U.S. ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND AVIATION & MISSILE CENTER

Fire Support Science & Technology Portfolio

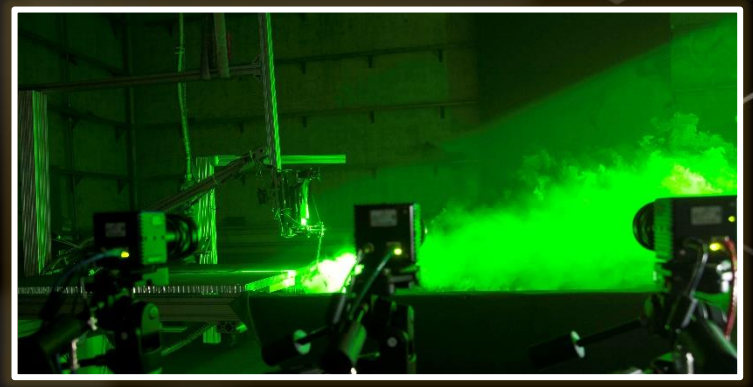
R. Hunter Blackwell

DB-IV / Deputy Fire Support Capability Area Lead

DEVCOM AvMC

APPROVED FOR PUBLIC RELEASE

OUR MISSION



Develop, **integrate**, **demonstrate**, and **sustain** aviation and missile systems capabilities to support modernization priorities and improve readiness.

OUR LEADERSHIP TEAM

Director (A)
Dr. James Kirsch
(SES)

Chief of Staff
Mr. Steve Fisher

MILDEP
COL Steve Ansley

Systems Readiness Directorate
Mr. Keith Darrow
(SES)

Software, Simulation, Systems Engineering and Integration Directorate (A)
Ms. Miranda Oden

Technology Development Directorate
Ms. Christi Dolbeer
(SES)

Scientific & Technical Positions (STs)

