Air Force Research Laboratory

Air Force Research Laboratory (AFRL) is a full-spectrum laboratory responsible for planning and executing the Air Force's entire science and technology program. The largest laboratory complex in the Department of Defense, AFRL has a staff of about 6000 military and civilian personnel and an annual budget of nearly $3 billion, almost half provided by customers.

The AFRL mission is to lead the discovery, development and timely transition of affordable, integrated technologies that keep the Air Force the best in the world. AFRL is organized along technology disciplines into nine technology directorates plus the Air Force Office of Scientific Research.

Each technology directorate performs, procures and synthesizes basic research, exploratory technology development and advanced technology development within its area of responsibility. The directorates are: Space Vehicles Directorate, Air Vehicles Directorate, Information Directorate, Munitions Directorate, Directed Energy Directorate, Materials and Manufacturing Directorate, Sensors Directorate, Propulsion Directorate and the Human Effectiveness Directorate.

For more information on AFRL, visit www.afrl.af.mil, email public_affairs@afrl.af.mil or call (937) 656-9876.

Materials and Manufacturing Directorate

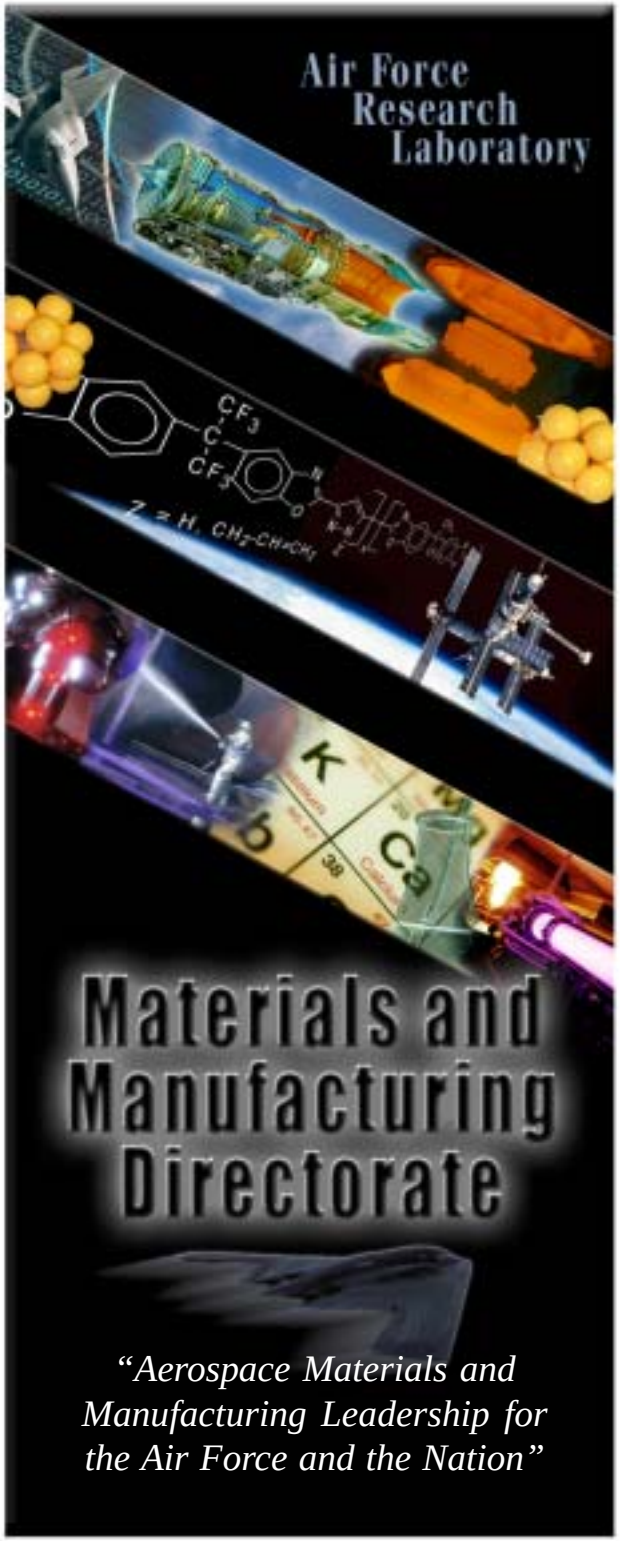
"Keeping the U.S. Air Force Strong Through Materials, Processes and Manufacturing Research"

Materials and Manufacturing Directorate

- More than 80 years of aerospace materials and manufacturing research and development
- Over 400 government scientists and engineers on staff
- More than one-half million square feet of modern research facilities
- Providing national leadership in aerospace materials, processes, and manufacturing

"One team, working together to grow stronger and to serve better, providing materials and manufacturing processes for the entire Air Force, emphasizing technical leadership, technology transition, and systems support."

