Industry Communications Event
8 March 2018

Ms. Rebecca Weirick
Executive Director
U.S. Army Contracting Command

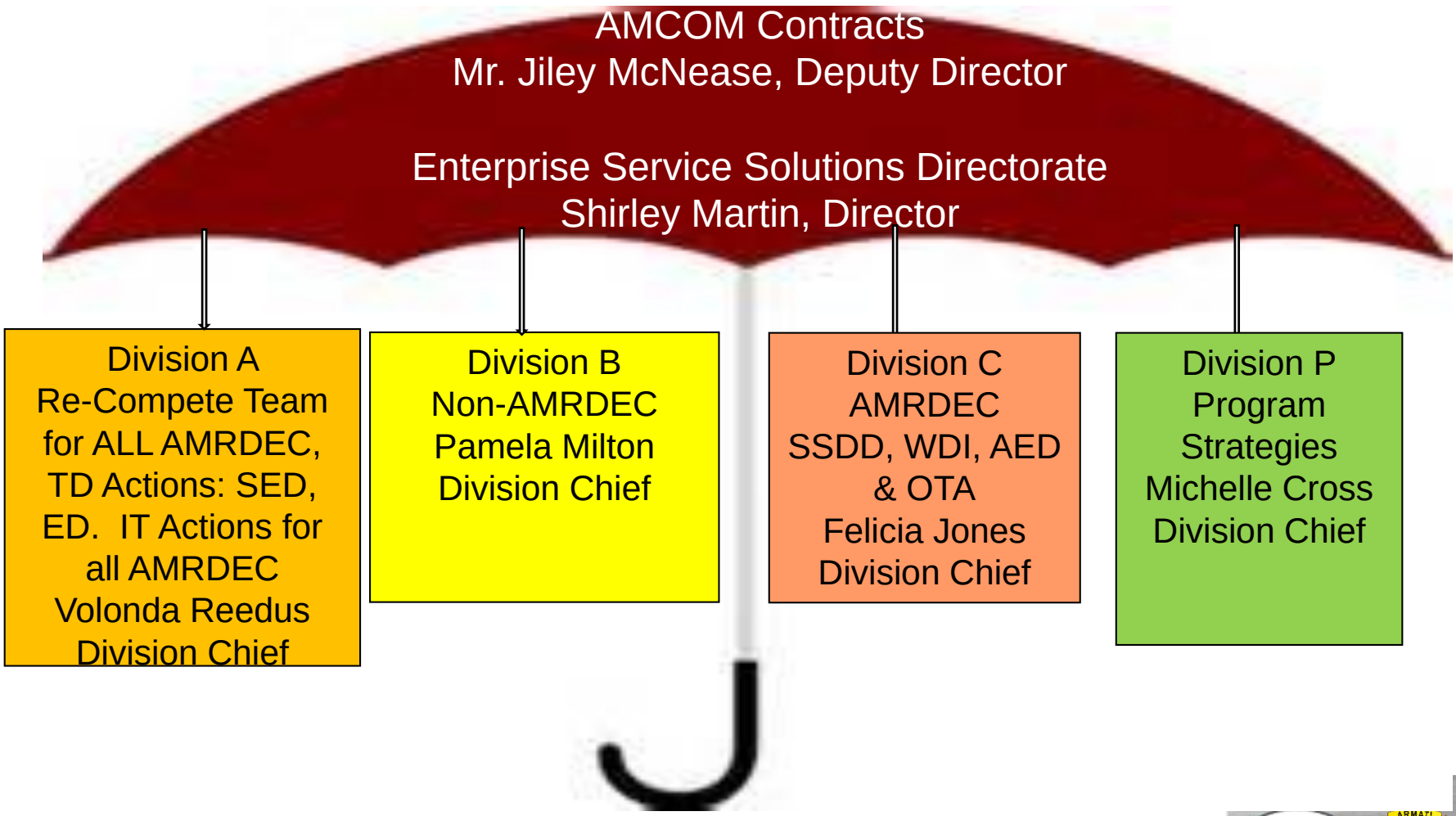
Version Number 1
As of 8 March 2018

Agenda

- ✓ **Welcome – Organizational Chart**
  - ACC
- ✓ **Ground Rules**
  - ACC
- ✓**Evergreen Timeline**
  - ACC
- ✓**EXPRESS Top 5 Requirements Briefing**
  - AMRDEC
- ✓**Projections 6-12/mon**
  - ACC

- ✓ **Q&A**

Organizational Chart



Ground Rules

- Please hold all questions until the end of the presentation
- Submit questions on the provided note cards during the scheduled break
- The panel will field and attempt to answer all submitted questions
- If questions cannot be answered today they will be answered later in writing if possible
- The area of focus today is service contracting in the ESS Directorate
- The panel does not have knowledge of other requirements outside of these areas. Please limit your questions to these areas
- The Government will not distribute the questions and answers (unless not answered during the event), minutes of the event, or a listing of the attendees/registrants
- The event will end at 1500 or when questions end, whichever comes first
- The Government will post our projections to our EXPRESS Public website http://acc.army.mil/contractingcenters/acc-rsa/Express.html

MILESTONE SCHEDULE FOR EVERGREEN 1 of 2

EXPRESS – EVERGREEN Contracting Timelines

Date	Revised Date	Event	Notes	Schedule
Technical Domain				
14 Nov 17		Draft RFQ		
02 Jan 18		Final RFQ		
31 Jan 18		Offers Due		
12 Feb 18		Evaluations Start	Started 3 days early	
31 Aug 18		Evaluations Complete		On schedule
30 Sep 18		Contract Award		On schedule
Programmatic Domain				
12 Dec 17		Draft RFQ		
15 Jan 18	24 Jan 18	Final RFQ	Slipped due to furlough	
27 Feb 18		Offers Due		On schedule
07 Mar 18		Evaluations Start		On schedule
31 Aug 18		Evaluations Complete		On schedule
30 Sep 18		Contract Award		On schedule

MILESTONE SCHEDULE FOR EVERGREEN 2 of 2

EXPRESS – EVERGREEN Contracting Timelines

Date	Revised Date	Event	Notes	Schedule
B&A Domain				
24 Jan 18		Draft RFQ		
07 Mar 18	7 Mar 18	Final RFQ 07 March		On schedule
12 April 18	9 Apr 18	Offers Due		
23 Apr 18		Evaluations Start		
31 Aug 18		Evaluations Complete		
30 Sep 18		Contract Award		
Logistics Domain				
24 Jan 18		Draft RFQ		
07 Mar 18	7 Mar 18	Final RFQ		On schedule
12 Apr 18	9 Apr 18	Offers Due		
23 Apr 18		Evaluations Start		
31 Aug 18		Evaluations Complete		
30 Sep 18		Contract Award		

TOP 5 – Upcoming Requirements

✓Top 5 Requirements

Division A:

