SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

Accelerating SOF Innovation

Program Executive Office

Rotary Wing

Schedule of Presentations

Day 1 – Tuesday
21 May 2019

1330 - 1530
PEO RW
Strategic Overview

1600 - 1630
PEO One-on-One Sessions

Day 2 – Wednesday
22 May 2019

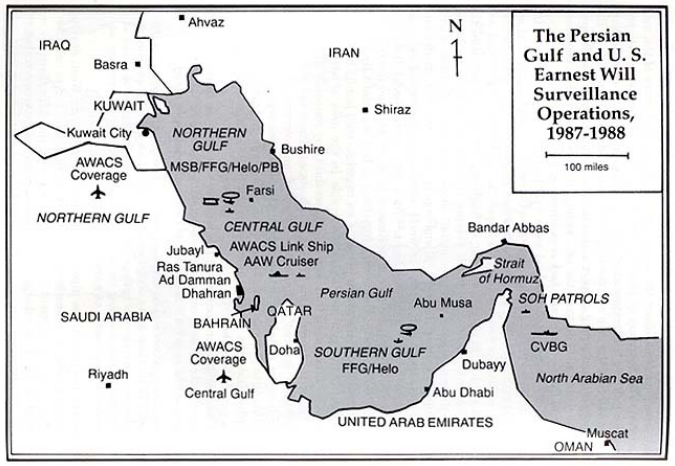
1330 - 1500
Abbreviated PEO Overview
Rotary Wing PM Panel

1530 – 1600
PEO One-on-One Sessions

STRATEGIC OVERVIEW
PROGRAM EXECUTIVE OFFICE ROTARY WING

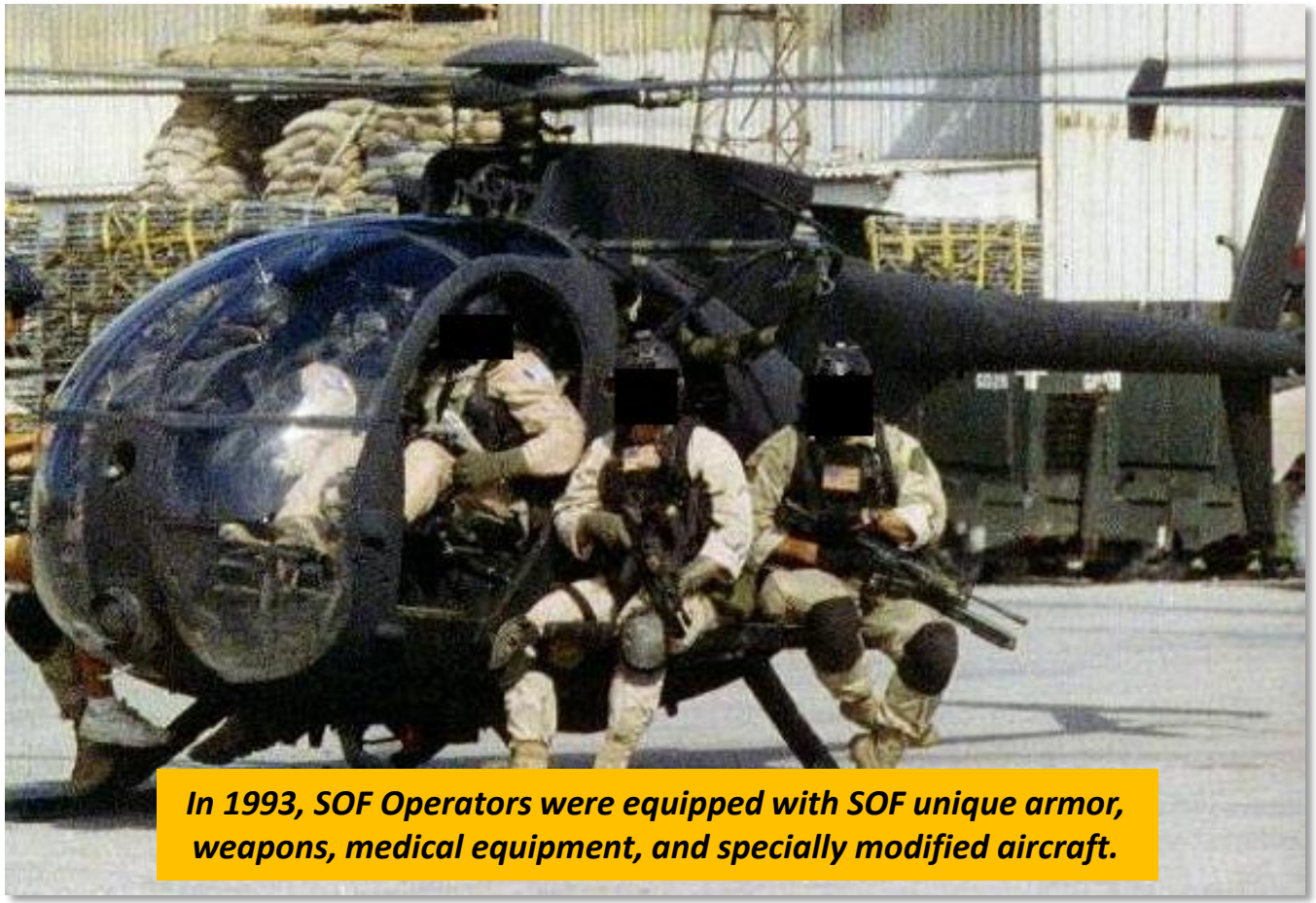
COL David Phillips
Program Executive Officer

