

INFORMATION DIRECTORATE

Air Force Research Laboratory

To lead the
discovery, development,
and integration of affordable
warfighting information
technologies for our air, space
and cyberspace force

G. Duchak
Director, Information Directorate





**“In America,
innovation doesn’t
just change our
lives; it’s how we
make a living.”**

- President Barack Obama

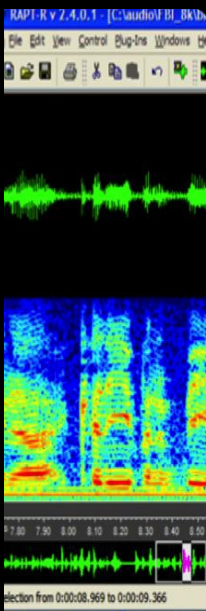
**“Innovation
distinguishes
between
a leader and a
follower”**

- Steve Jobs



OUR INFORMATION TECHNOLOGY HERITAGE

INFORMATION TECHNOLOGY DOMINANCE THROUGH FULL SPECTRUM DEVELOPMENT



2007

Rome Audio Processing Toolkit (RAPTR)



2008

Man-Portable X-Band SATCOM (Short Satellite Communications) Terminal



2009

Cyber Attack Mitigation & Exploitation Lab (CAMEL)



2009

Close Air Support Connectivity (CASCON)



2010

CONDOR "Green, Energy Efficient" Supercomputer



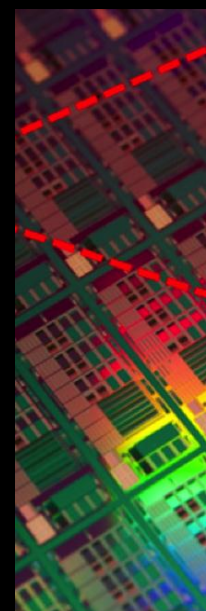
2011

Advanced Capability for Understanding and Managing Effects Networks (ACUMEN)



2012

Android Tactical Assault Kit (ATAK)



2012

Crossbar nanocomputer

ROME LAB TODAY



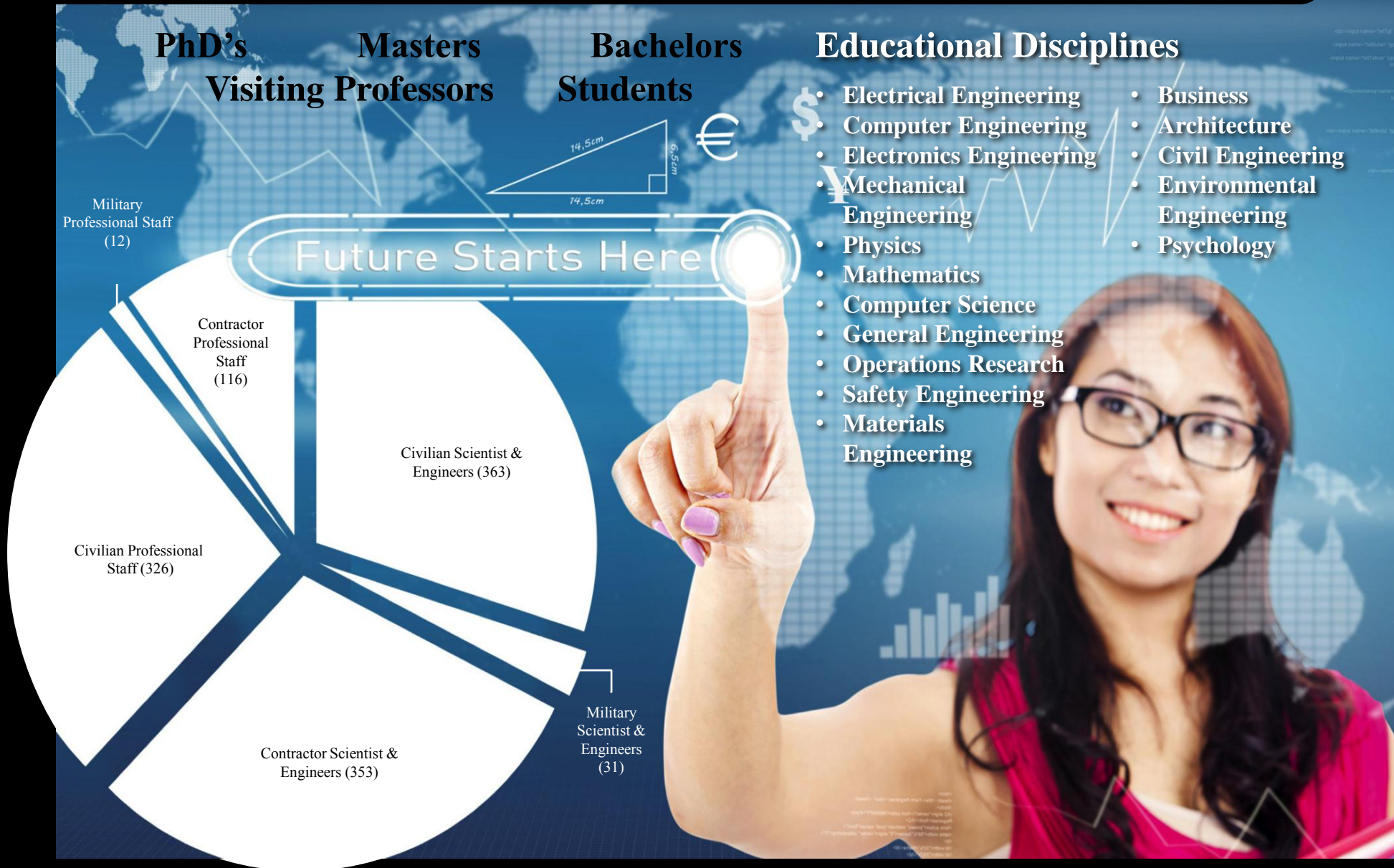
750 on-site
S&E team of
scientists/
engineers

Dynamically
formed research
team ~3,700
collaborators

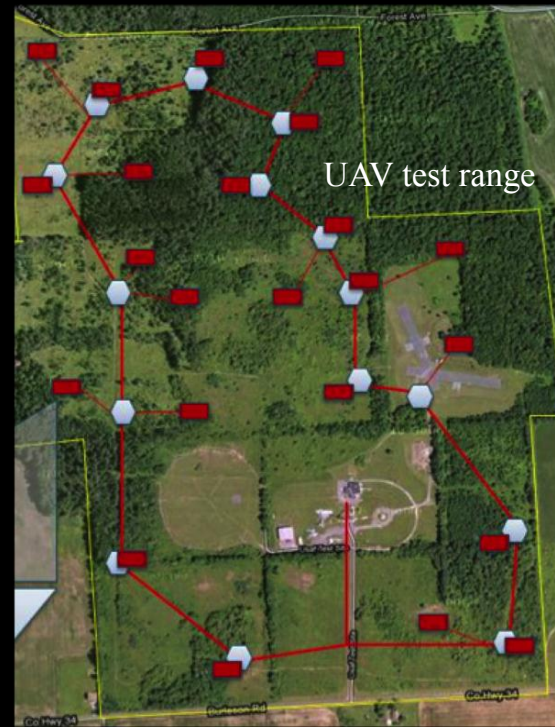
One of the
world's most
diversified
military
research
organizations,
providing
innovative
technology
for the
nation



WORLD CLASS TECHNICAL TALENT



ONE OF A KIND OPERATIONAL RESEARCH FACILITY



STATE OF THE ART RESEARCH FACILITIES

LEVERAGING A RICH HERITAGE - POSTURED FOR FUTURE SUCCESS

Experimentation facilities - system of record and authoritative data sources!

