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# SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

TRUSTED EXPERTS

# PROGRAM EXECUTIVE OFFICE ROTARY WING OVERVIEW

**DR. STEVE SMITH**

PROGRAM EXECUTIVE OFFICER

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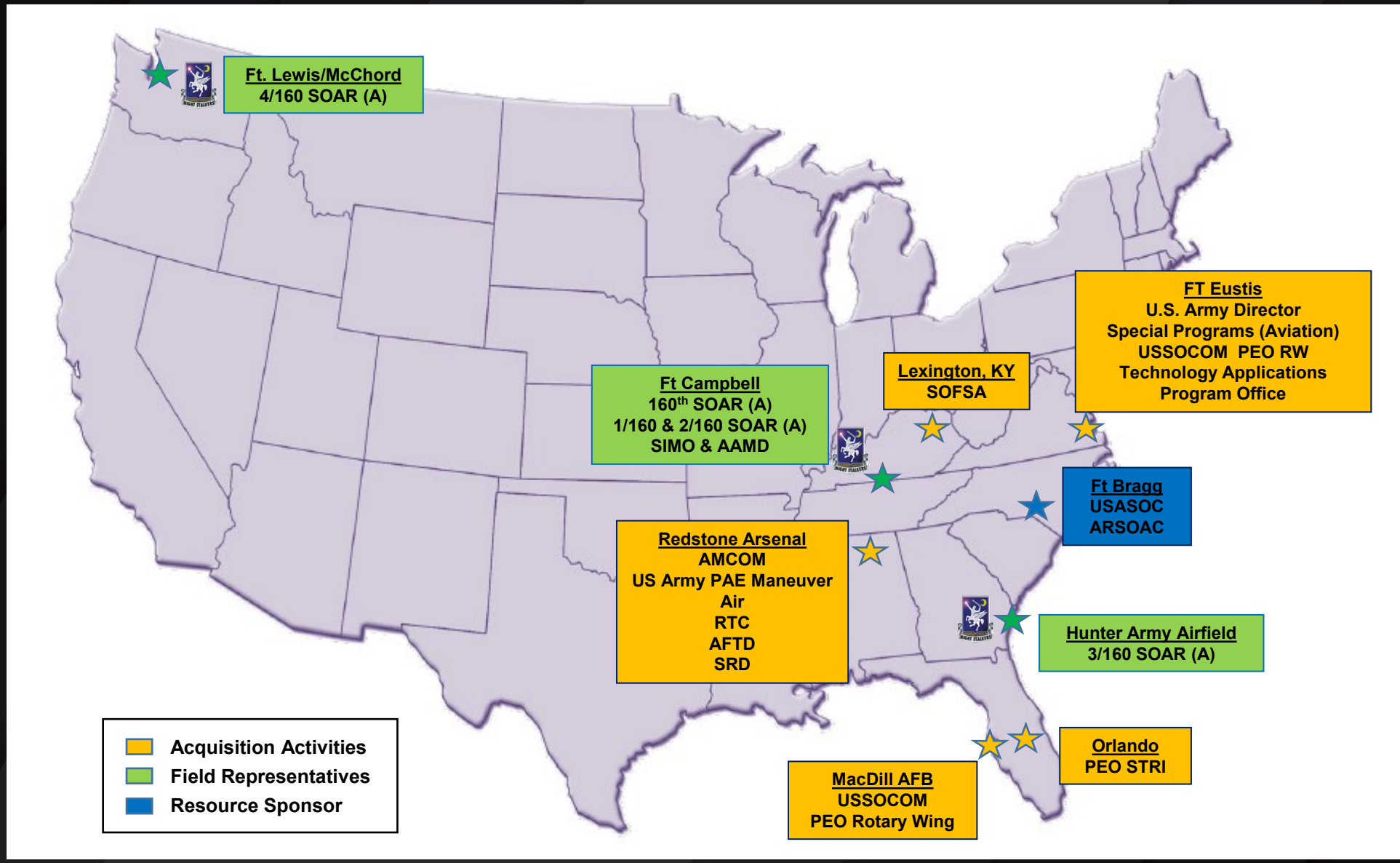
# SPECIAL OPERATIONS AVIATION RW ENTERPRISE



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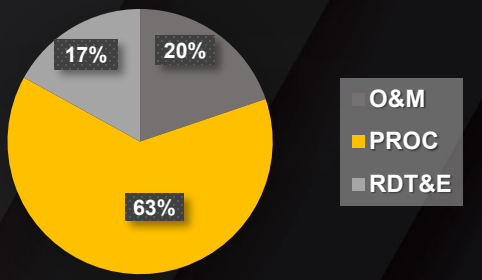
# ARMY SPECIAL OPERATIONS AVIATION ACQUISITION TEAM

- Customer Focus – Access to User
- Smaller Teams/Offices
- Multiple Engagements at All Levels
- High Risk Tolerance
- Decisions Pushed Down to Lowest Level
- Direct Access to MDA and AW Authority

US Army Special Operations Aviation Command
**(Resource Sponsor)**
FT Bragg, NC




160th SOAR

Systems Integration Management Office (SIMO) & ARSOAC Aviation Maintenance Directorate (AAMD)
**(User Rep / Requirements / Sustainment)**
FT Campbell, KY

US Army
Aviation & Missile Command (AMCOM), Director, Special Programs (Aviation)
USSOCOM PEO-Rotary Wing,
**(Milestone Decision Authority)**
FT Eustis, VA

TAPO / PEO STRI
**(Materiel Developer)**
FT Eustis, VA / Orlando, FL

**Daily / Continual coordination with dedicated user representative (SIMO), Component Resource Sponsor (ARSOAC), and Title 10 Headquarters (PEO-RW & PEO-FW @ USSOCOM)**