- 2017T-17 AMRDEC SSDD - Full and Open – Industry day 25 Oct 17 with 5 contractors
- 2018T-2 AMRDEC WDI - To Be Determined
- 2018T-3 AMRDEC WDI - To Be Determined

Division B:

- 2018P-1 APACHE – To Be Determined
- 2018P-2 APACHE – To Be Determined

Division A

- ✓2017T-17 AMRDEC SSDD - Full and Open – Industry day 25 Oct 17 with 5 contractors
- ✓2018T-2 AMRDEC WDI - To Be Determined
- ✓2018T-3 AMRDEC WDI - To Be Determined

TORFQ: 2017T-17

PROCUREMENT HISTORY

Contractor Name: SAIC
Task Order Number: W31P4Q-05-A-0031/0036
Previous TORFQ Number: 2013T-03
Basic Effort: $22,989.64
Option: $95,524,941.64
Contract Value: $95,547,931.28

TECHNICAL REQUIREMENTS/SCOPE

Hours to be purchased:
Number of Years : 5
NAICS: 541712

Milestones	Baseline	Forecast	Actual
CRP Received	5/5/17	5/5/17	5/5/17
T&M D&F Signed	9/15/17	3/1/18	
SRB (If Applicable)	10/3/17	3/1/18	
TORFQ Released	10/5/17	3/5/18	
Quotes Due	10/31/17	4/3/18	
Evaluations Complete	12/7/17	4/20/18	
Best Value Determination Approved	1/18/18	5/4/18	
CRB (If Applicable)	2/14/18	5/21/18	
Award	2/15/18	5/22/18	

CHANGES IN SCOPE IF ANY

No major changes in PWS

"Systems Engineering Support of Advanced Experimentation and Force Protection Lifecycle Modeling & Simulation"

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

08 March 2018

Presented by:

Aviation and Unmanned Systems Branch

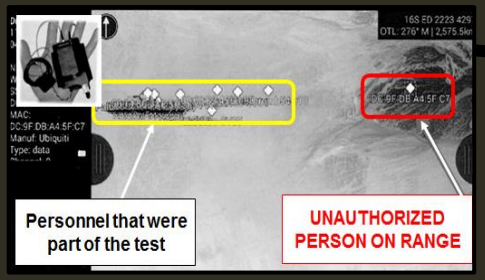
System Simulation and Development Directorate

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

UAS SIMULATION AND DEVELOPMENT

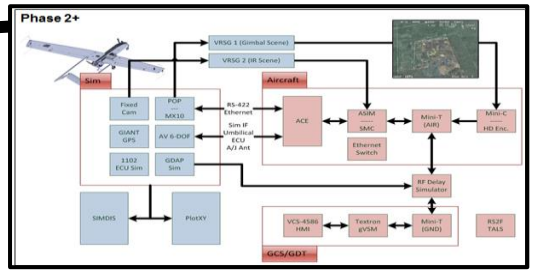
Shadow Developmental Support started back in 2008 with Quick-MEDS

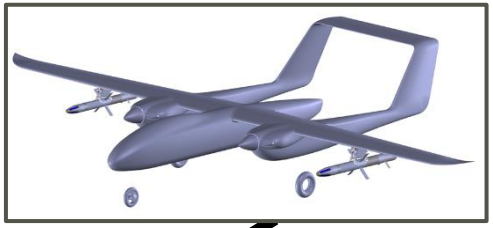
Total FY17 Funds (UAS Team + Contracts): $10M



UAS Survivability/GPS Denied Operations/Counter UAS

- Shadow HANS HWIL [PM UAS]
- UAS Threat/Survivability [PM UAS]
- Army A-PNT [PM PNT]
- Counter UAS [Ft Sill]



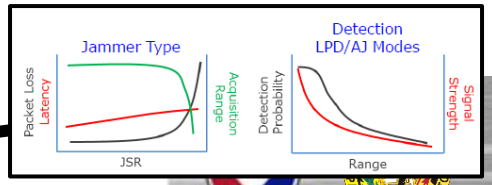


UAS Weapons

- MMT Drop-Glide [AMRDEC]
- Shadow Test Surrogate [AMRDEC]
- Gray Eagle Decision Aid [PM UAS]
- Cyber Sensor [AMRDEC]

Manned-Unmanned Teaming (MUMT)/NAS Operations

- Synergistic Unmanned Manned Intelligent Teaming (SUMIT) [AMRDEC]
- Sense and Avoid [PM UAS]
- Short Range Micro UAS [PM UAS]
- New CDL Waveforms [Air Force]



APEX 2 SIMULATIONS

Customers:

Utility, Cargo, Apache, AVSYS, Air Warrior, TAPO, USCG, USMC, USN, & FMS, & formerly ASH

CSWG Capabilities:

- The APEX II, CSWG facility provides a realistic environment for system performance assessment of the Human Machine Interface (HMI) or Pilot/Vehicle Interface (PVI)
  - BH-EAC Black Hawk Engineering Analysis Cockpit
  - CH-EAC Cargo Helicopter Eng. Analysis Cockpit
  - AH-EAC Attack Helicopter Eng. Analysis Cockpit
  - UA-EAC Unmanned Aircraft Eng. Analysis Cockpit

Crew Station Working Groups (CSWG):

- Reduces both performance and cost risk to Aviation PMOs
- Reduces project risk for meeting Airworthiness Qualification standards

CREW STATION WORKING GROUP

SSDD's **CSWG** is Used by **Utility, Cargo, TAPO, and Others:**

User Community

Contracted Vendors

Gov't SMEs

Qualification Authorities

Project Office

Fielded Units

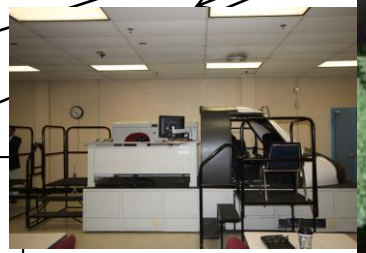
CSWG
One-Week Crew Station Working Group at SSDD

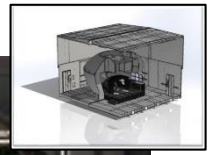
Concurrence

Quantified HF Data for PMO and MS Decisions

Validated Requirements Documents

Government Data: Reduces Cost/Sked





COCKPIT SIMULATIONS & AAPS

Provide state-of-the-art cockpit training and familiarization devices that reduce pilot training times, as well as cost and performance risk.

