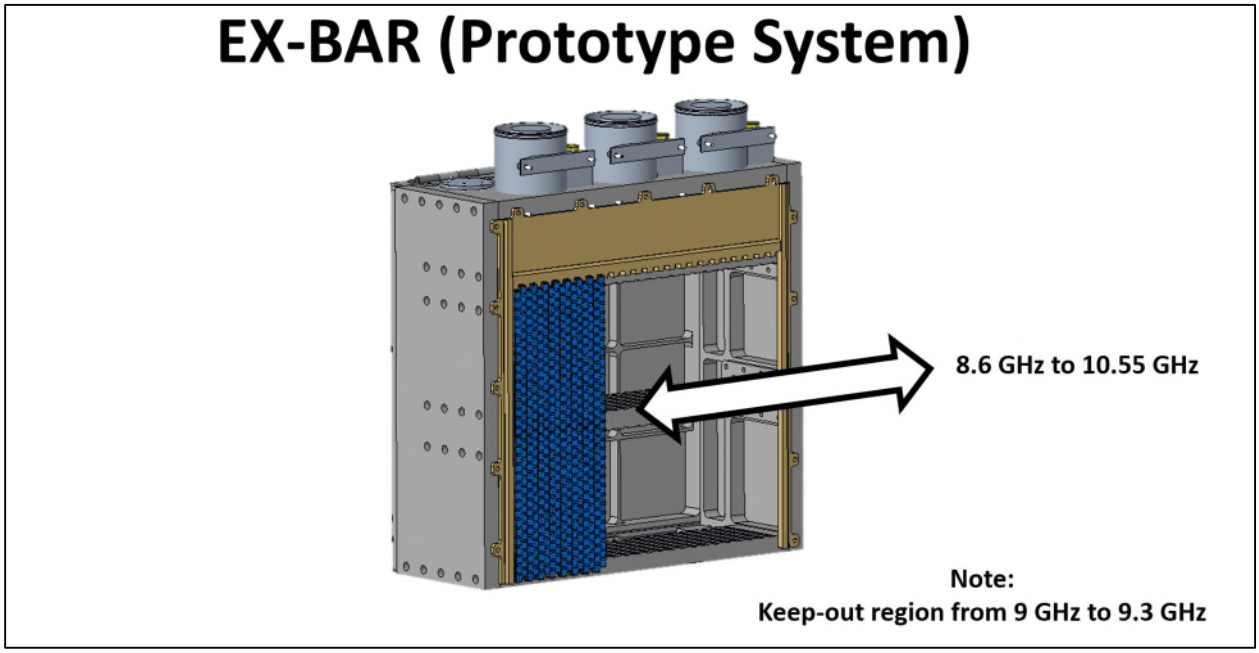
## DESCRIPTION OF OPERATIONS

Lockheed Martin Corporation hereby seeks authority under Part 5 of the Commission's rules to permit it to test and develop a prototype radar system in support of a United States Navy contract. The details of the radar system are below.

*Project Description.*

The EX-BAR (Enhanced X-Band Radar Resiliency) system is a dual-polarization, three-dimensional X-band phased array radar system based on the architecture developed under the Sentinel A4 and ARTS-V3 contracts. The EX-BAR system will support beyond visual range air defense surveillance and engagements. Lockheed Martin is committing to the development of this technology in support of an active U.S. Government contract with the United States Navy.

*Antenna Description.*




| **Gain at Antenna Broadside [dBi]** | **Azimuth Beamwidth [Degrees]** | **Elevation Beamwidth [Degrees]** | **Number of Simultaneous Beams** | **Antenna Array Aperture Size (L,H,D) [inches,cm]** | **Weight [lbs, kg]** |
|---|---|---|---|---|---|
| 31.5 dBi @ 8.6 GHz | 7.6 degrees @ 8.6 GHz | 3.0 degrees @ 8.6 GHz | 1 or 2 Transmit | 9.12” x 23.89” x 14”<br><br>23.16 cm x 60.68 cm x 35.56 cm | 792 lbs<br><br>359.25 kg |
| 33.3 dBi @ 10.55 GHz | 6.2 degrees @ 10.55 GHz | 2.4 degrees @ 10.55 GHz | 1 or 2 Transmit | 9.12” x 23.89” x 14”<br><br>23.16 cm x 60.68 cm x 35.56 cm | 792 lbs<br><br>359.25 kg |