AMRDEC Overview and Contracting Opportunities

12 February 2016

Presented by:
Mr. James Lackey, SES
Director
U.S. Army Aviation and Missile Research, Development, and Engineering Center
Mission:
Deliver collaborative and innovative technical capabilities for responsive and cost-effective research, product development and life-cycle systems engineering solutions.

Vision:
Be a Warfighter-focused valued team of world leaders in aviation and missile technologies and life cycle systems engineering.
AMRDEC Director’s Intent

- **Taking Care of Our People:** Collectively mentor, sustain and care for our integrated technical and non-technical workforce using deliberate, pro-active supervision approaches.

- **Developing and Transitioning Enabling Technologies:** Continue to execute to cost and schedule of our wide variety S&T, formal development and rapid response activities, in firm coordination with TRADOC, PEO, and PM stakeholders, and Customers.

- **Affordability and Cost Consciousness:** Work to minimize overhead and direct costs, in careful balance, to sustain Customer focus and degrees of best-practice. Centralize operations and give respectful latitude in the support Directorate-run missions and functions.

- **Increased Strategic Alignment with Our Partners:** Think on enterprise terms – how to support one another and how to do business together in a cohesive, collaborative manner. Systematically communicate with and reach out to the myriad of our Team Redstone, Large Industry, Small Business, Technical Services, DAU, regional University and Research Institute Partners to work toward mutual goals and objectives.
Distribution Statement A: Approved for public release. Distribution is unlimited.
RDECOM Business Model

Acquisition & Engineering Life Cycle

- TRL 1: Initial Capabilities Document*
- TRL 2: Material Solution Analysis Phase
- TRL 3: Requirements Authority Review of AoA Results
- TRL 4: Technology Maturation & Risk Reduction Phase
- TRL 5: Capability Development Document*
- TRL 6: Engineering & Manufacturing Development Phase
- TRL 7: Capability Production Document*
- TRL 8: Production & Deployment Phase
- TRL 9: Operation & Support Phase
- TRL 10: Disposal

ARL / RDEC LNOs Embedded in TRADOC COEs

International Technology Search

ASA (ALT) / AMC

- RDECOM
  - Research (6.1 - 6.2)
    - Information Sciences
    - Materials Sciences
    - Human Performance
    - "ility" Engineering
  - Technology Dev. (6.2 - 6.3)
    - Cyber Security and Operations
    - Integrated Soldier Protection
    - Autonomy-Enabled Formations
  - Engineering (6.4 - 6.6)
    - Systems Engineering
    - Software Engineering
    - Survivability / Lethality Engineering
    - Prototyping, Modeling / Simulation

TRADOC (Requirements)

- WFOs / CAN
- ICDs / CDDs / CPDs
- AMC LCMCs

Legend:
- Decision Point
- Milestone
- Decision
- Requirements Documents
- Requirements Authority Review

Discovery
Innovation
Advanced Development
Engineering & Production
Support to Warfighter

INTERNATIONAL TECHNOLOGY SEARCH

LCMCs

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AMRDEC Leadership

Director
Mr. James Lackey (SES)

MILDEP (Acting)
LTC John M. Schmitt

Aviation Development
Dr. Bill Lewis (SES)

Aviation Engineering
Mr. Jeffrey Langhout (SES)

Weapons Dev. & Integration
Dr. Juanita Harris (SES)

Engineering
Mr. Mike Bieri (SES)

Scientific & Technical Positions (STs)

Group Leader / Flight Control Technology
Dr. Mark Tischler

Optical Sciences
Dr. Henry Everitt

Aviation Advanced Design
Dr. D.J. Taylor

- Micro-Sensors & Systems – Vacant
- Radio Frequency Sensors – Vacant
- Computational Fluid Dynamics – Vacant

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AMRDEC Aviation S&T Focus Areas

Platforms
- Structures
- Aeromechanics / Rotors
- Vehicle Management & Control
- Subsystems

Mission Systems
- Engagement and Effects
- Survivability
- Teaming, Autonomy & Information Management
- Human System Interface
- Avionics / Networking

Concept Design & Assessment

Sustainment

Major Program Areas
- Engines & Other Power Sources
- Drives

Power

Basic Research

Technology Driven. Warfighter Focused.
AMRDEC Missile S&T Capability Areas and Leads