Perspective



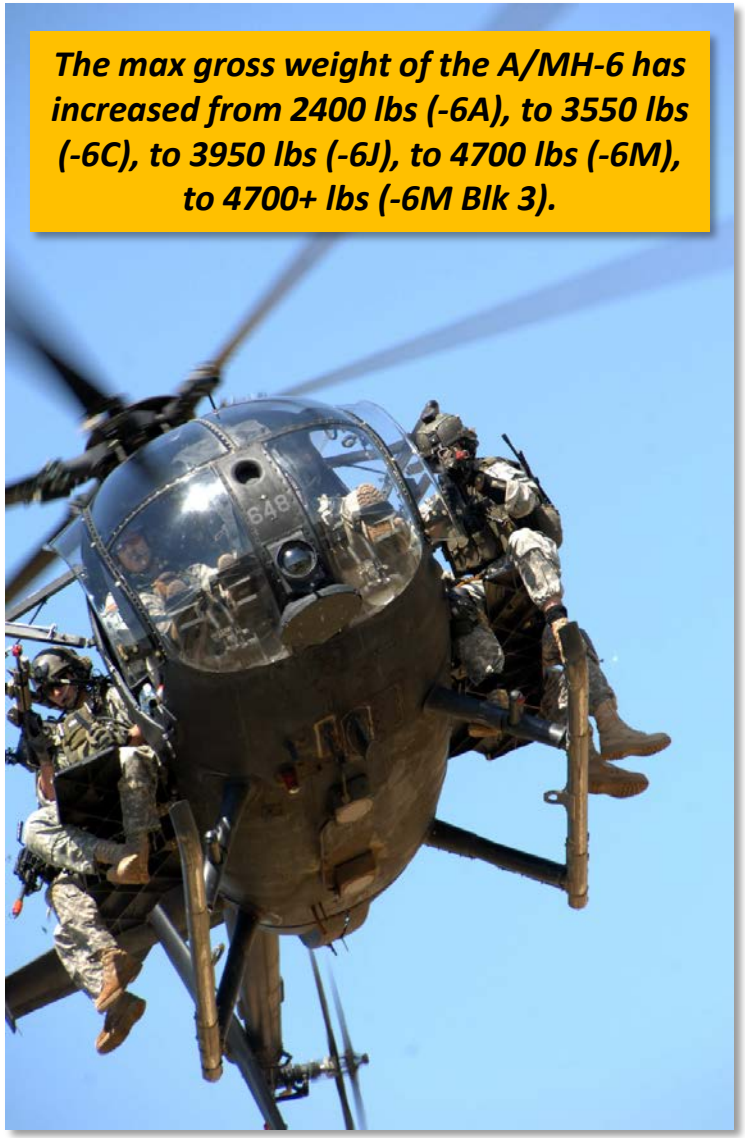
History Still Matters

In September 1991 the SOCOM Deputy for Acquisitions office was created. The Mission Enhanced Little Bird became the office's first program of record. Today, SOF AT&L and PEO Rotary Wing continues to push the capability envelope for the A/MH-6, MH-47, MH-60, and other aircraft systems.



