NORTHROP GRUMMAN SYSTEMS CORPORATION
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December 2, 2004

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

Dear Sir or Madam:

Northrop Grumman Systems Corporation ("Northrop Grumman") hereby requests a 180-day extension, and minor modification, of the grant of Special Temporary Authorization ("STA") under Call Sign KA2XGP (File No. 0352-EX-ST-2004) to operate fixed/base experimental radio facilities at Linthicum (Anne Arundel County), Maryland (NAD-83 coordinates 39-11-05 NL; 76-42-23 WL). The STA under File No. 0352-EX-ST-2004 will expire on December 19, 2004.

Northrop Grumman requests this extension of STA in order to continue to operate its antenna measurement range facility, which provides Northrop Grumman the flexibility to evaluate a wide range of antenna design concepts and to verify the performance of production units. Northrop Grumman has numerous contracts with various agencies of the U.S. Government that involve matters of national defense and homeland security, and this antenna measurement range facility enables Northrop Grumman to fulfill those contracts. The facility also enables Northrop Grumman to develop and test new systems in anticipation of future U.S. Government contracts, and fulfill its contracts with various foreign military and civil aviation agencies.

The antenna measurement facility range consists of a range control building with numerous antenna positioners, which are located at various elevations on the building, and a 500 meter ground range. The antenna range has an assortment of source antennas from 12dBi gain horns to 31dBi gain parabolic dishes. The selection of source antenna varies with frequency, distance, and size of antenna to be tested. An antenna under evaluation is illuminated by an unmodulated radio frequency position such that the boresight faces the source and the reference receive signal strength is taken. The antenna is positioned at various angles of azimuth and elevation, with relative receive signal strength measurements taken as the antenna moves. This test method makes the most precise measurement of antenna gain patterns possible.

Northrop Grumman requests that the extension of STA cover both CW and pulsed emissions at the following non-government frequencies and authorized power levels:

Frequency	Station Class	Emission Designator	Authorized Power
450-608 MHz	FX	N0N	1 W (ERP)
614-806 MHz	FX	N0N	1 W (ERP)
1429.5-1435 MHz	FX	N0N	100 W (ERP)
1850-1990 MHz	FX	N0N	100 W (ERP)
1990-2025 MHz	FX	N0N	100 W (ERP)
2305-2319 MHz	FX	N0N	100 W (ERP)
2346-2360 MHz	FX	N0N	100 W (ERP)
2385-2390 MHz	FX	N0N	100 W (ERP)
2450-2690 MHz	FX	N0N	100 W (ERP)
3600-4200 MHz	FX	N0N	100 W (ERP)
4500-4800 MHz	FX	N0N	100 W (ERP)
5925-7125 MHz	FX	N0N	100 W (ERP)
10700-12200 MHz	FX	N0N	100 W (ERP)

The frequencies sought above will be used in conjunction with government frequencies that have been requested under a separate STA (File No. 0501-EX-ST-2003), which is pending before the Commission.

Northrop Grumman requests this amount of spectrum to measure the greatest range of antennas possible with minimal cost to its customers and lead time. Antenna pattern measurements requiring higher radiated power levels will continue to operate under separate authorizations.

I certify that I am an authorized employee of Northrop Grumman Systems Corporation.

Respectfully submitted,
NORTHROP GRUMMAN SYSTEMS CORPORATION

By: /s/ Jan E. Sochurek.
Jan E. Sochurek
Spectrum Licensing Specialist