The basic purpose of a radome is to protect antennae systems from the environment with minimal impact to electronic performance. Radome requirements typically include aerodynamic contour, structural and environmental reliability, and electromagnetic functionality.

General Dynamics Ordnance and Tactical Systems has over 60 years of experience designing and producing a wide array of radomes for both military and commercial platforms, including aircraft nose, wing, tail and fuselage. Radome applications include fire control, data link, SatCom, electronic counter-measures, electronic warfare and other specialized uses.

General Dynamics designs and produces radomes, ranging from standard applications to the most advanced technology, including military wide-band nose and commercial tri-band SatCom radomes.

Using an intelligent manufacturing approach, General Dynamics collaborates closely with the customer to choose the best design, process and materials to fit their needs for cost and performance. Our extensive experience allows us to apply real world knowledge to the design, qualification and manufacturing processes for successful overall system performance and minimal lifetime cost.

**FAST FACTS:**

**Key Capabilities:**
- Electrical (RF) design/analysis
- Structural design/analysis
- Mechanical design
- Tool design
- Material and process engineering
- Radio frequency (RF), radar cross section (RCS) and non-destructive testing (NDT)

**Facilities:**
- Approximately one million square feet of manufacturing space in Marion, Virginia
- Indoor and outdoor RF test ranges
- Large autoclaves (up to 10 feet in diameter and 50 feet in length)
- FAA Repair Station Certification Number VQR980L

The basic purpose of a radome is to protect antennae systems from the environment with minimal impact to electronic performance. Radome requirements typically include aerodynamic contour, structural and environmental reliability, and electromagnetic functionality.
Processes
Radomes are manufactured using either a hand lay-up or filament winding process. Construction types include solid laminate and sandwich structures with honeycomb or foam cores. Performance depends on the radome configuration and materials composition to the particular application and RF frequency range.

Testing
Our broad range of test capabilities ensures each radome meets structural loading, radio frequency transmission and other customer requirements.

PLATFORM EXAMPLES

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<th>Attack:</th>
<th>Cargo:</th>
<th>Commercial:</th>
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<td>F/A-18</td>
<td>C-130</td>
<td>737</td>
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Bomber: C-130

Electronic Warfare:

| EA-18G   |
| EA-6B    |

Commercial:

Boeing Tri-band Radome

Business Jet Nose and Tail Radomes

Thales Ku/Ka Radome

Boeing Ku Radome