- Experienced with in-house, limited technology experiments
- Run new technologies with /beside legacy systems - interoperability, metrics, KPPs
- Site model/hardware fabrication support
- Performance Computing Facility
- Intel S/W Integration Lab (new)
- RF Technology Center
- Nanocomputing Facility
- Fusion Algorithms for Tracking and Exploitation
- Platform Connectivity Mobile Testbed (PCMT)
- Command & Control Technology Center
- Quantum Information Science Facility
- Advanced Visualization and Interactive Display Lab
- Cyber Operations Technology Facility
- Operational Information Management Development Facility



TECHNICAL AREAS OF EXPERTISE

INFORMATION EXPLOITATION & OPERATIONS



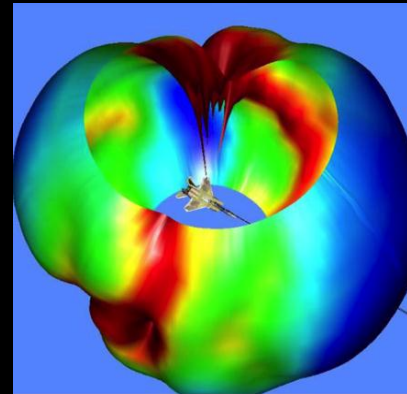
- Cyber Assurance
- Cyber Operations
- Sensor Data Exploitation
- Cyber Integration & Transition

INFORMATION INTELLIGENCE SYSTEMS & ANALYSIS



- Activity Based Analysis
- Information Handling
- Analytical Systems
- Special Security

INFORMATION SYSTEMS



- Information Management Technologies
- Resilient Synchronized Systems
- Advanced Planning & Autonomous C2 Systems
- Warfighter Integration

COMPUTING & COMMUNICATIONS



- Trusted Systems
- High Performance Systems
- Training and Evaluation
- Integration & Transition
- Information Transmission
- Networking Technology

FOCUSED R&D

THE INFORMATION DIRECTORATE'S CORE TECHNICAL COMPETENCIES (CTC):



AUTONOMY, COMMAND AND CONTROL, DECISION SUPPORT

- Cyber Force Optimization and Integration
- Unified Planning Systems
- Mission Focused Autonomy
- Continuous Assessment



PROCESSING AND EXPLOITATION

- Automated Exploitation
- Multi-Source Analysis
- Architectures for Massive Analytics



CONNECTIVITY AND DISSEMINATION

- Data Transmission & Links
- Secure Data Sharing
- Tactical Information Management & Networking
- Mission-responsive Enterprise Resource Management



CYBER SCIENCE AND TECHNOLOGY

- Foundations of Trusted Systems
- Network Exploitation
- Cyber Resilience
- Integrated Cyber Operations

CREATING NEW TECHNOLOGIES

Measuring Quantum Data Encrypted Modulation States

- Formal Support for the Design of Secure Systems
 - Integrated Cognitive Air & Space Networking for Dynamic Contested Environs
 - Methods for Developing Secure Nonlinear Computer Architectures
 - Assured Mission-Critical Command & Control via Hardware Assisted Security for Cyberspace Operations
 - Dynamic Wireless Networking Design
-

Investigating Architectures of Neuromorphic Computing for Motion Perception, Sense-Making and Event Prediction

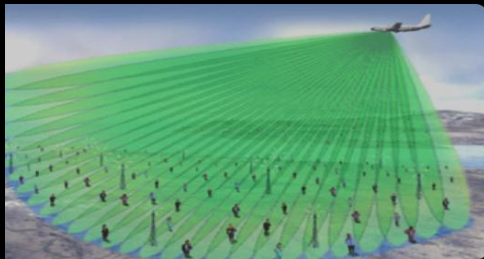


SHAPING THE AIR FORCE FUTURE



AUTONOMY, C2, & DECISION SUPPORT

- Command and Control
- Rapid Global Mobility
- Space Superiority



PROCESSING & EXPLOITATION

- Global Integrated ISR
- Building Partnerships
- Space Superiority



CYBER SCIENCE & TECHNOLOGY

- Cyberspace Superiority
- Command and Control



CONNECTIVITY & DISSEMINATION

- Agile Combat Support
- Command and Control
- Rapid Global Mobility
- Space Superiority
- Special Ops

Key



AFMC



PACAF



ACC



USAFE



AMC



AFSPC



AETC



AFSOC



AFGSC



AFRC

COMMUNICATING THE ART OF THE POSSIBLE

IP HOPPING FOR MOVING TARGET DEFENSE

DATA EXPLOITATION

MULTI USER DETECTION

WEB-BASED TEMPORAL ANALYSIS

STEGANALYSIS

UPSIDE-DOWN AF

GROUND MOVING TARGET INDICATOR (GMTI)

INFORMATION MANAGEMENT

DoD's LARGEST DISTRIBUTED HPC SYSTEM

OPTICAL STORAGE

EFFICIENT XML

WI-FI GEOLOCATION

LAYER-8

CYBER

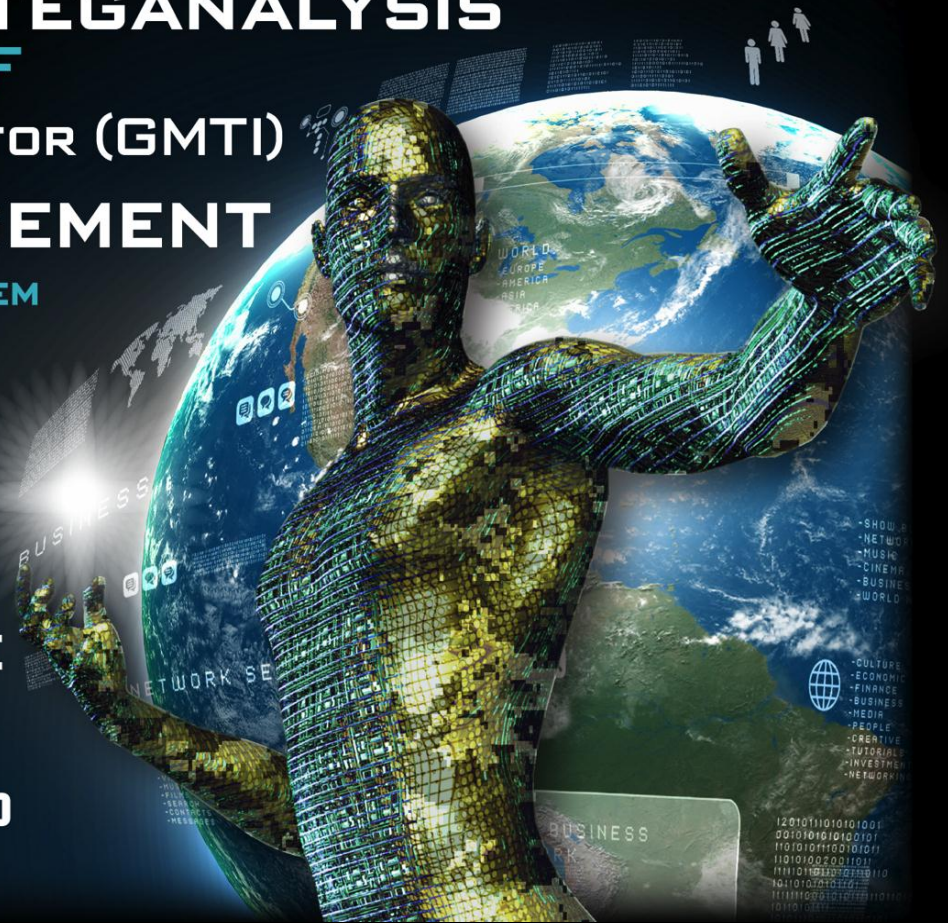
CYBER MISSION ASSURANCE

WIRELESS INFORMATION ASSURANCE (LOCAL AREA NETWORKS)

UBIQUITOUS COLLABORATION

SOFTWARE DEFINED RADIO

WIDEBAND RECORDING MEMORY



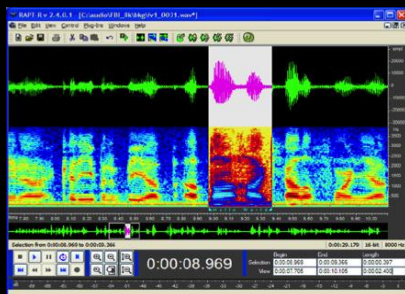
GAME CHANGING TECHNOLOGY



FROM AUTOMATION TO AUTONOMY

Raising machine intelligence to a trusted, decision-making partner for humans.

AUDIO PROCESSING



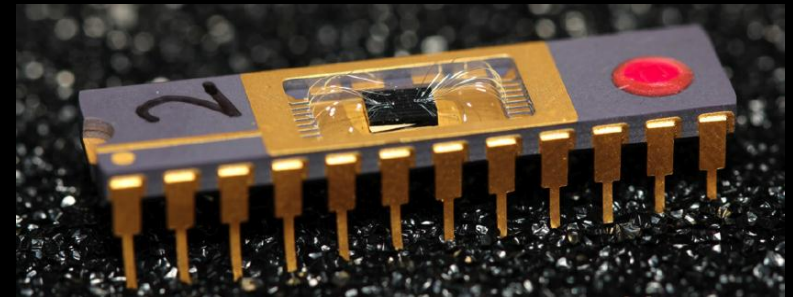
Audio Processing: Game Changing Solution yields a 55:1 workforce multiplier over traditional linguist processing.