In 1993, SOF Operators were equipped with SOF unique armor, weapons, medical equipment, and specially modified aircraft.

The max gross weight of the A/MH-6 has increased from 2400 lbs (-6A), to 3550 lbs (-6C), to 3950 lbs (-6J), to 4700 lbs (-6M), to 4700+ lbs (-6M Blk 3).



National Defense Strategy – Why We Are Here

First, Rebuilding Military <u>Readiness</u> as we Build a more <u>Lethal</u> Joint Force;

…strike diverse targets inside adversary air and missile defense networks to destroy mobile power-projection platforms.

…a competitive approach to force development and a consistent, multiyear investment to restore warfighting readiness and field a lethal force.

Second, <u>Strengthening Alliances</u> as we Attract new Partners;

…train to high-end combat missions in our alliance, bilateral, and multinational exercises.

…expand access to outside expertise, and devise new public-private partnerships to work with small companies, start-ups, and universities.

Third, <u>Reforming the Department's</u> Business Practices for Greater Performance and Affordability.

…shed outdated management practices and structures while integrating insights from business innovation.

…*explore <u>streamlined, non-traditional pathways</u> to bring critical skills into service.*

Requires a Government and Industry Partnership

Program Executive Office Rotary Wing

Mission: Rapid and focused acquisition, research and development, and life-cycle logistics support to the operators of the USASOAC—160th Special Operations Aviation Regiment which provides SOF rotary wing capability to the joint force.

Sustain current operations, **preserve and grow readiness.**

Strategic resource sponsorship **to recapitalize our fleet, increase lethality and survivability, and innovate for future threats. Relentlessly build the competitive advantage.**

Support and sustain **the people and program offices, while preserving our force and family.**

Rotary Wing Network

Tenets of Success
1. Speed
2. Risk tolerance
3. Scale
4. Inclusivity
5. Relationships

USASOAC
SIMO
(Capability Sponsor)

160th SOAR (A)
Operators

PEO RW USSOCOM
(Resource Sponsor)

PM SKR/PM TAPO/PM STS/PM MELB
(Materiel Developer)

Other Services | Army Staff | AMCOM | USAACE | CCDC | Industry Partners

Program Executive Office Rotary Wing (RW)

MOBILITY

A/MH-6 Light Attack/Assault

Medium Assault MH-60

Heavy Assault MH-47

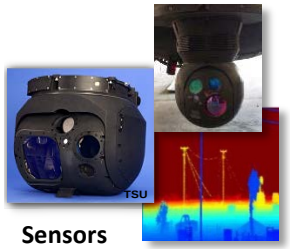
Airframe Recapitalization

MISSION EQUIPMENT


Active Aircraft Survivability Equipment


Passive Aircraft Survivability Equipment


Avionics




Sensors

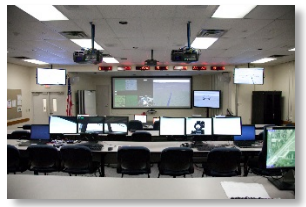
Common Hardware and Software

TRAINING SYSTEMS


A/MH-6M (Little Bird) CMS


MH-47G CMS


MH-60M CMS




Mission Rehearsal Exercise Training System (MRETS)

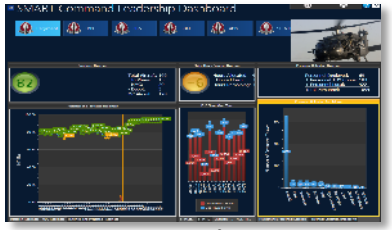
Stimulated vs Simulated

S&T

Army JMR Tech Demonstrators

Next Generation Mobility

Training / Virtual Reality



Data Science

Future Investments

SOF Rotary Wing Platform Roadmap

Near Term (Prior to FY 21)	*The POM Years (Fiscal Year 21-25)*	*The Extended Planning Period Years (Fiscal Year 26-34)*	*Beyond the EPP (Fiscal Year 35 – beyond)*
2016-2020	2021-2025	2026-2034	2035 - Beyond

Light Attack /Assault
A/MH-6 MELB

IR Suppressor

DP: Block 3.1
or FARA

Block 2.2 | Block 3.0 | IOC | FOC

Lightweight IR
Countermeasure

Future Little Bird

Smaller Fleet or Divest

FVL (Future Attack Reconnaissance Aircraft)

