

1: Purpose of Operation

Raytheon Integrated Systems (IDS) Radar development testing. Frequency authorization is being requested for the period of August 15, 2021- February 15, 2022 in Xband at frequencies between 9.35 – 9.45 GHz and 9.55 - 9.65 GHz, in order to test prototype radar arrays in a relevant environment. Outdoor testing, across multiple frequencies as noted above is required to assess hardware compliance with requirements and to continue research and development. Testing will demonstrate a Low Power X-Band Radar network providing 3D target tracking and weather detection. Ultimate goal is to replace existing rotating radars and to support mitigation of Windfarm clutter, UAS operations, and mitigate DoD and DHS capability gaps.

2: Technical Synopsis:

Spectrum needed:

9.35 – 9.45 GHz

9.55 – 9.65 GHz

Power levels requested:

160 W output power

953.4 kW ERP (peak) .

Location of use:

Flushing Meadows, Queens, NY. 40°44'46.79"N 73°50'42.48"W

Radius:

20 Km

Stop buzzer contact:

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File Number: 1002-EX-ST-2021

Class of Station: Mobile

Station Location: Mobile

Effective Date: 8/15/2021

Expiration Date: 2/15/2022

3: Experimental Explanation:

As detailed in paragraph 1 above, The Raytheon Low Power Radar 2 (LPR2) array is planned to be tested at Flushing Meadows, Queens, NY with a 20 Km radius. The purpose of this request for Experimental License is to test array compliance to RF performance requirements in a relevant environment.

This License is for a development and technical demonstration.

