



U.S. Army Research, Development and Engineering Command

RDECOM Overview



TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

Thomas Mulkern
RDECOM – Global Technology Integration

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Commander's Intent

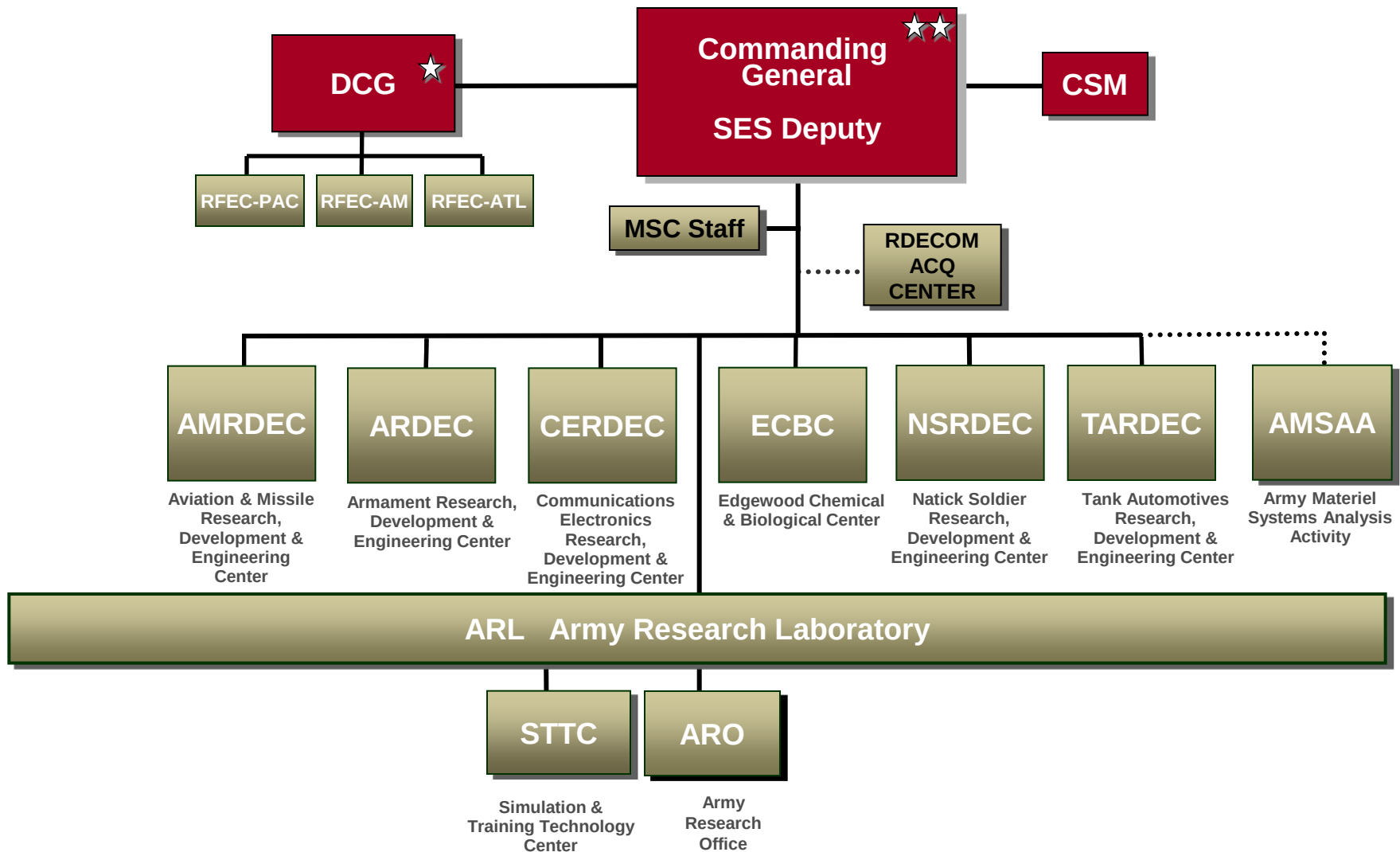


VISION

**The Army's Primary Source for
Integrated Research, Development
and Engineering Capabilities**



Organization



TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

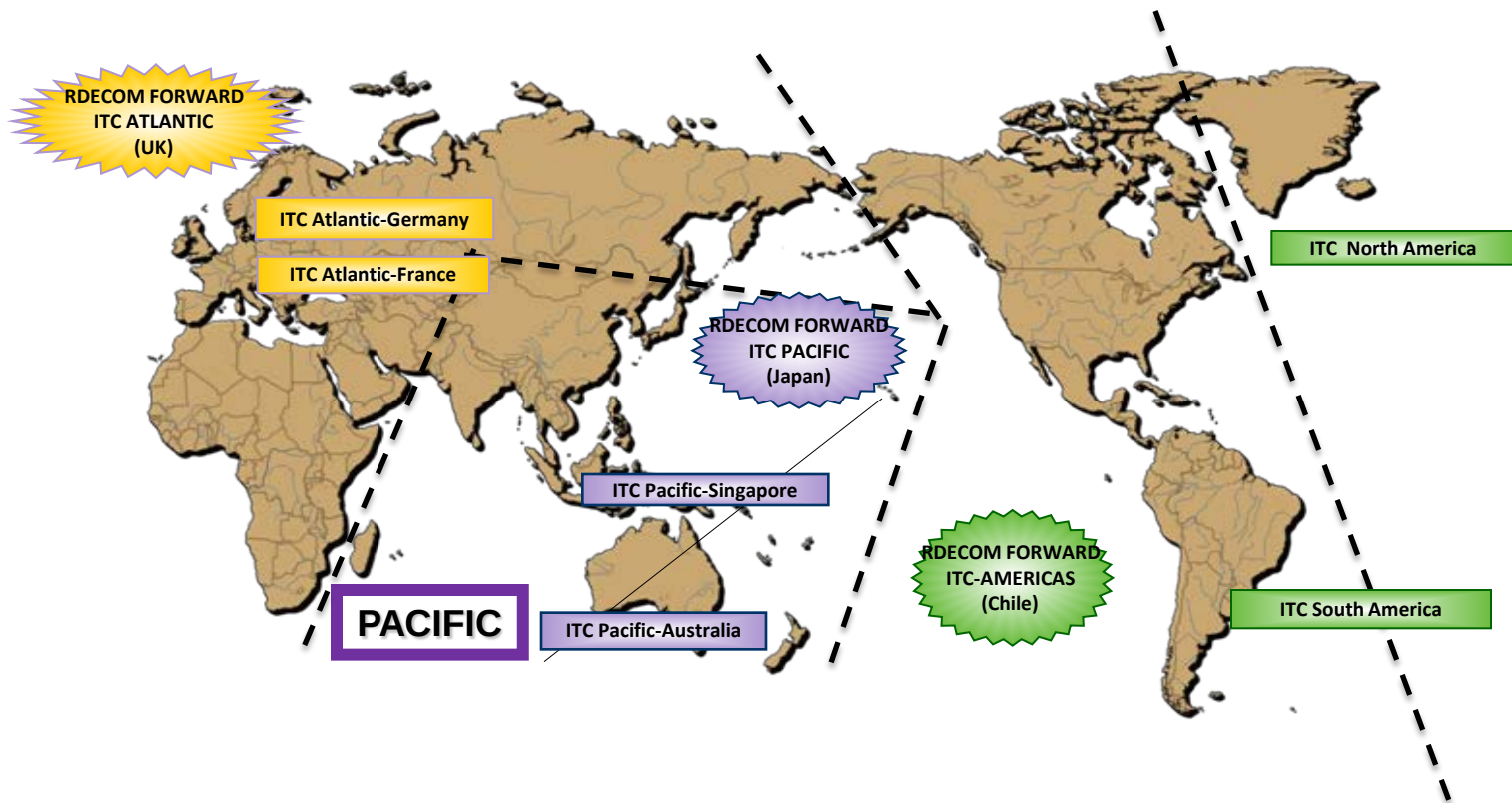


RDECOM Forward Elements



ATLANTIC

AMERICAS



TECHNOLOGY DRIVEN. **WARFIGHTER FOCUSED.**