Radio Frequency Sensors
Dr. Brian Smith

Protective Technologies
Dr. Donna Joyce

Airvehicle Aerodynamics & Preliminary Design
Dr. Mahendra Bhagwat

Rotorcraft Flight Dynamics and Control
Dr. Jeffery Lusardi

BY THE NUMBERS

12,367 FY22 Strength

2,983 Civilian

19 Military

~9,358 Contractor

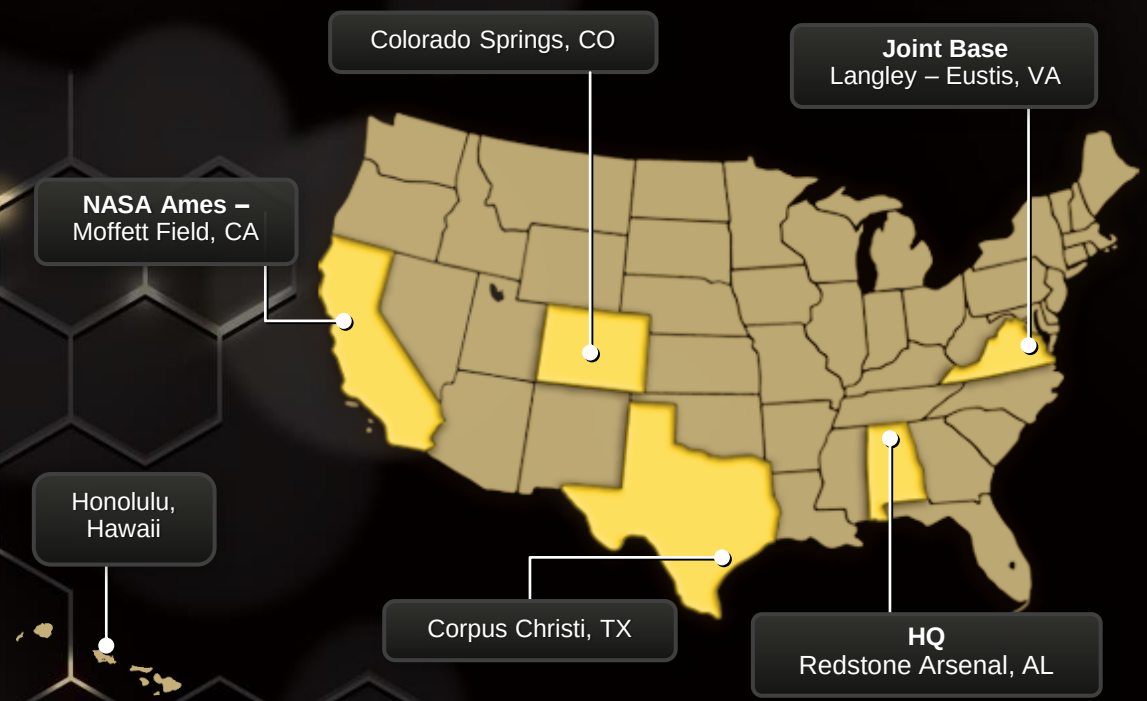
FY21 Funding
$4.4B

6% Aviation S&T

5% Missile S&T

68% Army

21% Other



CORE COMPETENCIES

SCIENCE AND TECHNOLOGY:

- Missile Seekers, Guidance, Navigation and Control
- Missile Materials and Structures
- Missile Propulsion, Warhead Integration, and Fuzing
- Air Vehicles
- Aviation Mission Systems and Architecture
- Air Defense Radar and Fire Control

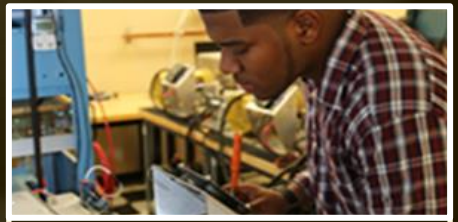
LIFE CYCLE ENGINEERING:

- Airworthiness
- Product Performance
- Modeling and Simulation
- Multidiscipline Acquisition and Project Engineering
- Prototype Design and Development
- Software Engineering
- Systems Engineering, Integration, and Interoperability
- Weapons Assurance

AvMC TECHNOLOGY
EXPERTISE • ENGINEERING • TALENT

1.

Develop and integrate next generation technologies to ensure aviation and missile dominance.



2.

Provide world class functional engineering expertise to our PEOs, MDA, RCCTO, and other critical partners.

3.

Provide world class sustainment engineering expertise to our AMCOM partners.

4.

Recruit and develop the engineering talent to achieve areas 1-3.

ARMY PRIORITIES

1. PEOPLE

People are the Army's greatest strength and its most important weapon system.

2. READINESS

The Army must be ready to defeat any adversary, anywhere, whenever called upon, under any condition.

3. MODERNIZATION

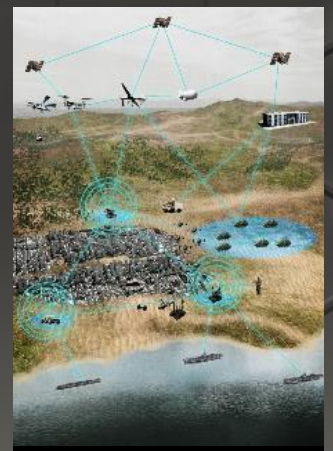
The Army must modernize to remain lethal and ready to fight tomorrow, against increasingly capable adversaries and near-peer competitors.

S&T PRIORITIES ALIGNED WITH THE ARMY MODERNIZATION STRATEGY

LONG RANGE PRECISION FIRES

NEXT GENERATION COMBAT VEHICLE

FUTURE VERTICAL LIFT



ARMY NETWORK

AIR & MISSILE DEFENSE

SOLDIER LETHALITY

SUPPORTING ARMY AND JOINT READINESS NOW AND IN THE FUTURE MDO ENVIRONMENT

RESEARCH IN SUPPORT OF FUTURE FORCE

Driving the discoveries and innovations which will be critical to realizing new capabilities for the Army of 2030 and beyond.

