

Agenda

- **Who We Are**
- **What We Do**
- **Installation Briefing Schedule**

1000 – Aberdeen Proving Ground

1200 – Break

1300 – Adelphi Laboratory Center

1415 - Army Research Office

1445 - Picatinny Arsenal

1600 - Soldier Systems Center

Questions

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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.



U.S. Army Research, Development & Engineering Command

DCN: 9979

Mission: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.



**Strike
(Exploit FCS Netted
Fires)**

What we do:

Technology Out of the Laboratories and into the Hands of Warfighters in the Shortest Time
Direct Support of the Tech Base to Future Combat System (FCS) and Future Force
Manage Speed and Complexity of Technological Change to Operational Needs
Systems Engineering, Assessment, and Analysis
Engineering support to PEOs/PMs, Materiel Management Centers and Current Force
Identify Foreign Technologies for US Army Use

What we manage:

8 Labs and Research, Development, and Engineering Centers (RDECs)
Army Materiel Systems Analysis Activity (AMSAA)
Foreign Comparative Testing & Defense Acquisition Challenge Program
Regional International Technology Centers
Capability & Technology Integrated Process Teams
Agile Development Center

The Magnitude:

Over 30K Military, Civilians, and Direct Contractors
\$3.5 B Annual Budget
75% of Army Science and Technology Objectives
All Army Advanced Technology Demonstrations (ATDs)
6 of 13 Advanced Concept Technology Demonstrations (ACTDs)
20 Foreign Comparative Testing (FCT) & 7 Defense Acquisition Challenge Programs (DACPs) Totaling \$23.8 Million with 13 different Countries



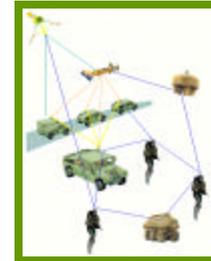
**Human Performance &
Embedded Training**



Sensory Enhancement



**Battery Charging
Fuel Cell with Methanol
Steam Reforming Unit**



**Collaborative Networked
Situational Understanding**



**Objective Force
Warrior**



**Protective Mask &
JLIST - Joint Service
Lightweight Integrated Suit
Technology**



Robotics Interface

**RDECOM
Operates
World-wide**

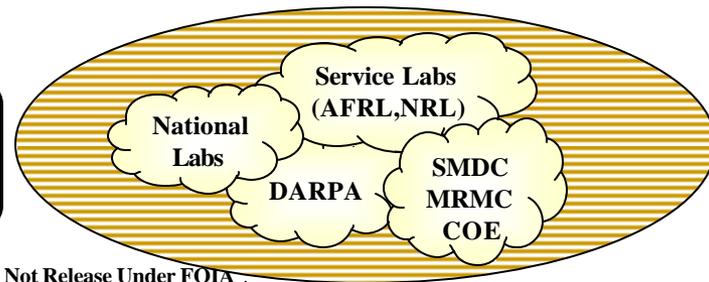
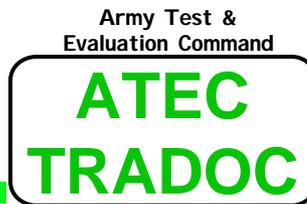
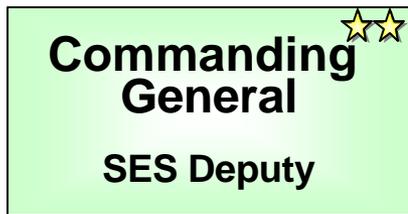
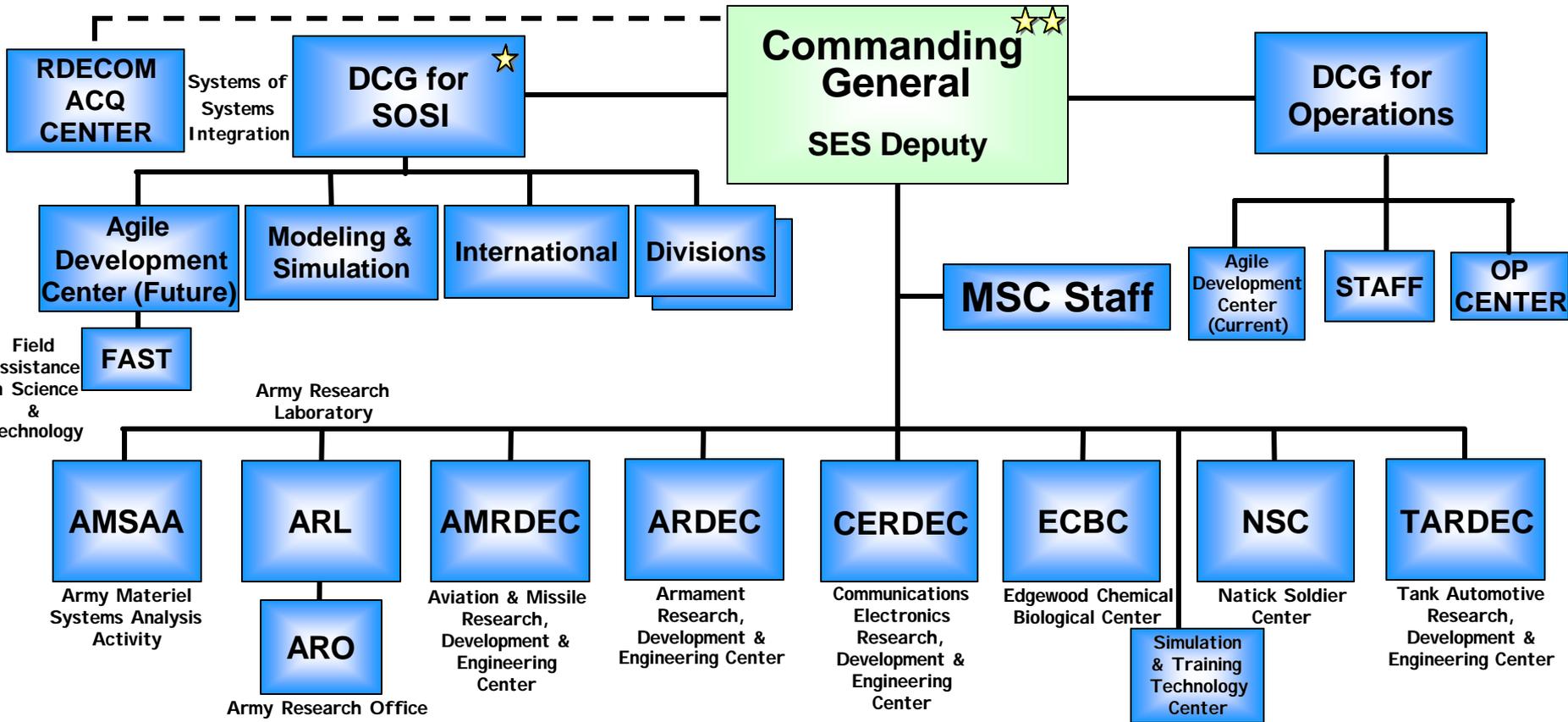
- ★ **110 direct liaisons to the field**
- ★ **Over 300 International Agreements**
- ★ **Linkage to Combatant Commanders - FAST Teams**
- ★ **Engineer and Scientist Exchange Program**

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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

RDECOM Organization

DCN: 9979



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RDECOM Organization

5 FAST/RDECOM Teams to Kuwait/Iraq/Afghanistan

- International Technology Centers**
- Germany
 - DGN 9979
 - Canada
 - United Kingdom
 - Japan
 - Australia
 - Chile
 - Argentina
 - Singapore
- FY 04

- Field Assistance in Science and Technology (FAST) – European Division**
- USAEUR, Heidelberg, GE
 - V Corps, Heidelberg, GE
 - 7th ATC, Grafenwöhr, GE
 - EUCOM, Stuttgart, GE
 - SETAF (A), Vicenza, IT

- Field Assistance in Science and Technology (FAST) – Pacific Division**
- EUSA/USFK, Seoul, KOR
 - USARPAC, Ft. Shafter, HI
 - ALCOM/USARAK, Ft. Richardson, AL

- Field Assistance in Science and Technology (FAST) – Central Division**
- I Corps, Ft. Lewis, WA
 - SOUTHCOM, Miami, FL
 - JFCOM, Norfolk, VA
 - XVIII Airborne Corps, Ft. Bragg, NC
 - FORSCOM, Ft. McPherson, GA
 - SOCOM, MacDill AFB, FL
 - CENTCOM, MacDill AFB, FL
 - JRTC, Ft. Polk, LA
 - III Corps, Ft. Hood, TX
 - NTC, Ft. Irwin, CA

AMRDEC - Aeroflightdynamics Directorate

Institute for Collaborative Biotechnologies – Univ of Cal (Santa Barbara)

Institute for Creative Technology – University of Southern California

ARL - White Sands

ARL/ARO

AMRDEC

STTC

Institute for Advanced Technology – Univ of Texas (Austin)

TARDEC

ARL @ NASA-Glenn

ARDEC/ Benet Labs

NSC

Institute for Soldier Nanotechnology – Massachusetts Institute of Technology

ARDEC

CERDEC

ARL APG | AMSAA

ARL Adelphi

RDECOM | ECBC

SOSI

CERDEC Night Vision & Electronic Sensors Directorate

AMRDEC - Aviation Applied Technology Directorate

ARL @ NASA-Langley

- AMRDEC – Aviation & Missile Research, Development & Engineering Center
- AMSAA – Army Material Systems Analysis Activity
- ARDEC – Armaments Research, Development & Engineering Center
- ARL – Army Research Lab
- ARO – Army Research Office
- CERDEC – Communication - Electronics Research, Development & Engineering Center
- ECBC – Edgewood Chemical Biological Center
- NSC – Natick Soldier Center
- SOSI – System of Systems Integration
- STTC – Simulation and Training Technology Center
- TARDEC – Tank and Automotive Research, Development & Engineering Center

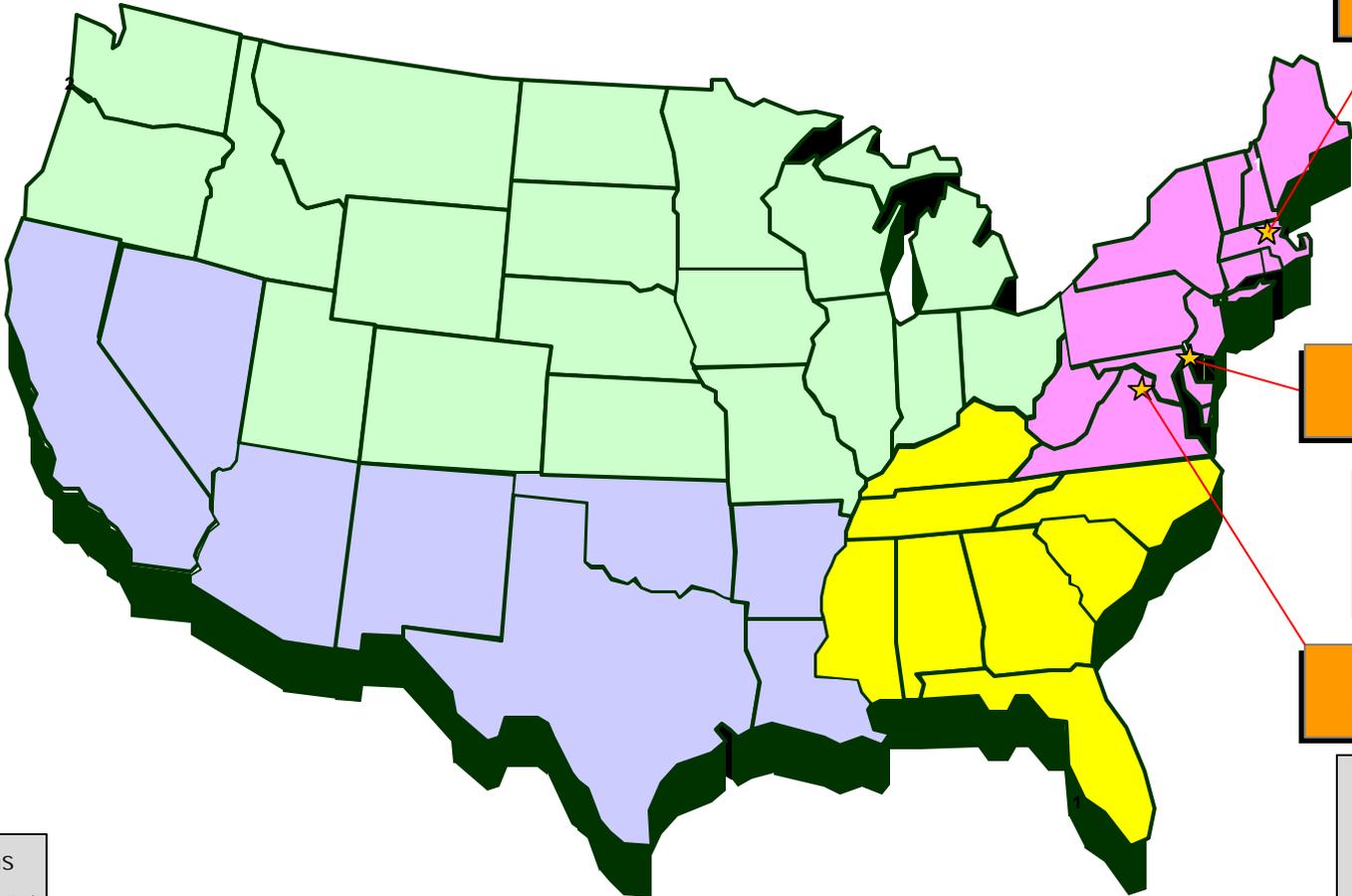
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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

MAJOR RDECOM LOCATIONS

DCN: 9979



**Operations –
Soldier Systems
Center**

Military: 2
Civilians: 2
Contractor: 0

**RDECOM HQ -
Aberdeen PG**

Military: 7
Civilians: 181
Contractor: 9
TOTAL: 197

**SOSI –
Ft Belvoir**

Military: 4
Civilians: 76
Contractor: 28
TOTAL: 108

IMA Regions

Light Green	Northwest
Light Blue	Southwest
Yellow	Southeast
Pink	Northeast

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- **Who We Are**
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- **Installation Briefing Schedule**
- **Questions**

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What Does the RDE Command Give Us?