Attack/Assault
MH-60M

DP: FLRAA
or MH-60M Block 3.0

New Terrain Following /
Terrain Avoidance Radar

Block 1 | Block 2

FVL (Future Long Range Assault Aircraft)

Smaller Fleet or Divest

MH-60M Block 3.0

Degraded Visual
Environment
(DVE)

Common IR
Counter-Measures (CIRCM)

Next Gen Survivability
System

Next Gen
Cockpit Management System

Heavy Assault
MH-47G

Divest Legacy MH-47G

New Terrain Following /
Terrain Avoidance Radar

IOC | MH-47G Renew | FOC

Milestone (IOC)
Milestone (FOC)
Decision Point

SOF
Joint
Army

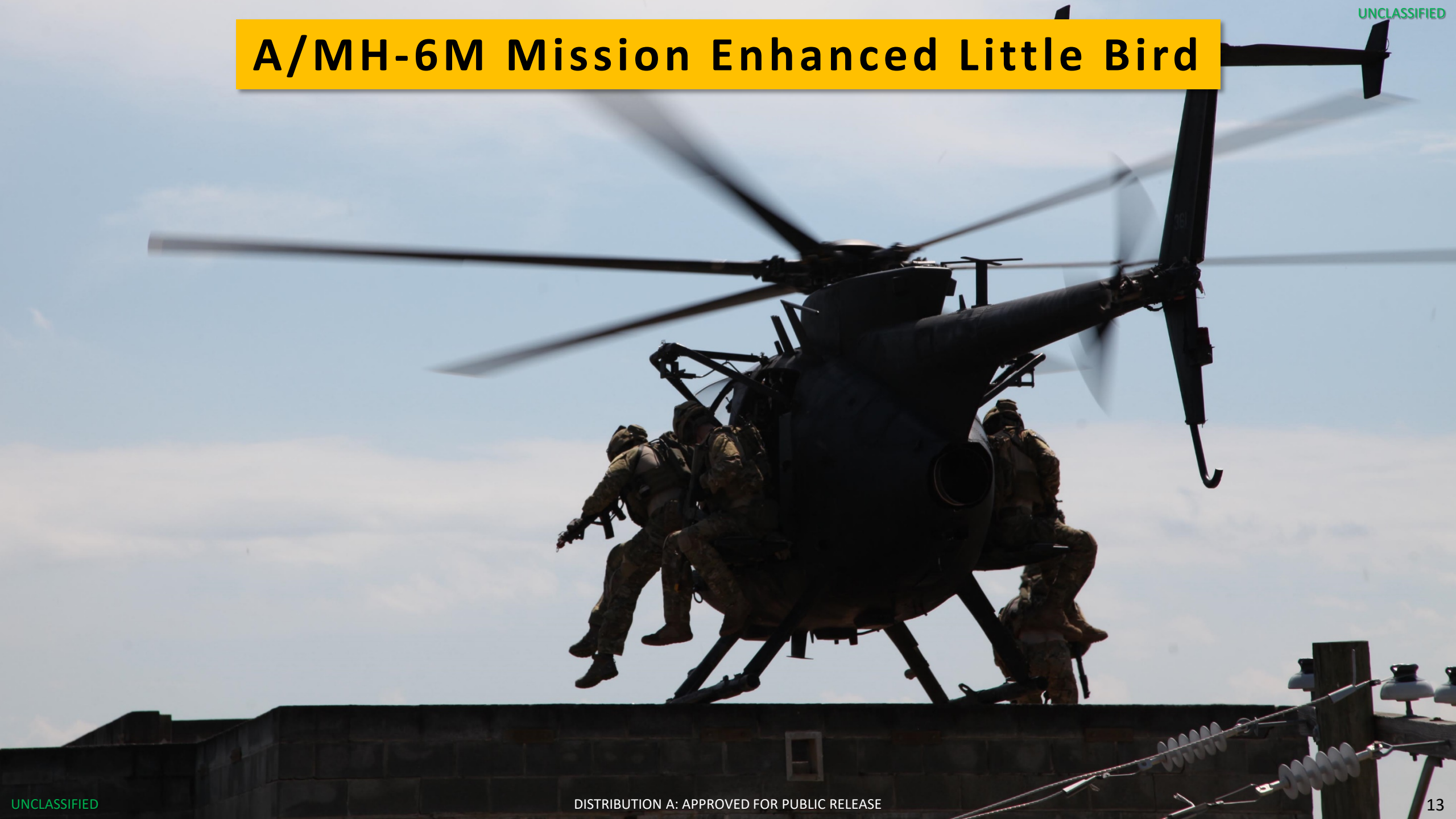
Mobility

A/MH-6M Mission Enhanced Little Bird Block 3

MH-60M Blackhawk Block 1

MH-47G Chinook Renew Program

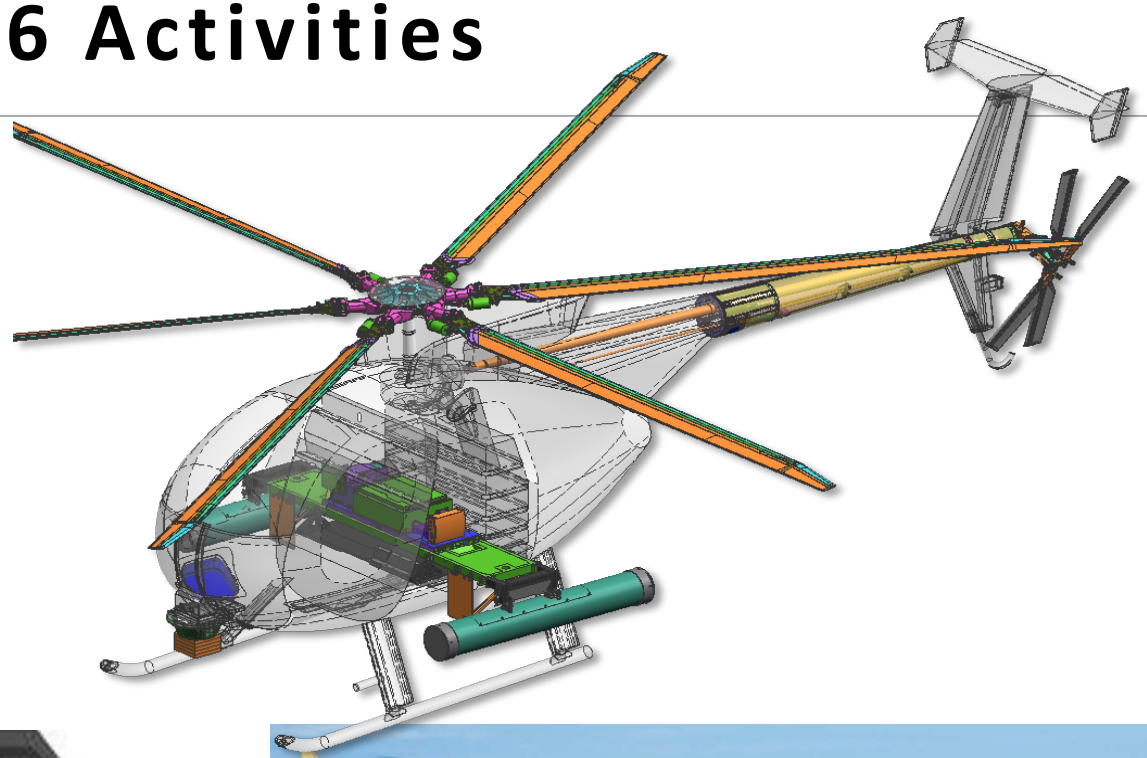
A/MH-6M Mission Enhanced Little Bird



A/MH-6 Activities

Block 2.2 upgrade execution
- **Improves crew safety**

Block 3.0 upgrade
- **Improves safety margin**
- **Improves flight controls**
- **Improves cockpit**