World Class R&D Capability



Eng/Scientists

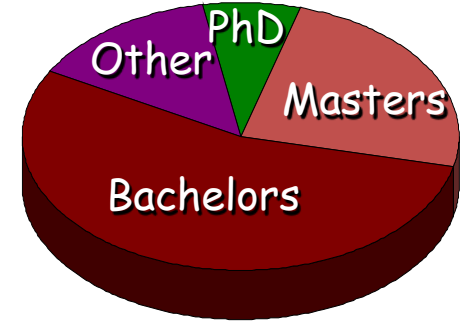
ARMY	≈17,000
RDECOM	56%
ATEC	11%
MRMC	6%
LCMCs	6%
USACE	5%
PEOs	4%

*Note - CP16 series

RDECOM (17,619 Total)

MIL	206
CIV	14074
CONT	3339

PhD 819
MS 2786
BS 6236
Other 1609
Total 9,450



3442 Computer/Electrical/Electronics Engineers
565 Physicists/Physical Scientists
1630 Mechanical Engineers
3387 General/Industrial Engineers
561 Aerospace Engineers
155 Materials Engrs./Metallurgists
100 Psychologists/Social Scientists
608 Chemical Engineers/Chemists
130 Biologists/Biomedical Engineers
9 Medical Research Technicians