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Speed

Agility

Flexibility

Innovation



Agile Development Center ("Skunk Works")
Linkage to Combatant Commands (FAST)
Linkage to International Markets
Modeling & Simulation/Collaborative Environment
Capability Management
Technology Integration Across Domains



- ◆ Technology Out of the Laboratories and into the Hands of Soldiers in the Shortest Time
- ◆ Direct Support of the Tech Base to FCS and Future Force
- ◆ Manage Speed and Complexity of Technological Change to Operational Needs
- ◆ Provide Support for Sustainment Engineering

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Agile Development Center

➤ Linking ➤ Facilitating ➤ Expediting



Industry



Seeking "Good Ideas" that make a difference

Rapid Development

Rapid Equipping (Teaming)

Rapid Sustainment (Teaming)

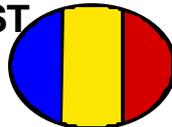
Disengagement



International Markets



FAST



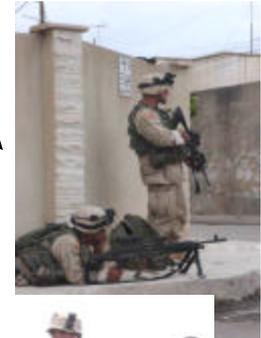
Battle Labs



REF



Academia



Fighting Warriors

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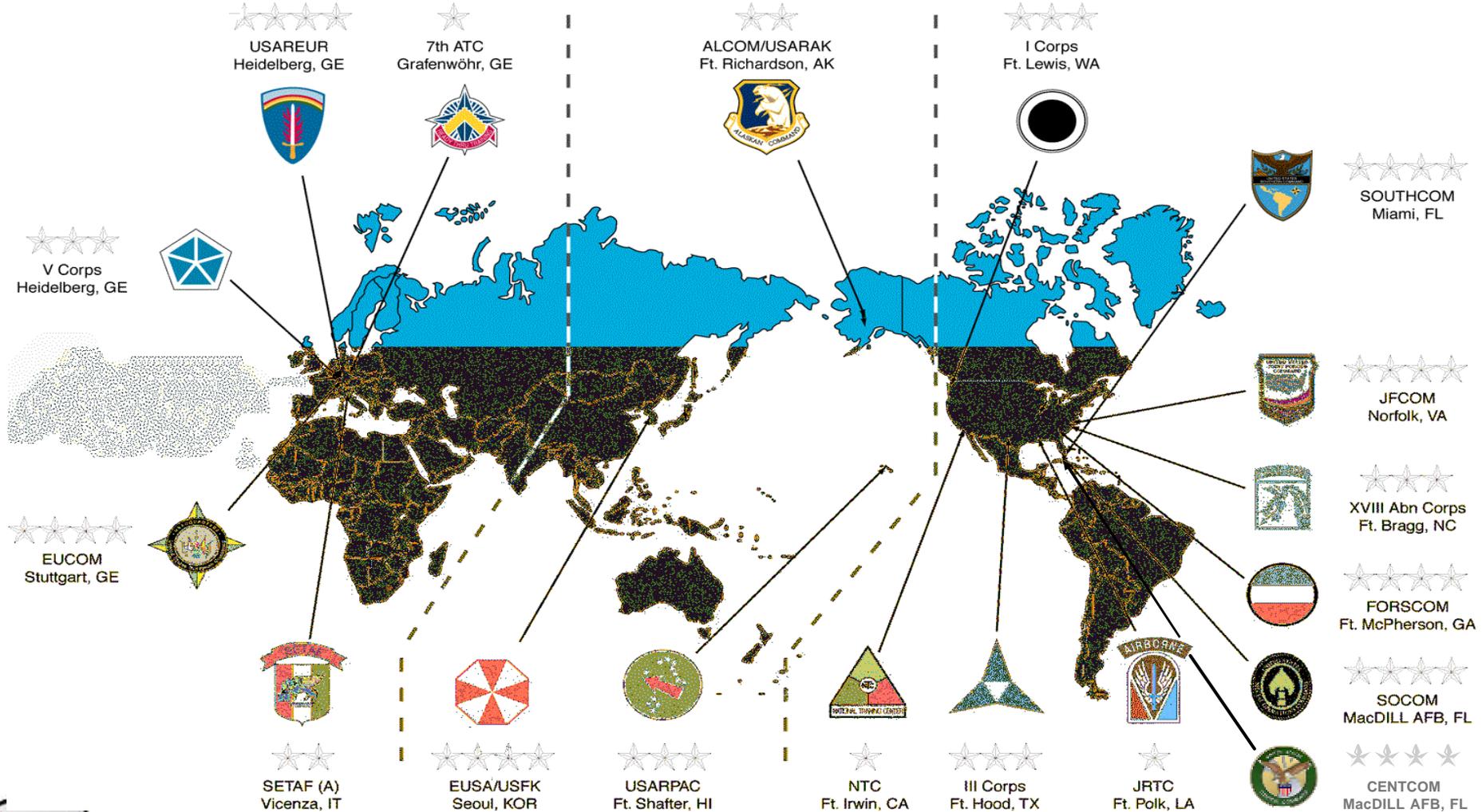
Linkage to Combatant Commands (FAST)

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EUROPEAN DIVISION

PACIFIC DIVISION

CENTRAL DIVISION

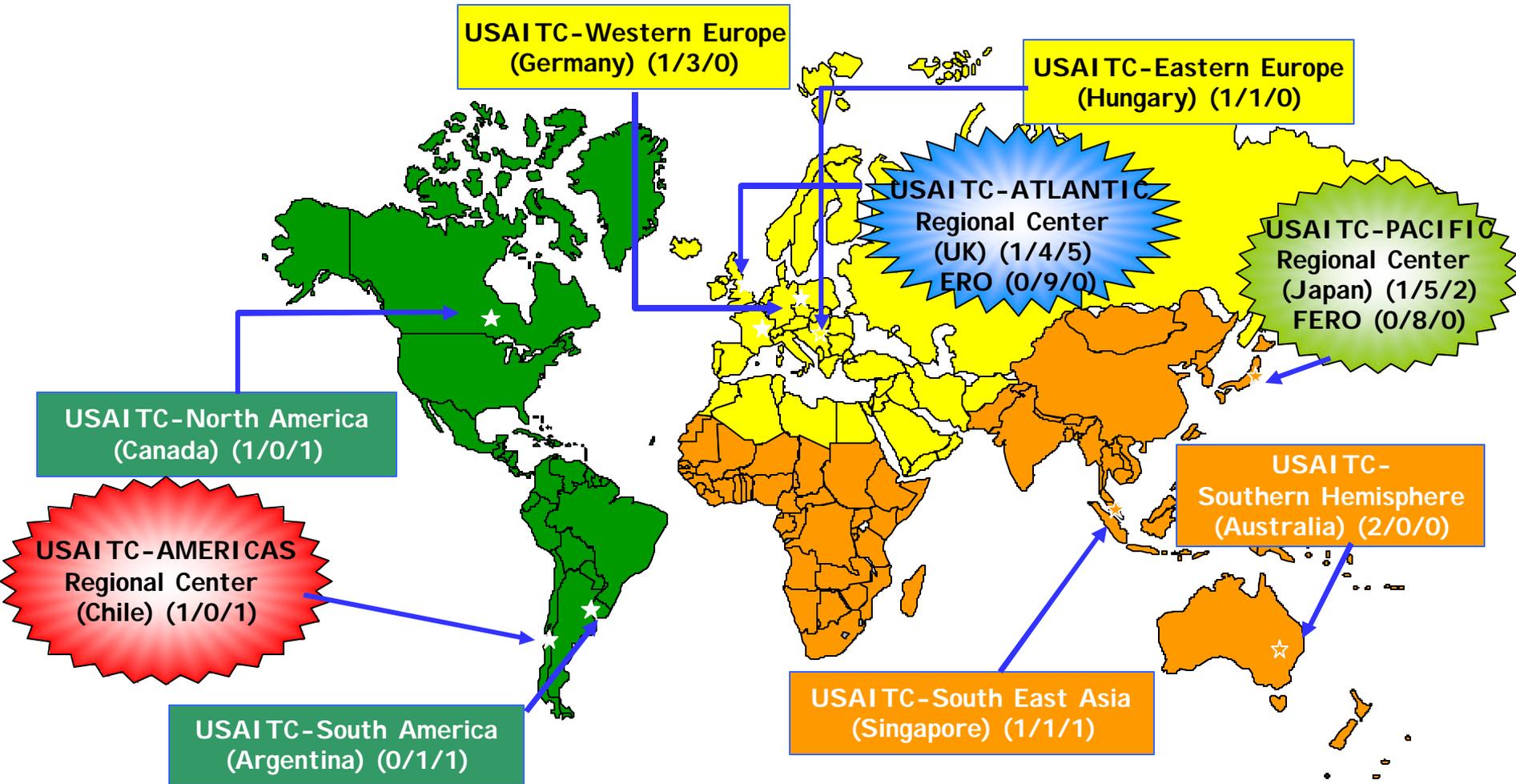


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Linkage to International Markets

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Key: (Military/US Civilian/Foreign National); 1 CIV TDA slot (LNO) at BWB and 1 CIV in France assigned to SAITC-ATL

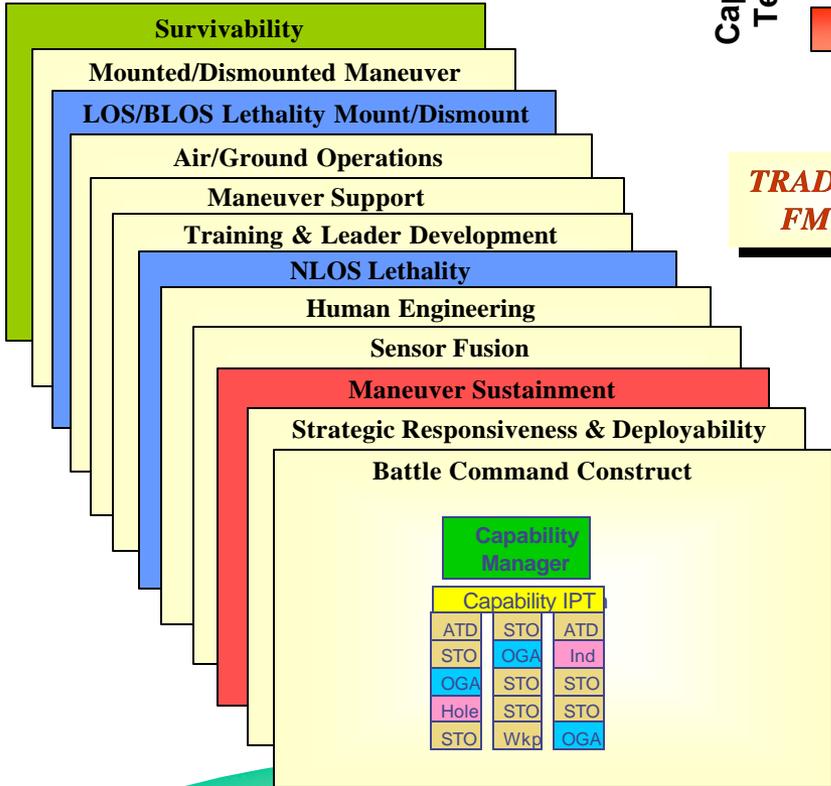
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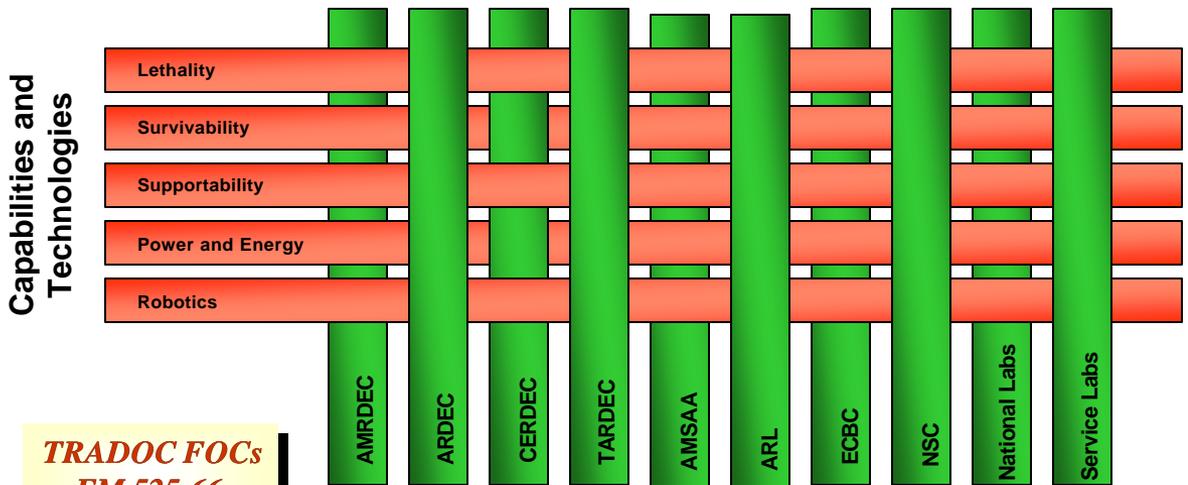


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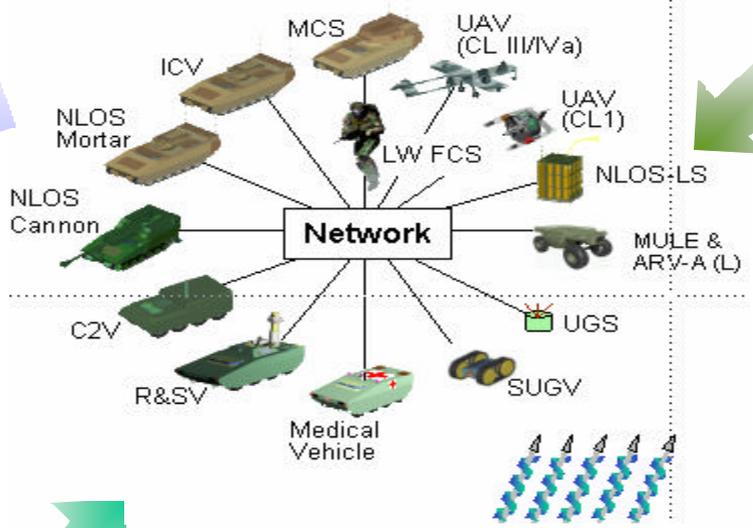
The Environment



TRADOC FOCs
FM 525-66



Centers, Activities, Labs



Modeling & Simulation Collaborative Environment

Spiral Forward Systems

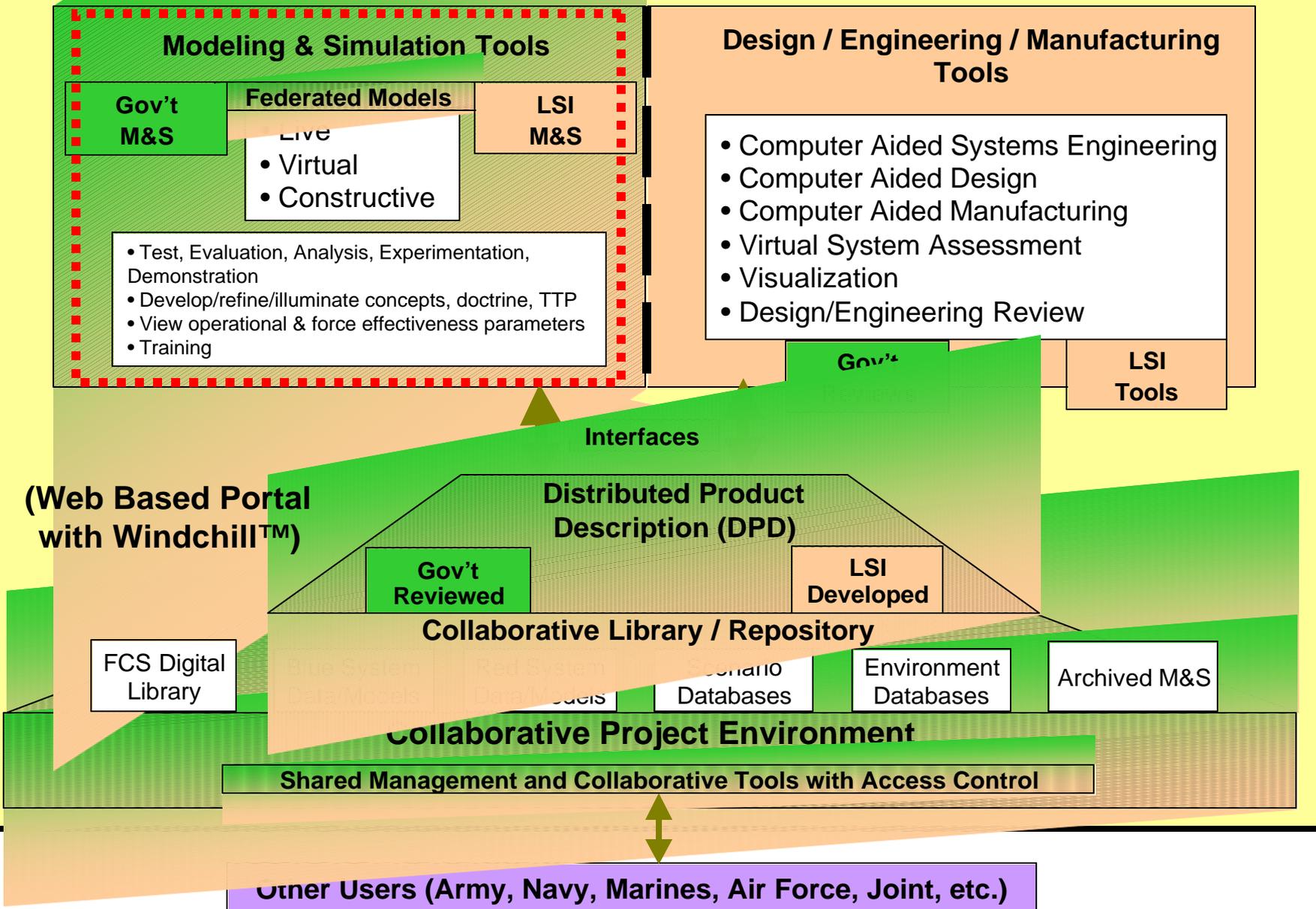
- UAV (CL II)
- Armed Robotic Vehicle – Assault & Recon Variants
- Intelligent Munitions Systems

