



# Air Force Basic Research

Senior Procurement Analyst

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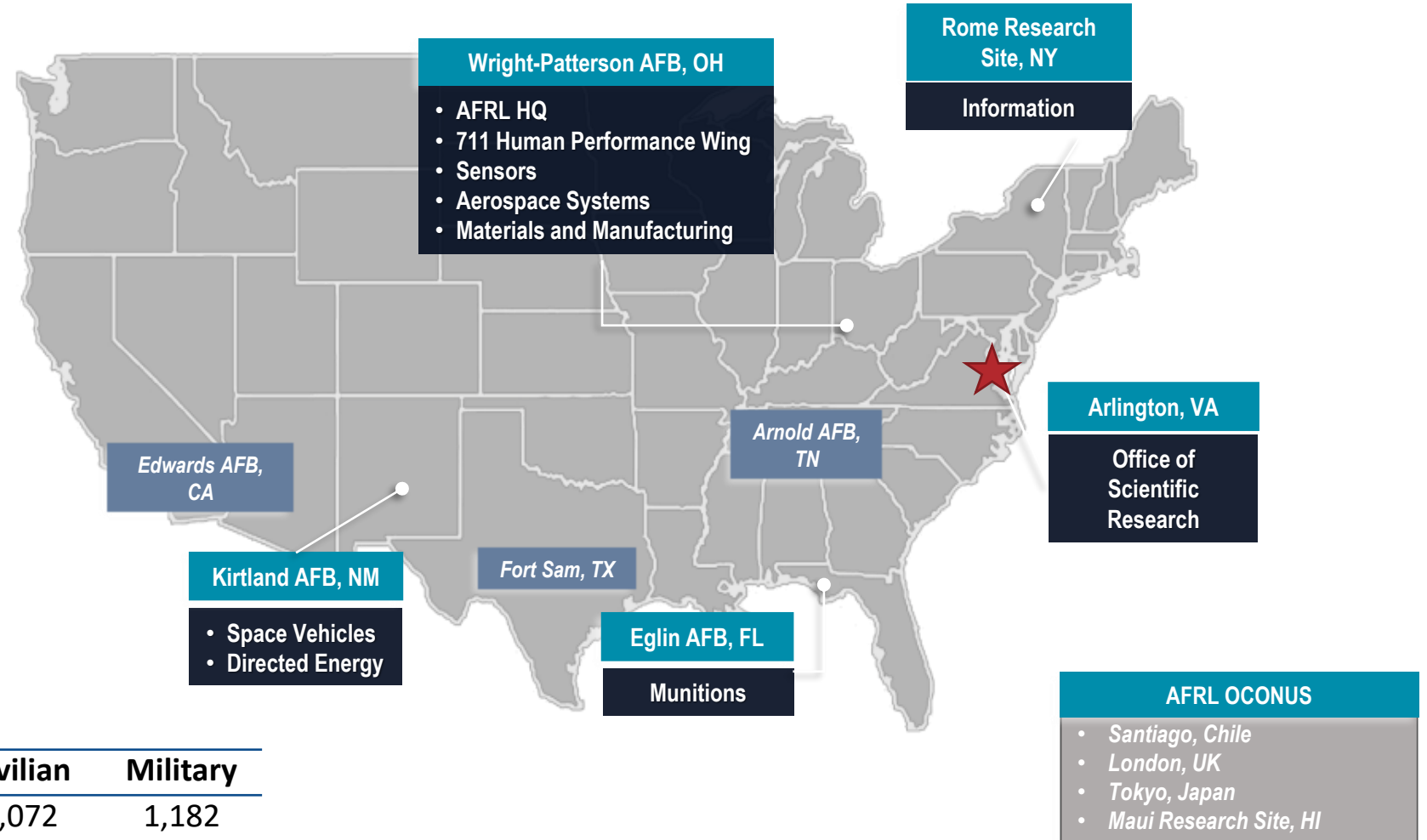
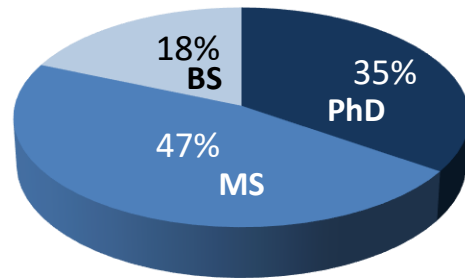
# Agenda

