NORTHROP GRUMMAN MISSION SYSTEMS
15120 Innovation Drive
San Diego, CA 92128
858-592-3296
Email: paul.wulff@ngc.com

February 4, 2008

Federal Communications Commission
Experimental Radio Services
P.O. Box 358320
Pittsburgh, PA 15251-5320

Dear Sir or Madam:

Northrop Grumman Space & Mission Systems Corp. ("NGMS") hereby requests an expedited grant of Special Temporary Authority ("STA") to operate a fixed experimental radio station facility, as detailed below, for a 180-day period beginning on February 15, 2008. Under the Counter Radio-Controlled Improvised Explosive Device Electronic Warfare ("CREW") program and pursuant to contract number N00024-08-C-6309, NGMS is developing systems for the Department of Defense to help troops in the field to counteract roadside bombs that are triggered by radio control, improvised explosive devices. The STA requested herein is necessary to allow NGMS to test the CREW system's embedded GPS receiver and external antenna within chambers at NGMS's facilities located at 15120 Innovation Drive, San Diego (San Diego County), California (NAD83: NL 32-59-31; WL 117-04-48)

The proposed fixed experimental radio station facilities will utilize a NavTech GPS Repeater Kit, GPSRK, comprised of a roof receiver antenna located on the exterior of the building that is cabled to a transmit antenna mounted inside a screen room chamber within the building, which would re-radiate the GPS signal. The re-radiated signal will remain within the screen room chamber. The repeater kit will re-radiate GPS frequencies L1 at 1575.42 MHz and L2 at 1227.60 MHz, with an emission designator of 24M0G1D and a power of -81.7 dBm EIRP. Please refer to the table below for the link budget analysis to compute the EIRP at a 100 foot distance from the radiating element.

Received Power on Earth	-136.2dBm
Receive Antenna Gain	38dBic
Losses in 200 ft./LMR-400	-5.5dB
Connector Losses	-1.0dB
Amplifier Gain	20.0dB
Pwr in to Re-rad Antenna	-84.7dBm
Gain of Re-rad antenna	3.0dBic
Re-rad eirp	-81.7dBm
Screen room attenuation	-92dB
RF Level outside ScreenRoom	-173.7dBm
Free Space loss at 100 ft.	-63.9dB
RF Power Level at 100 ft.	-237.6dBm

The stop buzzer contact to terminate operations for the program is Mr. Paul Wulff (Cellphone: 858-774-8513; Office: 858-592-3296).

NGMS also requests expedited processing of this requested for STA due to the obvious national security and life-saving nature of the program and to facilitate the quick deployment of this equipment into the field.

Respectfully submitted,
NORTHROP GRUMMAN SPACE &
MISSION SYSTEMS CORP.

By: Paul Wulff
Paul Wulff
Manager, Specialty Engineering