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FCS Advanced Collaborative Environment



RDECOM Support to Current Operations

HMMWV Doors
DCN: 9979



Pacbot



Pillar Gunfire Detection System



Shelf-Stable
Pocket Sandwich



Omni-Directional
Inspection System

Predator
Hellfire
Integration



Cooperative
Defense Initiative



40mm
Thermobaric
Cartridge



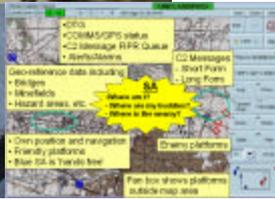
Zinc-Air Battery



Interceptor Body Armor
& Advanced Combat Helmet:
Dozens of Lives Saved
During OEF/OIF



Blue
Force
Tracking



Lightweight Counter
adar



WeiCam

Phraselator



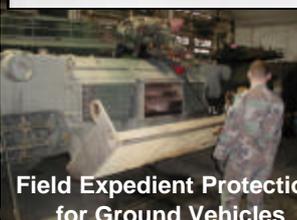
Mobile Lab



Bunker Defeat Munition



Counter IED



Field Expedient Protection
for Ground Vehicles

Slat
(Bar)
Armor



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U.S. Army Research, Development, and Engineering Command

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Agile
Development
Center

Streamlining
Processes by
Maximizing
Efficiencies

Direct Support of
the Tech Base to
Future Combat
Systems and Future
Force

Systems of
Systems
Integration

Get the right

integrated technologies into
the hands of Warfighters quicker
without unnecessary duplication.

Modeling
Simulations
Collaborative
Environment



Industry

Homeland Defense/
Security

Soldier as a System
(Center of
Excellence)

Systems
Engineering,
Assessment,
and Analysis

Capability &
Technology
Integrated
Process Teams

Science and
Technology for
Current Force

Combatant
Command Links
(FAST)

Regional
International
Technology
Centers

Manage Speed &
Complexity of
Technological
Change to
Operational Needs



Academia

RDECOM

U.S. Army Research, Development, and Engineering Command

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Questions



BACKUP SLIDES

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Aviation and Missile Research, Development, and Engineering Center (AMRDEC)

DCN: 9979

Mission: Manage and conduct research, exploratory and advanced development and provide one-stop life cycle engineering and scientific support for aviation and missile weapon systems and UAV/UGV platforms.

Science & Technology Programs

- Missile Seekers
- Rocket and Turbine Propulsion
- Target Acquisition Systems
- Precision Guidance Systems
- Kinetic Energy Missiles
- Aerodynamics and Structures
- Rotorcraft Drives and Controls
- Platform and Weapon Systems Integration

One-stop Multi-discipline Support to Multi-service Partners/Customers and Joint Service Warfighters



Total Life Cycle Responsibilities

Engineering Services

- Life Cycle Aviation / Missile / UAV / UGV Software Engineering
- Life Cycle Systems Engineering
- High-Fidelity System Level Simulations
- Independent Product / Process Assessment
- Airworthiness Qualification and Release Authority
- Sustainment Engineering Support
- Rapid Prototype Engineering / Integration

ILIR
#1 in Army

SLEP
\$8B

Ensures Stockpile Reliability

VE
\$3B

Best In DoD

Tech Base Yields Acquisition Savings!

Best In Army

\$1B OSCR

Rapid Fielding of Systems Directly to the Warfighter

- TOW Bunker Buster: 6 Months
- Predator / HELLFIRE Weaponization: 5 Months (Joint Program)
- AH-64 IMC/IFR: 6 Months
- Battle Damage Assessment / Repair: 30 Days
- Hellfire MOD-K: 28 Days
- Gladiator UGV: Joint Program
- Mobile Tower System (MOTS): 12 Months
- Blue Force Tracking (BFT): 12 Weeks

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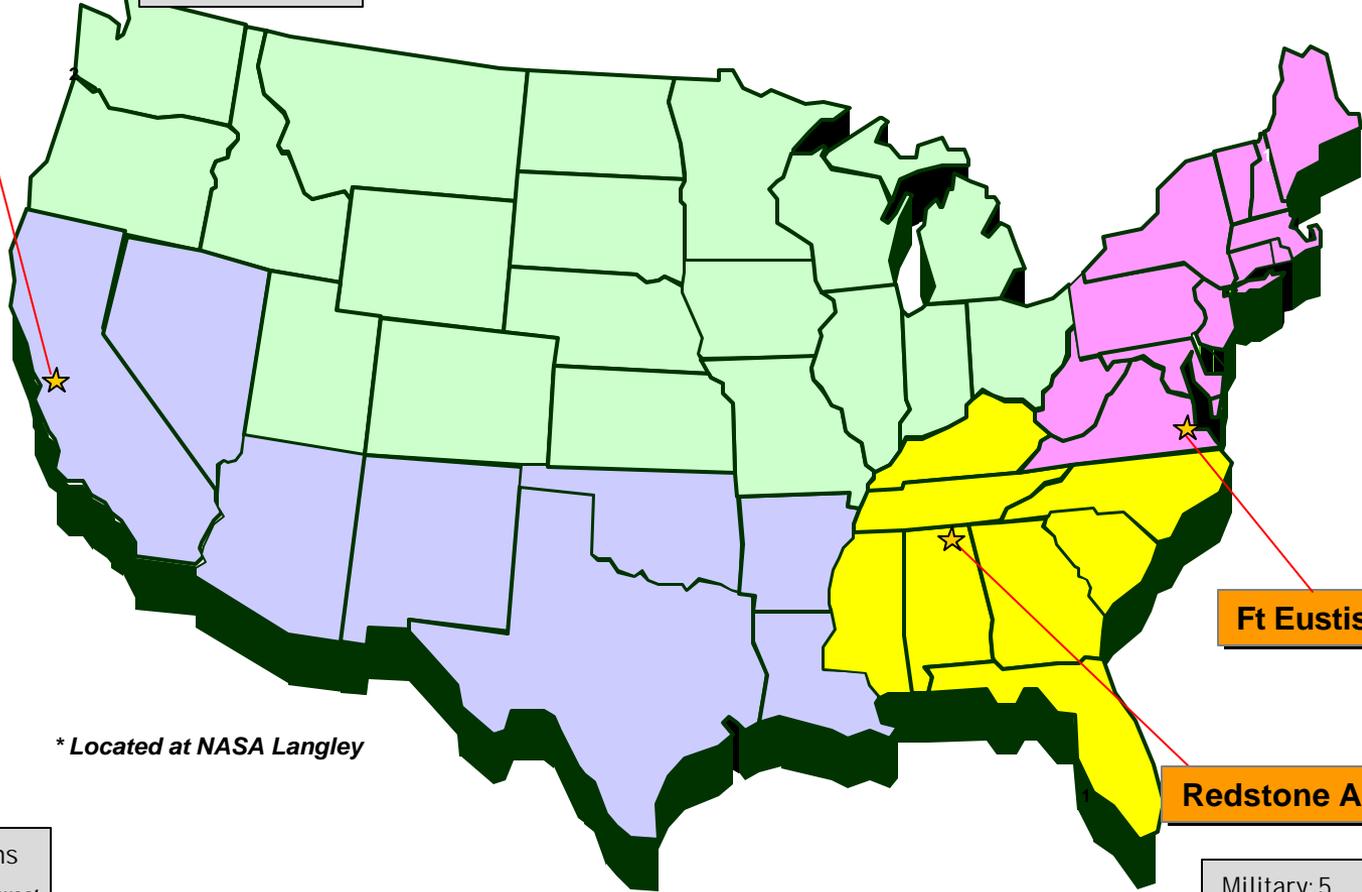
MAJOR RDECOM LOCATIONS

DCN: 9979

AMRDEEC

Moffett Field

Military: 2
Civilians: 93
Contractor: 20*
TOTAL: 115



Ft Eustis

Military: 8
Civilians: 216
Contractor: 392
TOTAL: 616

Redstone Arsenal

Military: 5
Civilians: 2146
Contractor: 2594
TOTAL: 4745

* Located at NASA Langley

IMA Regions

Light Green	Northwest
Light Blue	Southwest
Yellow	Southeast
Pink	Northeast

AMRDEC's Unique / Critical Facilities on RSA

DCN: 9979



Software Engineering

Army's Only Level 4 SEI RDEC.
Most Productive Weapons Systems Software
Development/Sustainment Organization



**Prototype Integration
Facility**

Rapid Response for
Warfighter Solutions



Russell Tower

300-foot Tall Facility for Sensor/ Seeker
Development and Signature Measurements



Weapons Sciences

Basic and Applied Research in
Microfabrication and Nanotechnology



ATE/TPS

Engineering and Sustainment
Support of Fielded Automated
Test & Diagnostic Systems



APEX

Warfighter-in-the-Loop Simulation
Facilities for Missile, Aviation and
Unmanned Systems



ASGE

Sensors, Seekers, Guidance,
Navigation, and Control Development,
Measurement and Processing



McMorrow Labs

AMRDEC HQs



HWIL

Missile Component Simulation in Real-
world EM Environments – Infrared,
Millimeter Wave and Multi-spectral



Propulsion & Structures

Energetics Development
and Enhanced Lethality

**\$1.2B
Replacement
Cost**

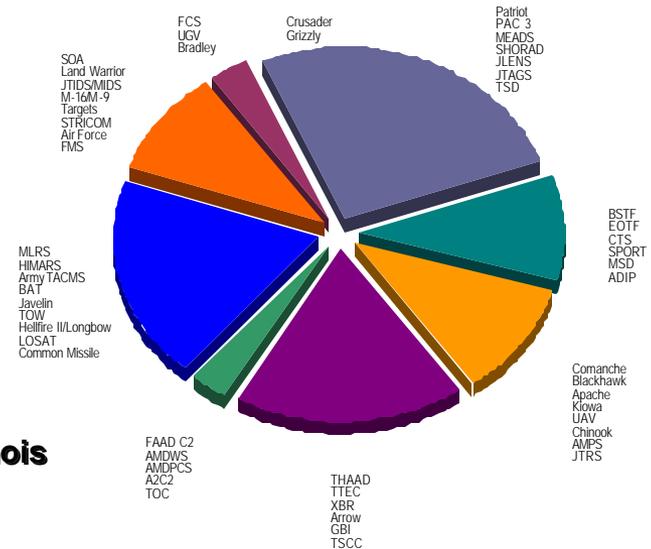
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AMRDEC Major/Key Relationships

DCN: 9979

- **RDE Centers:**
TARDEC, CERDEC, ARL, ARDEC, NSC, ECBC
- **PEOs/PMs:**
PEO Air & Space Missile Defense, PEO Aviation, PEO Precision Fires Rockets and Missile Systems, Ground Missile Defense, PEO-ASM, PEO-COM, PEO-IEW, PEO C3T
- **Academia:**
University of Alabama in Huntsville, Georgia Institute of Technology, Alabama A&M University, North New Mexico State University, Auburn University, University of Illinois
- **Centers of Excellence:**
Center of Excellence in Rotocraft Technology (CERT), Center for Nanoscience and Nanotechnology, Center for Signal and Image Processing (CSIP), Manufacturing Research Center, Microelectronics Research Center, Phosphor Technology Center of Excellence
- **Other Services/Agencies:** **DARPA, Space and Missile Defense Command, Ground Based Mid-Course, Air Force, Navy, Marines, Other DoD, NASA, TRADOC, DoD TUAV, MEADS, MSIC, STRICOM, TACOM, TECOM, TMDE, USASAC, USASSC, JLENS, RTTC**



254 Joint Customers **637 Joint Projects Supported**
414 Army Customers **3,183 Army Projects Supported**

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AMRDEC

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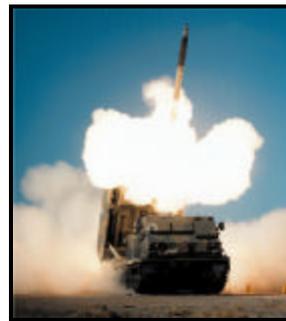
Predator
Hellfire
Integration



Blue Force
Tracking



RRAPDS



GMLRS



RRAPDS



Gladiator



LCPK



CKEM



MAV/OAV



Kiowa Warrior and
System Integration Lab (SIL)



Interoperability Facility



CAPS
Jammer



Comanche



PATRIOT Battery
Command Post (BCP)



Javelin on a HMMWV



Matilda



Close-In Active Protection
System (CIAPS)

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U.S. Army Materiel Systems Analysis Activity (AMSAA)

DCN: 9979

Mission: Conduct responsive and effective material and logistics systems analyses to support decision making for equipping and sustaining the U.S. Army

Core Analysis Areas

- ✓ Item/system performance & effectiveness data & analysis
- ✓ Reliability methodology & analysis
- ✓ Wholesale/retail supply & maintenance analysis
- ✓ War reserve & contingency planning analysis
- ✓ Field exercise data collection & sample data collection
- ✓ Acquisition logistics
- ✓ Materiel system & logistics Modeling & Simulation (M&S) development
- ✓ M&S VV&A
- ✓ Simulation support plan development
- ✓ Technical risk analysis
- ✓ Cost/resource analysis
- ✓ Industrial base data & analysis
- ✓ Product data management
- ✓ Workload based staffing analysis

Materiel Issues Analyzed

Lethality
 Delivery Accuracy
 Combat Identification
 Mobility
 Target Acquisition
 Active Protection
 Vulnerability
 ...

Logistic Issues Analyzed

Consumption Demand
 Prognostics
 Pulse Reliability
 Level of Repair
 War Reserve Rqmts
 Industrial Base
 Workload Rqmts
 ...