**PROTECTION**

Protect the force and selected geopolitical assets from aerial attack, missile attack and surveillance
- Air Defense
- Area Protection
- Platform Protection

**FIRE SUPPORT**

Destroy, neutralize, or suppress the enemy by cannon, rocket, and missile fire and to help integrate fire support assets into combined arms operations

**GROUND TACTICAL (CLOSE COMBAT)**

Direct fire weapons, supported by indirect fire, air-delivered fires, and nonlethal engagement means to decide the outcome of battles and engagements

**AVIATION WEAPONS**

Find, fix, and destroy the enemy through fire and maneuver; and to provide combat, combat service and combat service support in coordinated operations as an integral member of the combined arms team

**PROGRAM ANALYSIS & EVALUATION**

- AMRDEC PA&E Teams further the viability and effectiveness of missile science and technology efforts through the timely and coordinated study, synthesis, and evaluation of systems and technologies, both current and future
- Champion for Pervasive S&T

**TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**

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Contracting Opportunities with AMRDEC
<table>
<thead>
<tr>
<th>Description</th>
<th>POP</th>
<th>BAA/RFI/RFP Announcement</th>
<th>Est. $</th>
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</thead>
<tbody>
<tr>
<td>Prototype Integration Facility (PIF) Supplies and Services (PIF III)</td>
<td>7-10 yrs.</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; Qtr FY16</td>
<td>$2,450M</td>
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<td>Next Generation Rotorcraft TransMission</td>
<td>FY17 - FY21</td>
<td>20 Jan 2016</td>
<td>$16M</td>
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<tr>
<td>Multifunctional Aircraft Technology for Survivability</td>
<td>FY16 - FY17</td>
<td>3 Dec 2016</td>
<td>$2.6M</td>
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<td>Alternate Concept Engine - Large</td>
<td>FY16 - FY21</td>
<td>February 2016</td>
<td>$20M</td>
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<td>Future Embedded Rotorcraft Sustainment Technologies (FERST)</td>
<td>FY18 - FY21</td>
<td>January 2017</td>
<td>$18.5M (Government Funds - expect to be a Technology Investment Agreement)</td>
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<td>Component Prognostics for Aviation Systems (CPAS)</td>
<td>FY18 - FY21</td>
<td>January 2017</td>
<td>$16.4M (Government Funds - expect to be a Technology Investment Agreement)</td>
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<td>Long Range Fires (LFR) Science and Technology (S&amp;T) Architecture Study</td>
<td>FY17-FY22, utilizing a basic 12mo. Effort and four 12mo option periods.</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; Qtr FY16</td>
<td>Expected no more than 5 awards each not to exceed $1M</td>
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<td>Technologies for Army Long Range Tactical Missiles (BAA)</td>
<td>FY-17-FY22</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; Qtr FY16</td>
<td>Multiple awards are possible not to exceed $100M per award.</td>
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<td><strong>Systems and Computer Resources Support (SCRS):</strong> Three packages below will improve functional management of requirements.</td>
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<td>Virtual Systems (MAC)</td>
<td>5 yrs.</td>
<td>2017</td>
<td>$85M</td>
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<td>Battlefield Systems (MAC)</td>
<td>3 yrs.</td>
<td>2017</td>
<td>$315M</td>
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<td>Strategic Systems (MAC)</td>
<td>3 yrs.</td>
<td>2017</td>
<td>$170M</td>
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<td><strong>Battlefield Automated Systems Engineering Support</strong> (BASES) (AMCOM Express)</td>
<td>5 yrs.</td>
<td>2016</td>
<td>$90M</td>
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<td>Cyber-Systems and Software Security Engineering (S3E) (AMCOM Express)</td>
<td>5 yrs.</td>
<td>2016</td>
<td>$32M</td>
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<td>Lower Tier Program Office (LTP0 IV&amp;V) (AMCOM Express)</td>
<td>5 yrs.</td>
<td>2016</td>
<td>$12M</td>
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<td>Technical Support in Propulsion Project and Aircraft Systems</td>
<td>3 yrs.</td>
<td>2nd Qtr 2016</td>
<td>$29M</td>
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<td>MED Airworthiness Depot Liaison Engineering and Technical Support (at CCAD)</td>
<td>3 yrs.</td>
<td>3rd Qtr 2016</td>
<td>$88M</td>
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