

Enhanced Mutual Collaborators
condensed list...

■ **International:** PAs, TTCP, NATO, EOARD, AOARD ...



■ **Other Dod Agencies:** DARPA, MDA, DTRA, Cyber COI, C4I COI ...



■ **Others:** FFRDCs, NASA, DHS, NIST, DOE LABS, MITRE ...



■ **Joint Community:** STRATCOM, TRANSCOM, NORTHCOM, ARMY, NAVY, MARINES ...



■ **Usaf:** AFMC, AFSOC, AFSPC, ANG, 24th AF, 25th AF, AMC, ACC, AFLCMC, SMC, AFGSC ...



■ **Intel Community:** DIA, CIA, IARPA, NSA, NRO, NGA, NASIC ...



■ **Industry:** 351 contractual partners, IR&D, 58 CRADAs, SBIR ...

■ **Academia:** Information Institute, Partnerships, 123 EPAs, Visiting Faculty Research Program, STEM, Center of Excellence (COEs) Machine Learning (ML) ...



AFRL

**Air Force Research
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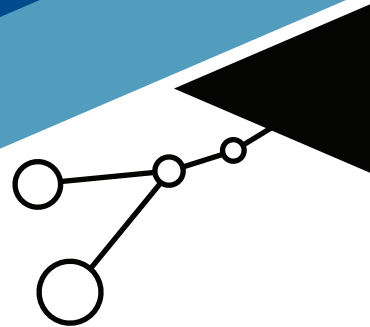
RI

**AFRL Information Directorate
Customer Contact Information**

■ **Contract Opportunities**

<https://beta.sam.gov/>

- ① Select "Contract Opportunities" from drop down menu.
- ② Enter RIK.
- ③ Click Search.



RI

Information Directorate

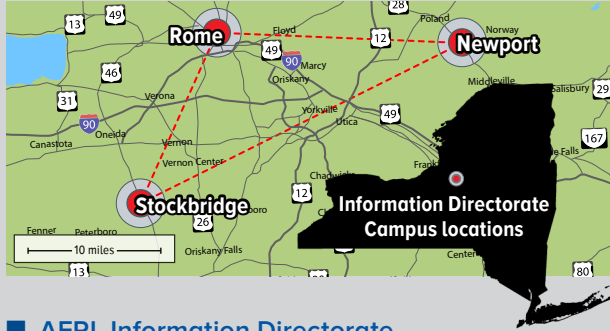
The Information Directorate is the Air Force's and nation's premier research organization for Command, Control, Communications, Computers and Intelligence (C4I) and Cyber technologies. The directorate explores, prototypes and demonstrates high-impact, affordable and game-changing technologies. These technologies transform data into information and subsequently knowledge for decision makers to command and control forces. This knowledge gives our air, space and cyberspace forces the competitive advantage needed to protect and defend the nation.

- AFRL/RI Organization Directory
- Engagements: Enhanced Mutual Collaborations
- AFRL/RI Core Technical Competencies Focused in Four Major Technical Areas of Research

Air Force Research Laboratory Information Directorate

Mission of the AFRL Information Directorate

To explore, prototype and demonstrate high-impact, game changing technologies that enable the Air Force and Nation to maintain its superior technical advantage.



AFRL Information Directorate

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 Chief of Protocol Mr. Jim Ray
 DAG/RI Visits Lt Matthew Walls & Lt Zuzanna Rybicka

Mission Divisions

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 Analysis (RIE) Col Richard Kieffer
 Information Exploitation & Operations (RIG) Mr. Scott Shyne
 Information Systems (RIS) Ms. Julie Brichacek
 Computing & Communications (RIT) Mr. Gregory Zagar
 Special Programs (RIZ) Mr. Brent Holmes

Support Divisions

Comptroller (RIF) Mr. Michael Halloran
 Strategic Planning & Integration (RIB) Mr. John Grieco
 Contracting (RIK) Mr. Timothy Anderson
 Integration & Operations (RIO) Mr. Gabriel Sbaglia
 Judge Advocate (RIJ) Maj Brant Whipple

Core Technical Competencies (CTCs) Focused in Four Major Technical Areas of Research



AUTONOMY, COMMAND & CONTROL (C2) AND DECISION SUPPORT



CONNECTIVITY AND DISSEMINATION



CYBER SCIENCE AND TECHNOLOGY



PROCESSING AND EXPLOITATION



CYBER SCIENCE AND TECHNOLOGY



CONNECTIVITY AND DISSEMINATION



Autonomy, Command & Control and Decision Support

Mastering complexity of multi-domain command & control.

Vision: Mastering and imposing complexity to command & control (C2) future multi-domain operations in an evolving battlespace with speed and scale.

Mission: Deliver revolutionary, trusted, affordable information technologies for agile, resilient and distributed Air Force command & control and autonomous systems.

Sub CTCs: Complex Effects Analysis • Complex Adaptive Systems • Machine Intelligence

Goals: Master complexity through development of adaptive C2 systems-of-systems and services. Control, impose and synchronize complex multi-domain effects chains. Harness machine intelligence to increase C2 speed and scale of operations. Realize large-scale multi-agent systems for autonomous planning, tasking and execution.

Connectivity and Dissemination

Putting the right information into the right hands at the right time.

Vision: Seamless, resilient networked communications fabric across the command and control intelligence surveillance reconnaissance (C2ISR) enterprise, assuring delivery of timely, reliable and actionable information to warfighters and systems.

Mission: Provide agile and secure mission-responsive communications and information exchange globally.

Sub CTCs: Communication Links and Networks • Secure Multi-Domain Architectures • Mission-Responsive Information Exchange

Goals: Agile and secure communications and networks. Agnostic connectivity. Autonomous link discovery, creation and utilization. Dissemination of information at need, securely.

Cyber Science and Technology

Leveraging and shaping the cyber domain to the nation's advantage.

Vision: An Air Force equipped with technologies that enable our freedom to operate in cyberspace while denying the adversary the same.

Mission: Deliver the science and technology necessary to ensure cyberspace superiority and support the conduct of full-spectrum, multi-domain, integrated cyberspace operations.

Sub CTCs: Foundations of Trust • Network Exploitation • Cyber Resiliency • Integrated Cyber Operations

Goals: Secure, composable, risk-based compute options. Cyber operations integrated and on par with air & space. Ability to conduct cyber operations agnostic to medium and geography.

Processing and Exploitation

Exploiting computing and algorithms to transform big data into information.

Vision: Innovator of technologies that process and exploit data in near real time, analyze massive collections over time, and employ continuous learning to deliver asymmetric decision speed to the Air Force and Intelligence Community.

Mission: Deliver fast sensemaking for situational awareness and adversarial insight for the AF, DoD, and Intelligence Community.

Sub CTCs: Machine Analytic Characterization • Machine Analytic Comprehension and Projection • Extreme Computing

Goals: Multi-INT correlation and fusion of massive amounts of intelligence, surveillance, and reconnaissance (ISR) and publicly available data. Exploit targets in denied areas. Adversarial and secure machine learning. Dynamic, hybrid computing advancing neuromorphic, nanotech, and quantum systems to efficiently process ISR information.