Integrated capabilities analyzing materiel & logistics issues across the full spectrum of materiel in support of Army Transformation



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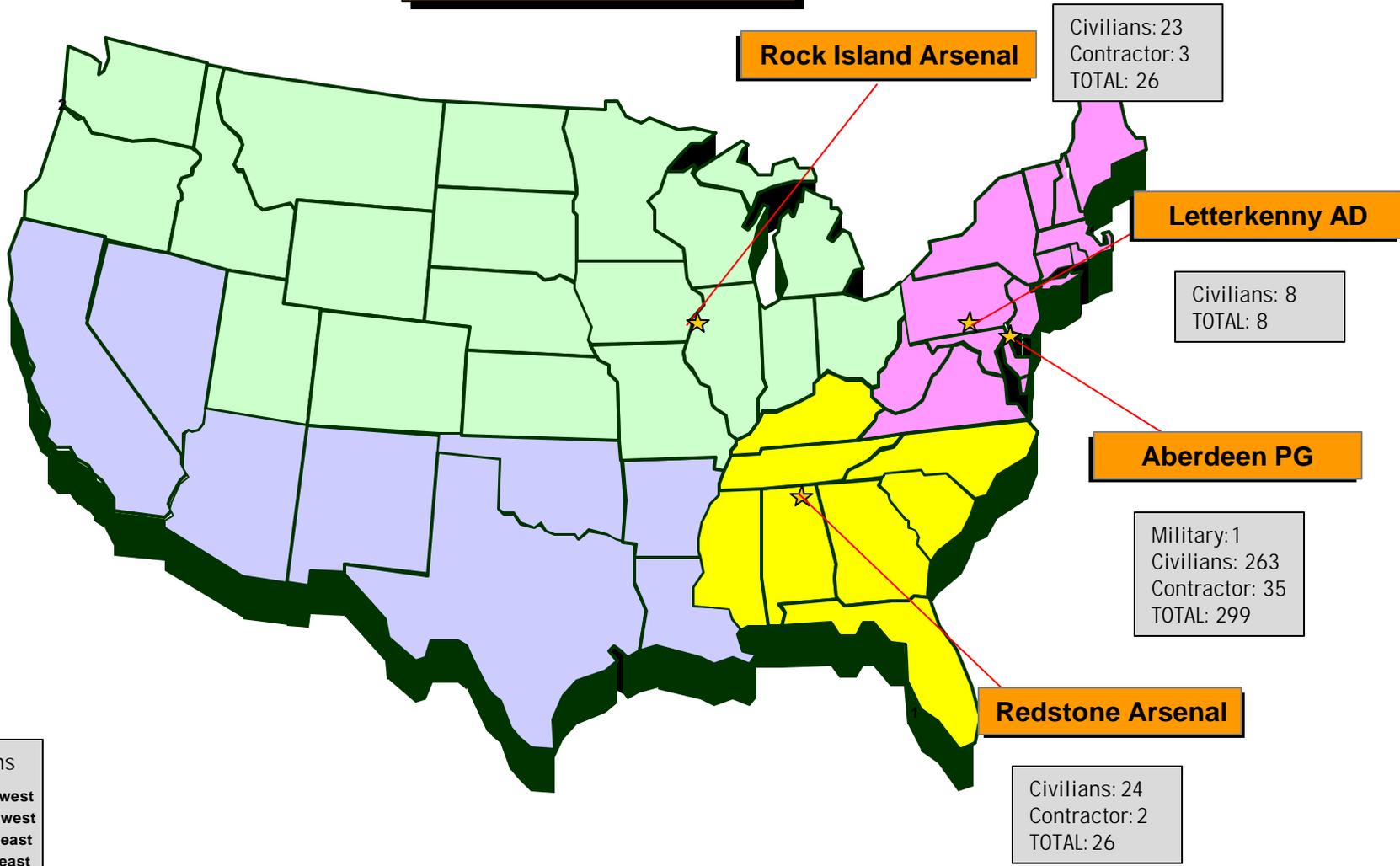


RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

MAJOR RDECOM LOCATIONS

DCN: 9979

AMSAA



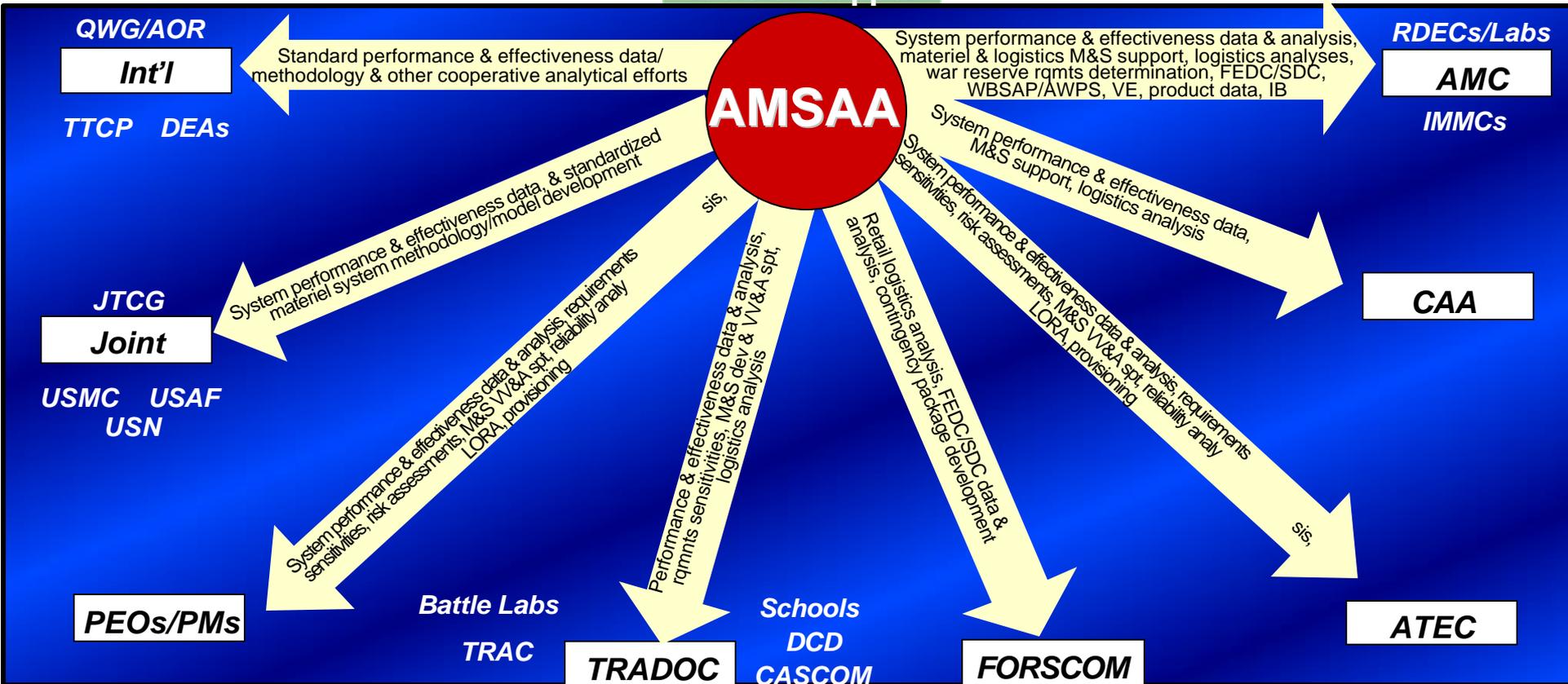
IMA Regions

- Northwest
- Southwest
- Southeast
- Northeast

AMSAA'S Role in System Analysis

DCN: 9979

Senior Leadership Decision Makers



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AMSAA Roles & Responsibilities Identified in Formal Documents

DCN: 9979

- ✓ **During Senior Army Leadership restructure and realignment of Army analysis agencies:**
 - AMSAA was designated as Army's Center for Systems Analysis
 - AMSAA was identified as authoritative source for systems performance assessments & data
- ✓ **AMSAA is Chair of Joint Technical Coordinating Group for Munitions Effectiveness (JTCE/ME)**
 - Develop Joint Munitions Effectiveness Manuals (JMEM) for fielded systems
 - Develop & maintain Joint weapon system performance & effectiveness databases
 - Develop & utilize Joint standard methodologies
 - Conduct special studies/activities
- ✓ **AR 70-1 - Research, Development, & Acquisition Army Acquisition Policy; AMSAA will:**
 - Provide analytical support to materiel developer throughout systems development process
 - Be Army's Executive Agent for VV&A of item level performance models & simulations (M&S)
 - Conduct program risk assessments
 - Conduct system performance analyses as part of AoA process
- ✓ **DA PAM 5-11: VV&A of Army Models & Simulations**
 - AMSAA is approved source for weapon effects standard data for use in M&S
- ✓ **AR 750-1: Army Materiel Maintenance Policy & Retail Maintenance Policy**
 - AMSAA is Army's Sample Data Collection & Field Exercise Data Collection Executive Agent
- ✓ **HQ DA has formally identified AMSAA as Executive Agent for Reliability and Maintainability Standardization & Improvement**
- ✓ **Formal agreement with ATEC for AMSAA to provide M&S and system performance/effectiveness analyses in support of Army evaluation process**
- ✓ **Formal agreement with DUSA(OR) & Chemical Materials Agency for AMSAA to conduct T&E support for Chemical Materials Agency due to Army unique capability within AMSAA**
- ✓ **CG AMC identified AMSAA as lead activity for validating & defending AMC TDA manpower requirements to support POM & TAA processes**

Several memos addressing AMSAA's M&S capabilities & Army's utilization of those capabilities

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AMSAA Participation in Joint and Multi-National Activities



Joint Technical Coordinating Group for Munitions Effectiveness (JTCE/ME)



Director of AMSAA is the Chair for the JTCE/ME Steering Committee

- Standardize munitions effectiveness methodology within DoD
- Certify joint service data
- Prepare & publish Joint Munition Effectiveness Manuals for fielded systems
- Develop, maintain, and update databases
- Conduct special studies / activities



The Technical Cooperation Program (TTCP)

Director of AMSAA is the National Representative for Joint Systems & Analysis Group (JSA)

- Dismounted Combatant Operations (JSA TP -5)
 - co-Chair, FA-2: Models, Wargames and Simulations
 - FA-4: Innovative Integrated Protective Concepts Against Novel Weapons



North American Technology & Industrial Base Organization (NATIBO)

AMSAA is the Secretariat



Quadripartite Working Group (QWP)

AMSAA has been member of several subgroups of the QWP Army Operations Research (AOR) including:

- Chair, Special Working Party on Combat Identification (SWP CID)
- Special Working Party on Digitization

Data Exchange Agreements (DEA)

AMSAA is Technical Project Officer for following DEAs:

- Germany: Operations Research & Analysis (DEA 1609)
- France: Systems Analysis & Simulations Methodology (DEA 1569)
- Korea: Conventional Weapon Systems Effectiveness Methodology & Input Data (DEA 1238)
- Netherlands: Ammunition Effectiveness & Target Vulnerability (DEA 1182)

Multi-Service / Multi-National Efforts

- Engineer and Scientist Exchange Program
- Joint Mission & Means Analytical Framework
- JTRS Analyses
- Joint Common Missile Analyses
- NATO Mobility Modeling Working Group
- Spares Modeling for the Republic of Korea Army
- UAV Analyses
- Physics of Failure Consortia (Academia & Industry)
- Reliability Analyses for Marine Corps

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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

U.S. Army Armament Research, Development and Engineering Center (ARDEC) – Army Lethality

DCN: 9979

Mission: Provide America Advanced Armaments and Munitions for Peace & War

◆ ARDEC, a multi-site organization primarily located at Picatinny Arsenal, N.J., provides fully integrated life cycle engineering (from R&D to demilitarization) for armaments and munitions including:



- ◆ Advanced weapons – Line of Sight/Beyond Line of Sight Fire; Non Line of Sight Fire; scalable effects; non-lethal; directed energy; autonomous weapons
 - ? Benet Labs, a primary off-site activity, located at Watervliet Arsenal, NY is the Army's center of expertise for large caliber armament systems
- ◆ Ammunition – small, medium, large caliber; propellants; explosives; pyrotechnics; warheads; insensitive munitions; logistics; packaging; fuzes; environmental technologies and explosive ordnance disposal
- ◆ Fire Control – battlefield digitization; embedded systems software; aero ballistics and telemetry
- ◆ Intellectual capital – S&E average 20 years experience in highly specialized multidisciplinary fields that have few commercial counterparts
 - ◆ Numerous individual and project Army Research and Development Achievement awards
- ◆ Unique capabilities:
 - ◆ Numerous world class and one-of-a-kind R&D facilities and experimentation facilities used for detonation of explosive materials
 - ◆ Prototyping facilities to enhance ability to get items in hands of soldier quicker
- ◆ Customer focused; continuous improvement organization – numerous Army R&D Organization of the Year awards; Presidential Award for Quality awards and the Army Communities of Excellence Commander-in-Chief award
- ◆ Extensive implementation of Lean/Six Sigma – over \$1.3 B projected life cycle savings for projects completed to date

★ Provide the technology for over 90% of the Army's conventional lethality; significant support to other services lethality

★ World recognized armaments authority

★ Our products are “on-point” with the warfighter everyday!



RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

MAJOR RDECOM LOCATIONS

DCN: 9979

ARDEC

**Watervliet Arsenal, NY
(Benet Labs)**

Civilians: 215
TOTAL: 215

Rock Island Arsenal

Civilians: 123
Contractor: 3
TOTAL: 126

Picatinny Arsenal

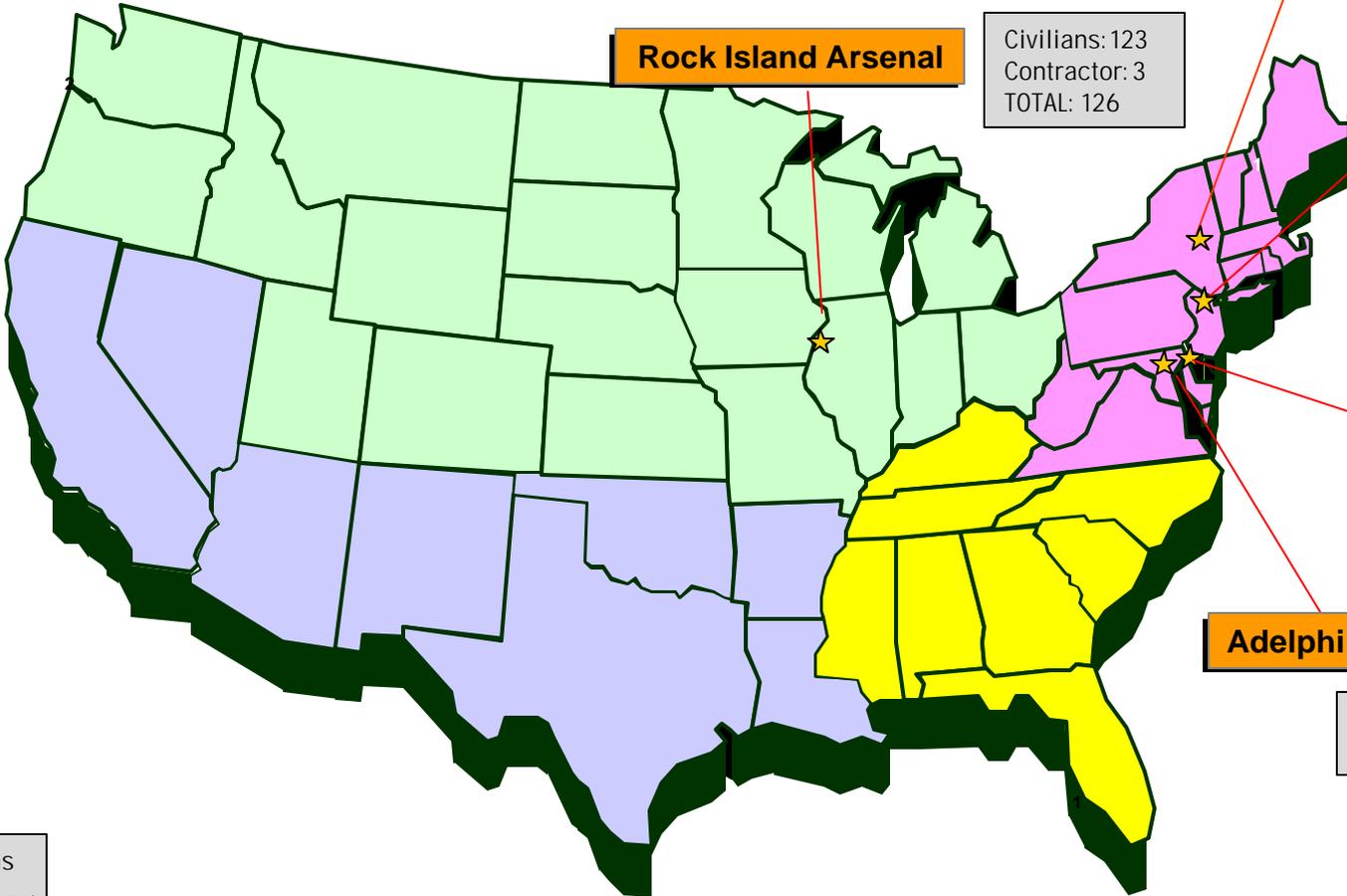
Military: 27
Civilians: 2189
Contractor: 155
TOTAL: 2344

