

Northrop Grumman Systems Corporation
Experimental License Request
File No. 0943-EX-CN-2026

EXH. 1 - REQUEST FOR EXPERIMENTAL LICENSE

Northrop Grumman Systems Corporation ("NGSC") hereby requests a conventional experimental license¹ which will allow it to continue experimental testing and evaluation of two radar systems.² Testing and evaluation will utilize the FLIR/Teledyne Ranger R1 and Echodyne EchoGuardCR radar systems and will be conducted at the NGSC Rancho Carmel facility located at 15120 Innovation Drive, San Diego, CA (San Diego county), 32° 59' 31" NL, -117° 4' 42" WL.

FLIR		Echodyne	
Manufacturer	FLIR/Teledyne	Manufacturer	Echodyne
Model	Ranger R1	Model	EchoGuardCR
Model No.	STS-1400	Model No.	700-0005-203-110
Lower Freq.	34.7	Lower Freq.	24.45
Upper Freq.	35.25	Upper Freq.	24.65
Freq. Unit	GHz	Freq. Unit	GHz
Power	0.33 W (FastScan) 0.27 W (Doppler)	Power	0.25 W
Pwr. Unit	Watts	Pwr. Unit	Watts
ERP	0.8	ERP	31.62
ERP Unit	Watts	ERP Unit	Watts
Mean/Peak	P	Mean/Peak	M
Freq. Tol. +/-	5 ppm	Freq. Tol. +/-	8 ppm
Emission Designator	500MF3N for channels centered at 34.950 GHz 500MF3N for channels centered at 35.000 GHz, 100MF3N for channel centered at 34.800 GHz 52MF3N for channels centered at 35.026 GHz	Emission Designator	47M9FXN
Fixed/Mobile	Fixed (Transportable)	Fixed/Mobile	Fixed
Modulating Signal	Frequency modulated continuous wave	Modulating Signal	Saw Tooth
Antenna info	Manufacturer: FLIR Radars Number: STS 1400 Nomenclature / Name: Ranger R1; Antenna Type: Dielectric lens fed with waveguide horn; Orientation (Horizontal and Vertical position): Horizontal mechanically scanned	Antenna info	Manufacturer: Echodyne Number: 700-0005-203-110 Nomenclature / Name: EchoGuard-CR Antenna Type: MESA (dBi): 21 dBi Orientation (Horizontal and Vertical position): Horizontal

NGSC acknowledges that all experimental operations conducted in the requested band 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 authorization.

The **stop buzzer contact** for this project will be Chris Burchett, NG Engineer, Tele #858-414-5983.

¹ NGSC had previously obtained STA under Call Sign WB9XTK (File #0968-EX-ST-2026). Owing to program requirements this conventional license is being requested.

² The original STA request was necessary to complete a trade study relating to government contract number FA8219-20-C-0006. Testing under the program will continue.