MH-47G Chinook

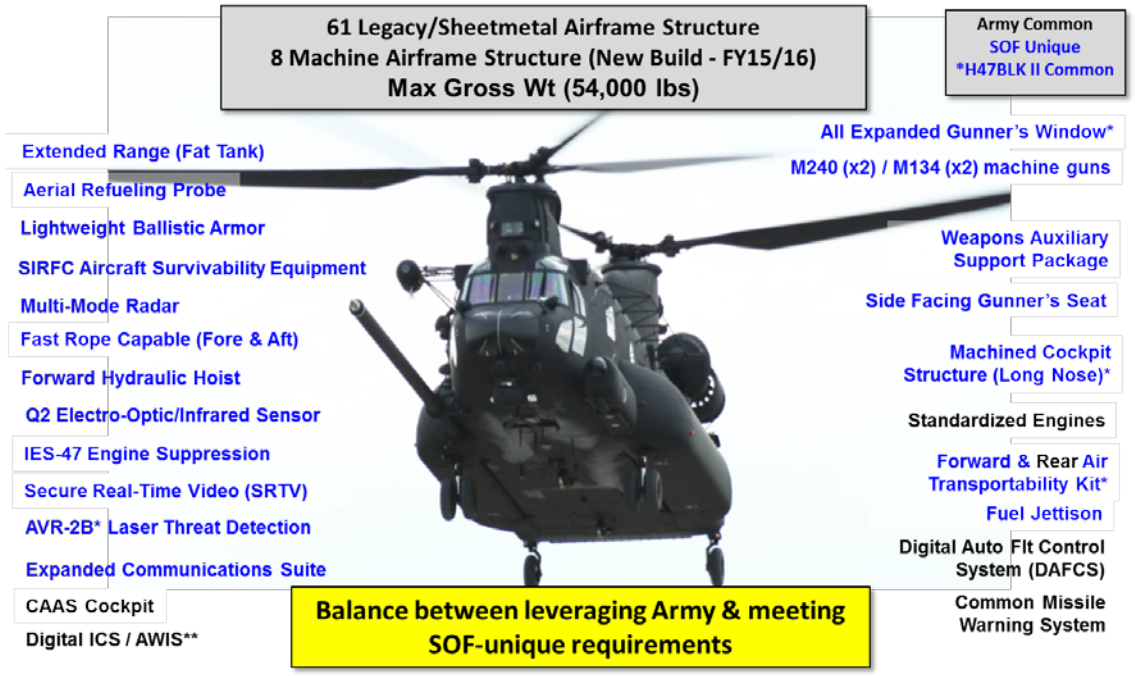
MH-47G Activities

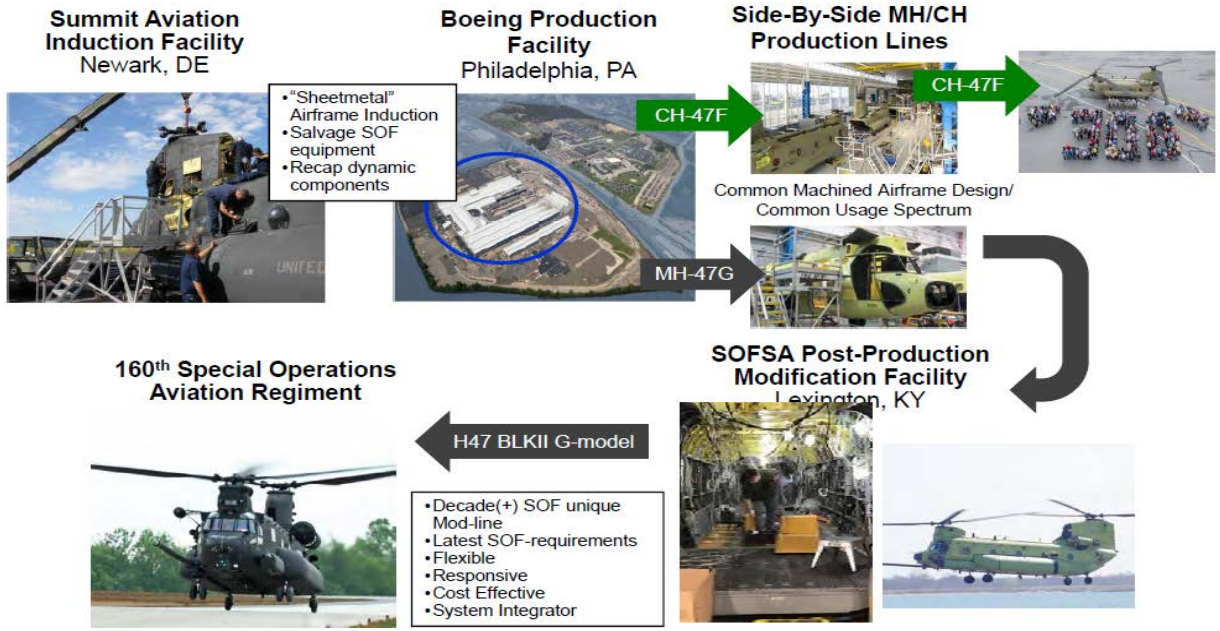
Block II Renew

- Modernization and Recap program for the remaining legacy airframes
- Executed in collaboration with the Army

