Engineering Directorate HAMA Brief

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TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

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U.S. Army Aviation and Missile Research, Development, and Engineering Center

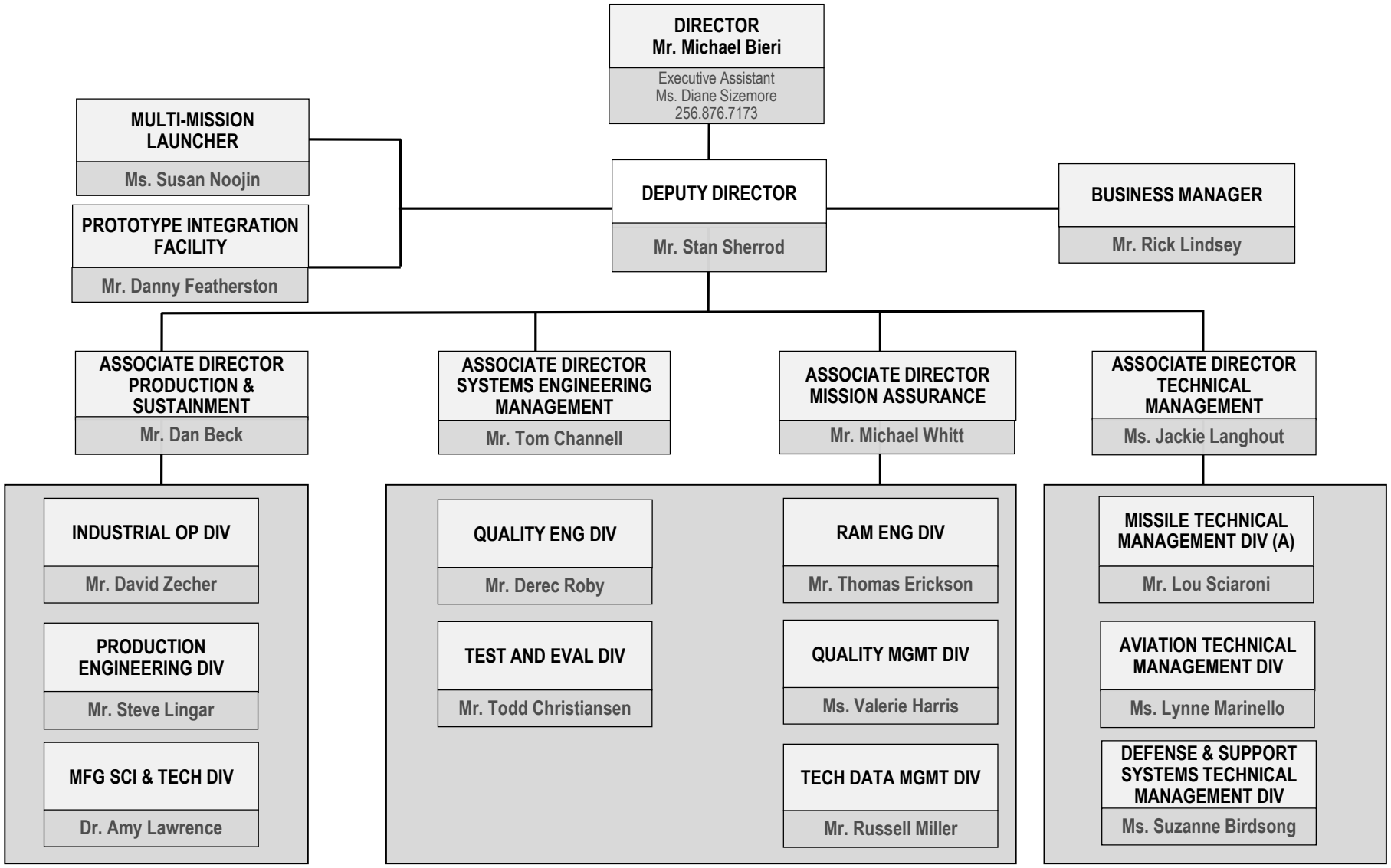
AMRDEC
Organizational Structure

Aviation and Missile Research, Development and Engineering Center

AMRDEC

- **Aviation Development Directorate**
  - ADD
  - Aviation Development Directorate
- **Aviation Engineering Directorate**
  - Aviation Engineering
- **Weapons Development and Integration Directorate**
  - WDI
- **Engineering Directorate**
  - ED
- **Systems Simulation, Software and Integration Directorate**
  - S3I