ANALYSIS

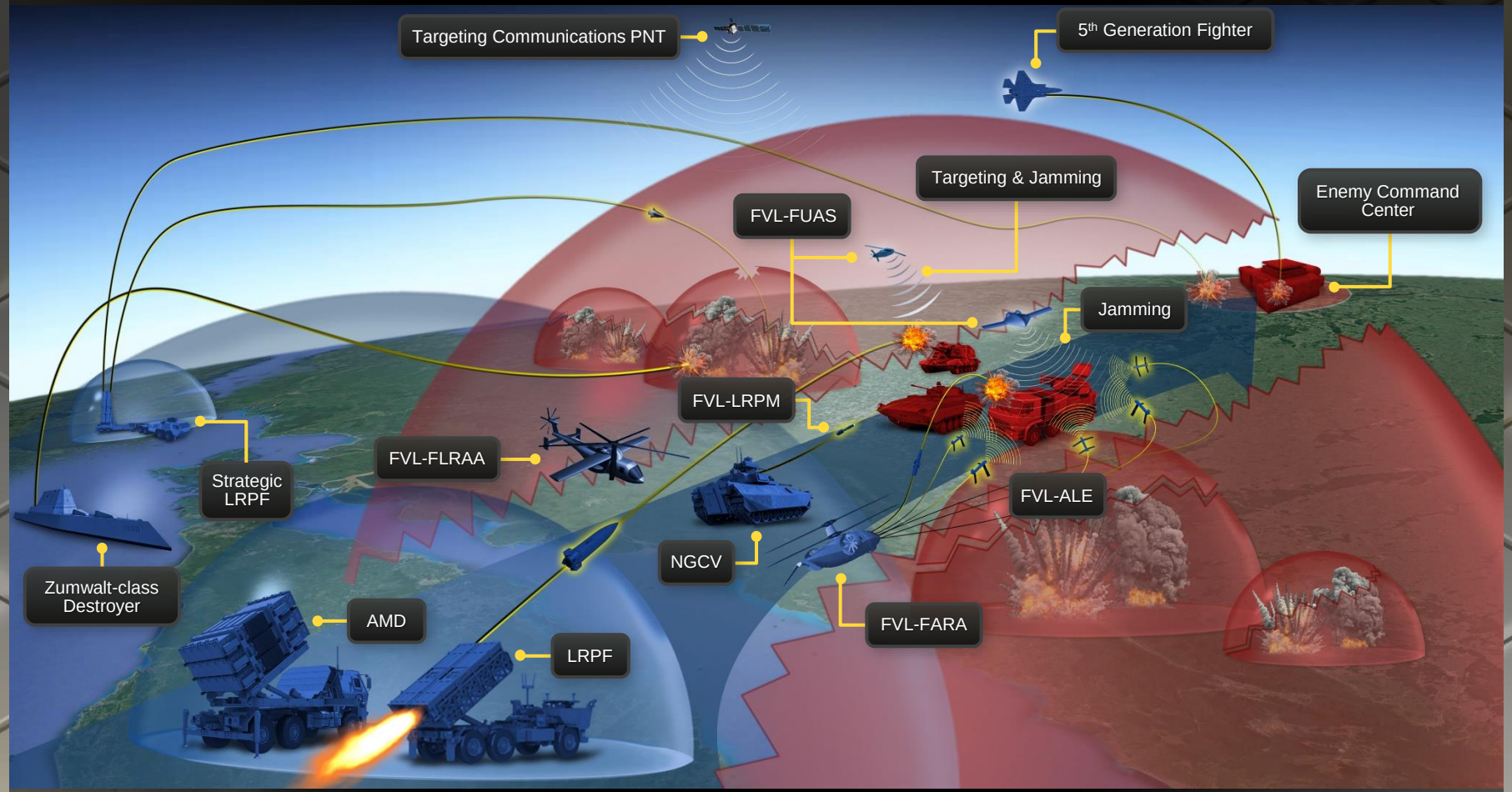
Conducting objective experimentation and systems analysis to support the equipping and sustaining of our Warfighters.