CYBER AGILITY & RESILIENCY



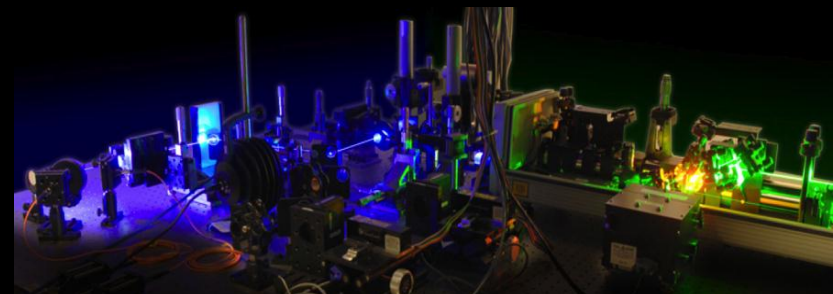
Techniques for Maneuverability and Survivability in Cyberspace. Eliminate the adversaries' ability to "find" the target.

NEUROMORPHIC COMPUTING



Memristive devices provide a path to more brain-like computing.

QUANTUM COMPUTING



Optical approach to quantum computing: small quantum coprocessors entangled together to form larger quantum CPUs. Promises decreased computation times for complex AF problems.

DELIVER INFORMATION TECHNOLOGY



WEBTAS IN THE WHITE HOUSE SITUATION ROOM



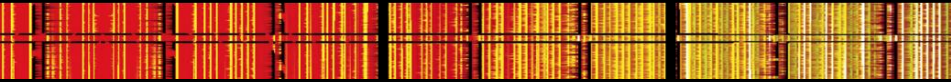
SMALL BUSINESS INNOVATION LANDS IN THE WHITE HOUSE & TURNS INTO A COMMAND & CONTROL TOOL

- Small business technology matures to become a large business success!
- Government Off-The-Shelf (GOTS) software toolkit providing visualization, integration & analysis of disparate data
- Flexible data infrastructure
- Easily discover and comprehend complex relationships
- Near real-time correlation engine



COLLABORATIVE DARPA PROGRAMS

I2O



Information, Innovation Office

Active Authentication

Automated Program Analysis for Cybersecurity (APAC)

CRASH Clean-slate Resilient, Adaptive, Secure Host

Computer Science, Science, Tech Eng & Math (CS/ST)

Crowd Sourced Formal Verification

Cyber Defense

Cyber Fast Track (CFT)

Cyber Insider Threat (CINDER)

DEFT

ENGAGE

FITT

GUARD DOG

High Assurance Cyber Military Sys (HACMS)

Mission-oriented Resilient Clouds (MRC)

Plan X

RAPID 6.3

Rapid SW Dev using Binary Components

Resilient C2

Resilient Clouds

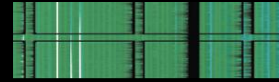
SAFER

Visual Media Reasoning (VMR)

XDATA

Machine Reading

MTO



Microsystems Technology Office

Quest – Quantum Entanglement S&T

STO



Strategic Technology Office

Advanced RF Mapping (RadioMap)

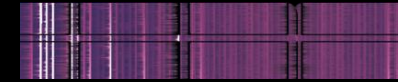
Advanced Wireless Networks for the Soldier

Communications in Extreme Environments

Mobile Hotspots

Fixed Wireless at a Distance

TTO



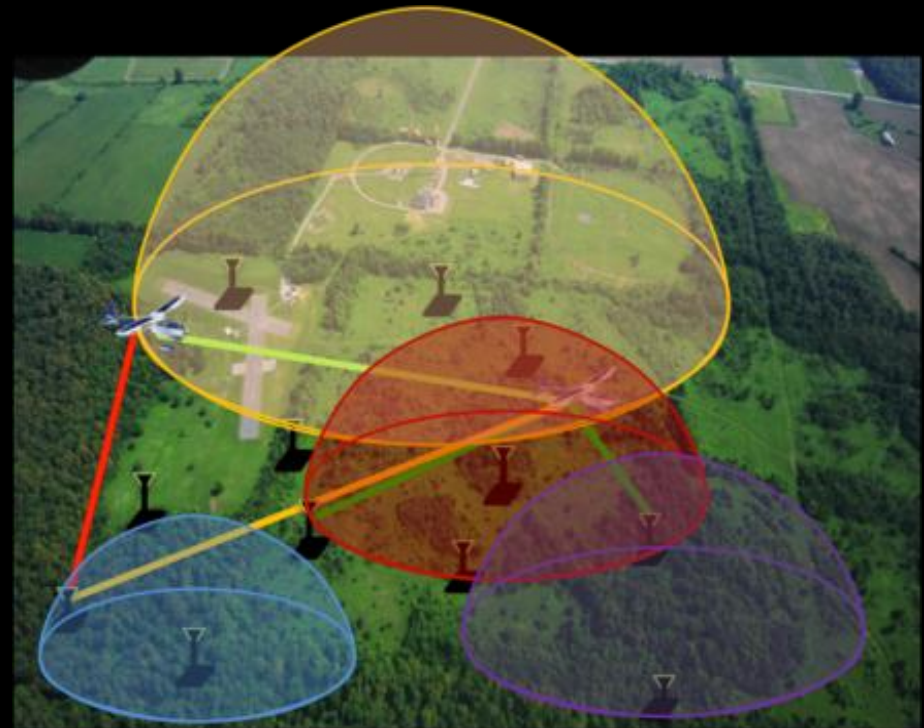
Tactical Technology Office

Triple Target Terminator (T3)

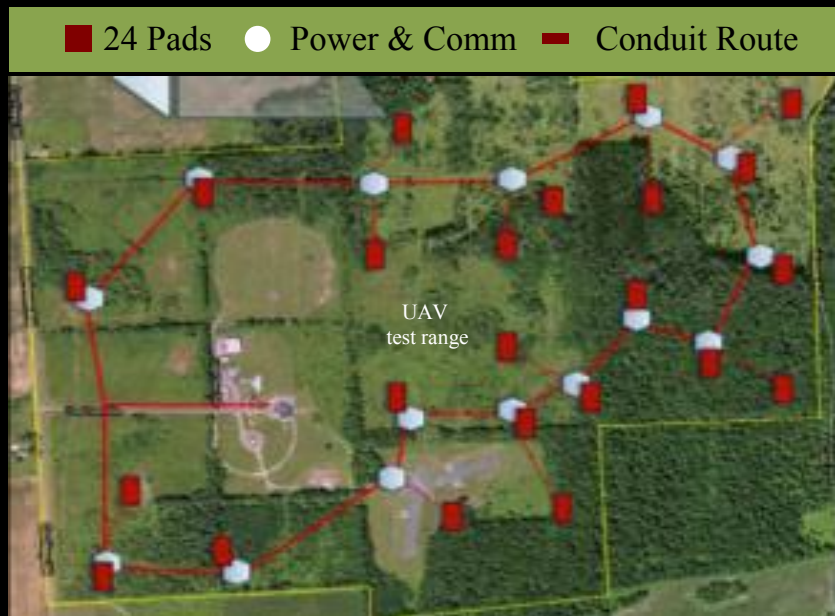
PLANNED CONTESTED ENVIRONMENT EXPERIMENTATION RANGE

STOCKBRIDGE

- 300 acre test site, varying in relative distance, topology and foliage density
- All-weather, RF controlled contested environment
- Substantive Command & Control, Communications, ISR experiments possible
- Flexible frequency authorizations



- Warfighter Integration & Joint Experimentation Potential
 - 10th Mountain Division (Ft Drum, NY)
 - 174th FW (Syracuse, NY)
 - Includes aerial Small Unmanned Aircraft Systems (SUAS) assets and precision far-field antenna testing
- Comprehensive Spectrum Validation & Verification
 - Practical dynamic spectrum access (DSA); sharing and management technologies (Cognitive Radio Networking)
 - Practical, dynamic, resilient integrated Electronic Warfare (EW) and communications systems



INTEGRATING ADVANCED TECHNOLOGIES - TRANSITION



Moving Target Intelligence

Three products (Atlantis, MOVINT Client, and World-Wide Motion Statistics) provide MTI archiving, visualization, & tools that support Activities-Based Intelligence