Cockpit Academic Procedural Tool (CAPT):

- Provides over 6 flight hrs cost avoidance per pilot
- CAPT used as a classroom enhancer for Cockpit Familiarization
- Shows maximum re-use of existing Models and Simulation originally developed for Engineering Analysis Cockpits

Aircraft Avionics Procedural Software (AAPS):

- Reduces both performance and cost risk to Aviation PMOs
- Reduces project risk for meeting Airworthiness Qualification standards

Black Hawk Aircrew Trainer (BAT)

- Reduces both performance and cost risk to Aviation PMOs
- Reduces project risk for meeting Airworthiness Qualification standards

Products and Devices: BH-EAC, CH-EAC, AH-EAC, Mission Simulator, Lo-Fi, CAPT, CAPT-E, CAPT-EVCS, CEPT, Desktop Trainers, BAT

2017T-17 PWS

- ✓2.2 The contractor shall provide an organized modeling and simulation process capability that represents various aviation technologies (both fielded and prototype United States Department of Defense (DoD) aviation technologies) to include, but not limited to: design, engineering, performance, analysis, dynamic flight simulations, systems integration, and assembly of aircraft cockpits (both legacy cockpits and US Army Common Avionics Architecture System (CAAS) cockpits) and their components and subsystems. The resulting technical data packages, technical documentation, and technical records of the contractor modeling and simulation process performed or supported under this task order shall be property of the Government. The contractor shall develop system-level aviation models that adequately model the aircraft and pilot-vehicle-interface (PVI) in a virtual simulated environment that includes the use of, but is not limited to, the following tools: Disti GLStudio VAPS XT, Mathworks Matlab, Simulink, and ART Flightlab.

2017T-17 PWS

- ✓2.4 The contractor shall develop and implement new simulation techniques and tools, as well as use best business practice simulation techniques and commercially-available software tools and hardware including, but not limited to, ASTi Telestra 4, AECOM XIG and TerrSoft Terra Tools, Moog Motion Seats and G Seats, and SGB SGBTools, to assist in engineering analysis of ground and aviation systems. The contractor techniques and tools may support human factors engineering for the purpose of evaluating the aircraft, instruments, and the location of instrumentation and controls and the human-machine interface.

2017T-17 PWS

- ✓2.6 The contractor shall provide rapid terrain generation techniques and expertise and develop Visual Flight Rules and Instrument Flight Rules visual terrain databases (VTDBs) to include, but not limited to, natural (clouds, sand and snow) and man-made (other aircraft, ground vehicles, smoke, and muzzle flash) structures to support the evaluation of weapon systems in realistic environments. The contractor-developed VTDBs shall integrate multi-resolution terrains, methods for creating and visualizing dynamic terrain, adverse weather, GPS denied-operation models, and geo-specific simulated Digital Aeronautical Flight Information File (DAFIF)-current and compliant navigation aids that permit precise aerial navigation through the VTDBs.

2017T-17 PWS

- ✓2.14 The contractor shall maintain and operate the Government-developed APEX 2 Lab AIGS Image Generating System, maintain and operate IGS associated software tools to include, but not limited to the Scalable Displays Manager Tool and RSI's Epic Blend Tool. The contractor shall operate and maintain the APEX 2 suite of engineering analysis cockpits (EACs). The contractor shall interface, maintain and operate either the IGS or other applicable commercially-procured image generator(s) and its associated tools in applicable commercially-procured visual systems.

TORFQ: 2018T-02

PROCUREMENT HISTORY

Contractor Name: Integration Innovation, Inc. (i3)
Task Order Number: W31P4Q-15-A-0034/0001
Previous TORFQ Number: 2014T-16
Basic Effort: $9,164.55
Option: $47,787,004.85
Contract Value: $47,796,169.44

TECHNICAL REQUIREMENTS/SCOPE

Hours to be purchased: 790,087
Number of Years : 5 years
NAICS: 541715

Milestones	Baseline	Forecast	Actual
CRP Received	12/8/2017	12/8/2017	12/8/2017
T&M D&F Signed	3/15/2018	5/21/2018	
SRB (If Applicable)	4/2/2018	6/15/2018	
TORFQ Released	4/4/2018	6/20/2018	
Quotes Due	4/30/2018	8/17/2018	
Evaluations Complete	6/13/2018	8/24/2018	
Best Value Determination Approved	6/29/2018	9/5/2018	
CRB (If Applicable)	N/A	12/4/2017	
Award	7/27/2018	12/21/2017	

CHANGES IN SCOPE IF ANY

Increase in scope

Added the following areas:

- **Conduct analysis or studies to assess weather encounter test facilities.**
- **Development and integration of advanced technologies in sensor windows and domes and thermal protection systems.**

TORFQ: 2018T-03

PROCUREMENT HISTORY

Contractor Name: Torch Technologies Inc.
Task Order Number: W31P4Q-09-A-0021/0009
Previous TORFQ Number: 2013T-50
Basic Effort: $8,095.17
Option: $163,017,668.04
Contract Value: $163,025,763.21

Contractor Name: COMPUTER SCIENCES CORPORATION
Task Order Number: W31P4Q-05-A-0028/0028
Previous TORFQ Number: 2013T-26
Basic Effort: $8,134.26
Option: $228,648,623.13
Contract Value:$228,656,757.39

TECHNICAL REQUIREMENTS/SCOPE

Hours to be purchased: 3,736,321
Number of Years : 5 Years
NAICS: 541715

Milestones	Baseline	Forecast	Actual
CRP Received	12/4/2017	12/4/2017	12/4/2017
T&M D&F Signed	4/17/2018	5/7/2018	
SRB (If Applicable)	5/22/2018	6/11/2018	
TORFQ Released	5/24/2018	6/13/2018	
Quotes Due	6/21/2018	7/11/2018	
Evaluations Complete	7/19/2018	8/8/2018	
Best Value Determination Approved	8/20/2018	9/7/2018	
CRB (If Applicable)	N/A	10/23/2018	
Award	10/8/208	10/26/2018	

CHANGES IN SCOPE IF ANY

Increase in scope

Consolidated two task order PWS's into one complete PWS with the following addition:
- Frequency Management Technical Support