Aberdeen PG

Civilians: 21
TOTAL: 21

Adelphi Laboratory Center

Civilians: 40
TOTAL: 40



IMA Regions

- Northwest
- Southwest
- Southeast
- Northeast

U.S. Army Armament Research, Development and Engineering Center (ARDEC)

Mission: Provide America Advanced Armaments and Munitions for Peace & War

- Every Army unit relies on ARDEC armament and munitions systems
 - Support over 10,000 end items in the field
 - Close ties to user community to rapidly address warfighter future needs and improve existing fielded systems
 - Expertise to quickly solve field problems
- ARDEC support to the joint force:
 - Joint Service Small Arms Program office coordinates the small arms requirements for all services
 - Defense Ordnance Technology Center, led by ARDEC, is a partnership of all services, DARPA, DTRA, National Labs and over 50 commercial partners to facilitate rapid transfer of energetics materials, warheads and fuze technology into end products
 - Land warfare armaments for USMC e.g. small arms, Joint Lightweight 155MM howitzer, mortars, bunker defeat munition, large caliber launch systems, recoilless rifles, robotic material and munitions loading systems, and non-lethal technologies
 - Special purpose munitions for SOCOM
 - Engineering support for procurement of all calibers of ammunition, mines, rockets, bombs, signals, flares, grenades and demolitions
 - Warheads and energetics technology for USN
 - Tri-service software assessments
 - Weapons and ammunition manufacturing and process technology for all services
 - Ballistic surface protection for advanced weapons
 - Directed energy
- ARDEC heads and/or participates in numerous joint and international working groups:
 - Chair DoD Joint Munitions Panel
 - Chair International subgroup on Fuze Standardization
 - Chair Army Fuze Safety Review Board
 - Joint Intermodal Logistics Working Group
 - Joint Ordnance Commanders Group
 - Joint Propellant Safety Surveillance Board



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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.



U.S. Army Armament Research, Development and Engineering Center (ARDEC)

Major/Key Relationships

- RDE Centers:
 - TARDEC - ARDEC integrates armament systems onto mobility platforms
 - AMRDEC:
 - ARDEC provides explosives, warheads, safety & arming and fuze technology
 - ARDEC leads joint tech base program on Micro Electro Mechanical Systems Inertial Measurement Unit
- PEOs/PMs:
 - ARDEC provides significant support to PEO-Ammo & associated PMs; Deputy PEO-GCS & associated PMs, PM Soldier Weapons and PM Joint Lightweight 155MM who are all co-located with ARDEC at Picatinny Arsenal, NJ
- Academia:
 - ARDEC has numerous Educational Partnering Agreements with academic institutions such as Princeton, Penn State, NJ Institute of Tech, Stevens Institute of Tech, MIT, Rensselaer Polytech Institute and New Mexico State Univ and West Point.
- Centers of Excellence:
 - Warheads and Energetics
 - Advanced Ammunition
 - Advanced Weapons
- Other Services/Agencies/Industry:
 - Over 70 CRADAs with industry partners and academic institutions
 - Industry and academia utilize Picatinny facilities
 - “Master” CRADAs with United Defense Industries and General Dynamics to advance technologies supporting the Future Force
 - Departments of Homeland Security, Transportation, Justice, Energy and Agriculture
 - Designated as a New Jersey Center for Homeland Defense Technologies and Security Readiness

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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

U.S. Army Armament Research, Development and Engineering Center (ARDEC)

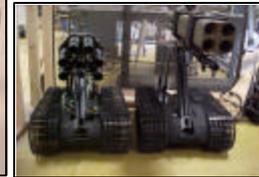
DCN: 9979



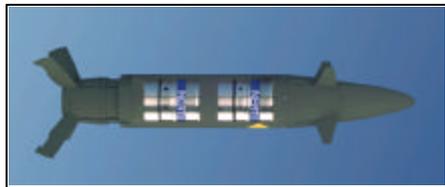
Artillery & Mortar Systems



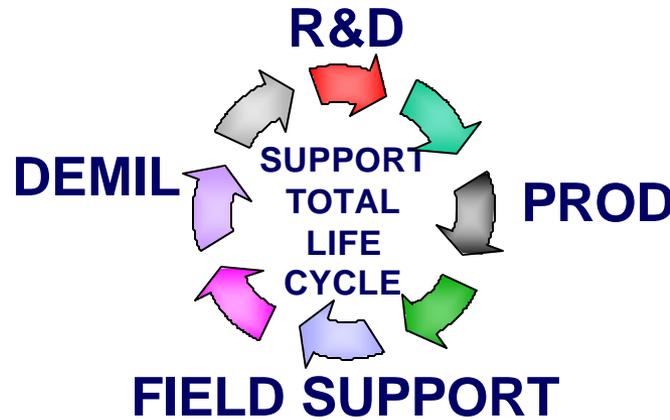
Advanced Fuze Technologies



Special Operations Weapons & Demolitions



Smart Munitions



Advanced Explosives & Warhead Development



Combat Vehicle Armaments & Fire Control



Logistics R&D



Non-Lethal Technologies



Small Arms

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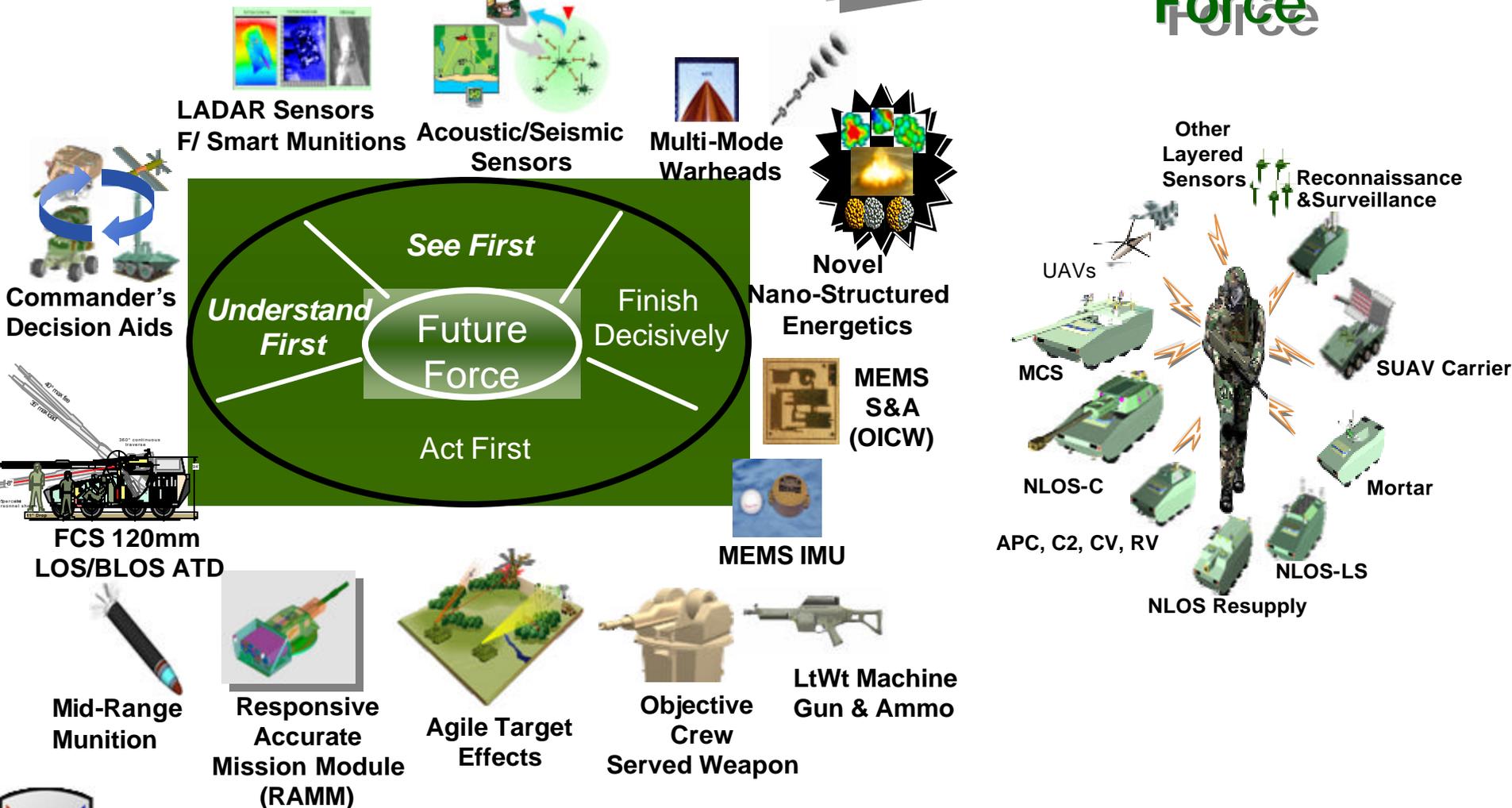
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U.S. Army Armament Research, Development and Engineering Center (ARDEC)

DCN: 9979

Support to Transformation

Future Force



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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

U.S. Army Armament Research, Development and Engineering Center (ARDEC) Unique Facilities

DCN: 9979

- Facilities Unique within U.S.
 - Armament Technology Facility
 - Advanced Warheads Development Facility
 - Propellant Surveillance Facility
- Facilities Unique within DoD or Army
 - Explosive Development Facility
 - Precision Armaments Laboratory
 - Armament Software Engineering Center
 - Advanced Energy Armament Systems Center
 - Explosive Weapons/Armament Prototype



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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

U.S. Army Research Laboratory

DCN: 9979

Mission: Provide innovative science, technology, and analyses to enable full spectrum operations.

What we do:

- Science & Technology Generation, Gathering, Enhancement, Application
- Survivability & Lethality Analyses, MANPRINT and Human Factors Engr.



Continuum of Excellence

- ENIAC Digital Computer
- Proximity Fuze
- M829 "silver bullet" KE Penetrator
- Special Armor for M1 Tank
- Demo III (UGV Autonomous Mobility)
- Armor Configuration for Stryker
- Gunfire Detection System



Unparalleled S&T Breadth/Scope for Transformation

- Basic Research
- Weapons and Materials
- Sensors and Electron Devices
- Human Factors
- Computational and Info Sciences
- Vehicle Platforms & Propulsion
- Survivability, Lethality, and Vulnerability Analysis



**ARL Operates
World-wide:**

- ★ Adelphi Laboratory Center
- ★ Aberdeen Proving Ground
- ★ White Sands Missile Range
- ★ Research Triangle Park

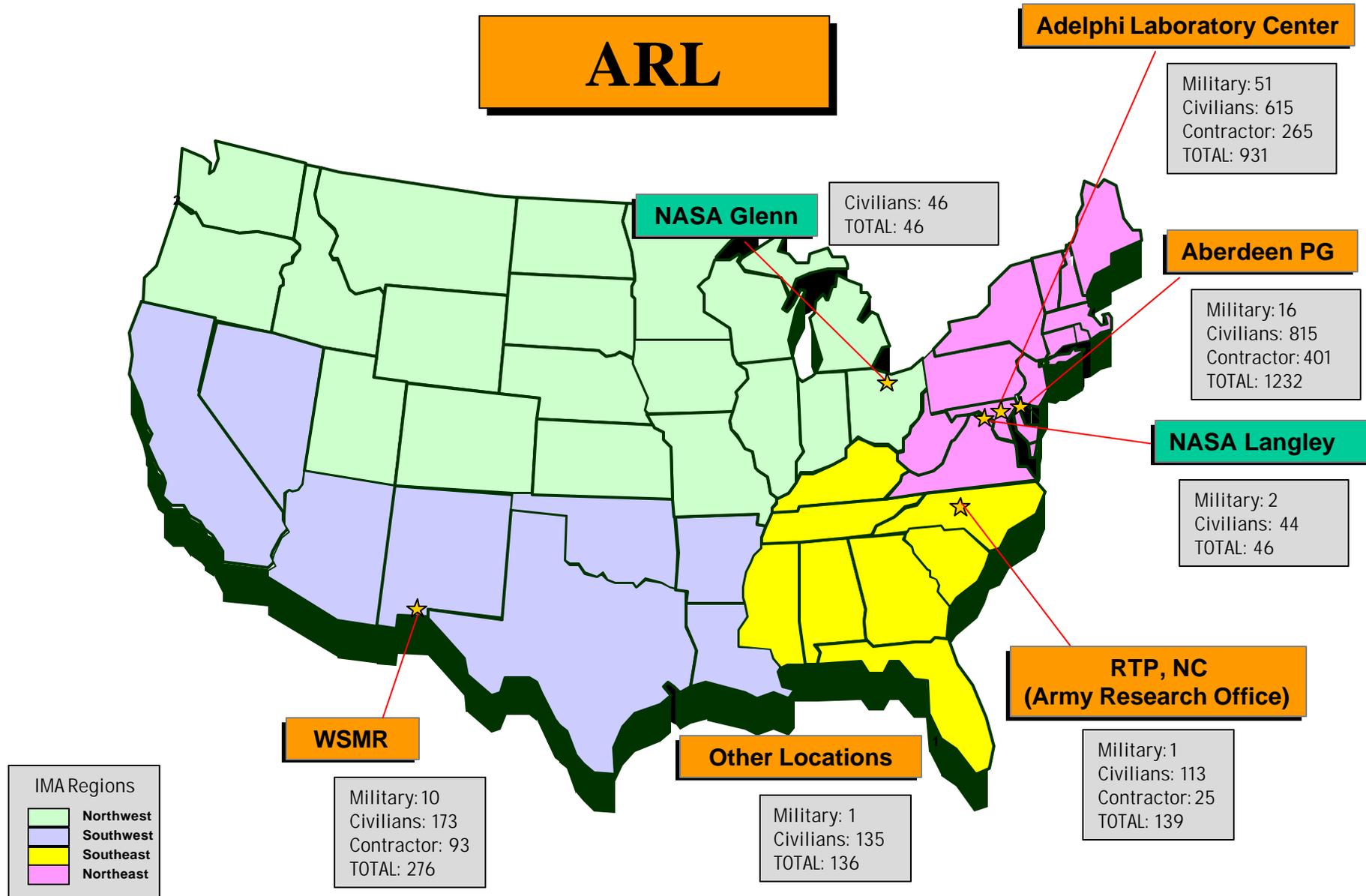
- ★ NASA Langley & NASA Glenn
- ★ London (European Research Office)
- ★ Tokyo (Far East Research Office)
- ★ 34 Field Elements

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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

MAJOR RDECOM LOCATIONS

DCN: 9979



Army Research Laboratory: Working with the Best!

