Deliver collaborative and innovative aviation and missile capabilities for responsive and cost-effective research, development and life cycle engineering solutions.
Who is AMRDEC?

~ 9,408 FY16 Strength  
~ 3,035 Civilian  
~ 20 Military  
~ 6,353 Contractor

~ 88% of FY16 Funding = Reimbursable  
$2.45B

~ 12% of FY16 Funding = S&T  
$339M

Aviation and Missile Technologies

- Life Cycle Management
- Research, Technology Development and Demonstration
- Design and Modification
- Systems Integration
- Test and Evaluation
- Qualification
- Aerodynamics/Aeromechanics
- Structures
- Propulsion
- Guidance/Navigation
- Autonomy and Teaming
- Radio Frequency (RF) Technology
- Fire Control Radar Technology
- Image Processing
- Models and Simulation
- Cyber Security

AMRDEC HQ
Redstone Arsenal, AL

Colorado Springs, CO
Ft. Eustis, VA
NASA Langley, Hampton, VA
NASA Ames - Moffett Field, CA
Corpus Christi, TX
Honolulu, HI
Schofield Barracks, HI

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AMRDEC Leadership

Director

MILDEP

Scientific & Technical Positions (STs)
- Group Leader / Flight Control Technology
- Optical Sciences
- Aviation Advanced Design
- Micro-Sensors & Systems
- Radio Frequency Sensors
- Computational Fluid Dynamics

Aviation Development
Aviation Engineering
Weapons Dev. & Integration
Engineering
System Simulation, Software, & Integration

SUSTAINMENT ACTIVITIES
Total Income
FY16 ($2,795M)

- **Vast majority:** Aviation and Missile Work
  - Army $232M
  - Navy $81M
  - Air Force $28M
  - Marines $256M
  - MDA $106M
  - Other DoD $100M
  - DARPA $110M
  - Non-Govt $9M

- **Aviation S&T** $160M
- **Missile S&T** $179M
- **Non-S&T RDTE** $51M
- **OMA Mission / OCO (RDEC)** $35M
- **AMCOM** $167M
- **PEO Aviation** $681M
- **Non-Govt** $3M
- **Other Army PEOs** $202M
- **PEO Missiles & Space** $390M

**As of: 12 OCT 16**

**Army** $2,102M (75%)
**Strategic Readiness**

Provide aviation and weapons technology and systems solutions to ensure victory on the battlefield

- Provide valued life cycle engineering expertise and service across the materiel enterprise

**Future Force**

Develop and mature Science and Technology to provide technical capability to our Army’s (and nation’s) aviation and weapons systems

- Provide decisive overmatch in aviation and missile technologies – further, faster, more precise
- Mitigate Army Warfighter Challenges through development and maturation of innovative, adaptive technologies

**Soldiers & People**

Develop the engineering talent to support both Science and Technology and materiel enterprise

- Cultivate talent from K-16 in support of Science Technology Engineering and Math (STEM)
- Mature the engineering workforce into subject matter experts across engineering domains
- Recruit, manage, train and retain a workforce capable of solving problems and developing technologies to enable the Warfighter
**Strategic Roadmap**

**Lines of Effort**

**Strategic Readiness**
- Provide aviation and weapons technology and system solutions to ensure the Soldier victory on the battlefield

**Future Force**
- Develop and mature S&T to provide technical capability to our Army’s (and nation’s) aviation and weapons systems

**Soldiers & People**
- Develop the engineering talent to support both S&T and materiel enterprise

**Output**

**Tech Development & Engineering Services**
- Provide innovative S&T/R&D technologies and valued life cycle engineering expertise across the enterprise

**Sustainable Readiness**
- Provide aviation and weapons technology and systems solutions to ensure victory on the battlefield

**Future Force**
- Develop and mature S&T to provide technical capability to Army’s aviation and weapons systems

**Human Dimension/Resource Management**
- Develop the engineering talent to support S&T and materiel enterprise
Lines of Effort