AVIATION & MISSILE RESEARCH, DEVELOPMENT & ENGINEERING CENTER

WEAPONS DEVELOPMENT & INTEGRATION OVERVIEW

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

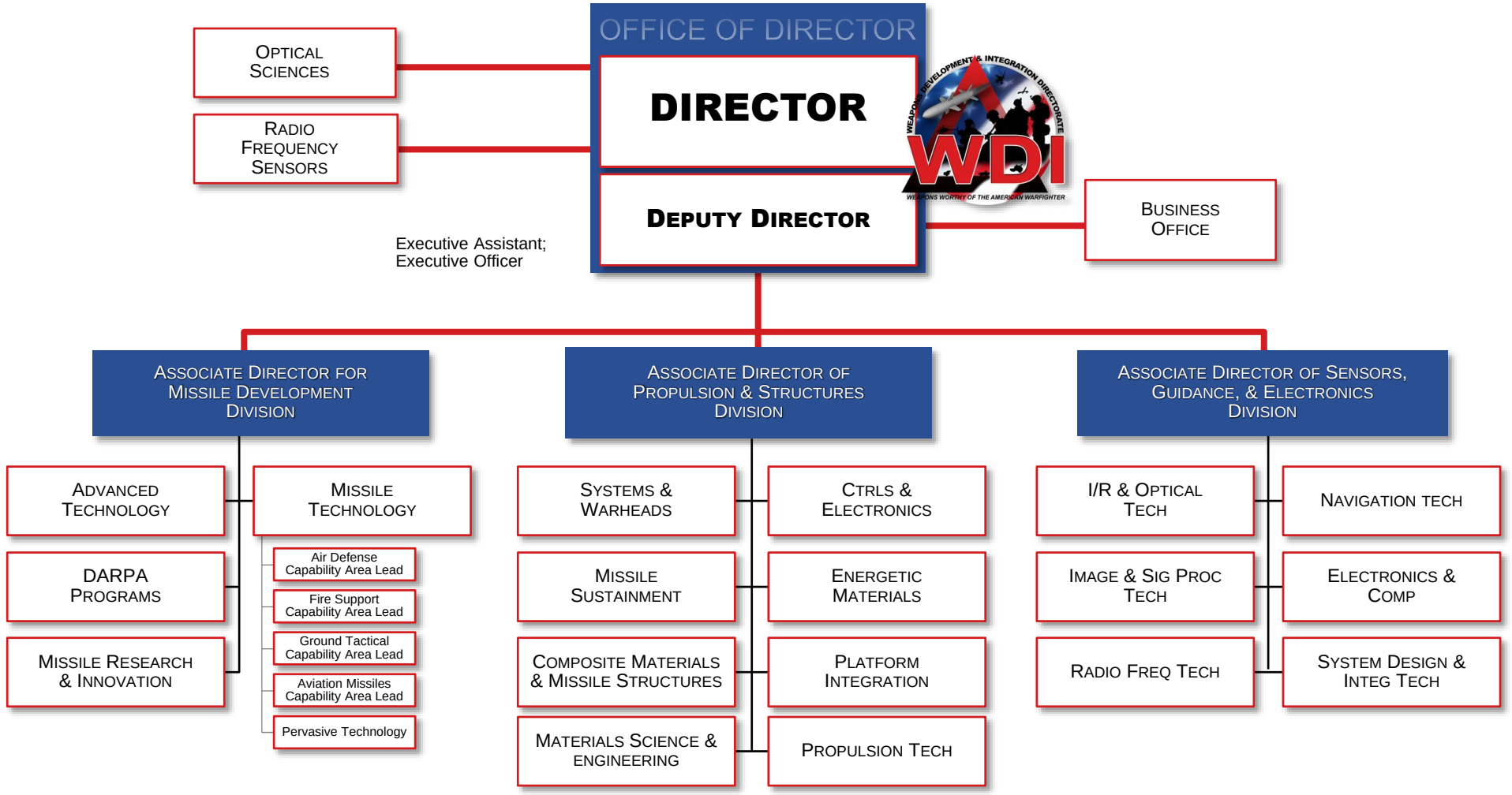
8 MAR 2018

Presented by:

MS. CHRISTI DOLBEER
DEPUTY DIRECTOR (A)
WEAPONS DEVELOPMENT & INTEGRATION DIRECTORATE
AVIATION & MISSILE RESEARCH, DEVELOPMENT & ENGINEERING CENTER

UNCLASSIFIED

WDI Organization



as of 23 February 2018

WDI Overview

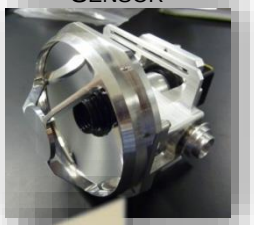
What We Do

- WDI serves a Life Cycle Management for DoD missile technology
- Conducts research, exploratory and advanced development, technology demonstration and provide engineering and scientific expertise in all aspects of weapon system design, development, improvement and integration for the Army
- Specific areas include:
  - Sensors
  - Terminal Guidance
  - Advanced Materials
  - Lethal Mechanisms
  - Navigation & Control
  - Data Links
  - Fire Control
  - Propulsion
  - System Design, Demonstration & Integration
- Lead Army agent in the execution of the Missile Science and Technology Enterprise

WDI Core Capabilities: Missile Support

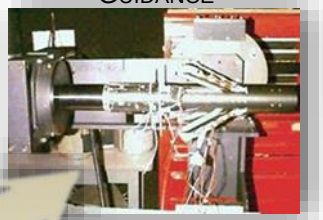
PROTECTION & SURVIVABILITY

SENSOR

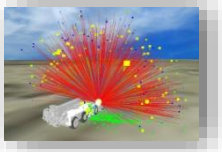


MISSILE ELECTRONICS

GUIDANCE



LETHALITY



RADAR

DATALINK & COMMUNICATION

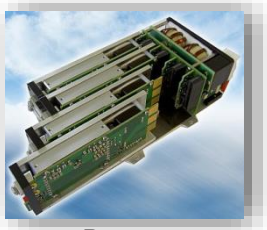
PROPULSION

LAUNCHER

RELIABILITY/MAINTAINABILITY

AFFORDABILITY / MANUFACTURING TECHNOLOGY

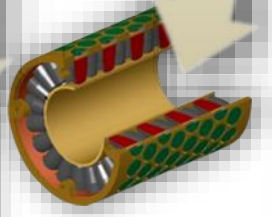
MATERIALS & STRUCTURES



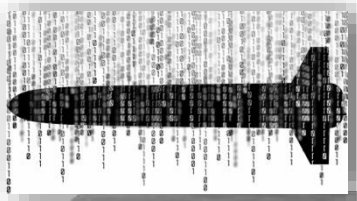
POWER

WARHEAD/FUZE

NAVIGATION SYSTEMS



CONTROL SYSTEMS



MODEL & SIMULATION

AERODYNAMICS

Missile Development – Key Capabilities

Missile Technology

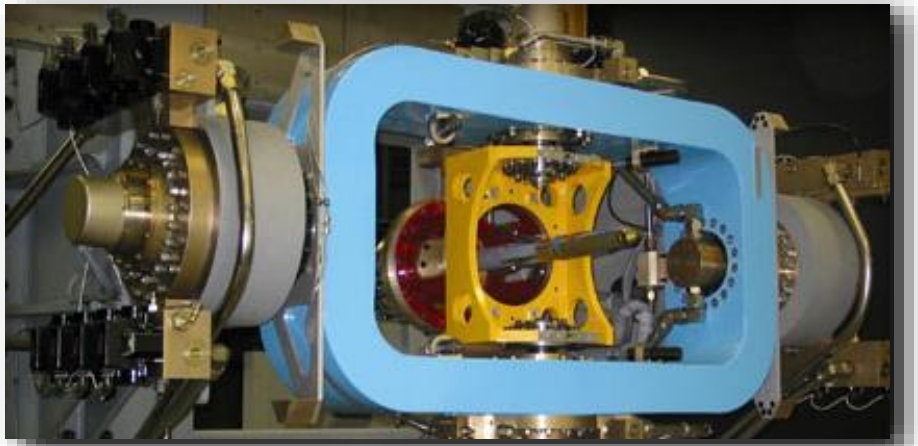
- Strategic planning, development, and execution of AMRDEC Missile S&T programs across all component technology (6.2) and system demonstration (6.3) investments
- Conducts analytic assessments of future technologies through the Science and Technology Analysis Cell (STAC)

