RMD Experimental License Planning
Information Request

The following information request will help us to complete and file an application for an experimental license. The information requested is generally needed both for the application and for coordination requirements that will be part of the application processing. Please provide as much complete information as possible. There will be questions – on your part and on the part of the filing team. To discuss, please contact your spectrum manager James Ortega at: 520-794-0227

Table of Information – FCC application:

Name of program: Naval Strike Missile (NSM)
Charge Number for labor and license fee (may be different): 601643889 PIIP
Dates license required (account for logistical need and readiness reviews prior to testing):
1 February 2023 - 31 January 2024

Administrative Questions:	**Information:**
Formal Name of Applicant:	**Raytheon Technologies (Missiles & Defense)**
Address of applicant	**P.O. Box 11337** **Tucson, AZ 85734-1337**
Contact name for application Phone number e-mail	RMD Spectrum Manager: Jim Ortega, 520-794-0227, james.e.ortega@raytheon.com
FRN	**0008658098**
Is there a federal contract? What number? What is the government program office?	**DOD Contract #:** M67854-22-D-1000
Is Confidentiality Needed?	**No**
Technical Questions:	**Information:**
Address of experiment (including city, state, county)	153 Langtree Campus Dr Suite 401, Mooresville, NC 28117
Geographic coordinates: (latitude and longitude)	35.519230, -80.861500
Radio manufacturer	Raytheon Technologies
Radio(s) model number(s)	AN/PRC-164
Number of units to be used	20
Outdoor transmitter information: What is the height of the transmitter?	13 feet

What structure will it be installed on? What is the overall height of the structure?	Tripod
Location of experiment: Indoor? Outdoor? Mobile, fixed? Radius of Operations? If outdoor, what features of the area might attenuate signals?	Outdoor / Mobile. Test area (parking lot) to be at the base between two (2) buildings that are have a minimum height of 50feet.
Spectrum and transmission characteristics questions:	**Information:**
What spectrum is requested?	225.0000 MHz - 450.0000 MHz (422.75MHz to be used)
Will the spectrum use be pulsed or CW?	Pulsed (192 pps)
Will the frequencies be stepped through, swept through, or used constantly?	Used constantly
How much time will the testing be conducted? (e.g., all day, workdays, or only 2 hours every two weeks?)	~2 hours per week, if testing is successful
What is the proposed power level: Output power, in watts? ERP, in watts:	5.0W
Antenna gain (in dBi), if any?	0-1 for Radiall, 4 for Shakespeare
Can the program tolerate any spectrum carve-outs?	Yes
What is the duty cycle?	<50%
Does this propose use of a directional antenna? If so, What is the half power beam width? What is the orientation in the horizontal plane? What is the orientation in the vertical plane?	No. N/A
What is the emission designator(s)?	1M20G2D
Stop Buzzer POC? (Name and Phone number)	**RMD SM:** **Program POC:** David Borski 520-429-5648

General Purpose of Testing:

(Please provide some general explanation of what the radio/radio transmissions will be used for. This information will help us create the required exhibit for the application.)

NSM will be integrating and checking out deliverable systems at Corvid Technologies in 2023. Part of this checkout process includes an over-the-air throughput test of the RF system.

In the event that FAA coordination is required, the following additional information is required:

Antenna Make e.g. Haigh-Farr, etc.	**Antenna Type:** Eg: dipole, panel, etc, and polarization	**Antenna Gain**	**Pulsed or CW? If pulsed, PRR, & pulse duration** Are frequencies Stepped, swept, or other	**Azimuth of operations**	**Site Elevation**	**Height of install**
Radiall	Vertical Polarization	0-1	pulsed, 192pps, single frequency	Omnidirectional	830' MSL	13' from ground
Shakespeare	Vertical Polarization	4	pulsed, 192pps, single frequency	Omnidirectional	830' MSL	13' from ground

Frequency Bands requiring FAA Coordination
(sample frequencies)
108-121.9375 MHz
123.0125 – 137 MHz
328.6-335.4 MHz
960-1020 MHz
1030 MHz
1090 MHz
2700-3000 MHz
5000-5250 MHz
9000-9200 MHz