Organization Chart

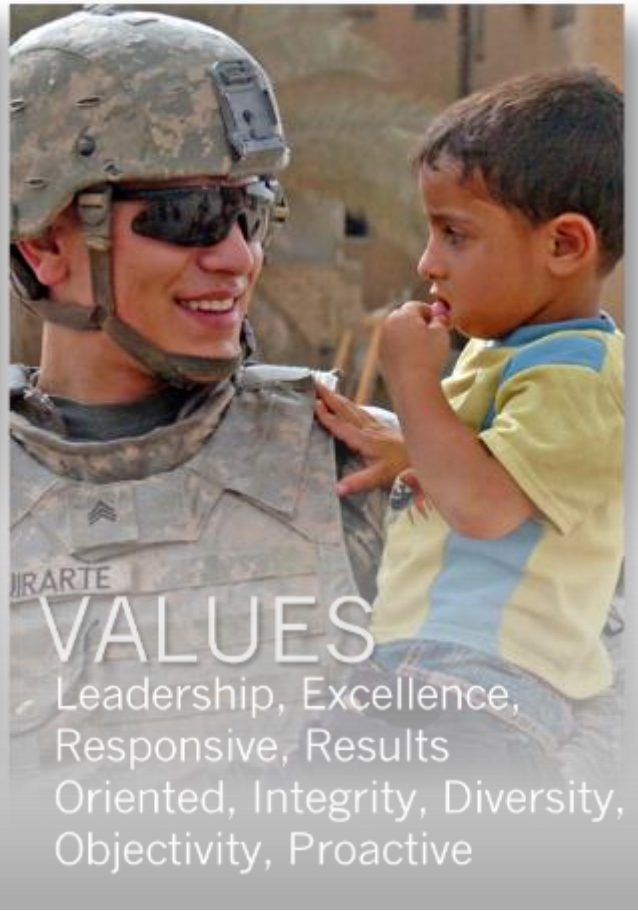


MISSION

Serving Warfighter Needs through World Class Life Cycle Engineering

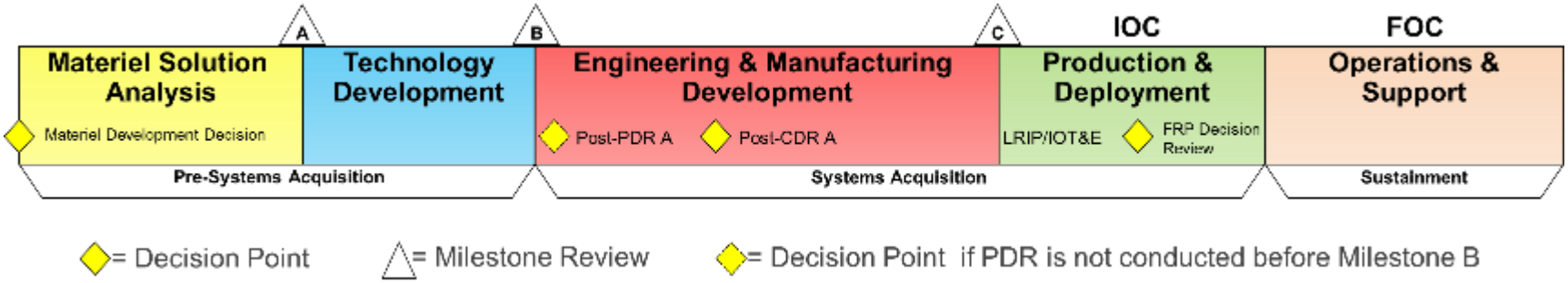
VISION

Through Mission Excellence and collaboration, be an invaluable customer partner focused on the Warfighter



VALUES

Leadership, Excellence, Responsive, Results Oriented, Integrity, Diversity, Objectivity, Proactive



- Systems Engineering Management
- Test and Evaluation Management
- Production Engineering
- Product Assurance
- Configuration Management
- PIF/Rapid Response
- Logistics Engineering
- Industrial Base Assurance
- Life Cycle Cost Reduction
- Manufacturing Technology

The AMRDEC Engineering Directorate tracks the entire product through the design, development, deployment and operational phases.