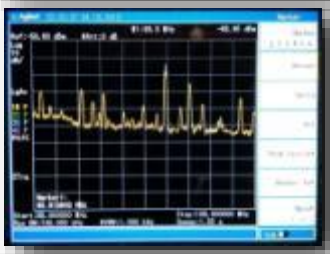
Advanced Technology: Develop and Demonstrate Advanced Technology in Cooperation with Army and Joint Partners

Missile Research & Innovation (MRI)

- In-house Laboratory Independent Research (ILIR)
- Basic research targeted at innovative ideas and future solutions

DARPA Programs: Serves as Technical Agent for the Defense Advanced Research Projects Agency (DARPA) leveraging DARPA Funded Research for the Benefit of the AMRDEC





AMRDEC
Science & Technology Analysis Cell

Propulsion & Structures Division – Key Capabilities

- Design, Analysis, and Fabrication of Composite Structures
  - Design: Rocket Motor Cases, Nozzles & Pintles, Launch Tubes, Missile Airframes
  - Fabrication: Filament Winding, Fiber Placement, Hand Layup, Autoclave Curing, Compression Molding
- Propellant, Explosives & Energetic Materials Research, Development and Characterization
  - Propellant and explosive formulation and processing
  - New ingredient synthesis and characterization
- Propulsion Test and Data Analysis Capabilities
  - Explosives Characterization and Testing
  - Open Burn / Open Detonation
- Design and Integration of New Technologies on to Existing Platforms
  - Fatigue Life Estimation
  - Lab Vibration Spec Development
- WARHEAD & FUZE Integration on both Current Missile Programs and Missile System Technology
- Capabilities in Controls and Electronics Technology Development and
- Executes AMCOM Corrosion Program Office
- Support to Current Weapon Systems
- Solid Rocket Motor (SRM) Structural Integrity Analysis, Service Life
- Prediction, & Inspection Capabilities

KEY FACILITIES

- *Propulsion Mechanics Laboratory*
- *Weapon System Integration Laboratory*
- *Actuation System Laboratory*
- *Supersonic Rocket On A Rope (SROAR)*
- *Composite Structures Facility*
- *Aerophysics Research Center – Hypervelocity Interior Ballistics Free-Flight Test Range*
- *Materials Facility UAV/Air-Breathing Test Facilities*
- *Explosive Test Area*


Explosive Ordinance disposal


Digital X-Ray System


30-gal Mixer


Composite Winding

Sensors, Guidance, & Electronics Division – Key Capabilities

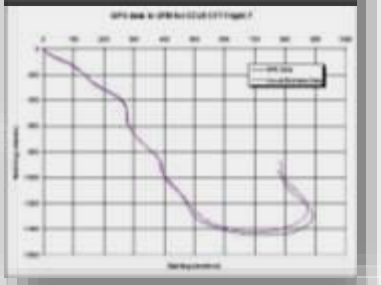
- **Electronics Hardware Design, Computer Software Development, and Anti-Tamper Technology Development**
  - Embedded Computer hardware and software design, development, testing and integration
  - Weapons System Proficiency Trainers and Simulation
  - Fire Control Computer Development and Test
- **Target Acquisition & Track, Signature Modeling, Data Link Communications**
  - Advanced Image Processing
  - Imaging Autotrackers
  - Automated Target Acquisition
- **Develop and Prove-out State-of-the-Art and Emerging Navigation Technologies Through Test, Evaluation and Integration**
- **Sensor and Seeker Design, Development, Fabrication and Test of passive IR imaging systems, both cooled and uncooled**
  - Optics Design for IR, UV and Visible Band Sensors
  - IR simulation and modeling
  - IR signature measurements and characterization of threat and surrogate targets
- **Radar system design, simulation, test, and evaluation**
  - MMW seeker design, simulation, test, and evaluation
  - Radar Cross Section (RCS) measurements
  - Development of radar tracking algorithms

KEY FACILITIES

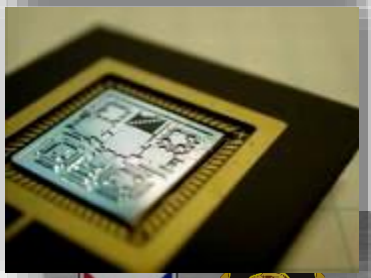
- *Tactical Systems Lab*
- *Embedded Processor Lab*
- *Inertial Facilities*
- *GPS Facilities*
- *Seeker Design, Modeling, & Simulation Laboratory*
- *Automated IR Sensor/ Seeker Test Facility*
- *Radar Operation Facility*


