HARRIS CORPORATION
EXPERIMENTAL SPECIAL TEMPORARY
AUTHORITY APPLICATION
FILE NO. 0387-EX-ST-2007
JULY 2007

EXHIBIT I
DESCRIPTION OF EXPERIMENT

Consolidated Response to Questions 4 and 5.

Harris Corporation ("Harris") hereby requests Special Temporary Authority ("STA") to conduct experimental testing using the equipment identified herein operating in the 4696 - 4718 MHz band.

The experimental STA being requested by Harris is necessary for testing in connection with development efforts with the United States Army for the Warfighter Information Network – Tactical ("WIN-T") and Future Combat Systems ("FCS") programs. Harris and Northrop Grumman have been collaborating their efforts to deliver enhanced capabilities to the Federal Government and the U.S. Armed Forces to address requirements under the WIN-T program. This collaboration will culminate in a demonstration for the Army, Navy, Air Force and other interested parties beginning on August 13, 2007.

The experiment consists of 5 Highband Network Radio ("HNR") nodes, operating at the Harris and Northrop Grumman facilities. Three HNR nodes will be at the Harris facility in Palm Bay, FL – two nodes will be fixed/base antennas, one node will be a High Mobility Multipurpose Wheeled Vehicle ("HMMWV") with an HNR mounted on an extendable (10 meter) mast. Two HNR nodes will be at the Northrop Grumman facility in Melbourne, FL – one node mounted on a rooftop building, one node mounted to a Cessna aircraft will operate from the Melbourne, FL airport and transmit from an operating area south and west of Palm Bay, FL.

Equipment used in this experiment will consist of the HNRv2 Highband Network Radio, manufactured by Harris. The HNRv2 is comprised of four elements: 1) the Baseband Processing Unit; 2) the Highband RF Unit ("HRFU") (consisting of an upconverter, a High-Powered Amplifier ("HPA"), a Switched Beam Antenna ("SBA"), a Low-Noise Amplifier ("LNA"), and a downconverter); 3) an Inertial Navigation Unit ("INU"); and 4) a GPS device. The INU and GPS will be used only at the mobile nodes.

These experiments will showcase technologies to the military that are either extremely limited or unavailable. The experiments are focused on demonstrating solutions for DoD's Global Information Grid ("GIG") Airborne Crosslink Backbone Network.

Contribution to radio technology includes delivering a mobile ad-hoc network to the U.S. Armed Forces. This mobile ad-hoc networking capability will greatly increase the functionality of the military by providing true Networked Communications On The Move to facilitate the timely availability of sophisticated Situational Awareness to the commanders as well as individual ground troops.

As shown in the attached database search using the Commission's Universal Licensing System (ULS), there are no active FCC licensees are operating in the 4696 – 4718 MHz band within a 50 kilometer radius of the proposed centerpoint of operations for each of the five locations. Nonetheless, Harris recognizes that its experimental operations in this band are to be conducted on a non-interference basis.

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.

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 submits that a grant of an experimental STA is necessary and in the public interest because it will advance national security efforts.