Location

- Headquartered on Redstone Arsenal in Huntsville, Alabama
- Redstone is also home to AMC headquarters, PEO Missiles and Space, PEO Aviation, NASA, USASAC, MDA, RTC

Key Customers

Workforce Strength

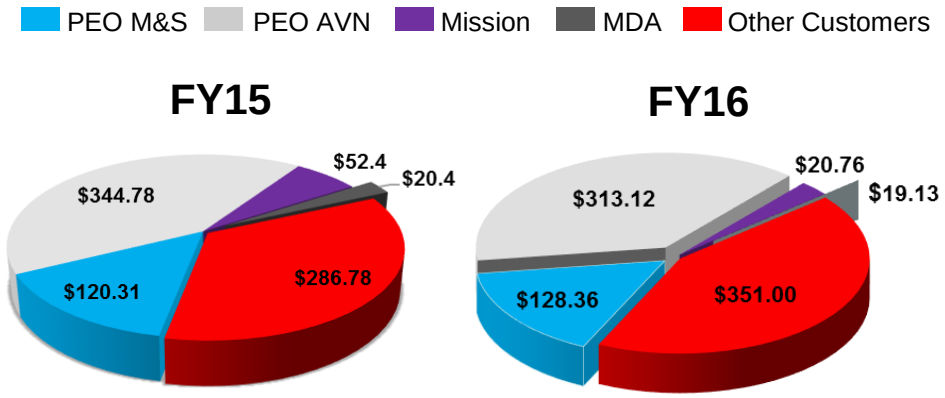
Government = 1,241

- ✓ Engineers and Scientists (DB): 1032
- ✓ Technical and Business Support (DE): 181
- ✓ General Support (DK): 7
- ✓ QASAS: 2
- ✓ DA Interns: 14
- ✓ Pathways: 5

Support Contractors = ~705 **(Not Including the Pif)**

Total Workforce = ~ 1977

Funding Profile



FY15 = $824M; FY16 = $832M

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Engineering Directorate

Potential Opportunities

Description	Objective	BAA/RFI/RFP Announcement	POP	Type	Est $
Prototype Integration Facility (PIF) Supplies and Services (PIF-3)	IDIQ to provide prototypes, hardware designs, fabrication, integration, and field support	2nd Qtr FY17	5-9 yrs	CPFF/FFP	$4.73B
Prototype Integration Facility (PIF) Technical Support	EXPRESS Technical Domain Support for PIF and customers	2nd Qtr FY17	5 yrs	FFP	$200 - $350M
AMRDEC Programmatic Support	Express Programmatic Domain Support for AMRDEC and Customers	2nd Qtr FY17	5 yrs	FFP	$150 - $275M

Note: ED has multiple other Express recomplete efforts ongoing; however, they are in evaluation and not available for further competition at this time.

Digital Manufacturing

- Digital Manufacturing and Design Innovation Institute (http://dmdii.uilabs.org/)
- Encourages factories to deploy DM and design technologies to be more efficient & cost-competitive.
- Welcomes industry, academia, the nonprofit sector and government who can participate in research projects; adopt digital technologies in their own factories; and advance the state-of-knowledge nationwide.

Additive Manufacturing

- America Makes National Manufacturing Institute (https://americamakes.us/)
- Goal: innovate and accelerate AM and 3DP to increase our nation's global manufacturing competitiveness
- Structured as a public-private partnership with member organizations from industry, academia, government, non-government agencies, and workforce and economic development resources.

Composites

- Army Manufacturing Technology (ManTech) Program (http://www.armymantech.com/)
- Provides affordable and timely manufacturing solutions that address the highest priority needs of the Army
- Supports transition of manufacturing technologies and affordable technical capabilities to the Warfighter
- Composites Processing and Fabrication Subpanel within Joint Defense Manufacturing Technology Panel (JDMTP) that coordinates manufacturing technology projects that improve the processes used to produce composite structures in aircraft, ground vehicles, ships, and Soldier protective systems.

Establishing a Local Quality Council

- Establishing a local Quality community of interest or council that focuses on emerging quality issues and best practices that's informal and collaborative in the area of defense quality.
- Huntsville area Aerospace Industry/Government Quality Leadership serving to establish professional collaboration, strategic development, and exchange of Quality knowledge, issues, practices, and standards.

Reduced Sustainment Costs

- Missile design improvements to achieve reductions in future sustainment costs.
- Higher design reliability to reduce the number of stockpile failures over the lifecycle.
- Most robust missile designs to increase the aggregate stockpile shelf-life.

Missile Health Monitoring Data

- Improve technology to collect missile health data within severely reduced ammo manpower constraints
- More certain visibility of missile stockpile readiness to anticipate sustainment demand
- More certain/more timely health status from advanced sensing of failure, reduced uncertainty via usage data fusion, and enhanced user alarms.

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