Table Top Trainer

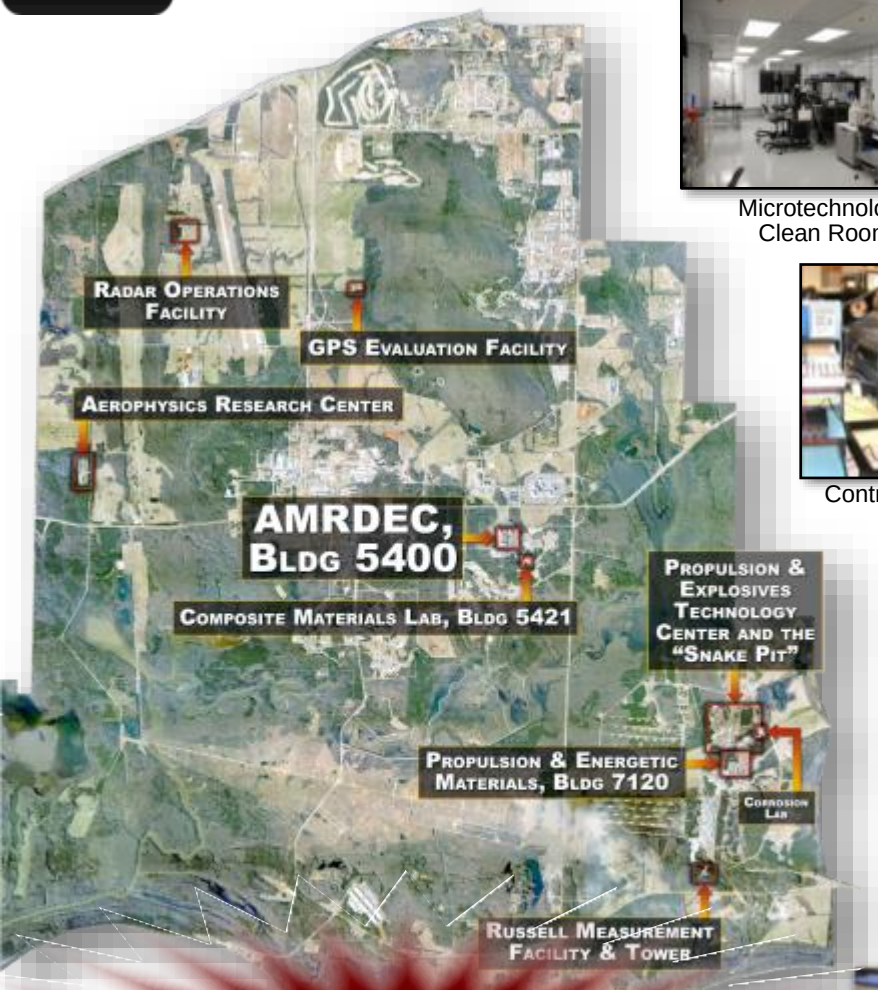

Image Based Navigation



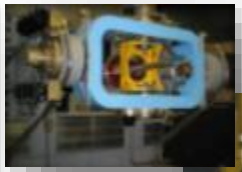

Laser CM/CCM Test Facility



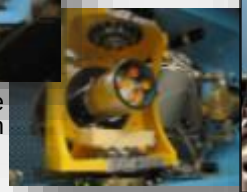
WDI Facility Locations



Microtechnology Clean Room



Guidance Integration Facility



Inertial Navigation Lab

Laser CM/CCM Lab

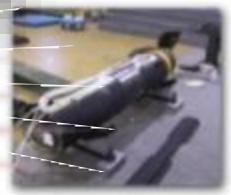
Controls and Electronic Integration

RF Compact Range

Image Processing Lab

ALSPES Lab

- **Supersonic Rocket On A Rope (SROAR)**
- **Aerophysics Research Center – Hypervelocity Interior Ballistics Free-Flight Test Range**
- **Fuze and Small Scale Energetics (FSSE) Lab**



155

RESEARCH, DEVELOPMENT, ENGINEERING, AND SCIENTIFIC FACILITIES

TORFQ 2018T-02

Mission Objective

- ✓**The Platform Integration Function of the Weapons Development and Integration Directorate (WDID) provides engineering expertise to the Aviation and Missile Command (AMCOM), Space and Missile Defense Command (SMDC), Program Executive Office Missiles (PEO) and Space, Office of the Secretary of Defense (OSD), Air Force, Navy, National Aeronautics and Space Administration (NASA), and other Government agencies in the area of rocket and missile system technology development and prototype demonstrations. The Platform Integration Function provides the physical and functional interfaces between platforms, payloads, and support equipment to ensure a successful mission for the soldiers in the field.**
- ✓**The purpose of this effort is to provide advisory and assistance services in support of the mission objective.**

TORFQ 2018T-02

Specialty Areas

✓**Engineering Expertise in the following areas:**

- Launcher development and design (air, ground, and sea)
- System integration
- Development of support equipment
- Missile system thermal protection design
- Radome and infrared window design
- Propulsion system nozzle design
- Analysis and testing of weather encounter and environmental extremes
- General engineering support

TORFQ 2018T-03

Mission Objective

The objective of this Performance Work Statement (PWS) is to provide advisory and assistance services for technical and engineering support for the Weapons Development and Integration Directorate of the Aviation and Missile Research, Development, and Engineering Center in the performance of its overall mission. This mission includes technology development assistance and program support efforts in the areas of sensors, signal processing, target acquisition, guidance, navigation, control, electronics, computers, and system development.

TORFQ 2018T-03

Specialty Areas

✓**Technical and Engineering Support in the following areas:**

- Image and Signal Processing
- Infrared (IR) and Electro-Optical Technology
- Radio Frequency (RF) Technology
- Systems Engineering and Requirements Analysis
- Electronics and Computers Technology
- Navigation Technology
- Control Technology
- System Design and Integration Technology
- Electronics/Guidance/Navigation/Controls/Systems General Technical Support
- Frequency Management Technical Support

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Division B

- ✓2018P-1 APACHE – To Be Determined
- ✓2018P-2 APACHE – To Be Determined

TORFQ: 2018P-1 (Previously 2017P-2)

PROCUREMENT HISTORY

Contractor Name: Quantitech, Inc.
Task Order Number: W31P4Q-10-A-0014/0003
Previous TORFQ Number: 2012P-3
Basic Effort: $850,694.26
Option: $4,344,788.28
Contract Value: $5,195,482.54
Set-Aside: SBSA

TECHNICAL REQUIREMENTS/SCOPE

Hours to be purchased: TBD
Number of Years : 5 Years
NAICS: 541611
Set-Aside: TBD

Milestones	Baseline	Forecast	Actual
CRP Received	04/03/17	04/30/18	
T&M D&F Signed	06/15/17	05/15/18	
SRB (If Applicable)	N/A	N/A	
TORFQ Released	04/27/17	10/10/18	
Quotes Due	05/31/17	11/10/18	
Evaluations Complete	08/15/17	02/15/19	
Best Value Determination Approved	08/23/17	02/25/19	
CRB (If Applicable)	N/A	N/A	
Award	08/30/17	02/25/19	

CHANGES IN SCOPE IF ANY

Increase in scope

- PWS: Added additional information to paragraph 2.1 Resource Management

TORFQ: 2018P-2 (Previously 2017P-2)

PROCUREMENT HISTORY

Contractor Name: Sigmatech, Inc.
Task Order Number: W31P4Q-05-A-0026/0022
Previous TORFQ Number: 2012P-4
Basic Effort: $1,441,204.59
Option: $7,980,243.94
Contract Value: $9,421,448.53
Set-Aside: F&O

TECHNICAL REQUIREMENTS/SCOPE

Hours to be purchased: TBD
Number of Years : 5 Years
NAICS: 541611
Set-Aside: TBD

Milestones	Baseline	Forecast	Actual
CRP Received	04/03/17	03/14/18	
T&M D&F Signed	06/15/17	05/15/18	
SRB (If Applicable)	N/A	N/A	
TORFQ Released	04/27/17	03/21/18	
Quotes Due	05/31/17	04/23/18	
Evaluations Complete	08/15/17	07/25/18	
Best Value Determination Approved	08/23/17	07/30/18	
CRB (If Applicable)	N/A	N/A	
Award	08/30/17	07/30/18	

CHANGES IN SCOPE IF ANY

Increase in scope

- PWS: Added additional information to paragraph 2.1 Resource Management

Mshindi Thomas
Acquisition Analyst Lead
AMCOM Express

Apache Introductory Brief

MAR 2018

Information in this presentation is UNCLASSIFIED.
Source: Apache Security Classification Guide dated 3 May 12.