- About us
- Our Granting Process
- Research Areas
- Improving Competitiveness
- Opportunities



# About Us

## LOCATIONS AND WORKFORCE



	Employees	Civilian	Military
Total	6,254	5,072	1,182
S&Es	3,611	3,041	570

# About Us

## AFRL TECHNOLOGY DIRECTORATES

### AF Office of Scientific Research

- Physics and Electronics
- Aerospace, Chemical and Materials Sciences
- Mathematics, Information, and Life Sciences



### Aerospace Systems

- Aerospace Vehicles
- Control, Power and Thermal Management
- High Speed Systems
- Space and Missile Propulsion
- Turbine Engines



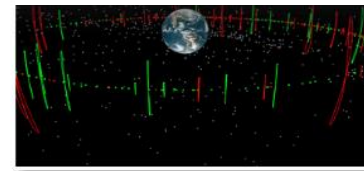
### Directed Energy

- High Power Electromagnetics (HPEM)
- Laser Systems (LS)
- Directed Energy
- Electro-Optics for Space Superiority
- Weapons Modeling & Simulation (WM&S)



### Information

- Autonomy, Command and Control, and Decision Support
- Processing & Exploitation
- Cyber Science and Technology
- Connectivity and Dissemination



### Human

#### Performance

- Decision Making
- Bioeffects
- Human Centered ISR



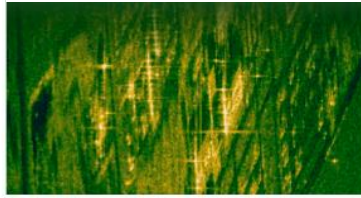
### Munitions

- Ordnance Sciences
- Fuze Technology
- Terminal Seeker Sciences
- Munitions Airframe, Guidance, Navigation & Control
- Munitions System Effects Sciences



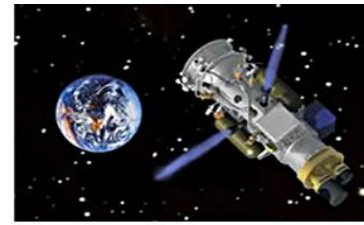
### Sensors

- Spectrum Warfare
- Layered Sensing Exploitation
- Enabling Devices and Components
- RF Sensing
- EO Sensing



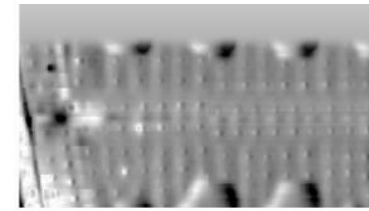
### Space Vehicles

- Space Electronics
- Space Remote Sensing
- Space Environment Impacts & Mitigation
- Space Experiments
- Space Platforms



### Materials and Manufacturing

- Structural Materials
- Functional Materials
- Manufacturing Technologies
- Support for Operations



# About Us

## HOW AFOSR WORKS

### FIND

**36** Program Officers reaching scientists & engineers globally

### FORM

**Shape** emerging science into high-performing teams and portfolios that address long-term basic science barriers to future AF capabilities