PAL/WEBTAS

The DARPA PAL program (the Personalized Assistant that Learns) focused on improving the way that computers support humans through the use of cognitive systems



AWP/WOLFJAW

Interference cancellation & processing for emerging communications



MALTA

Radically improve the way that computers support human decision making, enabling systems to reason, learn, be told, explain actions & respond robustly



SECUREVIEW

Securely access multiple security domains from single workstation. IC analysts able to collaborate within a secure community of interest



KESTREL

Real-time mobile tactical signal processor handling modulated digital signals for improved ISR



BRASSWIRE

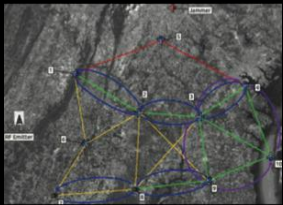
Ability to detect malware on system mother boards



BOT HUNTER 2.0

Identify and block botnet propagation and C2/Exfiltration. SW capability delivered to 90 IOS to enhance Information Operations Platform

SMALL BUSINESS INNOVATIVE RESEARCH - TRANSITION



RFnest

Solves warfighter requirements for solid, effective communications in current operations of aerial dynamic networks



Expanding Net-Centric Systems & Capabilities to Tactical Environments

On 5 Dec 2012 the DoD officially adopted Efficient XML Interchange (EXI) as a mandated DoD standard



CARINAE

Provides bandwidth, memory, and computational performance assessments for large networks supporting diverse operational missions and defensive applications. **Now part of a CAT II ATD**



BCIT

Developed a network analyzer to locate faults within six inches, thus minimizing B2 downtime



PLANAR WIDEBAND PHASED-ARRAY ELEMENT FOR VERY-HIGH FREQUENCY RADAR

Reduced the size of the antenna aperture for Very High Frequency (VHF) Synthetic Aperture Radar (SAR) systems. **Collaborated with AFRL/RV & ASC**

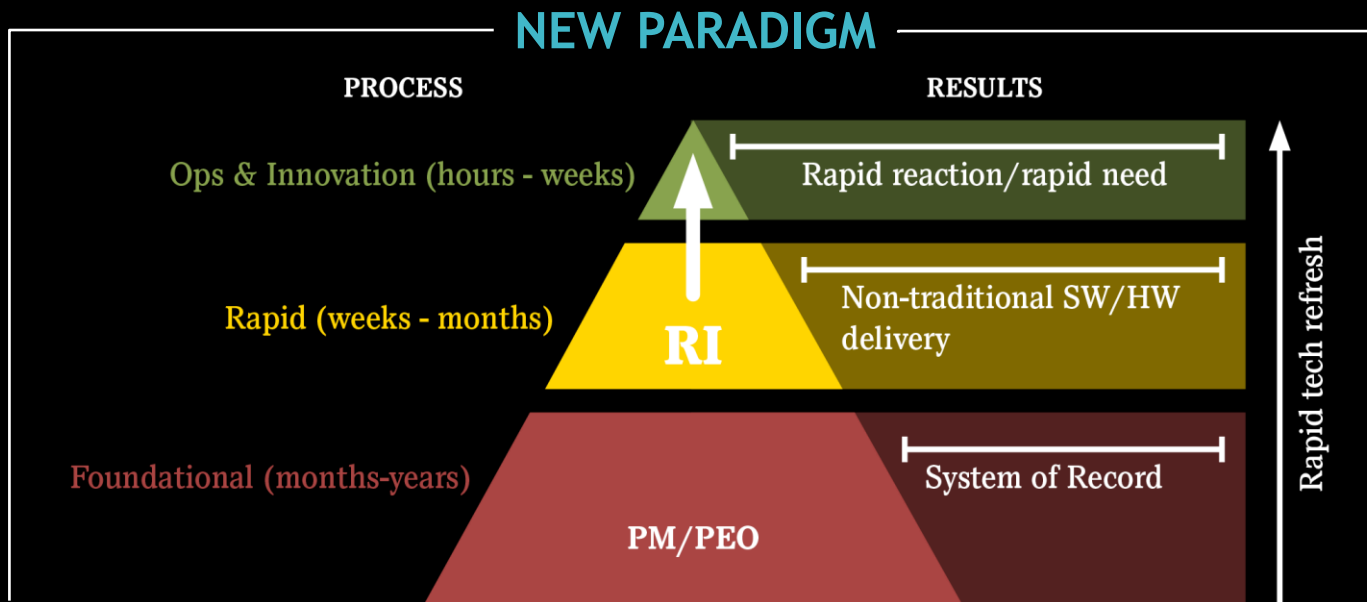
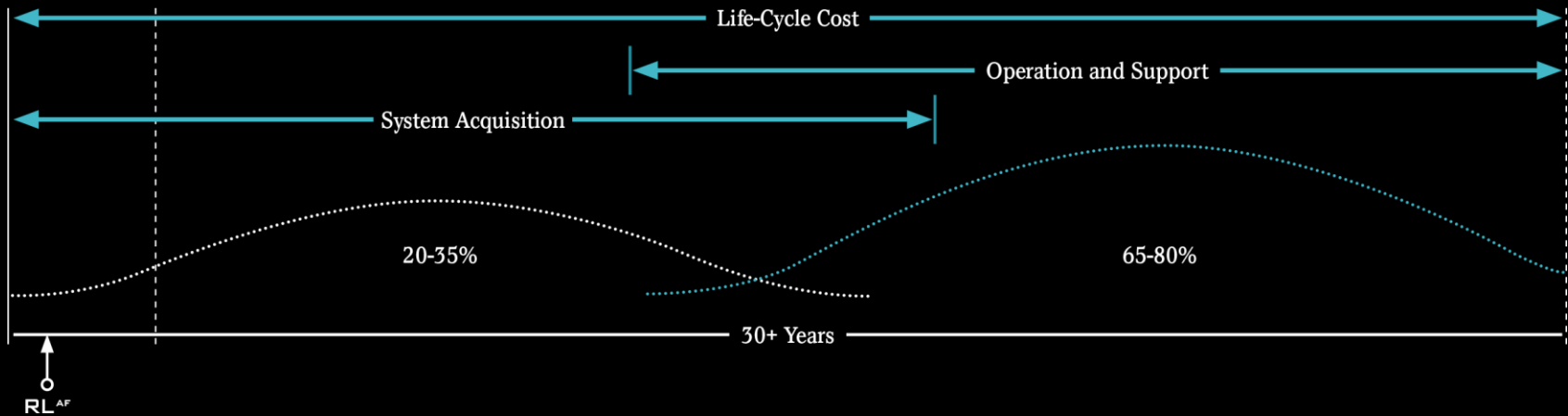


NIRVANA

Developed a software tool to provide a comprehensive cyber security analysis capability

INNOVATIVE TRANSITION

TYPICAL DOD ACQUISITION PROGRAM WITH A SERVICE LIFE OF ABOUT 30 YEARS



RAPID ACQUISITION AND TRANSITION PATHS

AGILE CYBER TECHNOLOGY (ACT)

- \$300M IDIQ vehicle; Contracts awarded in under 2 months
- Goal: Transitions 18 months or less
- Technology areas: 1) Threat Avoidance and Cyber Defense, 2) Full Spectrum Cyber Operations, 3) Network Exploitation, 4) Situation and Mission Awareness, 5) Command and Control, 6) Modeling, Simulation, and War-gaming, 7) Cyber Infrastructure, and 8) Mission Assurance

CYBER FAST TRACK - DARPA PROGRAM

- Rapid Cyber Acquisition
- AFRL executes and manages
- Nontraditional performers to the Cyber fight

FIRESTARTER - 6.7 FUNDING TO TRANSITION TRL 6 TO OPS

- AFRL Managed \$7-\$9M/year
- 24AF Successes - Packet Analysis Tools, WiFi Investigator, Forensic Tools

