Hz, 748Hz, 749Hz

- pulse width; 99uSec

- equipment nomenclatures; TPS-63SS Radar

- whether the equipment is capable of blanking transmissions in certain azimuths and any limitations with respect to blanking; Yes, the equipment can be set up for blanking.

- radius of operations if appropriate; 80, 120, 160, and 200 nautical mile radius. Testing to be done in Linthicum, MD; N39-10-46 W076-41-27; and in Sykesville, MD; N39-22-29 W076-57-39.

- detailed description of the proposed operation to include any technical parameters that will be altered during operations. We have a contract to develop and test a solid state version of the TPS-63 radar system for a customer.

Thank you for your help in regards to coordination of these licenses and/or STAs,

JAN SOCHUREK - Spectrum Licensing
Northrop Grumman Electronic Systems
Radio Frequency Spectrum and Licensing
Coordination Group
(410)765-5626
(410)541-1745 pager