

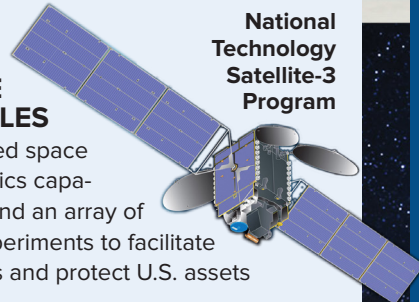
Rotating Detonation Engine

AEROSPACE SYSTEMS

Rotating Detonation Engine enabled systems; re-usable, air-breathing hypersonics; autonomous collaboration; space power and resilience; digitally engineered and upgraded platforms; and high-risk, high-payoff applied aerospace research

SPACE VEHICLES

Advanced space electronics capabilities and an array of flight experiments to facilitate missions and protect U.S. assets



National Technology Satellite-3 Program

INFORMATION

Communications, computing and networking capabilities that support cyber protection, command and control, intelligence gathering, information fusion, exploitation and collaborative environments

HUMAN PERFORMANCE

Airman & Guardian capabilities and effectiveness, warfighter training, operator and weapon system integration, personnel protection, and aerospace operation sustainment; education and worldwide operational consultation in aerospace and operational medicine

Integrated Cockpit Sensing (ICS)

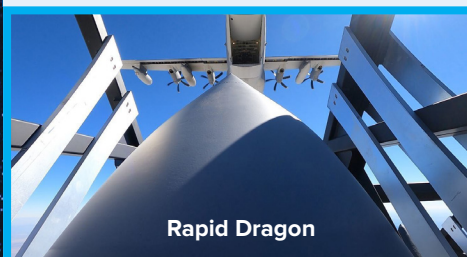


Reimagining what's possible and creating tomorrow's technology . . . today

The Air Force Research Laboratory leads the discovery, development and integration of affordable warfighting technologies for our air, space and cyberspace forces.

As one integrated lab, AFRL seamlessly supports the Science & Technology needs of two services: the Air Force and the Space Force.

AFRL accomplishes its mission through Technology Directorates, the 711th Human Performance Wing, the Air Force Office of Scientific Research, SDPE, AFWERX and a central headquarters staff.



Rapid Dragon

STRATEGIC DEVELOPMENTAL PLANNING & EXPERIMENTATION

Future Force demonstration, strategic development planning, operational experimentation, prototyping, and DAF architecture design and evaluation

AFWERX AND SPACEWERX

Transition agile, affordable and accelerated capabilities by teaming technology developers with Airmen and Guardian talent

BASIC RESEARCH

Long-term, broad-based research that provides the foundation for future technological advancements



Golden Horde

MUNITIONS

Hyper-precision weapons that allow the Air Force to adapt tactics, operate in complex environments and neutralize enemy threats

MATERIALS AND MANUFACTURING

Manufacturability and sustainability of the world's most advanced materials for aircraft, spacecraft, missiles, rockets and ground-based systems as well as their structural, electronic and optical components

SENSORS

Exploration, surveillance, precision engagement and electronic warfare capabilities



AgilePod™



Tactical High Power Operational Responder (THOR)

DIRECTED ENERGY

Counter-electronics weapons technologies including high-energy lasers, high-power microwaves and electro-optics that degrade, damage or destroy electronic systems with minimum collateral damage

AFRL COMMUNITY

AFRL employs *5,656 government civilians and students. A highly educated research staff includes 1,181 personnel with doctoral degrees, 1,432 master's degrees, and 613 bachelor's degrees. The research community (Scientists & Engineers) is supported by professional and support staffs (Non S&Es). **AFRL** also employs 1,067 active-duty military members and 5,181 contractors for a total workforce of *11,904.

*As of February 3, 2022.