LEADING THE CHARGE TO STREAMLINE CYBER ACQUISITION

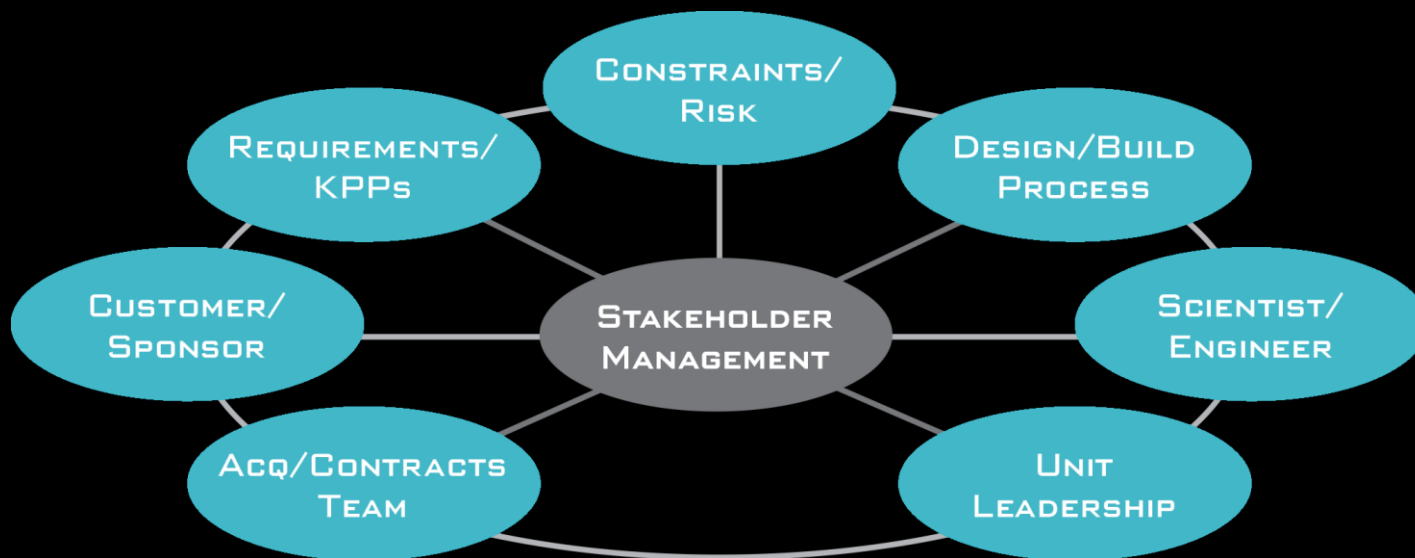
GDIP MODEL

GENERAL DEFENSE INTELLIGENCE PROGRAM (GDIP)

Creating Technology Transition Successes

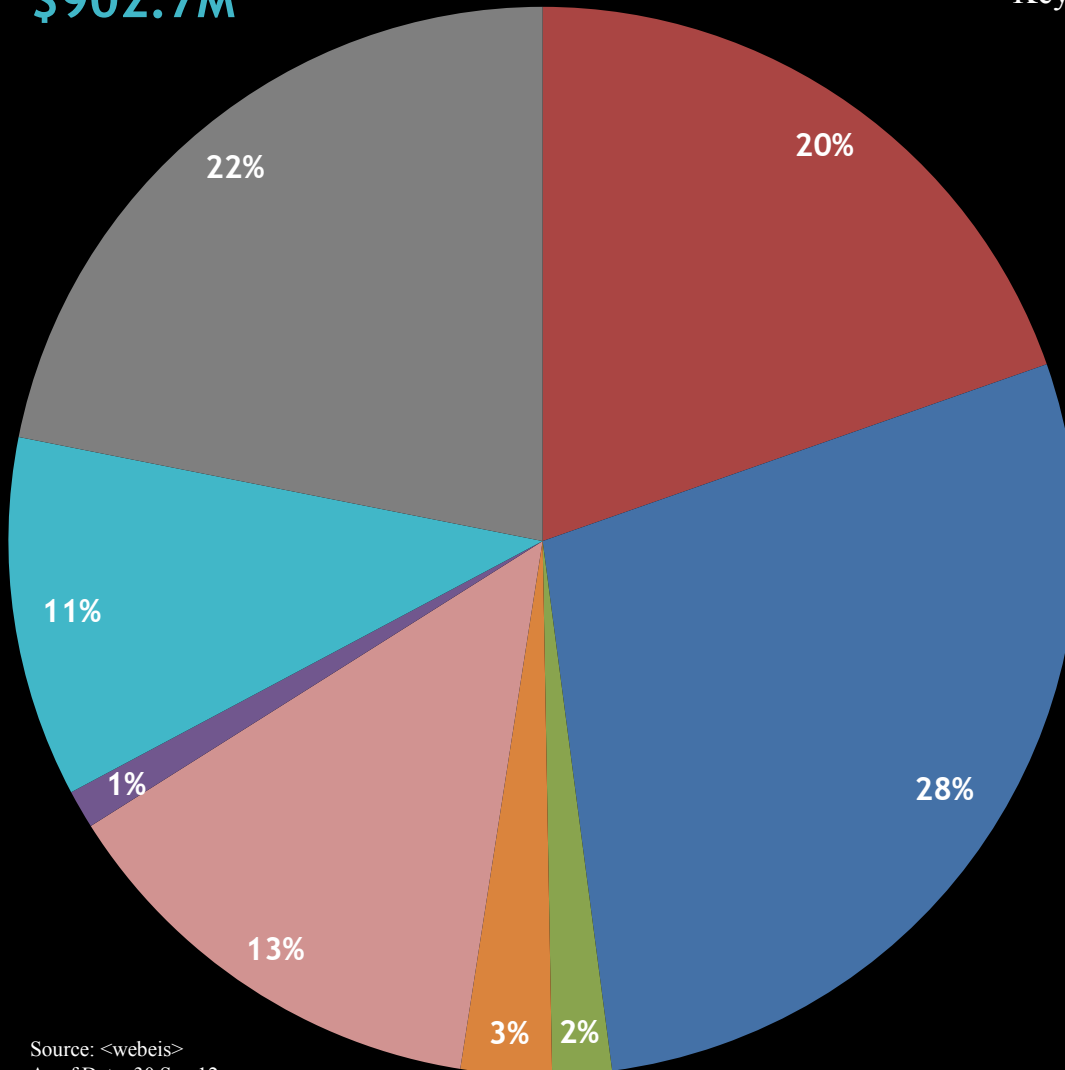
- Focus on understanding the problem - customer collaboration
- Work within core technical competencies - experts in what we do
- Manage stakeholder expectations - breeds credibility
- Build for the operational environment - spiral development

EIGHT KEY FACTORS THAT DRIVE TRANSITION SUCCESS OR FAILURE



FY12 CUSTOMERS ENDORSEMENT

\$902.7M



Key:

| | |
|---|-----------------|
| S&T 6.1/6.2/6.3 | \$177.2M |
| All Other AF | \$255.4M |
| USAF Central; Air Force Materiel Command; National Air & Space Intelligence Center; Secretary of the AF; AF Intelligence, Surveillance, & Reconnaissance Center | |
| AFMC Installation & Support | \$16.2M |
| SBIR | \$24.8M |
| Intel Community, Non-AF | \$122.6M |
| Defense Intelligence Agency; National Security Agency; Washington HQ Services; National Geospatial Intel Agency | |
| Non-DoD | \$10.5M |
| Department of Homeland Security; Department of State; Commercial Customers | |
| DoD | \$98.5M |
| Space & Naval Warfare System Center; HQ 3rd US Army; US Central Command; US Army IRAQ; HQ US Special Operations Command | |
| DARPA | \$197.5M |

Source: <webeis>
As of Date: 30 Sep 12
RIF/RIB

AFRL/RI WORLD CLASS BUSINESS SUPPORT

STAND ALONE OPERATIONS

- Comptroller
- Contracting
- Site Operations
- Legal
- Small Business
- Technology Transfer

ACCOLADES

- 2012 AFRL Director of Financial Management and Comptroller of the Year
- Winner of AFMC Outstanding S&T Contracting Unit for 2012
- 2012 Air Force nominee to the DoD George Lindsteadt Technology Transfer Award for the Office of Research and Technology Applications
- Air Force leader on 2012 patents
 - 35% of all AF patent applications in FY12 were generated by RI
- Air Force Small Business Champion 2009. Ubiquitous Collaboration Intel tool

COLLABORATIONS

JOINT COMMUNITY:

STRATCOM,
TRANSCOM,
NORTHCOM,
Army, Navy, Marines



USAF:

AFSOC, AFSPC,
ANG, AIA, AMC,
ACC, AFLCMC,
SMC



INTEL COMMUNITY:

DIA, CIA, IARPA,
NSA, NRO, NGA,
NASIC



INDUSTRY:

ISS
Intelligent Software Solutions
NORTHROP GRUMMAN

BAE SYSTEMS

Raytheon

Rockwell Collins

AIS
Assured Information Security, Inc.

