From: Pete Mastin

To: Doug Young
Date: November 20, 2012

Subject: Request for Info - File #0180-EX-ML-2012

Message:

The Helicopter Autonomous Landing System (HALS) ? Degraded Visual Environment Operational Needs Statement (DVE ONS) has two modes of operation. One is for landing and the other is for enroute flight. The CONUS application is to allow operation while enroute between test sites.

In landing mode the pulse width is 39 nanoseconds at a pulse repetition frequency (PRF) of 70 kHz. For enroute mode, the pulse width is 416 nanoseconds at a PRF of 35 kHz.

The peak output power of the transmitter is 1 watt and the antenna gain is 40 dBi. The peak effective radiated power (ERP) is then 70 dBm or 10 kW. The submitted Form 442 has an error as it states the peak ERP is 40 kW.

In landing mode, the average output power of the transmitter is 2.73 mW and the average ERP is 27.3 watts. Enroute mode has an average transmitted power of 14.56 mW and an average ERP of 145.6 watts.

In the development phase of HALS, the peak transmitted power was much lower due to constraints in device technology.