Northrop Grumman Systems Corporation
Experimental License Request
File No. 0871-EX-CN-2026

EXH. 1 - REQUEST FOR EXPERIMENTAL AUTHORIZATION

Northrop Grumman Systems Corporation ("Northrop Grumman") hereby requests an experimental license to permit fixed/ground based mobile and airborne mobile testing utilizing the S-Band frequency range between 2292.5 MHz to 2312.5 MHz. The frequencies requested are necessary to continue daily R&D, testing, and operational flights for multiple Northrop Grumman programs including Talon IQ, IRAware, SMARTER, Talon Blue, & others.

Operations involve use of ethernet based datalink radios used for telemetering flight data and providing network connectivity between airborne aircraft and ground stations. This data is used in realtime during flight test activities for ensuring aircraft performance and payload operations.

The fixed/ground-based mobile stations will be located at the following locations within a 20 km operating radius and will communicate with the airborne aircraft:

City	County	State	Street Address	Lat/Lon
Mojave	Kern	CA	1624 Flight Line	35° 03' 24" N 118° 09' 39" W
California City	Kern	CA	5R92+RGP	35° 10' 11" N 118° 11' 55" W

The airborne mobile aircraft will operate within a 400 km radius (at a maximum altitude of 60,000 feet AMSL) of the following location:

City	County	State	Street Address	Lat/Lon
Mojave	Kern	CA	1624 Flight Line	35° 03' 24" N 118° 09' 39" W

The equipment to be utilized under this experimental authorization includes:

Manuf.	**Model Nos.**	**# Units**	**Exp?**
Silvus Technologies	SC44K0E-235-SBST	1	No
Silvus Technologies	SC4410E-235-SBST	1	No
Triad RF	TTRM1123D	8	No
Triad RF	TTRM1284D	4	No
NuWaves RF Solutions	NW-BA-DUAL-S-50-C01-S01	4	No

Directional antenna information:

(a) Width of beam in degrees at the half-power point: 6.7° HPBW
(b) Orientation in horizontal plane: 360° Continuous Rotation (tracking antenna)
(c) Orientation in vertical plane: 0-90° Variable Elevation (tracking antenna)

Technical parameters:

Frequency		Power	ERP	Tolerance	Emission Designator	Modulating Signal	Digital modulation rate	Digital modulation type
Lower	**Upper**							
2292.5 MHz	2312.5 MHz	200W	221W	5.0E-6 %	22M6D7W	64 QAM 5/6	130	QAM

NGSC acknowledges that all experimental operations conducted in the requested bands will be on a non-interference basis and that it will not conduct Jamming, Spoofing, Electronic Attack, and/or Directed Energy Attack under this experimental license.

The **stop buzzer contact** for this project will be Dave Hoyt, Systems Engineer, Northrop Grumman Corporation Aerospace Systems; O: 858-618-8797 | C: 408-813-4562 | david.hoyt@ngc.com