

PUBLIC INTEREST STATEMENT

1. Introduction

By the instant application (“Application”), DRS Tactical Systems, Inc. (“DRS TSI”) requests that the Commission grant a two year experimental license to permit DRS TSI to operate the facilities (the “Facilities”) specified in the instant application.

2. Purpose and Nature of the Operation

DRS TSI engages in the design, development, production, and supply of defense products for the military and other customers. The company’s products include electronic test and monitoring systems; flight line and maintenance-related support equipment; radar systems; ground vehicle and aircraft subsystems; and disaster response applications.

The Facilities were designed to provide a mobile capability for aircraft maintenance crews to conduct diagnostics and system verification in the field.

The proposed experiment will involve ground-based mobile transmissions to support the development and testing of DRS TSI’s ATS-100 device, a hand-held instrument used to test the Radar Warning Receivers (RWRs) of military aircraft, fixed and rotating wing. An RWR detects radar signals from hostile ground or airborne sources and alerts the pilot that his plane is potentially exposed to the enemy.

3. Signal Characteristics/Modulating Signal/Bandwidth

The signal can be continuous (CW) or pulse modulated. In pulse mode the modulating signal is a pulse train with pulse width and repetition rate programmable. In all cases the RF signal is gated on and off – no AM or FM modulation is applied and the signal carries no information.

The maximum bandwidth requirement occurs when the shortest duration pulse width is used for modulation. Under these circumstances (i.e. with 50 ns pulse width) the bandwidth is approximately 20 MHz (10 MHz either side of the carrier). When no pulse modulation is selected (CW operation) the transmission is effectively a spot frequency.

4. Comment Regarding Emission Designator

The ATS-100 operates in two modes, either Continuous or Pulse modulation. When operating in Continuous mode, the designator is clearly “P” as there is no modulation. However, when operating in Pulse mode, there is modulation, although no information is being carried. DRS TSI could not identify a third symbol for the designator which clearly described the ATS-100 Emissions while in Pulse mode operation, therefore DRS TSI assigned the “X” designator for the second symbol.

5. Interference Mitigation

With respect to interference mitigation, DRS TSI advises as follows:

- The ERP levels have a maximum ERP of 180 mW between 3-5 GHz; 600 mW between 8-12 GHz; and 220 mW between 14-16 GHz.
- Operation of the requested Facilities will not be continuous. The ATS-100 will issue intermittent transmissions of short duration, limiting the potential for interference to authorized users. In the off state, no measurable power will be radiated.
- At each of the military bases at which tests will be conducted, the transmissions will be coordinated with the appropriate spectrum manager for that base.
- The subject radar device has blanking capabilities and DRS TSI stands ready to work with FAA to identify any reasonably necessary azimuth and/or elevation restrictions for the system.

6. Stop Buzzer

DRS TSI hereby advises the Commission that the following personnel will act as “stop buzzers” if any issues regarding interference arise during testing:

Primary: Phil Niosi – 321-368-0768

Alternate: Chris Delaere – 321-368-5420