SRI International

ITT EXELIS

SAIC
From Science to Solutions

RRC
Rome Research Corporation
Solutions Through Thought

LOCKHEED MARTIN

IBM

SRC

serco

Booz | Allen | Hamilton

INTERNATIONAL:

UK, Canada,
Australia,
Singapore,
Czech Republic,
TCP, NATO,
EOARD, AOARD



OTHER DOD AGENCIES:

DARPA, MDA,
DTRA



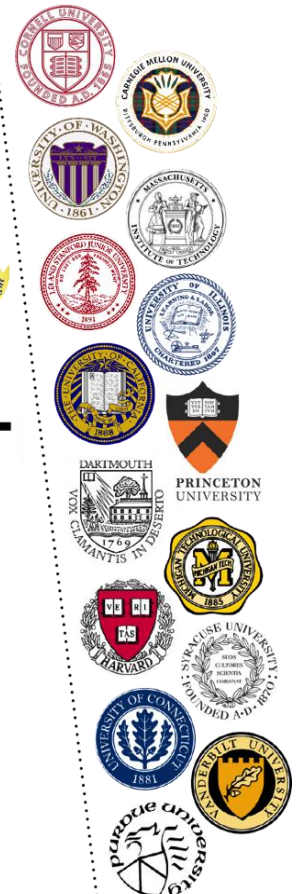
OTHERS:

FFRDCs, NASA,
DHS, NIST,
DOE Labs, FAA,
FBI



ACADEMIA:

Academic Institutions,
Partnerships, EPAs, and
Visiting Faculty
Research Program



UNIQUE PARTNERSHIPS



ACADEMIC PARTNERSHIPS

SUNY COLLEGE OF NANOSCALE SCIENCE AND ENGINEERING (CNSE)



CNSE's Albany Nanotech Complex \$14B nanofabrication facility

AFRL/RI AND SUNY CNSE JOINT NANOFABRICATION RESEARCH AND DEVELOPMENT

- Educational Partnership Agreement (EPA)
- Hybrid CMOS/Memristor Nanoelectronic circuits hardware fabrication
- Secure Cyber Key development and AES Encryption circuit development
- Collaborative research with AFRL/RY in nanoelectronics endurance
- Dr. Joe Van Nostrand PCAed to Albany CNSE, working full-time on site at Albany CNSE.

UNION COLLEGE OXIDE AND CARBON NANO ELECTRONICS JOINT EFFORT

- Scanning Conductive Atomic Force Microscopy of metal oxide nanoelectronics
- Explored carbon nanotubes (CNT's) for high-density interconnects

CORNELL UNIVERSITY

- Ultra-fast Optics Lab
- Probe electronic properties of nanomaterials

ACADEMIC PARTNERSHIPS

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN



UNIVERSITY CENTER OF EXCELLENCE IN ASSURED CLOUD COMPUTING

AFRL/RI, in collaboration with AFOSR, has established a University Center of Excellence (UCoE) in Assured Cloud Computing at the University of Illinois, Urbana Champaign.

The focus of this effort is on Information Assurance research for cloud computing over blue and/or gray networks to accomplish the Air Force computing mission at hand, in a secure, timely and effective manner.

By working closely with our university partner, AFRL will both leverage and continue to build critical expertise, while providing collaborative research and educational development opportunities for a new generation of cyber domain subject matter experts.



CENTER OF EXCELLENCE VISION IN CYBERSPACE RESEARCH & DEVELOPMENT

Collaborators: Gov. Researchers, On-Site Contractors, Industry, Visiting Scientists, University CoE



INFORMATION INSTITUTE



A Virtual RI Organization:
Consortium of 60+
Universities Performing
Research in Areas of
Cyber/Information
Technology of Interest to the
Information Directorate

| Year | Professors | Students |
|------|------------|----------|
| 2009 | 23 | 6 |
| 2010 | 29 | 16 |
| 2011 | 44 | 31 |
| 2012 | 53 | 35 |



GRIFFISS INSTITUTE

**GRIFFISS
INSTITUTE**
CENTER FOR INFORMATION ASSURANCE



CENTER FOR INFORMATION ASSURANCE

- Advance the study of the security and vulnerability of public and private information systems
- Facilitate Scientific Research to develop applications for improving the security of public and private systems and infra-structures
- Disseminate Information by conducting seminars, conferences, training and study groups.

- Promoting information technology business in the Mohawk Valley
- Business incubator & accelerator
- Office space and support facilities
- Computer research laboratory
- Technology transfer with AFRL
- Business and technology subject matter expertise and mentoring
- Conference and demonstration facilities
- Training and education

We can do **IT**™



AREA ACTIVITIES



DUCK HUNTING
Upper Mohawk Valley

FISHING
Salmon River
Oneida Lake

SWIMMING
Lake Delta State Park

WINTER ICE RACING
Lake George

SCENIC HIKING
Adirondack
Mountains, Watkins
Glen State Park

WHITEWATER CHALLENGE /KAYAKING
Old Forge

HARNESS RACES
Saratoga Springs
Vernon Downs

SKIING
Whiteface Mountain,
McKully Mountain,
Gore Mountain

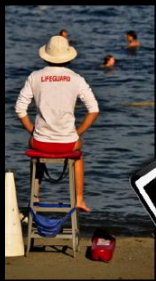
DOG SLED RACES
Lake George Winter
Carnival

ROAD RACE
Utica Boilermaker

WATERSKIING
Hinkley Lake

CROSS-COUNTRY SKIING
Boonville

and more...



THINGS TO DO!

www.RomeChamber.com

HISTORICAL ROME: THE REVOLUTIONARY WAR AND THE ERIE CANAL ARE PART OF EVERY AMERICAN'S HERITAGE. VISIT THESE AND MANY OTHER HISTORICAL SITES LOCATED IN AND AROUND ROME.

- Fort Stanwix National Monument
<http://www.nps.gov/fost>
 - Erie Canal Village
<http://www.eriecanalvillage.net>
 - Tomb of the Unknown Soldier
http://www.ushistory.org/tour/tour_tomb.htm
 - Oriskany Battlefield
<http://www.revolutionaryday.com/nyroute5/oriskany/default.htm>
 - Rome Historical Society
<http://www.RomeHistorical.com>
 - Rome Sports Hall of Fame and Museum
<http://www.when-in-rome.com/>
 - Shako:wi Cultural Center
<http://www.oneida-nation.net/shakowi/>
 - **OUTDOOR FUN:** Discover the great outdoors at any of the beautiful outdoor recreational facilities in our area.
 - Delta Lake State Park
<http://www.nysparks.com/parks/66/details.aspx>
 - Rome City Parks
<http://www.romenewyork.com/organization.asp?orgid=38>
 - Adirondack Park <http://www.visitadirondacks.com>
 - Verona Beach State Park
<http://www.nysparks.com/parks/102/details.aspx>
- HIKING TRAILS:** Avoid boredom, commune with nature, and enjoy a walking workout!
- Stanwix-Erie Canal Trail
 - Old Erie Canal State Park
 - Dune Trail
 - Wood Creek Trail
<http://www.dec.ny.gov/outdoor/8080.html>
 - Pitch Pine Bog
- FAMILY FUN:** These generation-bridging activities will bring a smile to anyone's face!
- Fort Rickey Children's Discovery Zoo
<http://www.fortrickey.com/>

A LITTLE BIT ABOUT ROME, NY

www.RomeChamber.com



For more information visit: www.romechamber.com

Visit the Rome Chamber site and download the
Community Guide to Rome, New York

- A city of 72 square miles in upstate New York, Rome is in western Oneida County and part of the Mohawk River Valley, and has the distinction of being the second-largest city in area in New York State.
- Oneida County is made up of three cities (Rome, Sherrill, and Utica), 26 towns, and 19 villages, located in central Upstate New York, situated with three exits (31, 32, 33) on the New York State Thruway (I-90).
- The Mohawk River Valley encompasses 2,685 square miles and includes Oneida and Herkimer Counties. Twenty percent of the U.S. population lives within 300 miles of the Mohawk Valley, with four of the most populous U.S. cities within 250 miles: New York, Philadelphia, Boston, and Washington, DC.
- Located at the foothills of the Adirondack Mountains, Rome is a wonderful place to live, work and play whether you plan to visit, purchase a home or start a business. Progressive schools, safe streets, a strong labor force, countless recreational opportunities, amazing arts and entertainment and an abundance of historic treasures make Rome a special place to raise a family.

