

HARRIS CORPORATION
EXPERIMENTAL LICENSE APPLICATION
FILE NO. 0265-EX-PL-2012
MAY 2012

EXHIBIT I
DESCRIPTION OF EXPERIMENT

Harris Corporation ("Harris") hereby requests an FCC experimental authorization license to conduct experimental testing using the equipment identified herein operating in the 2212 MHz, 2237 MHz, and 2252 MHz bands. Harris is currently conducting experimental tests of this equipment pursuant to an extension of Special Temporary Authority ("STA") granted on December 15, 2011 (Call Sign: WE9XPW; File No. 0761-EX-ST-2011). Pursuant to Section 5.61(b) of the FCC rules, 47 C.F.R. § 5.61(b), this application for permanent authorization is being filed within fifteen (15) days of the STA expiration date of June 15, 2012. Harris intends to continue the experimental testing as authorized by STA pending disposition of the permanent authority application.

The purpose for this experimental authorization license request is to provide continued application support and conduct further experimental testing of the SeaLancet (RT-1944/U) radio system, in order to characterize performance characteristics in ground based and airborne relay operations. The testing objective is to gather data on range, link rate, and data throughput of a wireless radio technology.

Testing will consist of an air node carrying up to 2 SeaLancet (Rt-1944/U) radios that will act as a relay to one or more ground nodes. Each SeaLancet system is comprised of the RT-1944/U radio, transmit and receive amplifier, filter and antenna. The filter will be a 20 MHz Band pass at the approved frequencies. This filter eliminates transmit and received radiated signals outside our approved frequencies. The air node will have a small blade antenna on the underside of the plane while the ground node will either have a Directional or Omni pattern antenna. During the testing the air node will fly at different altitudes and distances while test data is transmitted. RF signal strength and bandwidth performance data will be recorded to determine the actual characteristics of the system. Distances of up to 100 miles and altitudes from 3000 feet to over 10,000 feet will be tested. These measured values will be used to validate models that have been developed to predict the performance of the system over the varying conditions.

Harris acknowledges that all experimental operations conducted in the requested bands will be on a non-interference basis. However, to the extent necessary, Harris will utilize its best efforts to avoid and minimize interference. All network traffic will be simulated traffic only, solely for evaluation purposes and not for the purpose of providing network data communications services to user stations. Harris will adhere to any Special Conditions placed on the permanent experimental license as it did for the previously obtained STA.

Because the equipment is technically incapable of providing station identification, Harris respectfully requests a waiver of the station identification provisions of Section 5.115 of the Commission's rules, 47 C.F.R. § 5.115.

Harris submits that a grant of this application is necessary and in the public interest because it will advance national security efforts by contributing and assisting in the further development of a communications system utilized by the DOD.

The **stop buzzer contact** for this project is Scott Stewart, System Engineer at Harris, tel: 321-729-7941, mobile: (321) 591-9857, e-mail: sstewa02@harris.com.