DCN: 9979

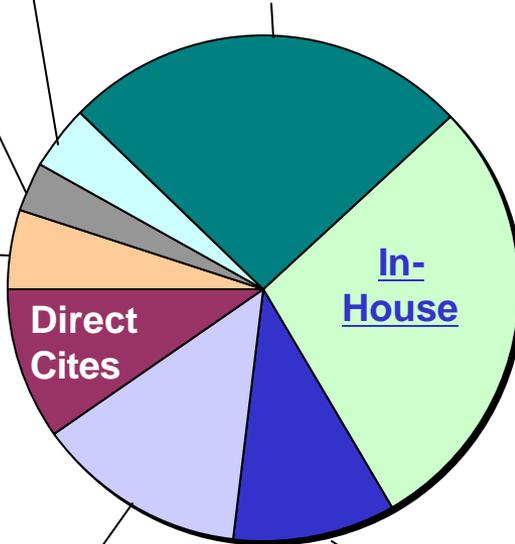
Technology Alliances

Communications and Networks
Advanced Decision Architecture
Robotics
Power and Energy
Advanced Sensors

Single Investigator

Contracts/OGA's

General Dynamics
US Display Consortium
Lockheed
Small Business



Centers of Excellence

Nanoscience
Biotechnology
Materials
Microelectronics
High Performance Computing
Electromechanical/Hyper Physics
Flexible Displays

DARPA Programs

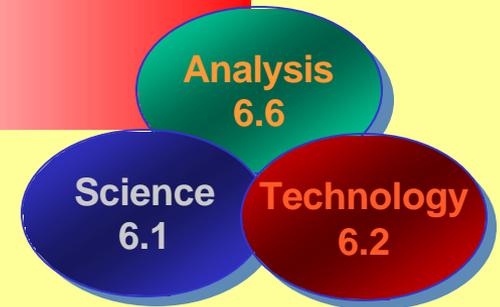
MEMS-Power, Infrastructure, Acoustic Sensors
Advanced Lithography
Integrated Computational Imaging
Quantum Information Sciences

OSD Programs

University Research Initiatives
Historically Black Colleges & Universities
DEPSCOR/MURI
Small Business

- Sensors & Electron Devices
- Computational & Information Sciences
- Weapons & Materials
- Human Research & Engineering
- Survivability/Lethality Analysis
- Vehicle Technology

Providing
Enabling
Technology
for the Army!



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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

ARL's Innovative Technology for Transformation

DCN: 9979



**Semi-Autonomous Mobility
Technology transitioned to
TARDEC Robotic Follower ATD
& to LSI for ARV**



**Technology for MDARS-E
Physical Security UGV
Transitioned to PM Physical
Security**



STRYKER

- Identified numerous IO vulnerabilities & assisted PM in enhancing IO survivability
- Provided Live Fire Analysis: Planning, pre-shot predictions test support, post test analysis



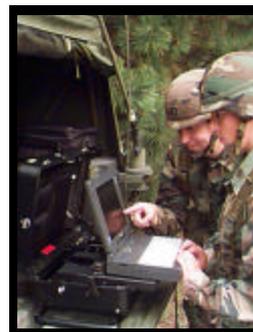
**Low Metal Mine Detection
Improved From ~20% to ~90%!**



**Pacbot Deployment To
Afghanistan**



**Field Expedient Protection
for Ground Vehicles**



**Forward Area Language
Converter (FALCon)**



Infrasonic array at Det L in Korea



**Stryker reactive armor designs
transitioned to UDLP**



**Active Twist Rotor Blades
Demonstrated in Wind
Tunnel,
Reducing Vibrations**

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**RDECOM: Get the right integrated technologies into the hands
of Warfighters quicker without unnecessary duplication.**

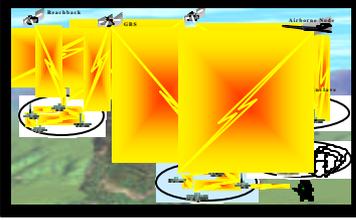
DCN: 9979

Mission: To develop and integrate C4ISR Technologies that enable Information Dominance and Decisive Lethality for the Networked Warfighter

Sensors



Communications



Power Management



CERDEC is making Transformation a reality by applying advanced technological solutions to meet the requirements of the Future Combat System (FCS) and the Future Force and solving today's problems in real time by providing technically advanced equipment and capabilities to the Current Force.

Capabilities

- Survivability
- Own the Night
- Situation Awareness
- Own the Spectrum
- Know the Enemy
- Planning & Decision Making
- Course of Action Analysis
- Secure Network Communications
- Information Assurance
- C2 Protect/Attack
- Logistics Visibility
- Reduced Fratricide
- Counter Mine
- Combat ID
- Power

Command & Control



Info Warfare



**C4ISR
Capabilities
for the
Warfighter**

21 Quick Response
Capability (QRC)
Needs Met
in FY03

- ★ **STOs - 47 of the Army's 181; ACTDs - 5 of 12 Joint**
- ★ **38 International Data Exchange Agreements**
- ★ **65 Phase I SBIRs – Largest in the Army**
- ★ **46 S&T Programs Leveraging DARPA Technology**

Designated as
New Jersey Center
for Homeland Defense
Technologies and
Security Readiness

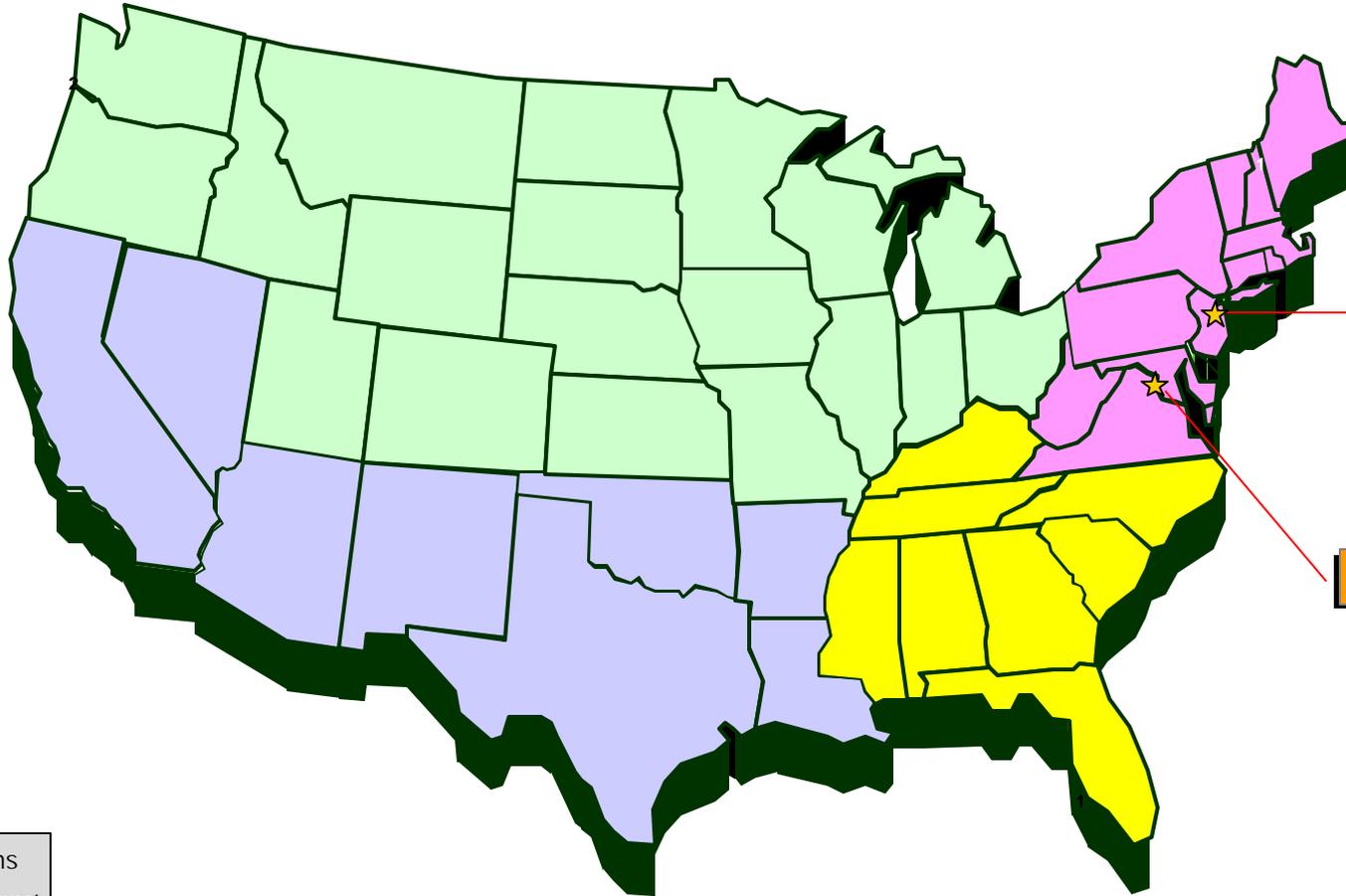
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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

MAJOR RDECOM LOCATIONS

DCN: 9979

CERDEC



Ft Monmouth

Military: 19
Civilians: 1144
Contractor: 331
TOTAL: 1494

Ft. Belvoir

Military: 13
Civilians: 507
Contractor: 212
TOTAL: 732

IMA Regions

- Northwest
- Southwest
- Southeast
- Northeast

Major/Key Relationships

RDE Centers: TARDEC, ARL, NSC, AMRDEC, ARDEC

PEOs/PMs: PEOs: C3T, IEW&S, EIS, Soldier, Aviation

PMs: FCS, GPS, GCC², GCSS, Small Arms, TRCS, WIN-T,
JTRS/JPO, FBCB2, SW, ACS, Prophet, Firefinder,
NBCDS, CIO CHEM

Academia: Princeton - NJ,
Rutgers - NJ,
Drexel - PA,
Stevens Institute of Technology - NJ,
New Jersey Institute of Technology - NJ,
Monmouth University - NJ,
University of Mexico - NM,
Clark-Atlanta University - GA

Centers of Excellence: CERDEC Power Sources,
CERDEC NVESD Aided Target Recognition (ATR),
CERDEC NVESD Unexploded Ordinance (UXO)

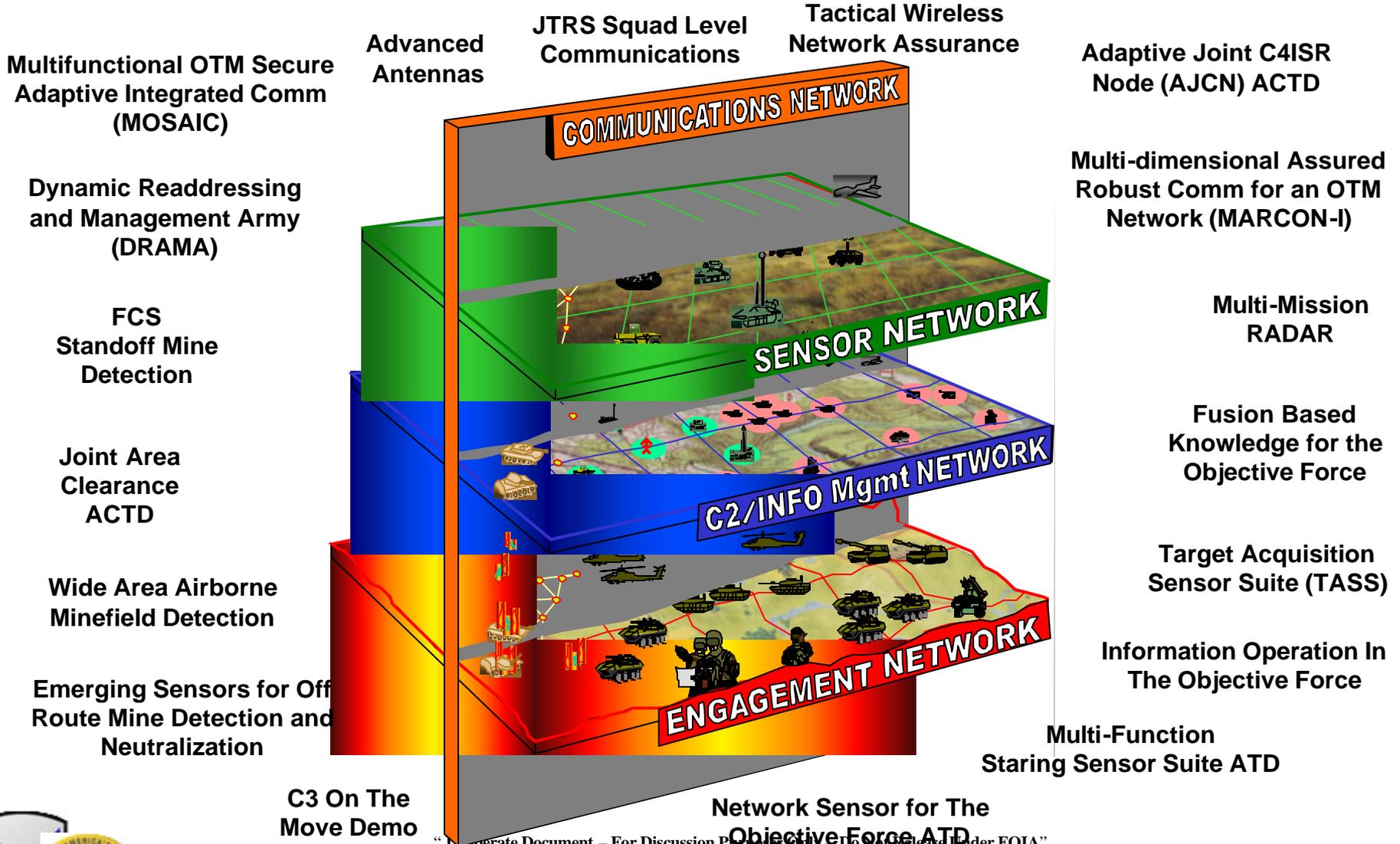
Other Services/Agencies: DARPA, CIPO, HLS, MTA, INSCOM, NRO,
NSA, DOJ, FEMA, All Unified Commands,
Navy Research Lab, Sandia National Lab,
Oak Ridge National Lab, Lincoln Labs,
Air Force Research Lab, Battlelabs

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**RDECOM: Get the right integrated technologies into the hands
of Warfighters quicker without unnecessary duplication.**

CERDEC Technology Supporting Transformation

DCN: 9979



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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

CERDEC Mission Unique Facilities



Signal Processing Lab



NVESD Fabrication and Integration Facilities



Virtual Prototyping Lab



OpticalTest



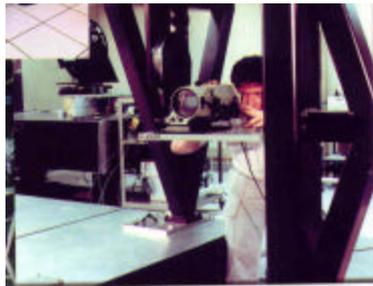
Tactical ACoustics Simulator (TACS)



Power The Force Laboratory



SATCOM Engineering Lab (SEL) Complex



ASEF

FORT MONMOUTH GOVERNMENT INTEGRATION CENTER (GIC)



GIC Applications



Modeling and Simulation



GIC Network Operations Center



ABE Laboratory



Shelter Integration Area



NVESD Mine Lanes Facility



VPS Facility McAfee Center

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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

Edgewood Chemical Biological Center

DCN: 9979

Mission: Protect the warfighter and U.S. interests through the application of science, technology and engineering in chemical and biological defense.