ENGINEERING

Providing life cycle engineering expertise to support fleet development and readiness across warfighting battlefield operating systems.

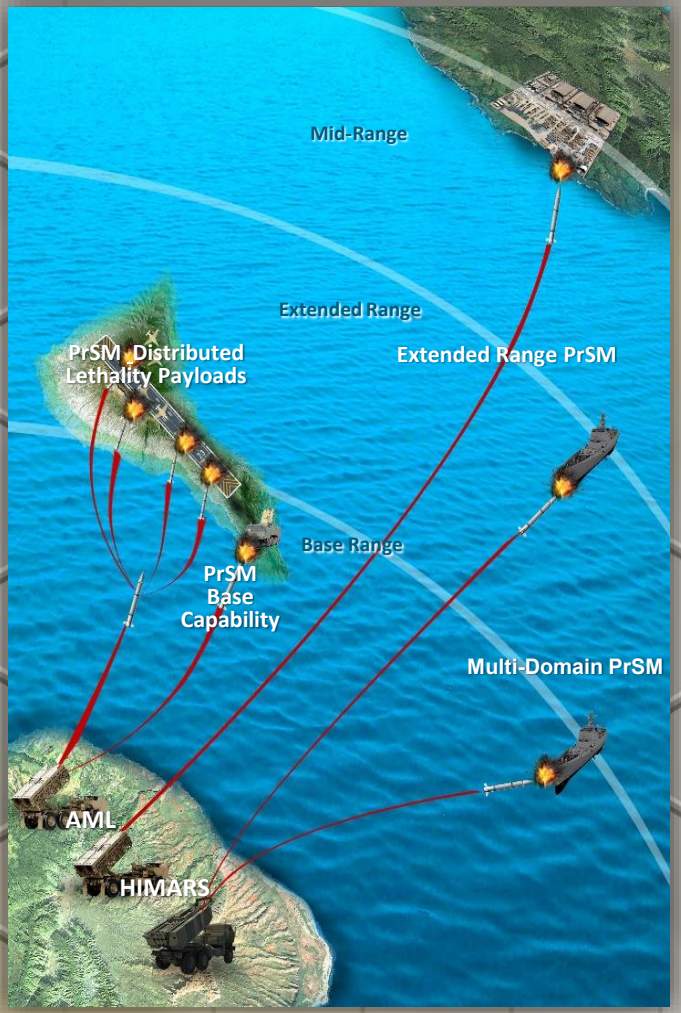
S&T STRATEGY

BREAK THE ENEMY'S BUBBLE | **PROTECT OUR FORCE** | **ON THE MOVE**



ELIMINATE A2/AD AT ALL ECHELONS | **REACH, RANGE, AND SPEED** | **AGILE MANEUVER TO CONTACT**

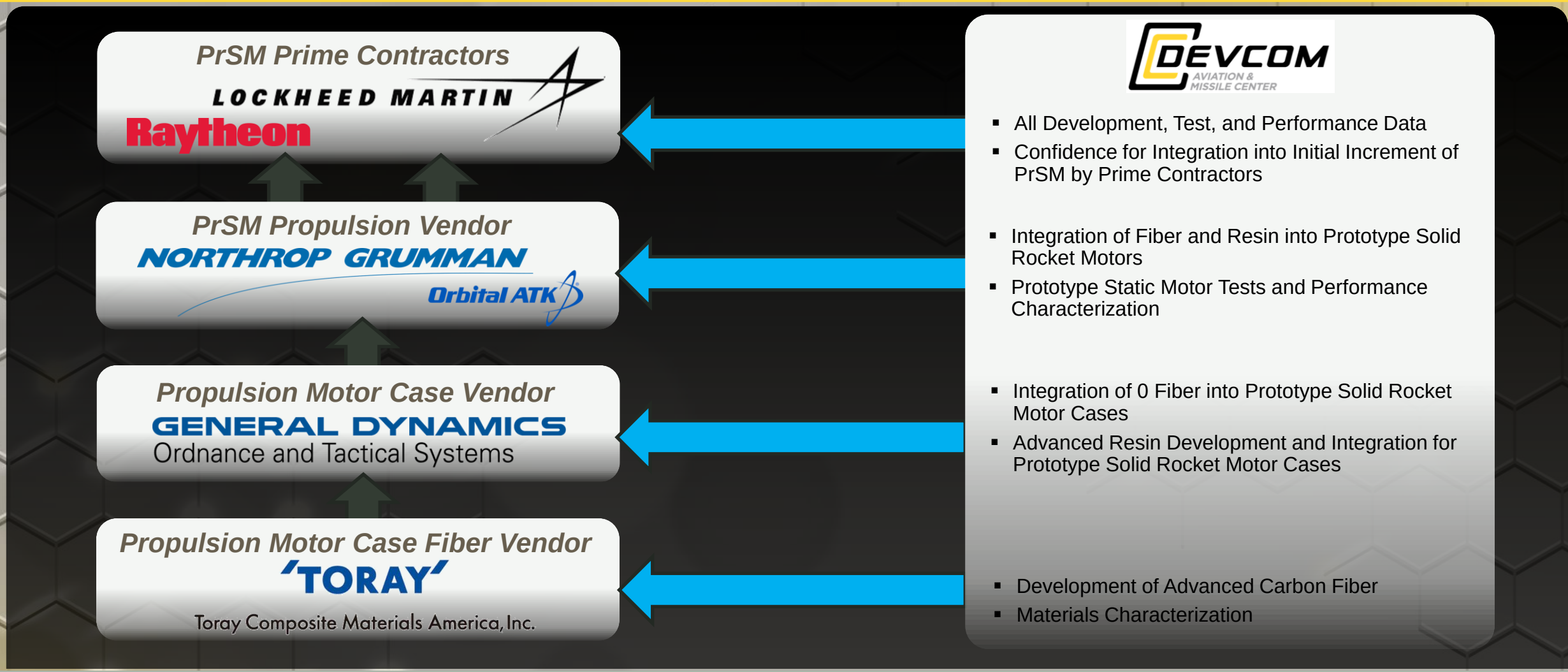
LONG RANGE PRECISION FIRES S&T FOCUS



- **PRSM BASE CAPABILITY:** Successful S&T incorporated as component updates to reduce dependence on GPS for precision navigation; extend range beyond initial range capability
- **MULTI-DOMAIN PRSM:** Multi-mode Seeker Technology that enable *PrSM to Engage Moving High Priority Multi-Domain Land and Maritime Targets*
- **PRSM MODULAR PAYLOADS:** Kinetic and Non-Kinetic Modular Payload Technologies to provide ***PrSM Distributed Lethality*** Against the Full Spectrum of Moving, Dispersed and Poorly Located Targets
- **EXTENDED RANGE PROPULSION AND LONG-RANGE MANEUVERABLE FIRES S&T:** Solid Rocket and Alternate Propulsion Cycle Technologies
- **AUTONOMOUS MULTI-DOMAIN LAUNCHER (AML):** Unmanned, highly mobile, USAF transportable, HIMARS chassis based, unmanned LRPF launcher. Autonomy Technology to *Thicken the Force and Increase Fire Power and Magazine Depth*
- **ENABLING TECHNOLOGIES:** S&T Research in Navigation, Guidance & Controls, Sensors, Materials as well as Modeling & Simulation

Capabilities that Enable the Joint Force to Prevail with Overmatch through A2AD Lethality, Range, Speed, Firepower and Accuracy

LC-TERM PROPULSION & STRUCTURES TECHNOLOGY TRANSITION PATH



Transition of Advanced Propulsion Technology to PrSM Prime Contractor and Vendor Base for Increased Range

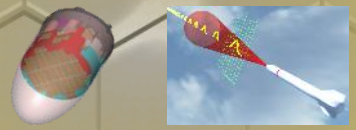
AMD S&T ENABLING TECHNOLOGIES

Maneuver Air Defense

Development of technologies that support low cost, small form factor air defense interceptors for the maneuver force.

