

From: John Kennedy [John.Kennedy@fcc.gov]

Sent: Friday, February 04, 2005 6:41 AM

To: Jimmy Harris

Subject: RE: STA File Number: 0037-EX-ST-2005; Confirmation Number: EL561661

Importance: High

Your exhibit says that 1090 MHz is for receiving. If this is true, you need to delete 1090 MHz at both locations or risk having your entire request denied. Otherwise, submit an attachment answering the questions (see text below) pertaining to 1090 MHz in the e-mail I sent you in the previous application that was dismissed.

Dear Mr. Jimmy Harris:

Transmit on 1090 MHz using Narco's AT 155 ATC Transponder

- What is the pulse width? 0.6 microseconds (IFF Pulse code)
- What is the pulse repetition rate and associated characteristics (staggered, jittered, fixed) if transmitting 1030 MHz? - PRR is 505 – Using Narco's AT 155 TSO ATC Transponder, we will transmit on 1090 MHz. The purpose is for testing only. The AT155 TSO will receive the IFF ground interrogation signal and check the validity of the received interrogation and a reply containing identification information. Signal does not contain altitude information.
- If this is airborne--what is the max altitude that DRS wants to fly? This is not airborne.
- Is the antenna omni-directional? If not, please indicate whether DRS is capable of blanking transmissions in certain azimuths and any limitations with respect to blanking. Antenna is omni-directional, fixed.
- Does DRS want to interrogate (transmit) on 1030 MHz as well as 1090 MHz--airborne transponders typically only transmit on 1090 MHz and receive on 1030 MHz--? Using the AT 1550 TSO transceiver, we will transmit only on 1090 MHz. The IFF transceiver will receive this signal. This will be the test signal for the IFF.
- If DRS will be transmitting on 1030 MHz, what modes of operation does DRS want to operate in (Modes 1, 2, 3A, 3C, 4, 5, Mode-S)? Is this a TCAS and that is all that the 1030 MHz transmissions are needed for? Airborne Mode 4 and/or 5 operations will be very difficult if not impossible to get authorization for and airborne Mode-S is not authorized. We will not transmit on 1030 MHz using the AT 155 TSO transceiver. However, we will transmit on 1090 MHz using the AT 155 TSO transceiver in modes A and C.
- Who is this product going to be sold to? Is this confined to overseas customers or US

customers? This product is confined to overseas customer, the Italian Air Force.

- Does the waveform meet all of the required ICAO Annex 10 requirements and appropriate RTCA Document? TSO compliance – Meets latest FAA Industry TSO C47c Class 1A.

- If this is for a long term testing program, why is this an application for a temporary license? This is a short term program and we need a temporary license to test system software.

What is the real time requirement? This is not a long-term project relative to the time we need authorization to transmit into air space. Our delivery date is August 2005. IFF is a subsystem to the larger overall design of the Remote Threat Emitter Simulator design for the Italian Air Force. We need license during the period required to integrate and test and to assist in developing target-processing software.