Respiratory Protection



First Responder Support

What we do:

- ◆ Lead DoD technical organization for non-medical chemical and biological defense
 - Basic research through technology development, engineering design, equipment evaluation, production support and field operations and disposal.
 - Subject matter expertise/support to Federal, State, local and private agencies/organizations in countering effects of possible terrorist use of chemical or biological materials
- ◆ The Army's Center for Chemistry and Biology
 - Furthering Biotechnology opportunities for the Army
 - Technology development for Army smoke and obscurants

The Magnitude:

- ◆ Annual budget of ~\$400M
- ◆ Civilian workforce of 1050 and ~200 on-site contractors
- ◆ Over 300 qualified chemical/biological agent handlers
- ◆ Laboratory and industrial space in excess of 935K square feet



ECBC's Biological Safety Level 3 Laboratory



Bio Process Engineering Facility



- ★ Winner of FLC Technology Transfer Lab of the Year in 2003
- ★ 50 CRADAs, TSAs and PLAs initiated in FY03
- ★ Sixteen patents granted in FY03
- ★ Winner of 3 of 10 AMC's Best Inventions for FY02

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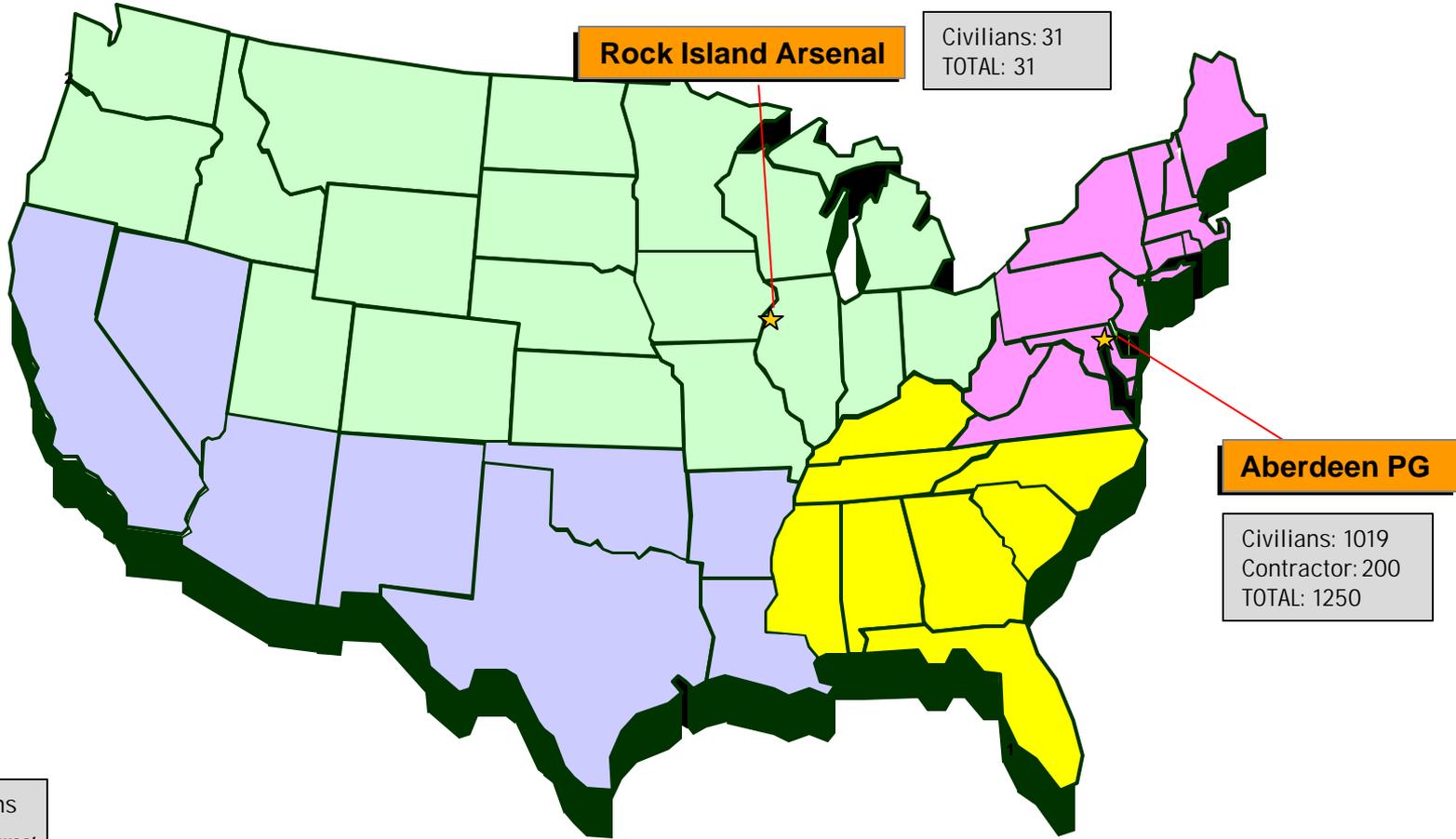


RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

MAJOR RDECOM LOCATIONS

DCN: 9979

ECBC



Rock Island Arsenal

Civilians: 31
TOTAL: 31

Aberdeen PG

Civilians: 1019
Contractor: 200
TOTAL: 1250

IMA Regions

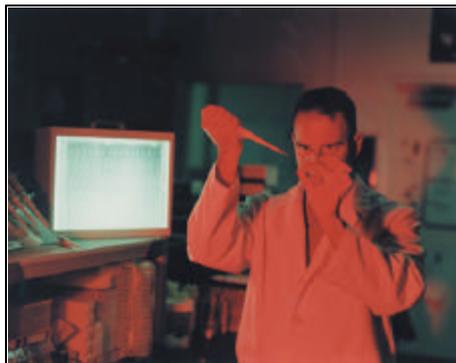
- Northwest
- Southwest
- Southeast
- Northeast

ECBC - Unique Infrastructure

DCN: 9979



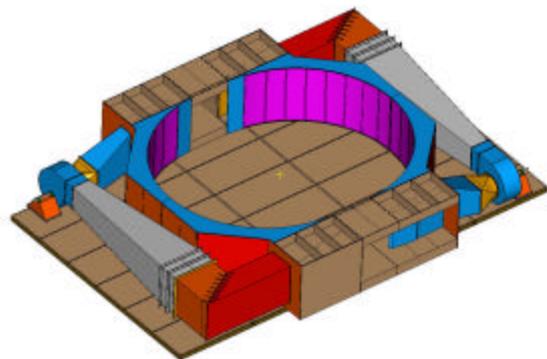
**Chemical Transfer Facility
Single Small Scale Facility (SSSF)**



**Cryorepository for Critical
Reagents**



Large Toxic Test Chambers



**Standoff Detection Test
Chamber**



**Double containment
systems for inhalation
toxicology**



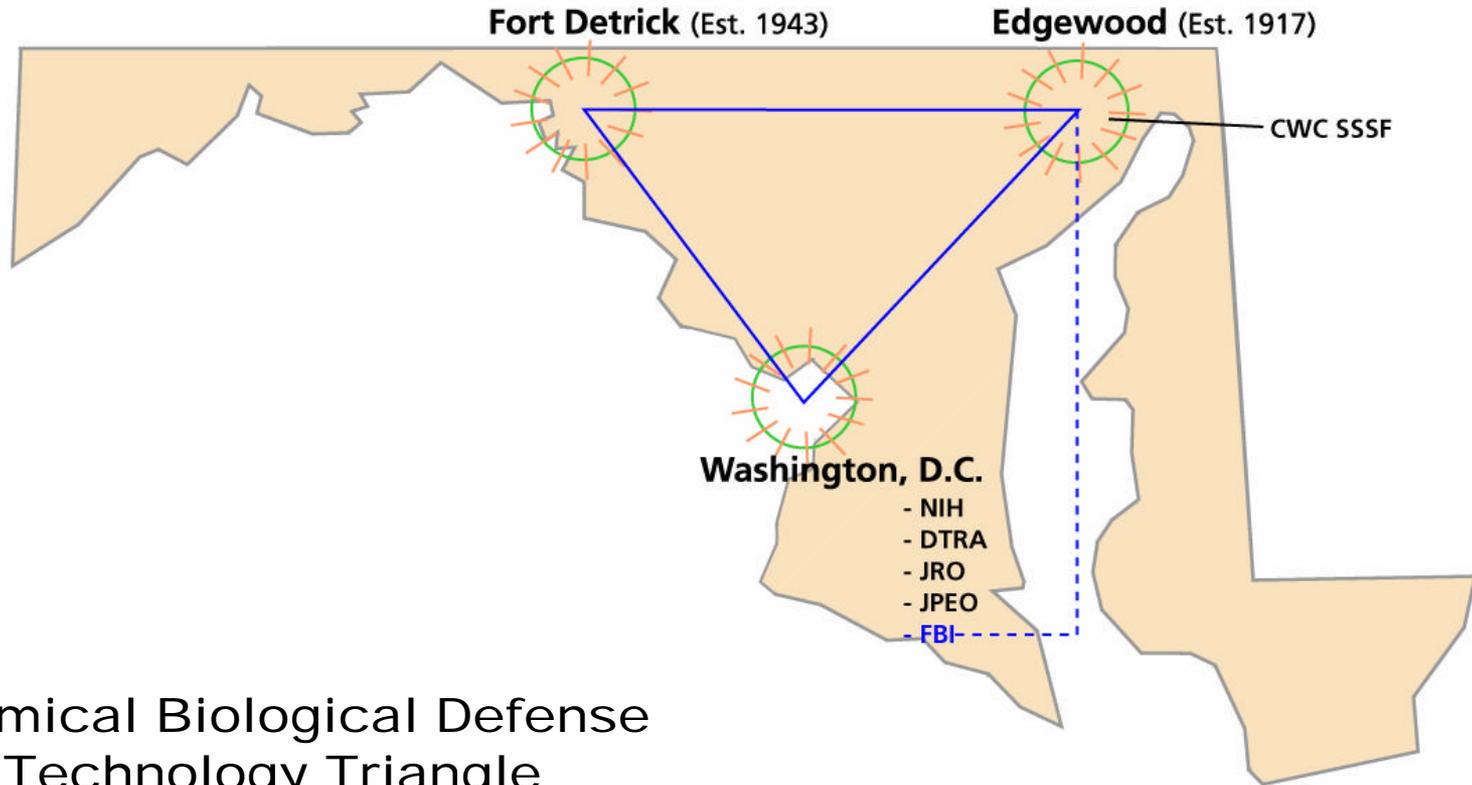
**Super Toxic Advanced
Chemistry Laboratory
(Under Construction)**

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**RDECOM: Get the right integrated technologies into the hands
of Warfighters quicker without unnecessary duplication.**

Edgewood Chemical Biological Center

DCN: 9979



Chemical Biological Defense
Technology Triangle

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**RDECOM: Get the right integrated technologies into the hands
of Warfighters quicker without unnecessary duplication.**

Edgewood Chemical Biological Center

DCN: 9979

Major/Key Relationships

RDE Centers:

- ◆ Natick Soldier Center
- ◆ ARL
- ◆ CERDEC
- ◆ NRL
- ◆ AFRL

PEOs/PMs:

- ◆ JPEO CBD
 - ◆ JPM Contamination Avoidance (Army)
 - ◆ JPM Collective Protection (Navy)
 - ◆ JPM Individual Protection (USMC)
 - ◆ JPM Decontamination (USAF)
 - ◆ JPM Guardian (Army)
- ◆ PM Stockpile Chemical Munitions
- ◆ PM Non-stockpile Chemical Munitions
- ◆ PM ACWA

Academia:

- ◆ University of Maryland
- ◆ University of Kansas
- ◆ Kansas State
- ◆ Cornell
- ◆ Penn State
- ◆ Texas Tech
- ◆ University of Texas
- ◆ Vanderbilt
- ◆ Clarkson University
- ◆ George Mason University
- ◆ University of Virginia
- ◆ Johns Hopkins University
- ◆ University of Missouri - Rolla
- ◆ University of South Florida
- ◆ Wayne State University
- ◆ University of Wisconsin

Centers of Excellence:

- ◆ "Institute for Collaborative Biotechnology" UARC
- ◆ Johns Hopkins Center of Excellence in Biotechnology

Other Services/Agencies:

- ◆ Defense Threat Reduction Agency
- ◆ Department of Homeland Security
- ◆ Department of State
- ◆ EPA
- ◆ U.S. Postal Service
- ◆ FBI
- ◆ U.S. Secret Service
- ◆ Technical Support Working Group
- ◆ SOCOM
- ◆ CENTCOM

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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

ECBC - Satisfying Warfighter Needs, Furthering National Interests



DoD Warfighter Needs



Research



Development



Engineering & Prototyping



Warfighter Products



Homeland Security

- DOJ
- EPA
- USPS
- FDA
- USSS
- FBI



Antiterrorism/Force Protection

- Technical Support Working Group
- Dept. of State



- Defense Threat Counterterrorism/Counterproliferation Reduction Agency
- SOCOM
- Intel Community



Non-Proliferation

- Chemical Demilitarization
 - PM Stockpile
 - ACWA
- Treaty Support
 - CWC
 - BWC

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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.

Natick Soldier Center



DCN: 9979

Mission: RDT&E to maximize the Warrior's Survivability, Sustainability, Mobility, Combat Effectiveness and Field Quality of Life by treating the Warrior as a System

Recognized Center of Choice for Individual Warrior Related Technologies and Systems



**DOD
Combat Feeding**



Aerial Delivery



**Clothing &
Individual
Protection**



**Shelters/Collective
Protection**



Warrior System Technology Integration

**Army's Small
R&D Lab of the Year
2001 & 2003**

Core Missions

- ★ **Warrior Related Technology Generation, Application, and Transition Enabling Rapid Fielding of the Right Equipment**
- ★ **Warrior Systems Technology Integration and Transition**
- ★ **Solving Warrior & Warrior Support Related Field Problems Rapidly**

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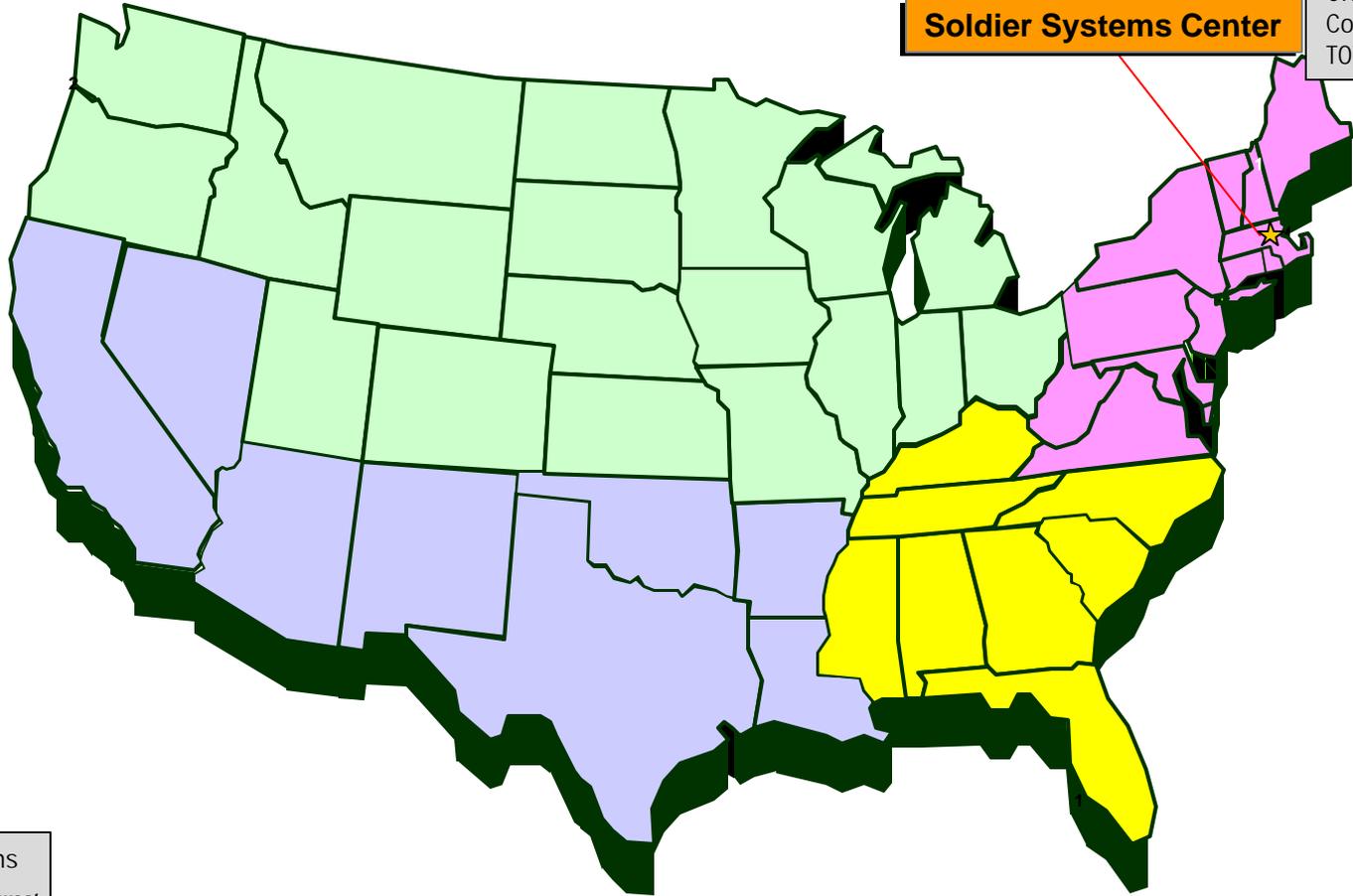
MAJOR RDECOM LOCATIONS

