

EXHIBIT A

Northrop Grumman Systems Corporation ("Northrop Grumman") respectfully requests a experimental radio station license to cover facilities it has applied for in an application for modification of the grant of Special Temporary Authority ("STA") under Call Sign WC9XAJ to operate fixed and airborne mobile experimental radio facilities. The experimental license is required to support an internal research and development project, in which Northrop Grumman is testing an electronically scanned phased array antenna. In the future, Northrop Grumman may receive orders for this equipment from the United States government. Northrop Grumman requests a two year license term to cover the operations at the facilities.

Northrop Grumman requests the experimental license to cover the following proposed operations:

1. The following rectangular zones for operation of experimental airborne mobile transmitter flight tests:

- Zone 1. The area within NAD-83 coordinates: 39-17-26 N, 076-43- 40 W; 39-53-06 N, 075-35-47 W; 39-43-59 N, 075-24-48 W; and 39-08-29 N, 076-32-33 W (excluding restricted airspace).
- Zone 2. The area within NAD-83 coordinates: 39-09-37 N, 076-34-15 W; 39-09-37 N, 075-20-48 W; 38-51-56 N, 075-20-48 W; and 38-51-58 N, 076-34-19 W (excluding restricted airspace).
- Zone 3. The area within NAD-83 coordinates: 38-34-18 N, 075-53-17 W; 39-48-31 N, 074-44-12 W; 39-26-35 N, 073-59-01 W; and 38-12-58 N, 075-08-06 W (excluding restricted airspace).

The experimental transmissions listed above in Zones 1, 2 and 3 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 µSec, and emission designator is 1G20M0N.

2. The following area of operation of experimental airborne mobile transmitter flight tests:

- Zone 4. The area within a 320 km radius around the counterpoint of NAD-83 coordinates: 39-11-08 N, 076-42-11 W (excluding restricted airspace).

The experimental transmissions listed above in Zone 4 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 600 MHz. The antenna has a gain of 31.6dBi. The pulse repetition frequency (PRF) is 7 to 11 kHz, the pulse width is 30 µSec, and emission designator is 600M0M0N.

The flight tests in Zones 1, 2, 3 and will occur at intervals of approximately 2 weeks, and each flight will have a duration of around 2 hours. Transmissions will occur intermittently during a flight in Zone 4, and will always be within a 320 km radius of around the counterpoint of NAD-83 coordinates: 39-11-08 N, 076-42-11 W. Transmissions in Zones 1, 2 and 3 will have very short durations and will be strictly limited to the three rectangular zones identified above. No operations in Zones 1, 2 and 3 will occur within 10 km of any ASDE3 system (i.e., Baltimore Washington International Airport).

3. Northrop Grumman requests authority to operate an experimental fixed transmitter at Linthicum (Ann Arundel County), Maryland (NAD-83 coordinates: 39-11-08 N, 076-42-11 W). These experimental transmissions will continue to involve a Northrop Grumman transmitter that will produce 12.8W of average power while transmitting at a frequency range of 16.5 GHz with bandwidths of 60 and 180 MHz. The antenna has a gain of 25dBi. The pulse repetition frequency (PRF) is 7 to 11 kHz, the pulse width is 30 µSec, and emission designators are 60M0M0N and 180M0M0N.

4. Northrop Grumman requests authority to operate a fixed/base and airborne mobile experimental radio systems within a radius of 20 nautical miles around the following location: Sussex County Airport, Georgetown (Sussex County), Delaware (NAD-83 coordinates 38-41-34 N and 075-21-53 W). These experimental transmissions 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 µSec, 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.