Apache Project Office

Mission - Develop, produce, field, and sustain the world's premier attack helicopter and support all those who use it.

The Apache Creed:

- I am a member of the Apache Team.
- I support the Apache Mission and the Soldier in all that I do.
- I embody the Army's values.
- I always strive to be and do my best, improve, and assist others in doing the same.
- I work hard and play hard – balancing work and family.
- I think strategically, test boundaries and innovate – always looking for a better way
- I look at the big picture – what is best for the Army and the Nation.

What We Do:

- Centralized Management for AH-64D/E Longbow Apache Helicopter, Sensors, and Training Devices
- Full Lifetime Management of Assigned Systems
- Improved Interoperability
- Enhance Reliability and Safety

What We Manage:

- AH-64E aircraft production line
- AH-64E developmental efforts
- AH-64D sustainment

The Magnitude:

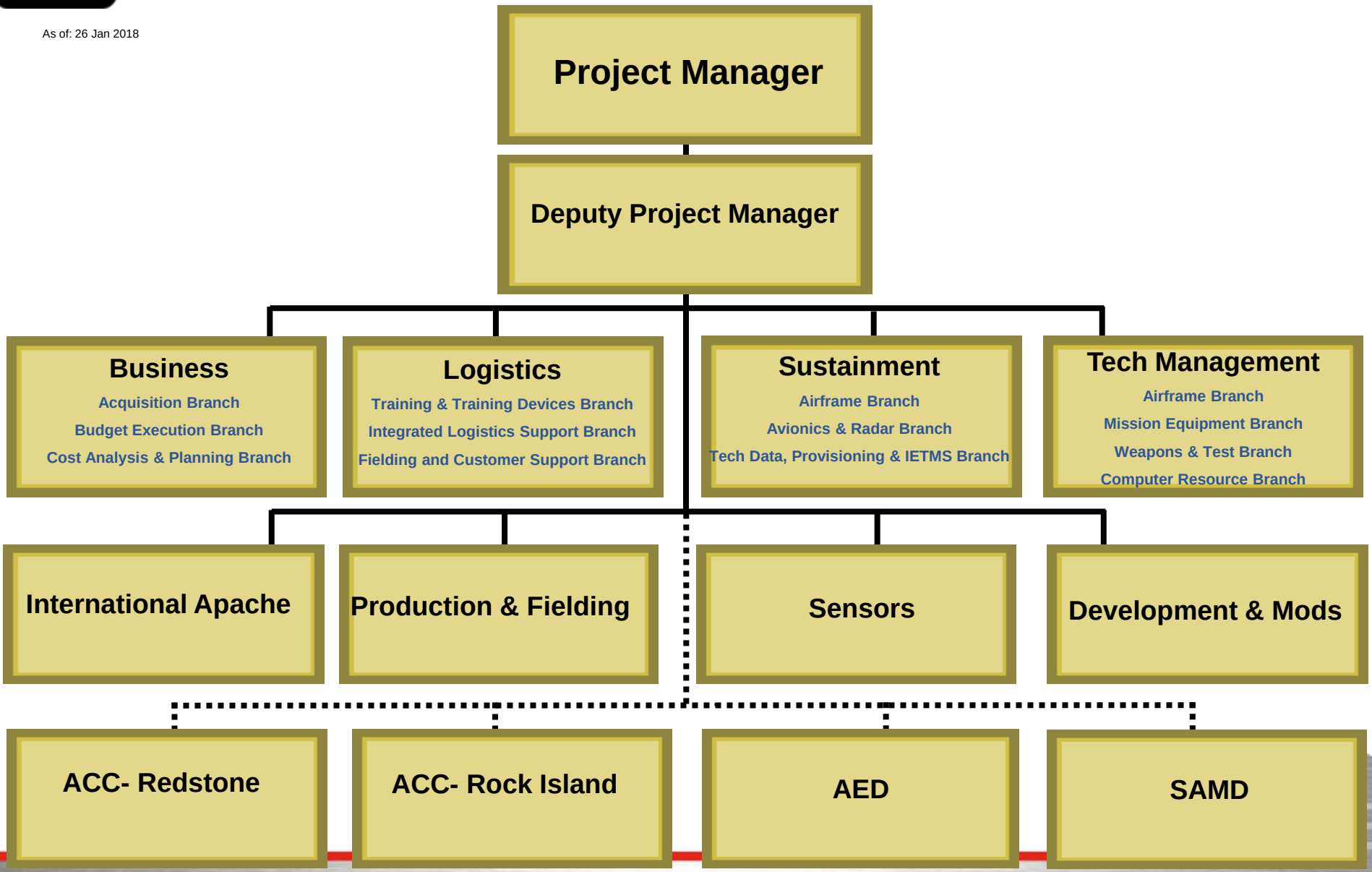
- FY17 Managing ~$1.2 B
- FY 17-21 Magnitude ~$7.3 B
- FMS Total Case Value - $13.6B
- 66 cases – 15 Countries

Total Workforce:

- Total Workforce ~550 people (includes matrix)

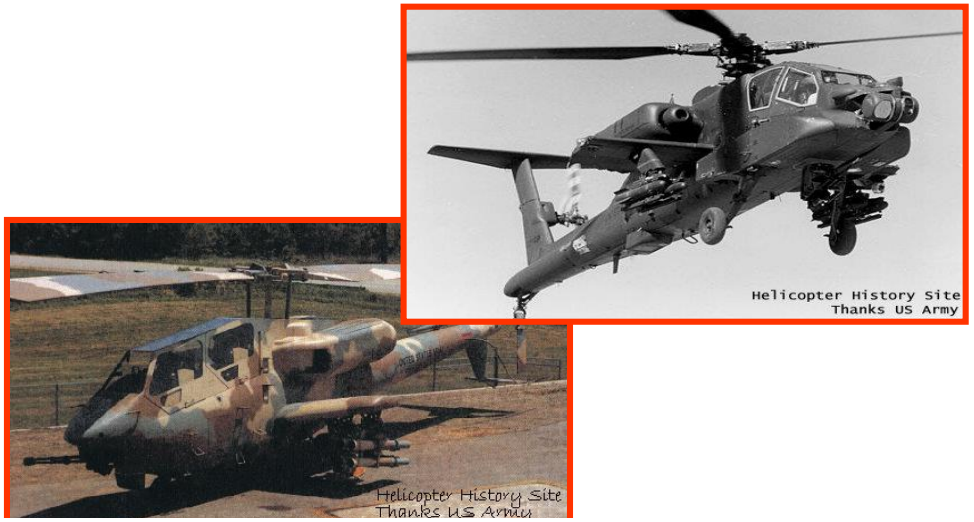
Vision - A team of dedicated professionals providing the U.S. Army and the world with the greatest attack helicopter system.

