

NORTHROP GRUMMAN SYSTEMS CORPORATION

1745A WEST NURSERY ROAD

LINTHICUM, MD 21090

Phone: 410-765-5626

Email: jan.sochurek@northropgrumman.com

October 13, 2004

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

Dear Sir or Madam:

Northrop Grumman Corporation ("Northrop Grumman") hereby requests a 180-day grant of Special Temporary Authority ("STA") to operate fixed/base and airborne mobile experimental radio systems at and around the following location: Sussex County Airport, Georgetown (Sussex County), Delaware (NAD-83 coordinates 38-41-34 N and 075-21-53 W) with a 20 nautical mile radius around this location.

As part of an internal research and development project, Northrop Grumman is required to test an electronically scanned phased array antenna consisting of ground fixed/base and airborne transmitter units. In the future, Northrop Grumman may receive orders for this equipment from the United States government. Testing is scheduled to commence on or about November 1, 2004.

The experimental transmissions at this location will involve a Northrop Grumman transmitter that will produce 12.8W of average power while transmitting at a frequency range of 16.5 GHz with a bandwidth of 1200 MHz. The antenna has a gain of 31.6dBi. The pulse repetition frequency (PRF) is 7 to 11 kHz, the pulse width is 30 μ Sec, and emission designator is 1G20M0N. In conjunction with this airborne transmitter, a ground based target generator having the same frequency range and bandwidth as the airborne unit will be used to create a complete system. The target generator will produce 20W of average power. The antenna has a gain of 7dBi and an emission designator of 1G20M0N.

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

Respectfully submitted,
NORTHROP GRUMMAN SYSTEMS CORPORATION

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