

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XD FX MO

(Class of Station)

WD2XTQ

(Call Sign)

0215-EX-PL-2005

(File Number)

NAME Northrop Grumman Systems Corporation

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(i) of the Commission's Rules

Station Locations

- (1) Georgetown (SUSSEX), DE - NL 38-41-34; WL 75-21-53; MOBILE: Airborne up to 3,660 meters within a radius of 50 kilometers around Sussex County Airport (38-41-34 N and 075-21-53 W), within 50 km, centered around NL 38-41-34; WL 75-21-53
- (2) MOBILE: Mobile: Zone 1. Airborne 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), with a maximum altitude of 3,660 meters.
- (3) MOBILE: Mobile: Zone 2. Airborne 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), with a maximum altitude of 3,660 meters.
- (4) MOBILE: Mobile: Zone 3. Airborne 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), with a maximum altitude of 3,660 meters.
- (5) MOBILE: Mobile Zone 4. Airborne (excluding restricted airspace), with a maximum altitude of 3660 meters, within 320 km, centered around NL 39-11-08; WL 76-42-11
- (6) Linthicum (ANNE ARUNDEL), MD - NL 39-11-08; WL 76-42-11

Frequency Information

Georgetown (SUSSEX), DE - NL 38-41-34; WL 75-21-53; MOBILE: Airborne up to 3,660 meters within a radius of 50 kilometers

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.5 GHz	MO	1G20M0N	28.2 kW (ERP)	

This authorization effective September 19, 2006 and
will expire 3:00 A.M. EST October 01, 2008

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Georgetown (SUSSEX), DE - NL 38-41-34; WL 75-21-53; MOBILE: Airborne up to 3,660 meters within a radius of 50 kilometers

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.5 GHz	FX	1G20M0N	61.1 kW (ERP)	

MOBILE: Mobile: Zone 1. Airborne 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), with a maximum altitude of 3,660 meters

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.5 GHz	MO	600MM0N	28.2 kW (ERP)	

MOBILE: Mobile: Zone 2. Airborne 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), with a maximum altitude of 3,660 meters

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.5 GHz	MO	600MM0N	28.2 kW (ERP)	

MOBILE: Mobile: Zone 3. Airborne 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), with a maximum altitude of 3,660 meters

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.5 GHz	MO	600MM0N	28.2 kW (ERP)	

Frequency Information

MOBILE: Mobile Zone 4. Airborne (excluding restricted airspace), with a maximum altitude of 3660 meters, within 320 km, centered around NL 39-11-08; WL 76-42-11

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.5 GHz	MO	600MM0N	7.7 kW (ERP)	

Linthicum (ANNE ARUNDEL), MD - NL 39-11-08; WL 76-42-11

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.5 GHz	FX	60M0M0N	7.7 kW (ERP)	
		180MM0N		

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (3) At the Sussex County Airport, Georgetown (SUSSEX), DE, the 1200 MHz bandwidth shall only be used on the ground.
- (4) When flying and operating with a 1200 MHz bandwidth, the aircraft must maintain a distance of at least 50 km from the following locations/coordinates:

Atlantic City, NJ	392721N 0743526W
Philadelphia, PA	395154N 0751400W
Baltimore, MD	391045N 0764010W
Andrews AFB, MD	384817N 0765240W
Dulles Arpt, VA	385705N 0772652W

- (5) Airborne transmissions using the 600 MHz bandwidth are authorized throughout the proposed Sussex County Airport, Georgetown (SUSSEX), DE area of operations.
- (6) Airborne transmissions are to be made only when the aircraft is level or banking right.
- (7) Northrop Grumman should be aware that U.S. Navy operations at Dahlgren, VA, (382029N, 0770307W) are licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (8) Northrop Grumman should be aware that other U.S. Navy and U.S. Air Force operations are licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.