As of: 26 Jan 2018



History

1972-73	5 Proposals (Initial Competition)
1973	Bell YAH 63, Hughes YAH 64 EMD Contract Competitive Fly-Off
1975	First Flight – Prototype YAH-64
1976	Hughes Selected for FSD
1976	Separate Competition Conducted for the Sensor and Targeting Suite
1977	Sensors Development Contracts Awarded (Martin Marietta & Northrop)
1980	Martin Marietta TADS/PNVS Wins Fly-Off Conducted with Systems Integrated on the Apache in Jan-Feb 1980
1982	First AH-64 Production Contract Award
1984	First AH-64A Delivered to US Army
1986	First Unit Equipped (3-6 CAV)
1995	First AH-64D Delivered
2011	First AH-64E Delivered



AH-64E Apache

Mission: The AH-64 Apache is a twin-engine, four bladed, multi-mission attack helicopter designed as a highly stable aerial weapons-delivery platform.

Name: AH-64E Apache
Produced: The Boeing Company, Mesa, AZ
Key Contractors: Boeing, Lockheed-Martin, Northrup-Grumman, GE
US Army Stationing: CONUS, Korea, Germany, Afghanistan, Kuwait
International: 15 countries have Apache in their inventory or on contract

AH-64E Apache Overview

Fire Control Radar (FCR) & Radar Frequency Interferometer (RFI)

- Automatic detection/classification/prioritization of multiple targets
- Automatic cueing of weapon systems
- Targeting information shared digitally with teammates

Composite Main Rotor Blades

- Greater Hover Out of Ground Effect Capability

Crew of Two

Full IFR Capability

- Embedded Global Positioning System/Inertial Navigation System (GPS/INS) & Multi-Mode Receiver (EGI & MMR)

701D Engines w/Enhanced Digital Electronics Controls

Modernized Pilot Night Vision Senor (PNVS)

- Helmet-mounted Infrared (IR) view w/pilot symbology

Composite Horizontal Stabilator

Modernized Target Acquisition & Designation System (MTADS)

- Day/Night Sight
- Laser Designator

4 Wing-mounted Weapons Stations

- HELLFIRE missiles
  - Laser- or radar-guided
  - Up to 16 missiles capacity
- 2.75” Rockets
  - Up to 76 rockets capacity
  - Capability to add laser-designated rockets
- Crashworthy External Fuel Tank(s)

Improved Drive System

- 3400 SHP Transmission & Nose Gearboxes
- Split torque face gear transmission
- Oil cooled engine nose gear box
- Gearboxes with 30 min run dry capability
- Improved high/hot performance (6K/95F°)

M230 30mm Chain Gun®

- Up to 1200 rounds capacity
- Slued/cued by pilot helmet movement or MTADS

Major Suppliers

Boeing
Mesa, AZ
Aircraft

Longbow Limited
Orlando, FL / Baltimore, MD
Fire Control Radar

= Boeing contract or supplier
= Government furnished equipment to Boeing
= Aircraft has A kit, units Purchase B kits

GE
Lynn, MA
Engines

Lockheed Martin Orlando, FL
Sensors

ATK
Mesa, AZ
30mm Cannon

KAI
Boeing Supplier
Fuselage

Managed by PM JAMS
Lockheed Martin
Hellfire Missile

Robertson Fuel Systems
Tempe, AZ
RCEFS (Reduced Crashworthy External Fuel System)

TORFQ 2018P-01

Mission Objective

- The Apache Attack Helicopter (AAH) Project Manager's (PMO) is chartered to manage the assigned major system across the life cycle spectrum for development, production, fielding and support. This PWS is to provide the PMO required programmatic support in the areas of Resource Management Support, Cost Estimating/Analysis, Schedule Development/Assessment and Program Management, Plans and Integration. The PMO requires programmatic support in monitoring, assessing, coordinating, analyzing, and integrating component programs, activities, and agendas including briefings and presentations with supporting and independent graphics and/or multi-media for the total life cycle of the Apache systems. The PMO requires recommendations for preparation of documents supporting the Milestone Decision approval process. Further, this PWS shall provide the AAH PMO with programmatic support to Foreign Military Sales (FMS) activities and shall not usurp the established Program Executive Office (PEO) assignments relating to US Army equipment.

- The purpose of this effort is to provide program management support and recommendations for the AAH and support life cycle performance requirements

TORFQ 2018P-01

Specialty Areas

- Resource Management
- Cost Estimating/Analysis
- Schedule Development Assessment
- Program Management
- Plans and Integration

TORFQ 2018P-02

Mission Objective

- The Apache Attack Helicopter (AAH) Project Manager's Office (PMO) is chartered to manage the assigned major system across the life cycle spectrum of development, production, fielding and sustainment. This Performance Work Statement (PWS) is to provide the PMO required programmatic support in the areas of Resource Management, Program Management, Plans and Integration, and Strategic Planning Analysis. The PMO requires programmatic support to operate and maintain its automated data storage, electronic library, reporting mechanisms, and retrieval systems for the stored data. PEO Aviation, in conjunction with ACC Redstone, is looking across program offices to consolidate data storage, standardized reporting formats, and unified enterprise acquisition metrics. In addition, the AAH PMO Business Division requires contractor support to accomplish compliance with the Army Acquisition Strategic Management Plan goal of improving organizational efficiencies and to comply with US Army regulations and directives to transition to paperless operations. Further, this PWS shall provide the AAH PMO with programmatic support to Foreign Military Sales (FMS) activities and shall not usurp the established Program Executive Office (PEO) assignments relating to US Army equipment.

- The purpose of this effort is to provide input, advice, and recommendations to facilitate the transition of resources management and acquisition processes to digital operations.

TORFQ 2018P-02

Specialty Areas

- Resource Management
- Program Management
- Plans and Integration
- Strategic Planning Analysis

Contracts 6-12 Months Out

ESS

Contract	Cost	CRP	CRB Date	SRB Date	Award	PoP	Status
PMO ASE 2017L-4	$23M	No	n/a	n/a	30 Jul 18	30 Jul 18 – 29 Jul 23	On Track for Award
AAH PO 2018P-2	TBD	No	n/a	n/a	30 Jul 18	30 Jul 18 – 29 Jul 23	On Track for Award
2018T-02 – Platform Integration	$110M	Yes	2 Apr 18	27 Jul 18	28 Jul 18	Jul 18 – Jul 23	On Track for Award
2018T-03 – Technical & Engineering Support Svs.	$470M	Yes	22 May 18	08 Oct 18	09 Oct 18	Oct 18 – Oct 23	On Track for Award
AAH PO 2018P-1	TBD	No	n/a	n/a	25 Feb 19	25 Feb 19 –24 Feb 24	On Track for Award

Questions