Development efforts

- Advanced Parallel Actuator System (APAS)
- Engine Barrier Filter





MH-60M Blackhawk

MH-60M Activities

Block 1.0 upgrade execution

- **Greater directional control**
- **Tactical Mission Networking**
- **Degraded Visual Environment**
- **DC Powered Mini-gun System**
- **Sustaining engineering**

Mission Equipment Activities

Aircraft Survivability Equipment:

- IR Countermeasure Development
- RF Countermeasure Improvements
- Ballistic Protection

Direct Fire Threat (Detect and Locate)

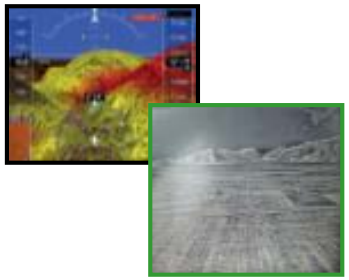
Radar Threat (Receive and Jam)

EO/IR Missile Threat (Detect and Decoy/Jam)

Sensors and Weapons:

- Degraded Visual Environment Development
- Improved RW Electro Optical Sensor (IRES)
- New Terrain Following / Terrain Avoidance Radar

Degraded Visual Environment



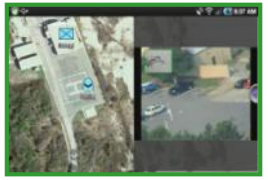
Avionics:

- Tactical Mission Network Integration
- Mission Processor Upgrades

Ground Force Software Compatible

GOTS/COTS Material Solution

Moving map with other Friendly icons shown



Live video with location of Video shown on imagery

Sustainment:

- Sustain operational availability
- Control sustainment costs of mission equipment

SOF Modernization

❖ **Capability Focus Areas**
- Human Interface
- Next-Generation Intelligence, Surveillance & Reconnaissance (ISR) / Tactically Relevant Situational Awareness
- Network & Data Management
- Next-Generation Effects/Precision Strike

❖ **Cross Cutting Technology Areas**
- Hyper-Enabled Operator
- Next-Generation Mobility

Rotary Wing Interest Areas:
- ***Mission Simulation and Training***
- ***RF Convergence***
- ***Next Generation Cockpit***
- ***Total Situational Awareness***
- ***Assured Communications***
- ***Robust Survivability***
- ***Optimal Manning***
- ***Rotor Speed Efficiency***
- ***High Efficiency Power Sources***

Acquisition Tools Across the Life Cycle

FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27

Generic Platform

Mods and Upgrades

Low Cost Modifications

Drivers to Platform Modification

Block Upgrade / Renew

Block Upgrade / Renew

Commanders Intent

New Requirement
- Mission
- Threat

New Inventions / Innovations

Sustainment / Obsolescence / Tech Refresh

Air Safety / Airspace Mandates

SOFWERX

Prize Challenge

CRADA / OTA

RIF / Engineering Analysis

BAA / Unsolicited Proposals

SBIR

CMNS / JUONS

Combat Evaluation

SIMO / AMSO Project

MTA / SOCREB / POM

DOD / Service S&T

DOD / Service POR

Man Tech

PM's must work closely with Combat Developers / Resourcers, *and Industry* to Synchronize