For more information, contact the Materials and Manufacturing Directorate's Technology Information Center at techinfo@wpafb.af.mil, call (937) 255-6469 (DSN 785-6469) or visit www.afrl.af.mil



Materials and Manufacturing Directorate

The Materials and Manufacturing Directorate, located at Wright-Patterson AFB, Ohio, performs comprehensive research and development activities to provide new or improved materials, processes and manufacturing technologies for the U. S. Air Force. Additionally, the directorate integrates industry requirements with an execution program providing advanced manufacturing processes, techniques and systems for timely, reliable, high-quality, economical production and sustainment of Air Force weapon systems.

With a host of modern materials analysis laboratories, the directorate provides support to Air Force weapon system acquisition offices and maintenance depots to solve materials-related concerns and problems. Through highly selective in-house and contracted research efforts, the Materials and Manufacturing Directorate maintains a vigorous program to reduce costs, improve reliability and enhance the performance of Air Force aircraft, missile systems, spacecraft and related support equipment. The directorate also provides technical assistance to the Air Force, other Department of Defense agencies and the aerospace community in system studies, tests, evaluation, acquisition, modification and operation of both current and future defense systems.

For more information on the Materials and Manufacturing Directorate visit www.afrl.af.mil, call (937) 255-6469 or email techinfo@wpafb.af.mil

Air Expeditionary Forces Technologies Division

- Deployed Base Systems
- Force Protection
- Weapons Systems Logistics
- Operations Support

Integration and Operations Division

- Facilities Support
- Business Operations
- Information Support
- Technology Transfer Support
- Plans and Programs

Manufacturing Technology Division

- Processing and Fabrication
- Electronics
- Materials Process Design
- Advanced Manufacturing Enterprise

Metals, Ceramics, and Nondestructive Evaluation Division

- Metals Development and Materials Processing
- Ceramics Development and Materials Behavior
- Nondestructive Evaluation

Nonmetallic Materials Division

- Structural Materials
- Nonstructural Materials
- Polymers

Survivability and Sensor Materials Division

- Hardened Materials
- Sensor Materials

Systems Support Division

- Materials Integrity
- Acquisition Systems Support
- Logistics Systems Support

Research Areas

- Advanced Composite Processing and Behavior
- Advanced Industrial Practices
- Advanced Inspection Technologies
- Advanced Metallics
- Air Mobile Systems Research
- Airbase Infrastructure Technologies
- Aircraft and Spacecraft Coatings
- Analytical Chemistry Research
- Atmospheric Threat Protection
- Biotechnology
- Ceramics and Ceramic Matrix Composites
- Composites Supportability
- Computational Chemistry
- Corrosion Control
- Electronic and Structural Failure Analysis
- Electronics
- Electrostatic Discharge Research
- Firefighting Technology
- Fluids, Lubricants, and Tribological Research
- Force Protection Research
- Hardened Materials Technology
- High Cycle Fatigue
- Infrared Sensors and Transparencies
- Magnetic and HTS Materials Processing
- Manufacturing and Engineering Systems
- Manufacturing Processing and Fabrication Technology
- Materials Affordability Initiatives
- Materials Behavior and Evaluation
- Materials Life Prediction and Durability
- Materials Process Design
- Materials Supportability
- Metallic Composites
- Metals Processing
- Nanotechnology
- Nondestructive Evaluation
- Optical Materials
- Organic Matrix Composites
- Pollution Prevention Materials
- Polymeric Materials
- Power and Chemical Processes
- Robotics Research
- Semiconductor Materials
- Sensor Technologies
- Structural and Electronic Failure Analysis
- Surface Phenomena/Interactions
- Systems Support
- Thermal Protection Materials
- Wide Bandgap Materials