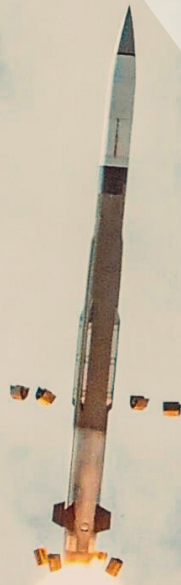


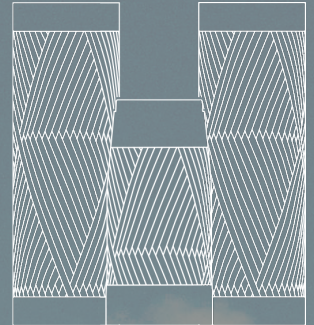
# COMPOSITE STRUCTURES

Missile Subsystems



COMPOSITE AEROSPACE STRUCTURES

COMPOSITE STRUCTURES



## High-performance lightweight composite structures

At General Dynamics Ordnance and Tactical Systems – Lincoln Operations, our skill and expertise in the use of composite materials is found in key product areas such as launch tubes, motor cases, pressure vessels, and composite structures. Missile midsections, seeker housings and underwater launch platforms highlight our current capability, while demonstrated past successes across various applications, positions us to meet your future composite structure needs.

Using an intelligent manufacturing approach, Lincoln Operations collaborates closely with the customer during the design phase to choose the best process and most appropriate materials to fit cost and performance goals. Manufacturing capabilities are complemented by a highly capable design group and a modern prototype development lab. Lincoln Operations uses state-of-the-art computer-aided modeling and structural analysis tools to design and verify the performance of new products.

**Products are manufactured using the latest in fibers and resin formulations to develop high strength, low cost filament wound products.**

Our engineers work directly with the customer's structural designers to develop and test these structures to meet requirements such as reliability; thermal resistance; high bending stiffness; and corrosion resistance.

### APPLICATIONS

- » Aircraft, bomb bodies, drive shafts, external fuel tanks, fuselage structures, interstages, kill vehicles, missiles and space, underwater launch platforms, warheads

### DESIGN, ANALYSIS, AND PRODUCTION PROCESSES

- » Compression Molding
- » Hand Lay-up
- » Automated Oven and Autoclave Curing
- » Welding Thin Aluminum
- » Machining
- » Drilling
- » Assembly
- » Painting
- » High-Pressure Cycle and Proof Testing
- » Radiographic Inspection and Ultrasonic Inspection