368 Mathematicians/Statisticians
23 Meteorologists
472 E&S Technicians

The Army's Leading Experts in their Fields - Focused on the Cutting Edge!

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External Partnerships



Academia

- 326 university level institutions
- Over 1200 Single Investigator Research Projects
- 63 Multi-Disciplinary University Research Initiatives
- 4 University Affiliated Research Centers

Industry

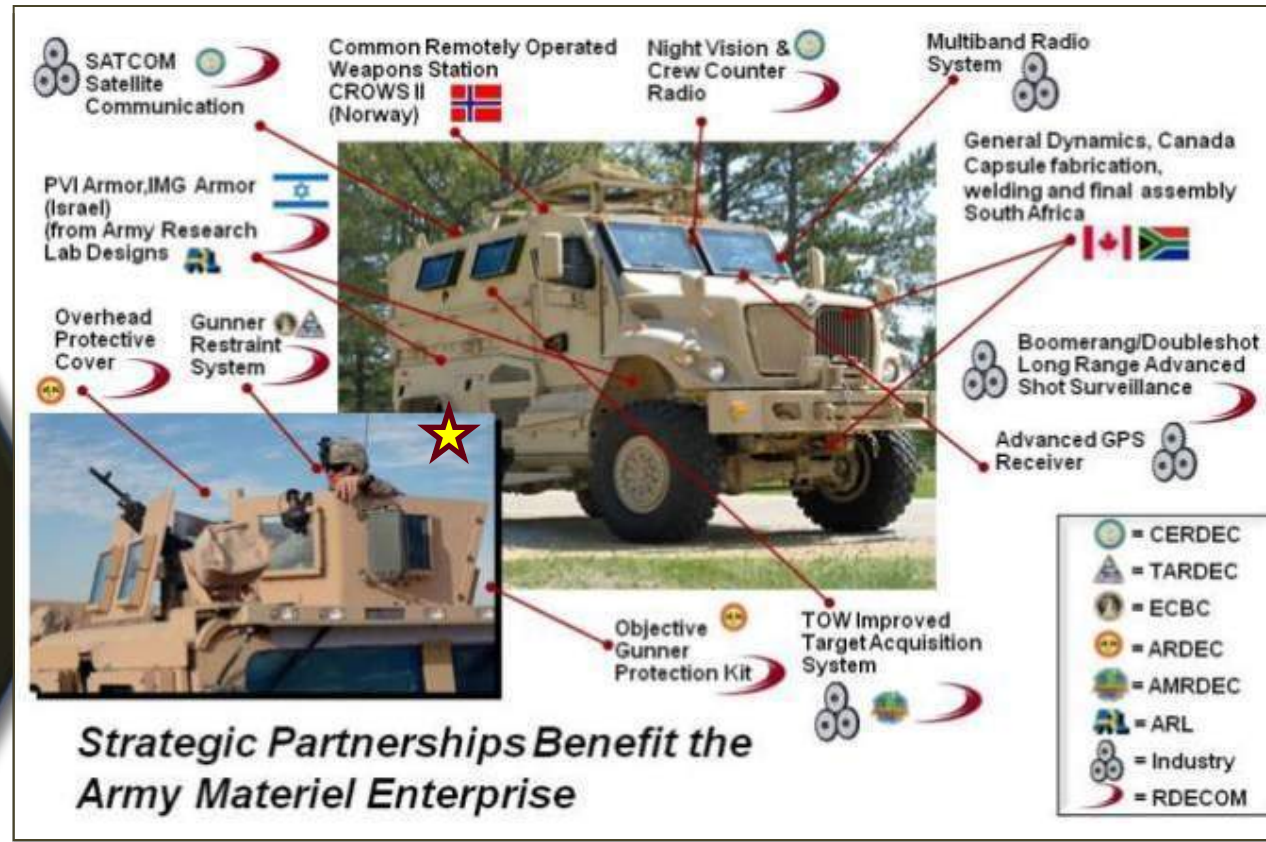
- Collaborative Technology Alliances
- Over 450 Cooperative Research and Development Agreements
- Over 600 Small Business Innovative Research agreements