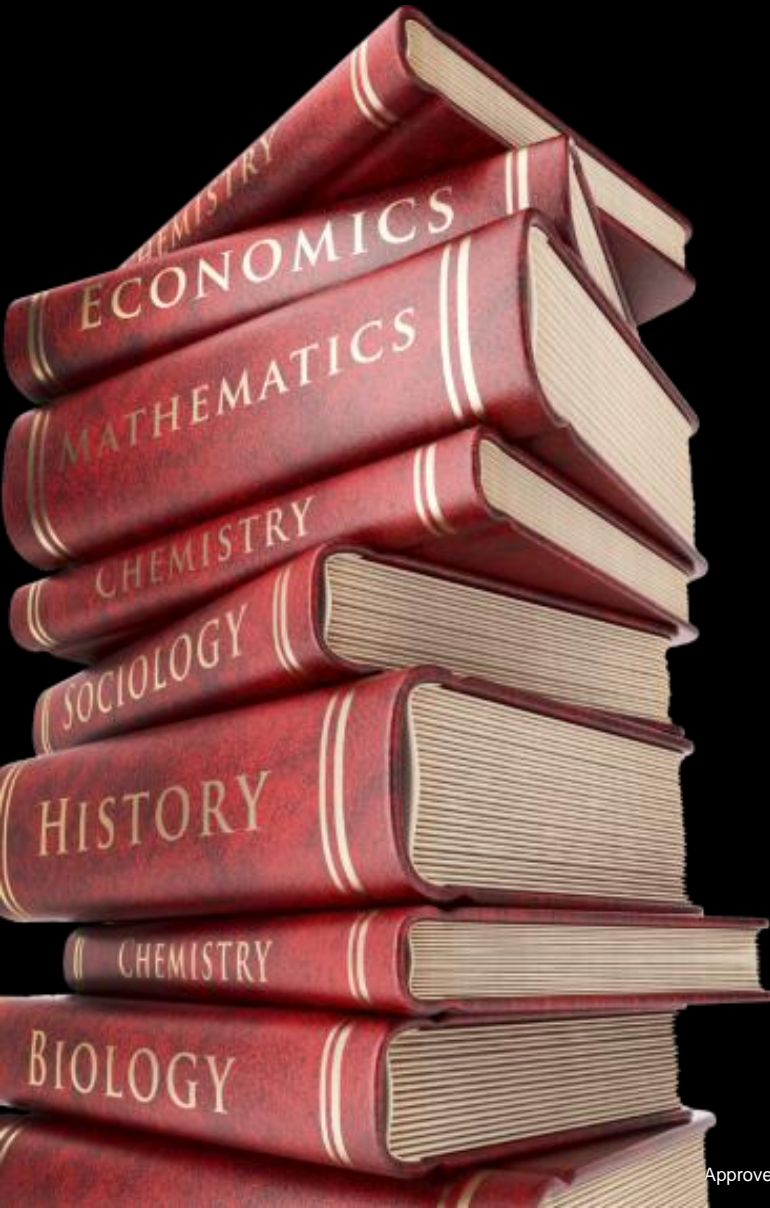
AFFILIATED COLLEGES & UNIVERSITIES WITHIN 50, 100, & 500 MILES



- Massachusetts Institute of Technology (MIT)
- Michigan Technological University
- Mohawk Valley Community College
- Montclair State University
- New Jersey Institute of Technology
- New York Institute of Technology
- Northeastern University
- Norwich University
- Polytechnic Institute of NY University
- Princeton University
- Rensselaer Polytechnic Institute
- Rochester Institute of Technology (RIT)
- Rutgers University
- Stony Brook University
- SUNY at Binghamton
- SUNY IT
- Syracuse University
- The College of New Jersey
- Tufts University
- University of Connecticut
- University of FairFax
- University of Illinois
- University of Maryland
- University of Massachusetts
- University of Missouri
- University of Pittsburgh
- University of Rhode Island
- University of Rochester
- Villanova University
- Virginia Commonwealth University
- Virginia Polytechnic Institute
- Yale University
- Carnegie-Mellon University
- Central State University
- City University of New York
- Clarkson University
- Colgate University
- Columbia University
- Cornell University
- Dartmouth College
- Drexel University
- George Mason University
- Harvard University
- IONA College
- Illinois Institute of Technology
- John Hopkins University
- La Salle University

DEGREE PROGRAMS OFFERED WITHIN 200 MILES OF ROME, NY

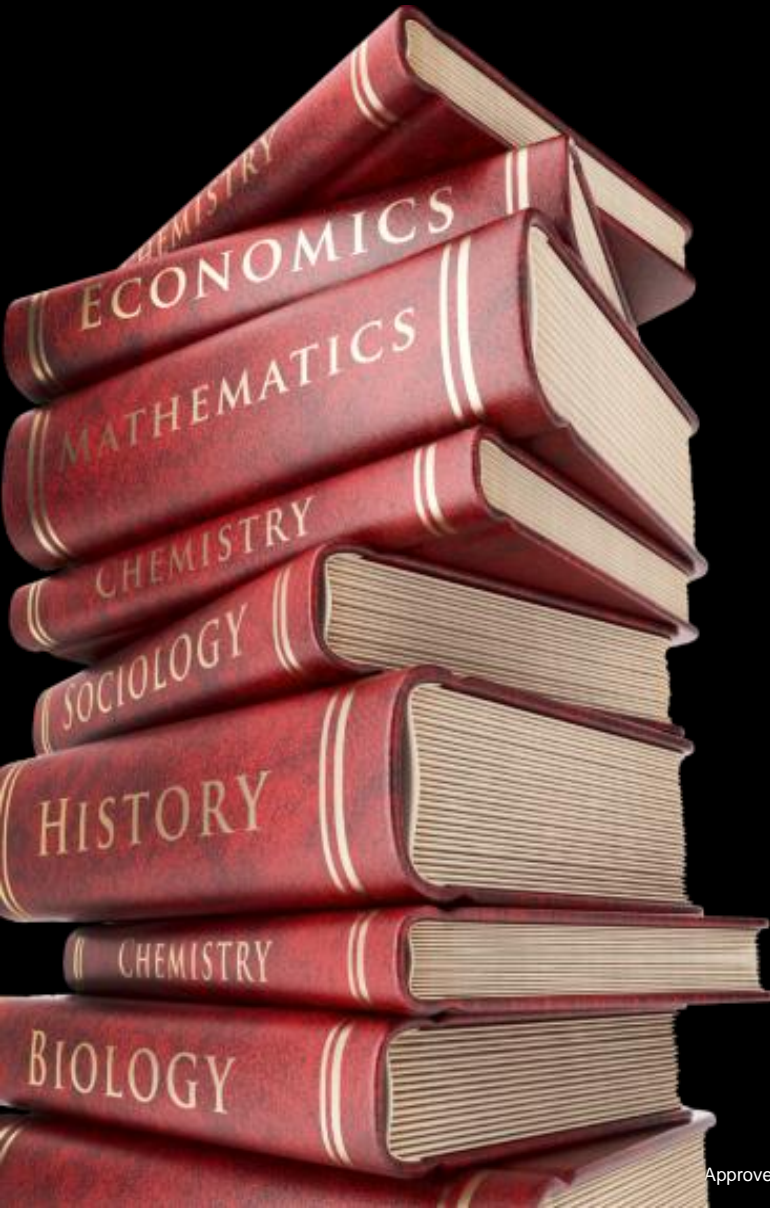
www.career-college.org
US News & World Reports site



| | |
|---|-------|
| • Albany College of Pharmacy and Health Sciences - Albany, NY..... | 108.3 |
| • Bard College - Annandale on Hudson, NY | 154.9 |
| • Binghamton University, SUNY - Binghamton, NY | 120.3 |
| • Cazenovia College - Cazenovia, NY | 35.5 |
| • Clarkson University - Potsdam, NY | 124.4 |
| • Colgate University - Hamilton, NY | 33.4 |
| • College of St. Rose - Albany, NY | 106 |
| • Cornell University - Ithaca, NY | 94.6 |
| • Culinary Institute of America - Hyde Park, NY | 184.3 |
| • Davis College - Johnson City, NY | 118.7 |
| • Elmira College - Elmira, NY | 13.8 |
| • Excelsior College - Albany, NY | 105.6 |
| • Hamilton College - Clinton, NY | 13.8 |
| • Hartwick College - Oneonta, NY | 76.3 |
| • Hobart and William Smith Colleges - Geneva, NY | 92.4 |
| • Ithaca College - Ithaca, NY | 97.2 |
| • Keuka College Keuka - Park, NY | 114.4 |
| • Le Moyne College - Syracuse, NY | 41.9 |
| • Mansfield University of Pennsylvania - Mansfield, PA | 178.4 |
| • Morrisville State College - Morrisville, NY | 31.8 |
| • Paul Smith's College - Paul Smiths, NY | 144.7 |
| • Rensselaer Polytechnic Institute - Troy, NY | 113.9 |
| • Siena College - Loudonville, NY | 110.6 |
| • Skidmore College - Saratoga Springs, NY | 104.3 |
| • St. Lawrence University - Canton, NY | 114.6 |
| • SUNY College of Agriculture and Technology - Cobleskill, NY..... | 75.1 |
| • SUNY College of Environmental Science and Forestry - Syracuse, NY.... | 46 |

