

**HNS License Sub, LLC
FCC Form 442 - Application for Experimental License
Attachment A – Question 7: Experimental Description
Date: January 30, 2006**

Attachment A

HNS License Sub, LLC (“HNS”) hereby submits this application to convert HNS’ existing experimental special temporary authorization, call sign WC9XET, to a permanent experimental license for the purpose of continued domestic testing, demonstration and training operations of up to two mobile terminals using the Ku-band and Ka-band frequencies as previously authorized.

Background

On June 3, 2005 the FCC granted HNS’ application for an experimental special temporary authorization, call sign WC9XET (0207-EX-ST-2005), permitting HNS to operate satellite terminals mounted on a High Mobility Multipurpose Wheeled Vehicle (“HMMWV”) using Ku-band frequencies. On October 27, 2005, the FCC granted HNS’ application (0573-EX-ST-2005) to modify station WC9XET to include operations on Ka-band frequencies as well.

The HMMWV test vehicles were developed by General Dynamics as advanced communications resources for the US Department of Defense (DOD).¹ The test vehicles are equipped with a 60 cm antenna, a 15 watt amplifier, the accompanying baseband equipment and an automatic pointing system. As explained in HNS’ original and modified applications for WC9XET, HNS sought an experimental STA in response to DOD requirements for the development of small, high throughput terminals that can be used by military commanders for command, control communications, computers and intelligence surveillance and reconnaissance (C⁴ISR).

Request for Permanent License and Operation of Facilities

By this application, HNS requests permission to operate its experimental facilities pursuant to a permanent license, rather than by special temporary authorization. No changes in the technical parameters of the new license are proposed from those previously authorized under WC9XET.² The mobile terminals will be operated in conjunction with the HNS VSAT hub located in Germantown, MD, which is licensed by the FCC under call sign E000166. While the E000166 hub is licensed to provide VSAT service in the U.S. on multiple spacecraft, the test of these mobile terminals will be limited to either Galaxy 10-R satellite located at 123.0 degrees West Longitude or SATMEX-5 located at 116.8 degrees West Longitude.

¹ General Dynamics’ experimental license application, OET file number 0640-EX-ST-2004, granted 11/24/2004, Call Sign WC9XAP.

² See HNS’ Experimental STA applications, OET file numbers 0207-EX-ST-2005 and 0573-EX-ST-20005, for a complete technical showing.

HNS expects to continue to conduct testing of the prototype terminals at the same limited number of controlled test ranges identified in its existing Experimental STA. The list of locations set forth below includes sites where the terminal's performance can be adequately assessed, as well as locations of a number of military bases and headquarters where demonstrations are expected to take place. These sites, which are identical to those previously authorized under WC9XET, consist of the following areas:

- a. Within a 55 kilometer radius around HNS headquarters, located at N39 10' 49", W77 14' 47";
- b. Within a 55 kilometer radius around Ft. Huachuca, Arizona, located at N31 33' 09", W110 20' 50";
- c. Within an 80 kilometer radius around Ft. Monmouth, New Jersey, located at N40 18' 25", W74 02' 24";
- d. Within a 5 kilometer radius around the Vertex RSI Richardson, Texas facility, located at N32 58' 27", W96 42' 15";
- e. Within a 5 kilometer radius around the General Dynamics facility in Tauton, Massachusetts, located at N41 57' 05", W71 07' 48";
- f. Within a 5 kilometer radius around Fort Gordon, Georgia, located at N33 24' 36", W82 08' 24";
- g. Within a 5 kilometer radius around Vertex RSI facility in Duluth, Georgia, located at N33 55' 10", W84 16' 12";
- h. Within a 5 kilometer radius around Coherent Systems, Fredericksburg, Virginia facility, located at N38 19' 50", W77 28' 56".

Grant of this application would allow HNS to continue the development of small, high throughput terminals required by the DOD and that can be used by the U.S. military for command, control communications, computers and intelligence surveillance and reconnaissance (C⁴ISR).