### FUND

**1098** extramural research projects at **174** US universities

**208** intramural research projects at AFRL Technical Directorates

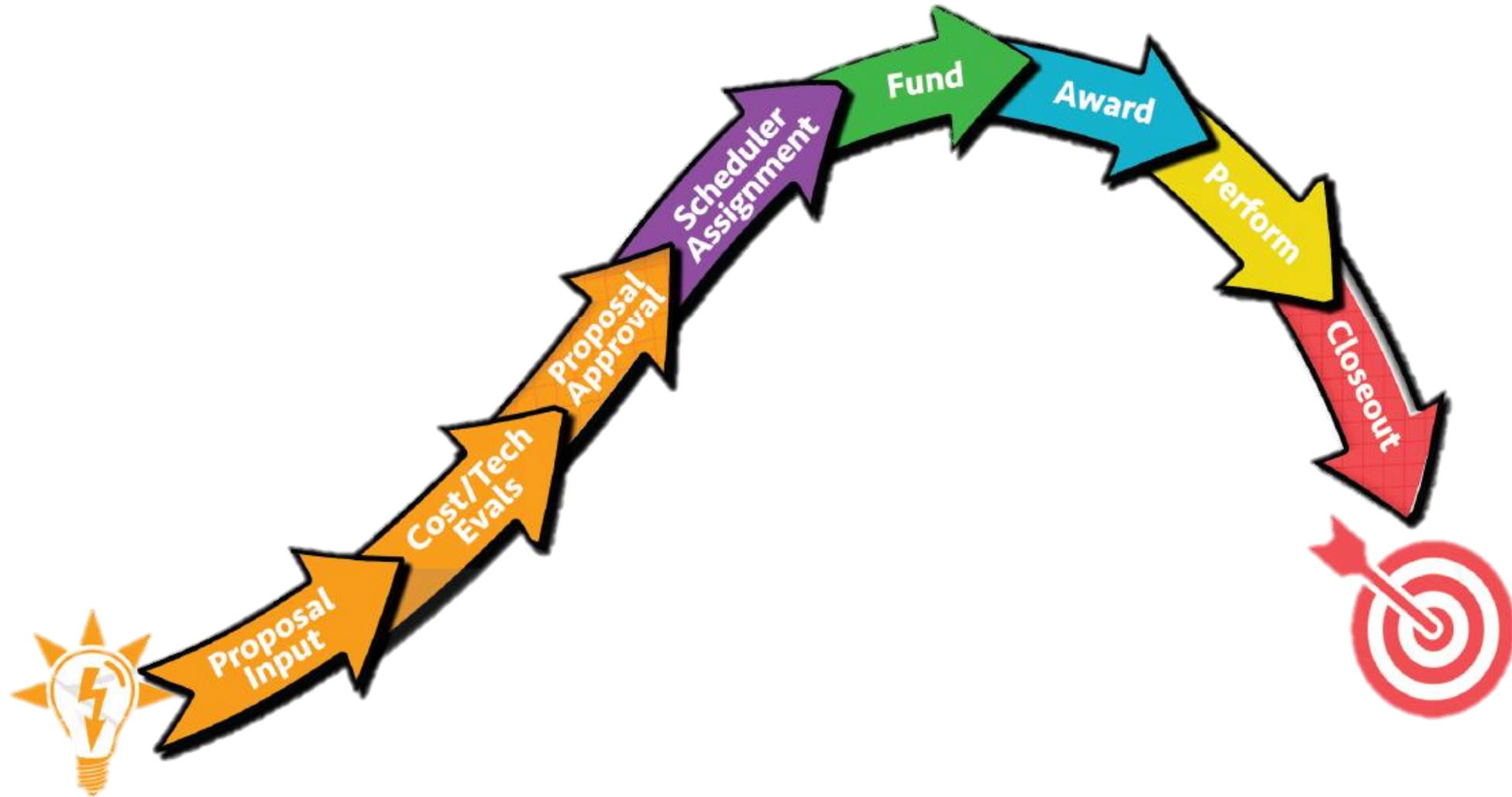
**268** international efforts in **39** countries

\* FY18 Figures a/o 28 May 19

### FORWARD

**Transition** through AFRL TDs, Small Business Innovation Research & Small Business Technology Transfer (SBIR/STTR)

# AFOSR Granting Process



[www.AFResearchLab.com](http://www.AFResearchLab.com)



# AFOSR Research Areas

## AFOSR GENERAL BAA

- Outlines research areas of interest
- FA9550-21-S-0001 can be found on [www.grants.gov](http://www.grants.gov), new BAA will be posted soon, <https://www.grants.gov/web/grants/search-grants.html?keywords=fa9550-21-s-0001>

Engineering and Complex Systems	Information and Networks	Physical Sciences	Chemistry and Biological Sciences
Dynamic Materials and Interactions	Computational Cognition and Machine Intelligence	Materials with Extreme Properties	Biophysics
GHz-THz Electronics and Materials	Computational Mathematics	Atomic and Molecular Physics	Human Performance and Biosystems
Energy, Combustion, and Non-Equilibrium Thermodynamics	Dynamics and Control	Electromagnetics	Mechanics of Multifunctional Materials and Microsystems
Unsteady Aerodynamics and Turbulent Flows	Dynamic Data and Information Processing	Laser and Optical Physics	Molecular Dynamics and Theoretical Chemistry
High-Speed Aerodynamics	Information Assurance and Cybersecurity	Optoelectronics and Photonics	Natural Materials, Systems, and Extremophiles
Low Density Materials	Optimization and Discrete Mathematics	Plasma and Electro-Energetic Physics	Organic Materials Chemistry
Multiscale Structural Mechanics and Prognosis	Science of Information, Computation, Learning, and Fusion	Quantum Information Sciences	
Space Propulsion and Power	Trust and Influence	Remote Sensing	
Agile Science of Test and Evaluation (T&E)	Complex Networks	Space Science	
	Cognitive and Computational Neurosciences	Ultrashort Pulse Laser-Matter Interactions	
		Condensed Matter Physics	