S&T / Agility

Traditional SOCOM

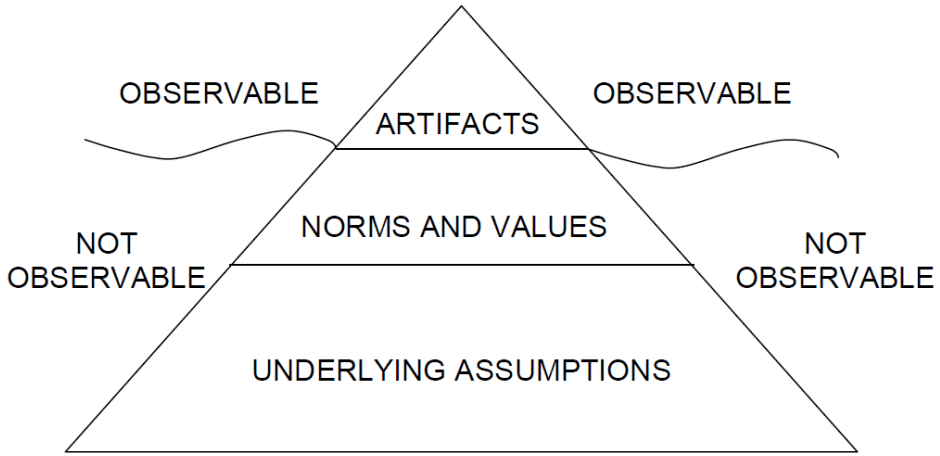
Traditional Service

Life Cycle Sustainment

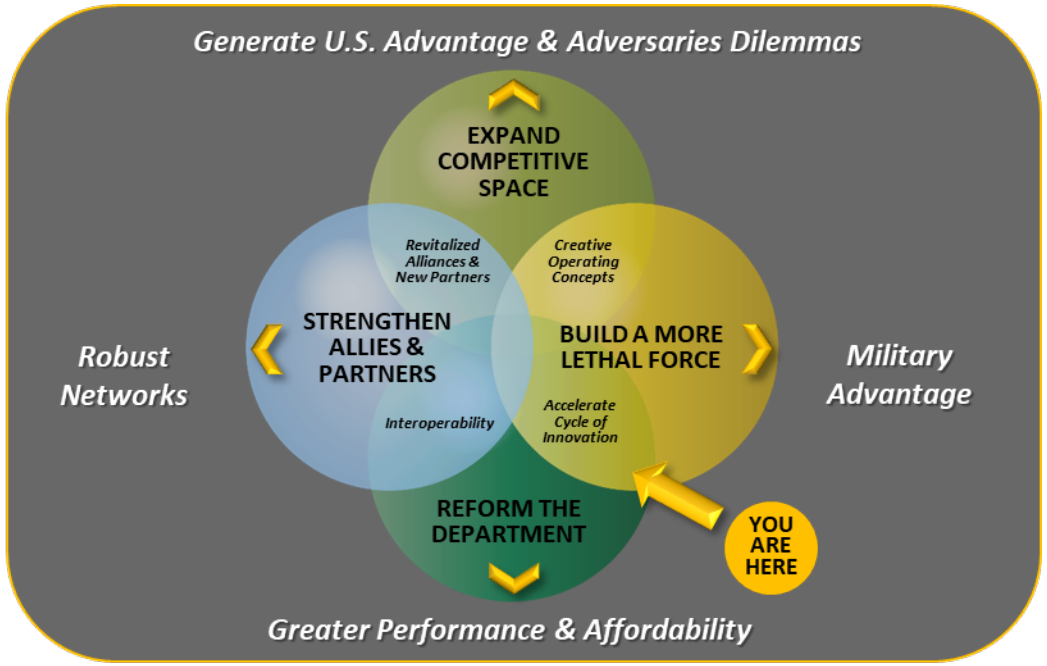
Tenets of Success / Debunking Myths

1. Speed
2. Risk tolerance
3. Scale
4. Inclusivity
5. Relationships

1. Big programs
2. No requirements
3. Different funding
4. No testing
5. Always Successful



We Need Creative Solutions from Industry



What Congress and DoD authorized

- Middle Tier Acquisition (MTA)
- Other Transaction Agreements (OTA)
- Cooperative Research & Development Agreements (CRADA)
- Empowered/Decentralized Decision Authority

What can Industry do?

- Contract response timelines?
- Pricing timelines?
- Levels of oversight?

- **Decrease "flash-to-bang" time on delivering systems to the Warfighter**
- **Increase speed of responding to RFPs**
- **Reduce unproductive portions of procurement lead-time**
- **Reduce lead times for weapon system procurement**
- **Offer ways to hyper-enable aircrews and operators**
- **Integrate federated, complementary systems to aid in rapid, decisive decision-making**
- **Explore future RW capabilities; support FVL development**
- **How can we make what we have more effective?**

Near-Term Opportunities

Upcoming SOFWERX Events

https://www.sofwerx.org/aviation/

Special Operations Forces Aviation Systems Trainers - Enhancements (SOFAST-E II) Industry Day

June / July 2019

https://www.fbo.gov/

"We've been fortunate to have an amazingly consistent leadership philosophy for the last 20 years: Clearly communicate your expectations for risk management and empower the team to make decisions at the appropriate level."

James H. Smith, U.S. Special Operations Command
Acquisition Executive, February 2018