Scientists/Engineers: 3,247 Top S&E Occupations

- Electronics/Electrical Engineers
- General Engineers
- Aerospace Engineers
- Computer Scientists
- Materials Engineers
- Physicists
- Mechanical Engineers
- Computer Engineers
- Operations Researchers
- Chemists



Professional and Support Staff 2,409 Top Non S&E Occupations

- Contracting Professionals
- Managers and Program Analysts
- Financial Administration and Programmatic Support
- Information Technology Managers
- Security Administration Professionals

HISTORY

With roots tracing back to World War I, **AFRL** has led numerous technological advances in the last 100 years. Notable examples include advanced composites, turbine engines, guided munitions and GPS navigation. Today, **AFRL** leads science and technology (S&T) development through in-house and contractual programs to maintain a diverse portfolio ranging from basic and applied research to advanced technology development focused on specific products. To ensure the Air Force has access to the most innovative S&T, **AFRL** partners with industry, academia and the international community.

AFRL leads targeted research to shape the future battlespace. The lab develops integrated technologies and delivers solutions to satisfy Air Force requirements to meet urgent operational needs.

AFRL's efforts advance Air Force capabilities and contribute to mission readiness. In balancing a legacy of success with a pursuit of innovation, **AFRL** enhances existing warfighter capabilities while addressing the evolving battlefield. With innovative breakthroughs present in all of today's modern aircraft and weapon systems including the B-2 and the F-35, **AFRL** pushes technological boundaries while creating a safer, more secure tomorrow for the world.



F-35



LOCATIONS

AFRL has facilities in ten U.S. states and five countries.

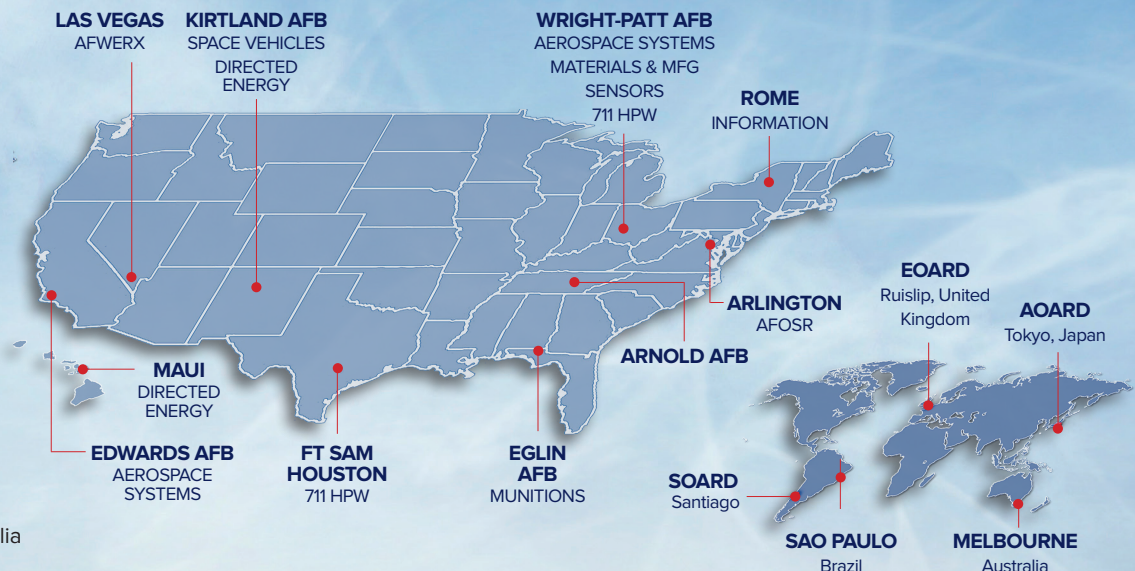
- Ohio (Wright-Patterson Air Force Base)
- California (Edwards Air Force Base)
- Florida (Eglin Air Force Base)
- Hawaii (Maui Research Site)
- Nevada (Las Vegas)
- New Mexico (Kirtland Air Force Base)
- New York (Rome)
- Tennessee (Arnold Air Force Base)
- Texas (Ft. Sam Houston)
- Virginia (Arlington)

AFWERX: Austin, Texas; Dayton, Ohio; Las Vegas, Nevada; Washington, D.C.

SPACEWERX: Los Angeles, California.

International sites

- London, UK
- Sao Paulo, Brazil
- Tokyo, Japan
- Melbourne, Australia
- Santiago, Chile



For more information about the Air Force Research Laboratory, please visit our website at www.AFResearchLab.com.

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