DCN: 9979

NSC

Soldier Systems Center

Military: 20
Civilians: 560
Contractor: 60
TOTAL: 640



IMA Regions

Light Green	Northwest
Light Blue	Southwest
Yellow	Southeast
Pink	Northeast



Major/Key Relationships

RDE Centers:

Army Institute for Environmental Medicine (co-located)
Navy Clothing and Textile Research Facility (co-located)
Edgewood Chemical and Biological Center
Armaments RDE Center
Communications and Electronics RDE Center
Tank and Automotive RDE Center
ARL

PEOs/PMs:

PEO-Soldier **
PEO-Combat Support/ Combat Service Support **
PEO for Chemical/Biological Defense
PEO STRI
PM TOC

Academia:

Massachusetts Institute of Technology
University of Massachusetts
Rice University
Clemson University
Philadelphia University
University of Connecticut

Academia (continued):

University of California
Rutgers University

Centers of Excellence/Industry:

Institute for Soldier Nanotechnology
Collaborative Institute for Biotechnology
Institute for Creative Technologies
Dupont
Milliken
Malden Mills Manufacturing Inc.
Pioneer Aerospace

Other Services/Agencies:

DARPA
US Marine Corps
US Special Operations Command
US Navy
US Air Force
Defense Logistics Agency **
TACOM Integrated Logistics Support Center **
Bureau of Engraving and Printing
Department of Agriculture
Department of Justice
NASA
Memorial Institute for the Prevention of Terrorism

**** Component Organization Co-located**

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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.



DGN: 9979

Objective Force Warrior

- The Army's S&T centerpiece for technology development and integration of advanced Soldier System concepts and technologies
- System-of-systems concept maximizing effectiveness of team-of-teams operations
 - Integration program structured to leverage cutting edge technologies
 - Use of competitive lead technology integrators through Other Transaction Agreements
- Novel teaming paradigm with a high potential for success



**A
Partnership Effort
Premised on
Technology
Development &
Integration**

**Program Team
Consists of
SMEs from
Each Organization**



**NSC Technology
Program Manager and
PEO Soldier Deputy**

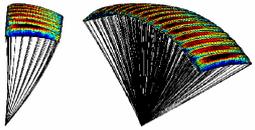
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RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.



DCN: 9979

Multi-Service/Agency Focus



Joint Precision Airdrop System

DOD Combat Feeding
(All Services)



First Strike Ration

US Air Force

Joint Service CB Protection



Airdrop & Helicopter Sling Load Certifications



US Marine Corps

Homeland Security/Defense



**Interceptor Body Armor & Advanced Combat Helmet
Numerous Lives Saved
During OEF/OIF**

US Special Operations Command



Releasable Armor Carriage System



Pointer UAV

nt - For Discussion Purpose Only. Do Not Release Under FOIA.

RDECOM: Get the right integrated technologies into the hands of Warfighters quicker without unnecessary duplication.





Tank-Automotive Research, Development and Engineering Center

DCM: 9979



Mission: To research, develop, engineer, leverage, and provide advanced systems integration of technology into ground systems and support equipment throughout the life cycle.

What We Do:

- Nation's laboratory for advanced automotive-military technology for ground systems.
- Located in the heart of the world's automotive capital.
- Has provided over 60 years of collaborative army/automotive technology and innovation with the automotive industry.
- Our 1,100+ engineers and scientists investigate, evaluate, mature, demonstrate, and integrate emerging technologies within our unique infrastructure for transition to the field.
- Our technical staff leads research in not only combat and tactical vehicle technology, but also a wide variety of logistics equipment, water generation and purification, fuels and lubricants, military bridging, and countermine equipment.



The Magnitude:

- Responsible for more than 2,800 Army systems and many of the Army's and DoD's top development programs.
- Responsible for life cycle management for all ground systems.

TARDEC Support
To
Joint/Current
Forces

- ★ Warfighter Technology -- Operation Iraqi Freedom/Operation Enduring Freedom -- HMMWV Door
- ★ Technology Excellence -- AMC Greatest Inventions Program 2002 Award Winner -- FCLAS
- ★ Technology Synergy -- Automotive Industry Collaboration/Technology Transfer -- Automation Alley
- ★ Joint Programs/Alliances -- NATO, DoD, DoE, DoT, NASA
- ★ Homeland Security -- Omni Directional Inspection System (ODIS)
- ★ Facility Excellence -- Unique Infrastructure -- TARDEC Labs

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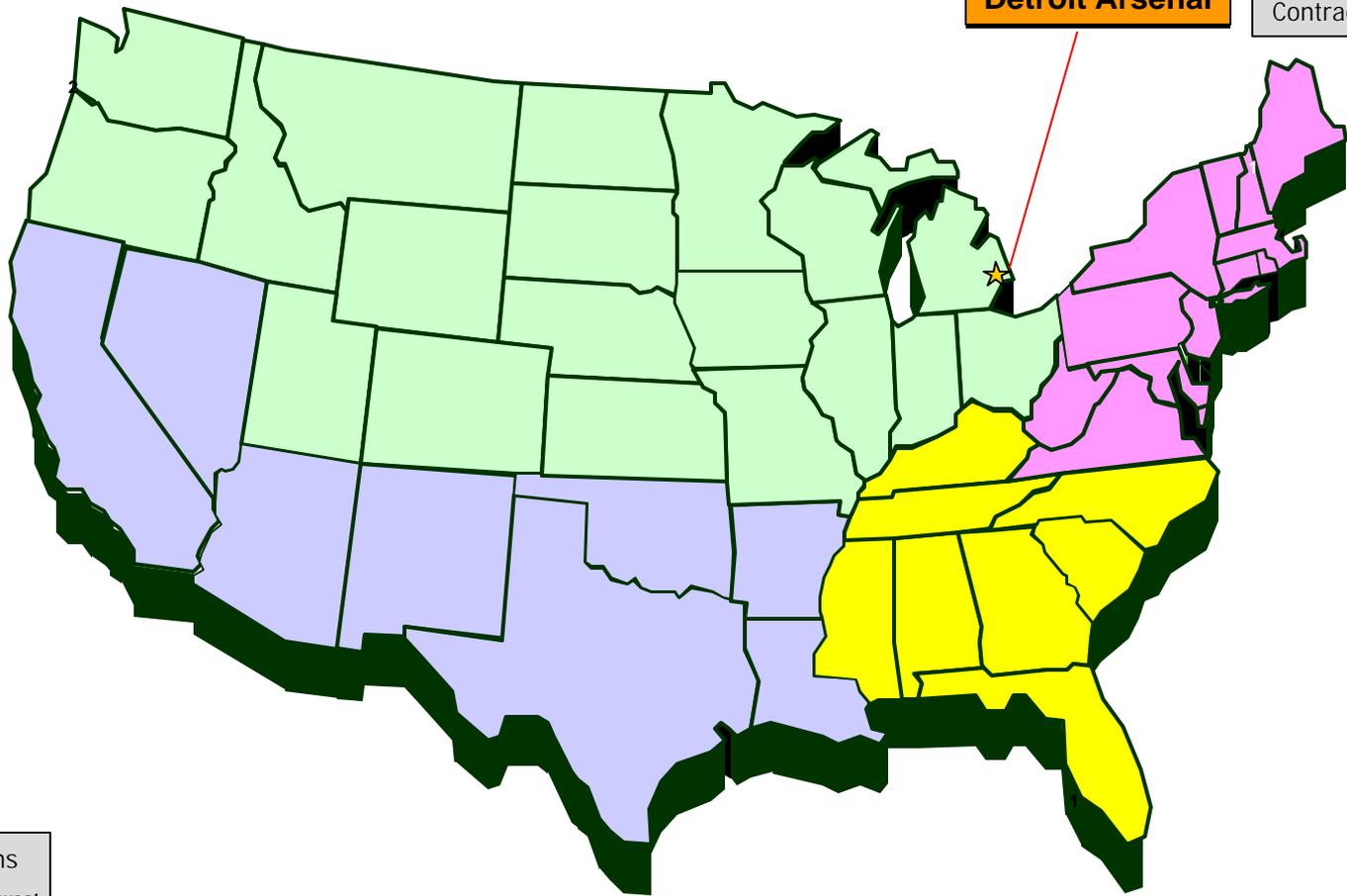
MAJOR RDECOM LOCATIONS

DCN: 9979

TARDEC

Detroit Arsenal

Military: 10
Civilians: 1123
Contractor: 40



IMA Regions

Light Green	Northwest
Light Blue	Southwest
Yellow	Southeast
Pink	Northeast



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TARDEC

What We Do

TARDEC Product Lines

TARDEC is responsible for more than 2,800 Army systems and many of the Army's top development programs:

- Combat and Tactical Vehicles
- Logistics Equipment
- Water Generation and Purification



- Fuels and Lubricants
- Military Bridging



- Fuel and Water Storage, Distribution and Quality Surveillance Equipment
- Countermine Equipment



TARDEC's Technology Thrusts

- Vehicle Survivability Systems
- Water Generation and Purification
- Unmanned Vehicle Developments
- Advanced Vehicle Concepts
- Fuel and Lubricant Research
- Crew Station Integration and Automation
- Software/Vetronics
- Next Generation Software
- Hybrid-Electric Power
- Propulsion
- Fuel Cells
- Collaborative Environments
- Physical Prototyping
- Advanced Materials
- Analytical and Physical Simulation
- High Performance Computing



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TARDEC

Major/Key Relationships

- RDE Centers:**
- TARDEC promotes major/key relationships with all RDECs under our RDECOM.
 - Automotive Research Center

- PEOs/PMs:**
- PEO for Ground Combat Systems and supporting PMs
 - PEO for Combat Support/Combat Service Support and supporting PMs

Academia:

- Oakland University (Michigan)
- Kettering University (Michigan)
- Lawrence Technological Institute (Michigan)
- University of Michigan – Ann Arbor
- University of Michigan – Dearborn
- Michigan State University
- Michigan Technological University
- Rochester Institute of Technology (New York)
- Wayne State University (Michigan)
- University of Detroit Mercy (Michigan)
- Western Michigan University
- Indiana Institute of Technology
- Fonty’s University (Belgium)
- Albion College (Michigan)
- University of Hawaii (HBCU agreement)
- Naval Post-Graduate School (NPS)
- Software Engineering Institute (SEI)

Other Services/Agencies:

- NATO
- Air Force, Navy and Marines
- Department of Defense
- Department of Energy
- Department of Transportation
- Connecticut Department of Transportation
- National Guard
- NASA
- DARPA
- German Bundeswehr
- Canadian National Defense

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TARDEC

TARDEC Support to Joint/Current Forces

★ Joint Programs/Alliances – NATO, DoD, DoE, DoT, NASA

- TARDEC Executive Director for Research, Dr. Grace Bochenek, is the U.S. national representative on the NATO RTO Panel for Applied Vehicle Technology, and as the primary land representative, she coordinates research activities across the Army with Navy, Air Force, and NASA.
- Distinguished Presidential Rank Award [Science and Technology (S&T)] - Dr. Walter Bryzik – 2003 (only Army awardee in this category)
- Dr. Bryzik serves as DoD TARA Panel Chair for Ground Vehicle Technology (Army, Navy, Air Force) – Evaluates and prioritizes DoD-wide ground vehicle technology
- Designing and prototyping an Expeditionary Unit Water Purifier (EUWP) for the Office of Naval Research (ONR)
- Future Tactical Truck System (FTTS) Advanced Concept Technology Demonstrator (ACTD) with Air Force and Marines.
- Severe Off-Road Track (SORT) at Quantico with Marines
- SmarTruck II with Air Force
- Aluminum metal matrix programs with Air Force, Marines and Canadian National Defense
- Fuel Cell Auxiliary Power Units (APUs) with Air Force and Dept of Energy
- Alternative fuels program with OSD to develop a flexible JP-8 (Fisher-Tropsch gas to liquids) along with Air Force, Navy, Dept of Energy and Dept of Transportation
- Hybrid Reconnaissance Surveillance and Targeting Vehicle (RSTV) with Marines
- Commercially Based Tactical Truck (COMBATT) with Navy, Air Force, Depts of Treasury, Justice, Agriculture and others
- Fuel Cell propulsion projects as part of the President's National Energy Policy with Dept of Energy, Dept of Transportation, Connecticut Dept of Transportation, Northeast Advanced Vehicle Consortium and commercial partners
- Mobile Parts Hospital with Navy, National Aeronautics and Space Administration (NASA), AMEDD Center & School and commercial partners
- Cargo containment nets with Special Forces, Air Force, Marines, German Bundeswehr and Canadian National Defense
- Sharing High Performance Computing (HPC) technology, expertise and services with the DOD HPC community (either through the DoD HPC Modernization program or directly with DoD organizations)
- Air Force officer co-located with NAC to help coordinate joint programs
- Hydrogen energy program with Depts of Transportation, Energy and Commerce, state agencies, commercial partners and Marines
- Theater Support Vehicle (TSV)



TSV



NASA

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TARDEC

TARDEC Support to Joint/Current Forces

(Located approximately 22 miles from Detroit Arsenal)

Bridging Lab

- Capabilities include static and dynamic structural load application for structural strength and fatigue testing.
- 60'x200' facility that features a state-of-the-art computer controlled load test area with automated data acquisition capability.
- Light fabrication shop on site.



Water Lab

- Test water purification components and systems using a natural source of water.
- Test product improvements for existing military water purification systems
- Perform basic water quality analyses.
- Introductory or refresher training for military water treatment specialists or civilians.



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Agenda

- **Who We Are**
- **What We Do**
- **Installation Briefing Schedule**
 - 1100 – Adelphi Laboratory Center**
 - 1300 - Aberdeen Proving Ground**
 - 1430 - Picatinny Arsenal**
 - 1530 - Soldier Systems Center**
 - 1630 - Army Research Office**
- **Questions**

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