Sensors/Seekers

RF and IR Tech | Algorithms



Seeker technology and algorithms to support the broad air defense mission set.

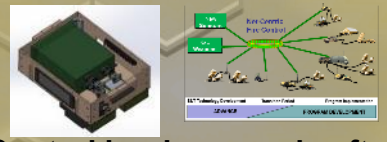
Advanced Propulsion

Advanced Divert and Attitude Control Systems | Air-breathing/High Speed Propulsion Tech

Propulsion technologies to increase interceptor range, velocity, and maneuverability.

Fire Control

Hardware | Techniques

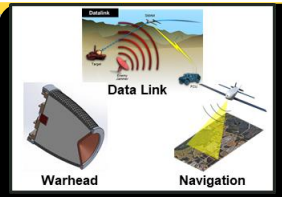


Fire Control hardware and software to optimize the integration of current systems, enable “shoot on the move,” and facilitate engagements of advanced threats.

Resiliency

Technologies to enable air defense performance in all environments.

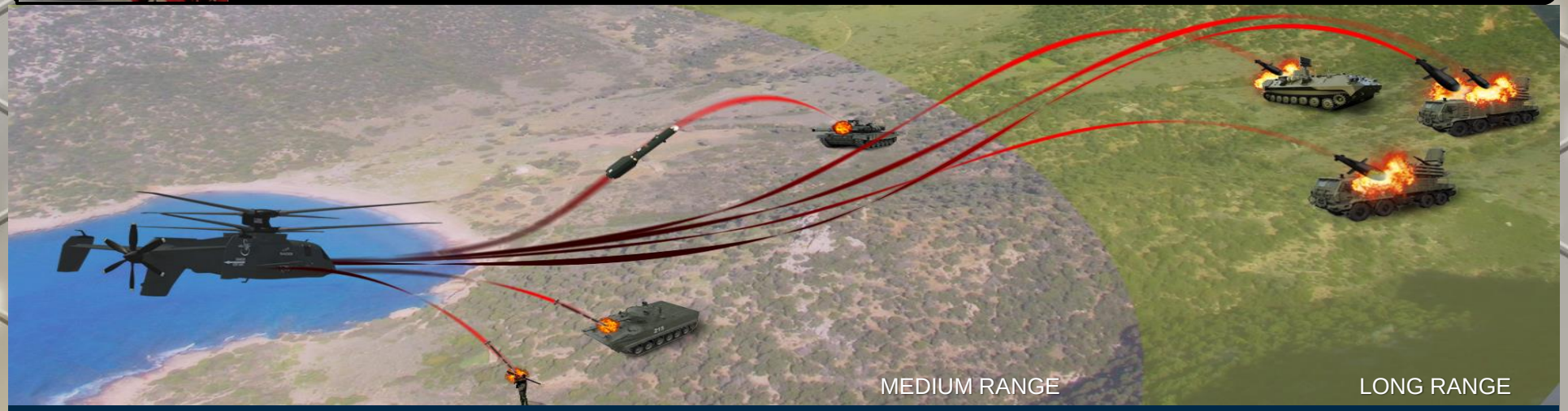
CLOSE COMBAT AVIATION S&T FOCUS



SINGLE MULTI-MISSION ATTACK MISSILE TECHNOLOGIES provides enabling technologies for maneuverable guided missiles to support Multi-Domain /expeditionary on-the-move capability in contested environments

MULTIPLE SIMULTANEOUS ENGAGEMENT TECHNOLOGIES enables multi-missile, simultaneous target engagements, with minimized operator workload, as a result of autonomous target acquisition and missile coordinated time of arrival.

HIGH SPEED MANEUVERABLE MISSILE TECHNOLOGIES increases aviation lethality and platform survivability by increasing missile standoff range, speed, maneuverability, and multi-threat lethal effects.



Disruptive, leap-ahead technologies to increase range, lethality, improve mission flexibility, and support Joint Force Operations in highly contested environments.

Questions?

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