# Improving Competitiveness

## DOING BUSINESS WITH AFOSR

- **Engage with AFOSR PO researchers** to discuss your idea statement
- Promising ideas may begin an ongoing dialogue leading to full proposal submission
- Throughout your working relationship with AFOSR, you can expect an AFOSR PO to take on a number of roles:
  - Topical / Program Expert
  - Educator / Communicator
  - Team Builder
  - Advocate
  - Evaluator
  - Administrator
  - Active Member of AFRL, DoD & Scientific Communities





# Improving Competitiveness

## DOING BUSINESS WITH AFOSR

- **Attend grant writing courses**
- In general, a good proposal is one that includes:
  - Strong technical merit
  - Air Force relevance
  - Solid budget justification
  - Consideration given to every requirement stated in the BAA

# Improving Competitiveness

## DOING BUSINESS WITH AFOSR

- **Understand funding considerations**
- AFOSR receives far more good proposals than it is able to fund every year
- POs must factor many other considerations into funding decisions. Those include, but aren't limited to:
  - Overlap with program interests and connecting to DoD labs
  - Potential for scientific breakthroughs
  - Strategic directions
  - Budget realities
  - Peer review recommendations

# AFOSR Funding Opportunities

## TRADITIONAL GRANTS

- Extramural Grants
- Lab Tasks
- Historically Black Colleges and University/Minority Serving Institution Grants
- Young Investigator Grants (YIP)
- Center of Excellence Grants (COE)

## ADD'L FUNDING OPPORTUNITIES

- Multidisciplinary University Research Grants (MURI)
  - Defense University Research Instrumentation Program (DURIP)
  - Small Business Tech Transfer Grants/Contracts
  - Defense Enterprise Science Initiative (DESI)
  - Summer Faculty Fellowships
  - Windows on Science
  - MINERVA
  - Defense established program to stimulate competitive research (DEPSCoR)
- Core ~ \$350M, OSD ~ \$150M, Total Budget ~ \$500M
  - 65% of core mission funds extramural, 30% intramural, 5% international

## WORKFORCE DEVELOPMENT

- Undergraduate Research Experiences
- Graduate Fellowships
- AFRL Internships
- Windows on World
- AFRL Science and Technology Fellowships
- Lab Univ Collaboration Initiative

# Current AFOSR Open Funding Opportunities

## DOING BUSINESS WITH AFOSR

- **FA9550-21-S-0001** - Traditional Open BAA
- **BAA-AFRL-AFOSR-2016-0008** – Conference BAA
- **FOA-AFRL-AFOSR-2021-0002** - Fiscal Year 2022 Defense University Research Instrumentation Program (DURIP) – **Closed 5/21/2021**
- **FOA-AFRL-AFOSR-2021-0003** – Multidisciplinary Research Program of the University Research Initiative (MURI) FOA – **Closed 9/27/2021**
- **FOA-AFRL-AFOSR-2021-0004** – Department of Defense Space University Research Initiative (SURI) FOA – **Closed 6/16/2021**
- **FOA-AFRL-AFOSR-2021-0005** - COE: Brain-Derived Neuromorphic Computing with Intelligent Materials – **Closed 8/16/2021**
- **FOA-AFRL-AFOSR-2021-0006** – Young Investigator Research Program (YIP) – **Closed 7/12/2021**
- **FOA-AFRL-AFOSR-2021-0007** – Defense established program to stimulate competitive research (DEPSCoR) – Research Collaboration (RC) – **Closed 2/22/2022**
- **FOA-AFRL-AFOSR-2021-0008** - (DEPSCoR) –Capacity Building (CB) – **Closed 2/22/2022**

\*\*\*\*Please check grants.gov regularly as we have several solicitations that will be posted in the coming months\*\*\*\*

# Questions?