

FLIR Ranger R20SS Special Temporary Authorization (STA)

1 Purpose of Operation

The Ground Vehicle Demonstration is planned to be operated at one location: This is the general NMSU Ranch location. Suspect we'll be in this vicinity over the period of December 2, 2013 to January 31, 2014. The purpose of this request for Special Temporary Authorization is to demonstrate the maturity of our system concept and technology to the customer to meet urgent demonstration timelines. Test Summary: An experimental license is required to demonstrate the operation of a FLIR radar system with a ground vehicle to our customer. This is a new experiment similar to a previous approved STA (0514-EX-ST-2012) that used a different radar transmitter system. Starting in August 2013, the radar will be used to sense ground targets - vehicles and personnel on Raytheon property per the FLIR Ranger R20SS intended design parameters. This radar will be operated using the power and modulation settings required for the short range mode only for safety, reduced interference, and effective operation. This short range mode will be used to sense ground targets within 2.5 km of the radar as shown in the attachment to this application. The long range mode of the radar will not be used. During normal demonstration testing, the time required to create and display multiple targets is less than two minutes total transmit time and will be intermittent in operation. During the remainder of the demonstration tests, the FLIR radar will not be in a transmit mode. Raytheons RF safety group is involved in this demonstration to ensure that no personnel are subjected to RF power density levels exceeding the Maximum Permissible Exposure (MPE) limits of the Part 1.1310 of the FCC Rules and the guidelines in FCCs OET Bulletin Number 65. Raytheon has a Company Policy and Environmental, Health and Safety Standard which addresses electromagnetic energy exposure control. It is Raytheons policy to ensure that our personnel, the general public and our customers are not exposed to RF levels which exceed applicable standards. To that end, we will reuse and modify the RF Safety Plan already in place from the previous STA for the ground vehicle demonstration testing. The RF Safety Plan defines the procedures and controls required to prevent personnel exposure to levels which exceed the MPE. To verify the safety of personnel, an RF survey will be performed at the initial turn-on of the system. All measured levels, where personnel have access, must be below the MPE for uncontrolled environments before testing can proceed. Additional files are attached to this summary which cover the test site layout and transmit scan coverage.

- File Number: 1020-EX-ST-2013
- Class of Station: FX
- Station Locations: FX
- Effective: 12/02/2013
- Expiration: 01/31/2014

2 Experimental Explanation

To demonstrate the operation of a FLIR Ranger R20SS radar system with ground targets.

Ground Vehicle Demonstration Frequency authorization is being requested for the period of December 2, 2013 to January 31, 2014 in order to demonstrate the operation of a FLIR Ranger R20SS radar system with ground targets. This radar demonstration is intended to show maturity of key technologies designed and developed by Raytheon. It is essential that radar performance be demonstrated in a real-time radar environment similar to the proposed radar system. Testing in real-time environments with realistic targets is needed to fully prepare for a demonstration to the customer

3. Stop Buzzer:

Anthony L Vicich +1 317.306.7745 (office)
+1 317.417.0483 (cell)