International

- Offices in 9 countries
- 239 agreements with 26 countries

Interagency

- 904 agreements throughout DoD DARPA, JIEDDO, DHS, FAA, DoE, NSA, NASA, SMDC, etc



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Resources



JIEDDO/REF/DoD (\$300M+)

Customer Funded Support

\$2.7B (OMA/PA/RDTE)

- Engineer Support
- PM Projects
- ONS/JUONS Solutions
- Prototype Integration Facilities

Research & Development

\$2.7B RDTE

- Army Technology Objectives (ATO) (\$600M)
 - Projects Other Than ATOs (\$1,100M)
- Small Business Innovation Research (\$250M)
- Congressional Directed (\$800M)

Total - \$5.5B (FY09)

Direct RDTE

ARMY	≈ \$12B
PEOs	62.1%
ERDC	1%
SMDC	3.3%
MRMC	5.6%
RDECOM	23%

Indirect

Direct

The Army's Largest Technology Developer

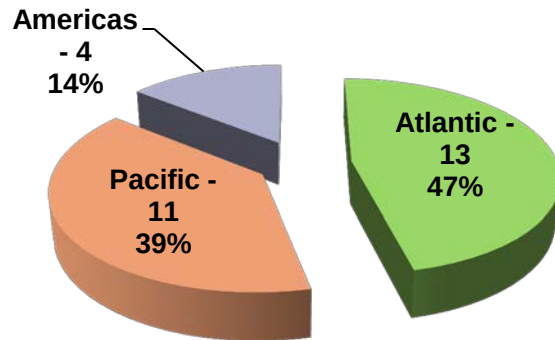
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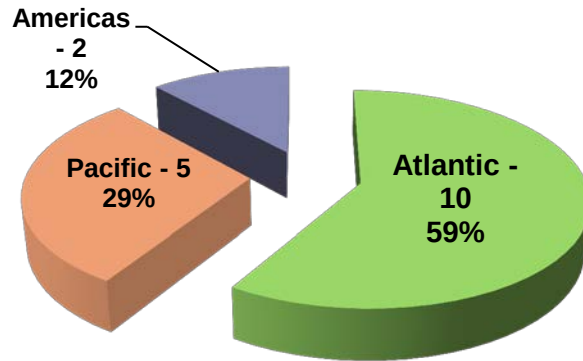
Soft Power – Engineer and Scientist Exchange Program (ESEP) Success



ESEPs by AOR



ESEPs by AOR in U.S.



