Aerospace materials & manufacturing leadership for the Air Force & the Nation

**Locations & Facilities**

**Wright-Patterson AFB**
- 257,000 net square feet
- 200 Lab Modules
- Designed specifically for aerospace materials and processes R&D

**Tyndall AFB**
- 128,000 net square feet
- 15 Lab Modules
- Specialized test sites
- Designed specifically for airbase technologies R&D

Principal Locations
- WPAFB, OH
- Kirtland AFB, NM
- EGlin AFB, FL
- Tinker AFB, OK
- Tyndall AFB, FL
- Robins AFB, GA
- Hill AFB, UT
- LA AFB, CA

Program Offices
- DLA
- PMO
- Collocates

Collocates
- Boeing
- Northrop Grumman
- Raytheon
- United Technologies
- Others
Propulsion
- Monopropellant Engine
- Hall Thrusters
- Ion Engines

Electric Power
- Solar Cell Manufacturing
- Polymer Wiring
- Battery Cases

Sensors
- IR Detectors
- Electro-optics

Thermal Management
- Thermal Control Coatings
- Thermal Planes
- Radiator Materials

Structures & Assemblies
- Dimensionally Stable Materials
- Long-life Lubes & Bearings
- Microelectromechanical Systems
- Multifunctional Materials
- Polymer Membrane Materials
- Mirror Substrate Materials
- Optical Films & Process Design
- Manufacturing

Communications, Power Control, & Microwave
- Photonic Materials
- Wide Bandgap Semiconductors

Hardening
- Filters
- Optical Limiters
Access Vehicle Materials Technologies

**Thermal Protection Systems**
- Hybrid & Cooled Leading Edges
- Highly Operable, Ceramic Acreage Panels
- Carbon-Carbon Nozetsips & Aeroshells
- Gamma Titanium Aluminide for Acreage Panels
- High Temperature Ceramics for Control Surfaces

**Rocket Engines**
- Turbopump Housing
- Rotating Machinery
- Lines, Ducts, & Valves
- Nozzles

**Airframe Structure & Subsystems**
- Light Weight, High Temperature Polymer Matrix Composites
- Thermal Management
- Polymer Wiring

**Vehicle Health Monitoring**
- Non-Destructive Evaluation
- Materials Degradation

**Cryotanks**
- Composite Compatibility
- Test Standards Development
- Composite Processing
- Composite Repair Techniques
- Scale-up of Aluminum-Lithium
Transformational Opportunities

- Advanced Optics
- Adaptive, Lightweight Materials
- Ultra-Sensitive Room-Temperature Infrared Detectors

- Anti-Charging Panels
- Light Weight Polymer Wire
- Ultra High Performance Tethers
- Embedded Sensors
- EM Shielding

BIOTECHNOLOGY
NANOTECHNOLOGY

TRANSFORMATIONAL CAPABILITIES
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