DEGREE PROGRAMS OFFERED WITHIN 100 MILES OF ROME, NY

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|---|-------|
| • Albany College of Pharmacy and Health Sciences - Albany, NY | 108.3 |
| • Cazenovia College - Cazenovia, NY | 35.5 |
| • Colgate University - Hamilton, NY | 33.4 |
| • College of St. Rose - Albany, NY | 106 |
| • Cornell University - Ithaca, NY | 94.6 |
| • Davis College - Johnson City, NY | 118.7 |
| • Elmira College - Elmira, NY | 13.8 |
| • Excelsior College - Albany, NY | 105.6 |
| • Hamilton College - Clinton, NY | 13.8 |
| • Hartwick College - Oneonta, NY | 76.3 |
| • Hobart and William Smith Colleges - Geneva, NY | 92.4 |
| • Ithaca College - Ithaca, NY | 97.2 |
| • Keuka College Keuka - Park, NY | 114.4 |
| • Le Moyne College - Syracuse, NY | 41.9 |
| • Morrisville State College - Morrisville, NY | 31.8 |
| • Rensselaer Polytechnic Institute - Troy, NY | 113.9 |
| • Siena College - Loudonville, NY | 110.6 |
| • Utica College - Utica, NY | 16.89 |
| • St. Lawrence University - Canton, NY | 114.6 |
| • SUNY College of Agriculture and Technology - Cobleskill, NY | 75.1 |
| • SUNY Institute of Technology--Utica/Rome - Utica, NY | 16.83 |
| • Mohawk Valley Community College - Utica, NY | 19.93 |

CONTINUED...

- Skidmore College - Saratoga Springs, NY
- SUNY College of Technology--Canton - Canton, NY
- SUNY College of Technology--Delhi - Delhi, NY
- SUNY College--Cortland - Cortland, NY
- SUNY College--Oneonta - Oneonta, NY
- SUNY College--Potsdam - Potsdam, NY
- SUNY Empire State College - Saratoga Springs, NY
- SUNY College of Env. Science and Forestry - Syracuse, NY
- SUNY Upstate Medical University - Syracuse, NY
- SUNY--Oswego - Oswego, NY
- Syracuse University - Syracuse, NY
- The Sage Colleges - Troy, NY
- Union College - Schenectady, NY
- University at Albany--SUNY - Albany, NY
- Wells College - Aurora, NY

COMMUNITY COLLEGE

- Jefferson Community College - Watertown, NY
- The Sage Colleges - Troy Campus - Troy, NY
- Hudson Valley Community College - Troy, NY
- Onondaga Community College - Syracuse, NY
- Ulster County Community College - Stone Ridge, NY
- Schenectady County Community College - Schenectady, NY
- North Country Community College - Saranac Lake, NY
- Adirondack Community College - Queensbury, NY

BOCES

- Jefferson Lewis BOCES - Practical Nursing Program – Watertown, NY
- Madison Oneida BOCES - Continuing Education - Verona, NY

NURSING/MEDICAL

- Faxton-St. Luke's Healthcare School of Rad Tech - Utica, NY

- Utica School of Commerce - Utica, NY
- St. Elizabeth Med Ctr. School of Radiography - Utica, NY
- Saint Elizabeth College of Nursing - Utica, NY
- Samaritan Hospital School of Nursing - Troy, NY
- Rensselaer BOCES - School of Practical Nursing - Troy, NY
- SUNY Health Science Center At Syracuse - Syracuse, NY
- St Josephs College of Nursing At St Josephs Hospital Health Ctr - Syracuse, NY
- Crouse Hospital School of Nursing - Syracuse, NY
- New York Chiropractic College - Seneca Falls, NY
- Ellis Hospital School of Nursing - Schenectady, NY
- Washington Saratoga Warren Hamilton Essex BOCES Practical Nursing - Saratoga Springs, NY

TRADE SCHOOLS

- Elmira Business Institute – Elmira & Vestal, NY
- Mildred Elley - Albany, NY
- Austin School of Spa Technology - Albany, NY
- Branford Hall Career Institute - Albany, NY
- Center for Natural Wellness School of Massage Therapy - Albany, NY
- Hudson Valley School of Advanced Aesthetics Skin Care - West Park, NY
- Northern Tier Career Center - Towanda, NY
- Troy School of Beauty Culture - Troy, NY
- Sage Colleges System Office - Troy, NY
- Simmons Institute of Funeral Service - Syracuse, NY
- Phillips Hairstyling Institute - Syracuse, NY
- Central Tech Nursing Program - Syracuse, NY
- Bryant & Stratton College - Syracuse, NY
- Modern Welding School - Schenectady, NY
- Word of Life Bible Institute - Pottersville, NY

ROME REFERENCE GUIDE

www.RomeChamber.com

EMERGENCY SERVICES

| | |
|--|----------|
| Ambulance (AmCare)..... | 339-5600 |
| Rome Fire Dept. Emergency.... | Dial 911 |
| Non-Emergency..... | 339-7784 |
| Rome Police Department Emergency & Other..... | Dial 911 |
| Non-Emergency..... | 339-7780 |
| Oneida County Sheriff's Office | 736-8364 |
| NY State Police – Admin Office | 337-0036 |

HOSPITALS - ROME

| | |
|---|----------|
| Rome Memorial Hospital General Information | 338-7000 |
| Emergency Services..... | 338-7035 |

HOSPITALS - ONEIDA COUNTY

| | |
|---|----------|
| Faxton-St. Luke's Healthcare General Information | 624-6000 |
| Emergency Department | 624-6112 |
| St. Elizabeth Medical Center General Information | 798-8100 |
| Emergency/Trauma/Chest Pain Center | 798-8111 |

URGENT CARE FACILITIES

| | |
|-------------------|----------|
| Mohawk Glen | 337-2156 |
|-------------------|----------|

| | |
|--|----------|
| Ridge Mills Medical Center..... | 337-2500 |
| Economic Development Information Rome Industrial Development Corporation | 338-0393 |
| Mohawk Valley EDGE..... | 338-0393 |
| Griffiss Local Development Corporation (GLDC) | 338-0393 |
| Real Estate Information Greater Utica/ Rome Board of Realtors..... | 724-5159 |

EMPLOYMENT INFORMATION

| | |
|------------------------------|----------|
| Workforce Development..... | 798-5798 |
| Working Solutions..... | 356-0662 |
| Rome City Hall | 336-6000 |
| Mayor's Office | 339-7677 |
| City Clerk | 339-7659 |
| City Court | 337-6440 |
| City Yard | 339-7778 |
| Parks & Recreation..... | 339-7656 |
| Planning Department..... | 339-7643 |
| Public Works Department..... | 339-7635 |
| Tax Collections | 339-7680 |
| Treasurer | 339-7678 |
| Vital Statistics | 339-7756 |

TRANSPORTATION

| | |
|---|----------------|
| Birnie Bus Service | 336-3950 x304 |
| Oneida County Rural Transit System CENTRO of Oneida City bus transportation | 336-5310 |
| Call-A-Bus | 336-0147 |
| Griffiss International Airport | 736-4171 |
| Amtrak updates | 1-800-872-7245 |
| NYS Thruway Road Conditions..... | (800)847-8929 |

ROME CITY SCHOOL

| | |
|---------------|----------|
| DISTRICT..... | 338-6500 |
|---------------|----------|

FOR YOUR INFORMATION

| | |
|---|----------|
| NYS Department of Motor Vehicles | 336-6790 |
| U.S. Post Office (Rome)..... | 336-1500 |
| Social Security Administration | 339-1751 |

CHAMBERS OF COMMERCE

| | |
|---|----------|
| Rome Area Chamber of Commerce | 337-1700 |
| Chamber Alliance of the Mohawk Valley..... | 337-1700 |

NY DRIVING DISTANCES