Santiago,

Excmo. Sr. Embajador de los Estados Unidos de América
Paul Simons

Presente Estimado Embajador

Me dirijo a usted para saludarlo muy atentamente y a la vez, informarle que se ha recibido el informe sobre el término de los proyectos de investigación, en donde participaron activamente dos investigadores pertenecientes al Departamento de Investigación y Desarrollo del Ejército de Estados Unidos (RDECOM).

La participación de personal altamente especializado y de gran experiencia en actividades de investigación en temas militares, ha potenciado las capacidades y conocimiento del personal del Ejército de Chile en materias relacionadas con el entrenamiento de unidades, planificación y toma de decisiones mediante el empleo y uso de la simulación.

En este contexto, este Comandante en Jefe se hace un deber en destacar el desempeño y aporte de la Dra Teresita Sotomayor y del Sr Timothy Fargus, científicos que permitieron concretar en excelente forma los objetivos que se pretendían en ambos proyectos.

Al despedirme, estimo válida la ocasión para renovar los sentimientos de mi mayor consideración y estima.

Cristián Le Dantec Gallardo
General de División
Comandante en Jefe Subrogante



Soft Power – PAC Engagement



Technology Focus Areas

Survivability / Lethality

Networks

Sensors

Power and Energy

Mobility / Logistics

Human Dimension / Training



Regional Partners

Data Exchange Annex

Project Agreements

Japan

13

0

Australia

12

0

Korea

10

2

Singapore

8

2

India

3

0

Taiwan

3

0

Upcoming Events / Initiatives

Multi Autonomous Ground-robotic International Challenge (MAGIC 2010)

Project Agreement with Singapore on Portable Fuel Cell Technology – P&E for deployment

More ESEPs and FAST Advisors Assigned to AOR

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RDECOM Forward Element Missions



Technology Search

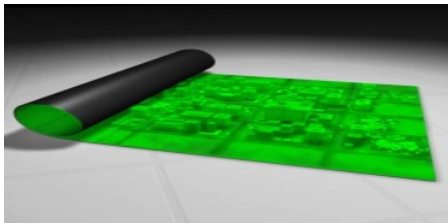
UAVs



Robotics

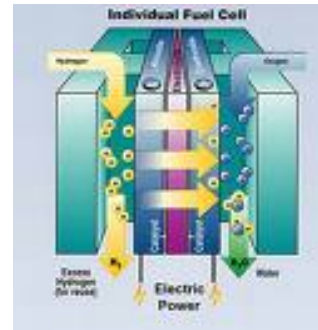


Holographic Maps



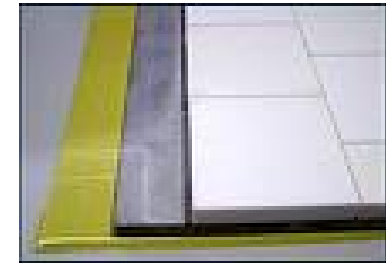
Field Assistance in
Science and
Technology (FAST)
Advisors

Fuel Cell



International Agreements

Armor



American, British, Canadian, Australian and New Zealand
Armies' Program



"Optimizing Coalition Interoperability"
www.abca-armies.org



Standardization
and
Interoperability

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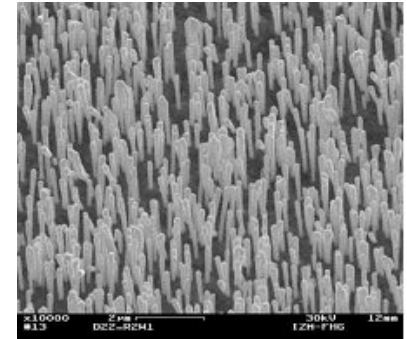


RDECOM - Seed Funds:

- Thin Film Materials For Photo Voltaic Applications
- Experimental study of the dwell-penetration transition in various types of ceramic armor materials



MEMS



Nano Materials

Armor Development



Power and Energy

RDECOM - Conference Support

- International Conference on Nano/Micro Engineered and Molecular Systems (IEEE-NEMS 2010)
- Western Hemisphere Information Exchange Alternative Fuels & Unmanned Systems Conference

