

From: James McGuinness

To: Leann Nguyen

Date: February 15, 2013

Subject: FCC File# 0129-EX-ST-2013

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Message:

Information requested by above referenced correspondence:

Description of operation to be conducted in detail:

TCOM, LP would like to demonstrate a capability of integrating multiple sensor suites on its aerostat platforms (Tether balloons). One sensor under consideration is the Northrop Grumman Corporation AN/ZPY-1 Synthetic Aperture Radar/Ground Moving Target Indicator Radar (SAR/GMTI radar). This radar was developed under the sponsor ship of Program Manager-Robotic Unmanned Systems (PM-RUS) office of the United States Army Communications Electronics Command (CECOM). The radar is the "Program of Record" for the Grey Eagle Unmanned Aerial System (UAS) and to date 111 units in various configurations (Antenna types) have been delivered to the United States Government.

TCOM proposes to integrate this radar with other sensors (Electro Optical/Infrared Camera system, for example) on one of its aerostat platforms in Elizabeth City, North Carolina and demonstrate multiple sensor capabilities to potential customers and offices and agencies of the United States Government. All testing and demonstrations would be conducted at the TCOM, LP Manufacturing and Flight Test Facility (MFTF) at Elizabeth City, NC. It should be noted that the SAR radar mode was designed for use by a moving airborne platform (Makes use of the aircraft velocity vector to produce very high quality radar maps) and since the aerostat platform is stationary this mode will not be used, only the GMTI mode will be demonstrated.

Demonstrations would consist of various test scenarios designed to use the radar to detect a target and provide a cue signal to EO/IR camera system for visual identification. Also, radar detection data and camera video will be made available at a local ground control station as well as at other remote locations. (Data only.)

Verify emission designator information.

The radar waveform for the GMTI mode is a 220 Mhz Linear FM waveform during the pulse utilizing a single RF carrier frequency. The proper emission designator is 220MQ3N. This has been changed on the original application.

Cease Buzzer information

Point of Contact for Cease Buzzer is Mr. Charles Knauss, TCOM, LP MFTF, telephone (252)-330-3159