LINES OF EFFORT

Strategic Readiness

Future Force

Soldiers & People

Sustainable/ Materiel Readiness

Human Dimension

Integrated Technology Development

Talent Management & Infrastructure

Future Force

Resource Management

Business Process

Strategic Communications

Tech Development & Engineering Services

Sustainable Readiness

Future Force

Human Dimension/ Resource Management
### Operational Support

**PEO Aviation**
- Lifecycle engineering support
- Simulations, trainers, and integration labs
- Interoperability and integration testing
- UH60V Development
- Airworthiness
- S&T Initiatives

**MDA**
- Simulation Analysis and Tools to support ground tests, flight tests, exercises, and training
- Modeling and simulation, Software, and H-WIL performance analysis
- Independent performance assessments for targets
- RAM support

**Total PEO AVN**
FY16 Funds: $686M

**Total PEO M&S**
FY16 Funds: $390M

**Total MDA**
FY16 Funds: $256M

**Other**
- Prime Development of JBC-P
- Post Production SW Support for Bradley
- America’s Army Game Studio
- Agent of Certification Authority
- Modeling and Analysis for Aerial Targets
- Virtual Target Center
- GCSS-A

**Total Army (Other)**
FY16 Funds: $232M

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**FY16 Funds**
- Total Army (Other): $232M
- Total PEO AVN: $686M
- Total PEO M&S: $390M
- Total MDA: $256M
AMRDEC Top Aviation S&T Initiatives

Extension of Range and Endurance
- Fly faster and farther
- Support all FVL initiative capabilities
- Carry more payload
- Demonstrate transformational vertical lift capabilities

Operations in Degraded Visual Environments (DVE)
- Operate in complex environments
  - Pilotage in all DVE’s
  - 360º situational awareness (SA)
  - Multi-functionality
  - Multi-spectral

Sustainability, Maintainability, Reduced Logistics Footprint
- Ultra-reliable designs
- Zero maintenance concept
- Reduced Maintenance burden

Future Tactical UAS Demo
- Mature autonomous capabilities
- Refine the interface between pilot and aircraft
- Advanced UAS engine concepts

Advance Engine & Drive Technologies
- Multi-speed transmission
- Move beyond traditional turbo-shaft engine architecture

Operations in Degraded Visual Environments (DVE)
- Pilotage in complex environments
- 360º situational awareness (SA)
- Multi-functionality
- Multi-spectral

AMRDEC Top Aviation S&T Initiatives

Operations in Degraded Visual Environments (DVE)
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- Move beyond traditional turbo-shaft engine architecture
AMRDEC Top Missile S&T Initiatives

**CAPABILITY AREA**

- **GROUND TACTICAL**
  - Lethal Miniature Aerial Missile System (LMAMS)
  - LMAMS Enhancements
  - Precision Shoulder-Launched Munition (P-SLM)
  - Next Generation Close Combat Missiles
  - Multiple Simultaneous Engagement Technologies (MSET)

- **AIR DEFENSE**
  - cUAS at the Tactical Edge
  - Low-Cost Extended-Range Air Defense (LOWER AD)
  - Digital Array Radar Testbed (DART)
  - Next Gen Lower Tier (Expeditionary Interceptor, Launcher, FCS)

- **FIRE SUPPORT**
  - Tail Controlled GMLRS (TCG) Technology Insertion
  - Land-Based Anti-Ship Missile (LBASM)
  - Low-Cost Tactical Extended Range Missile (LC-TERM)
  - Long Range Maneuverable Fires

- **AVIATION MISSILES**
  - MMT Open Architecture
  - Modular Missile Technology (MMT) Multi-Role Variant
  - Next Generation Air-to-Ground Missile

**TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**
“You can only deter your opponent if your opponent believes that you have the will and the capability...readiness has a deterrent value, as well as a war-fighting value.”

Gen. Mark A. Milley, Chief of Staff of the Army
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www.amrdec.army.mil

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YouTube
www.youtube.com/user/AMRDEC

Twitter
@usarmyamrdec

Public Affairs
AMRDEC-PAO@amrdec.army.mil