

Northrop Grumman Systems Corporation (NGSC) Application for Experimental License

Northrop Grumman Systems Corporation (NGSC) submits this application for an experimental license for the purpose of conducting developmental tests of a core technology baseline for a future S-Band shipboard navigation radar. This radar will be based on a software-defined solid state transceiver and a mechanically rotated active patch-array antenna.

Pulse Width(s) & PRF(s) are:

Operating Modes	Transmitted pulse width (ms)	Bc = Frequency Sweep (MHz)
0	0.075	0
1	7.5	20
2	37.5	4
3	112.5	1.3

The antenna to be used is a prototype manufactured by Northrop Grumman for this purpose. It is an active patch array, mechanically scanned, with the below specifications:

Antenna Gain (dBi): 23.6dBi
Main Beam Width: 2 degrees
Scan Rate: 24 and 48 RPM, nominal
Polarization: Horizontal