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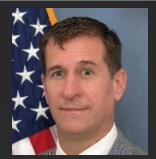
# PEO ROTARY WING KEY POSITIONS

- SOF Training Systems Product Manager
- Mission Systems Product Manager
- Futures Product Director
- Product Spt Div Chief/USASOC FW PM
- MELB Product Manager
- MH-47G Product Manager
- MH-60M Product Manager
- Chief of Futures Rotary Wing
- TAPO Deputy Project Manager
- Chief Engineer
- Deputy PEO Rotary Wing
- TAPO Project Manager



PEO Rotary Wing / AMCOM Director, Special Programs

**Dr. Steve Smith**

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# PROGRAM EXECUTIVE OFFICE ROTARY WING (RW)

## MOBILITY

**A/MH-6 Light Attack/Assault**

**MH-60 Medium Attack/Assault**

**MH-47 Heavy Assault**

**Airframe Recapitalization**

## MISSION EQUIPMENT

**Active Aircraft Survivability Equipment**

**Airborne Communications**


**Common Avionics Architecture System (CAAS)**
**Avionics Management System (AMS)**

**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)**

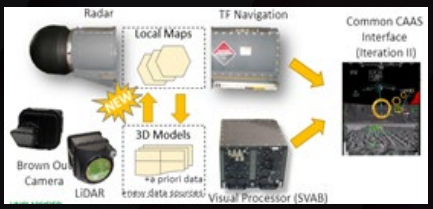
**Stimulated vs Simulated**

## FUTURES EFFORTS

**FLRAA**

**Launched Effects**

**Data Fusion**




**Future Investments**

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# SOF ROTARY WING PLATFORM ROADMAP

Near Term (Prior to FY 27) | POM (Fiscal Years 27-31) | Extended Planning Period (Fiscal Years 32-42)

2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042

**Light Attack/Assault**
**A/MH-6**

Sustain / Divest

BLOCK 3.0 → BLOCK 4.0

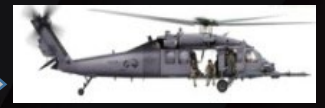
**H-6 BLK 4.0**

**Attack/Assault**
**MH-60M**

Improved Turbine Engine

Sustain / Divest

BLOCK 1.1 / BLOCK 1.2



SOF FLRAA Design → SOF FLRAA

Army FLRAA FUE

SOF FLRAA FUE

Next Gen Counter Measures

**Heavy Assault**
**MH-47G**

Active Parallel Actuator System

BLOCK II → BLOCK III

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# A/MH-6 ACTIVITIES





**WHAT WE DELIVER:** The AH-6M Little Bird is a modified light attack helicopter used for supporting ground troops, conducting raids, and escorting aircraft. The MH-6M Little Bird is a light utility helicopter altered to carry combat troops and their gear externally, capable of doing infiltration, exfiltration, assaults, and reconnaissance in various terrains.

## ONGOING EFFORTS:

- Aircraft safety enhancements and mission equipment upgrades
- The A/MH-6 R Block Modification

## FUTURE EFFORTS:

- Cockpit update
- Drivetrain improvements
- Lightweight initiatives


AH-6


MH-6

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# A/MH-6 ACTIVITIES

## COCKPIT UPGRADE

**Avionics Management System (AMS)**

- Primary Flight Display
- Flight Management
- Moving Map

**Advanced Airborne Tactical Mission Suite (AATMS)**

- Improved Electro Optical Sensor
- Situational Awareness Improvements
- Communication Suite Update

AH/6

## Other Platform Improvements

- Engine Inlet Barrier Filter
- Heated Clothing
- Heater Duct Modification
- Lithium-Ion Batteries
- Light Weight Weapons Controller

Light weight Weapons Controller

## Lightweight Initiatives

- Main and Aux Fuel Tank Weight Reduction
- Lightweight Attack Planks

Displays

PRC-167

DAIRCM

SD Encoder

Fast Rope Cameras

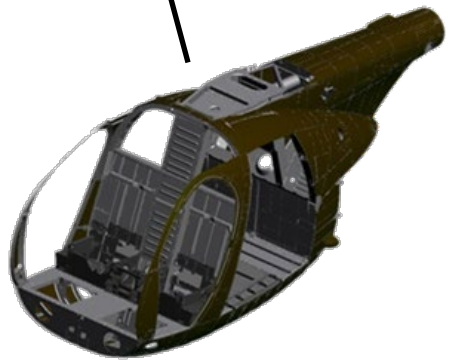
Tactical Data Processor

MX-10

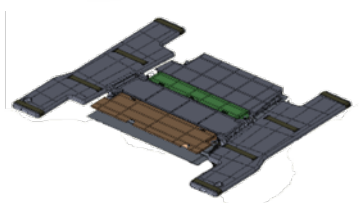
PRC-161

E-Net to 1553 converter

Advanced Airborne Tactical Mission Suite (AATMS)



Airframe Structural Improvements (Zero-Time Fuselage)



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# MH-60M ACTIVITIES





**WHAT WE DELIVER:** The MH-60M handles infiltration, exfiltration, combat assaults, combat search and rescue, and medical evacuations. Its armed version, the Defensive Armed Penetrator (DAP), focuses on escort and close air/fire support.

## ONGOING ADVANCEMENTS:

- MH-60M Block 1.1 Common Configuration

## FUTURE EFFORTS:

- Block 1.2
- Air Launched Effects
- Improved Turbine Engine

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# MH-60M ACTIVITIES

## Launched Effects

MAGNA/DIGAR

Upturned Exhaust Suppressor (UES) II
Engine Inlet Barrier Filter

Common Fill Port

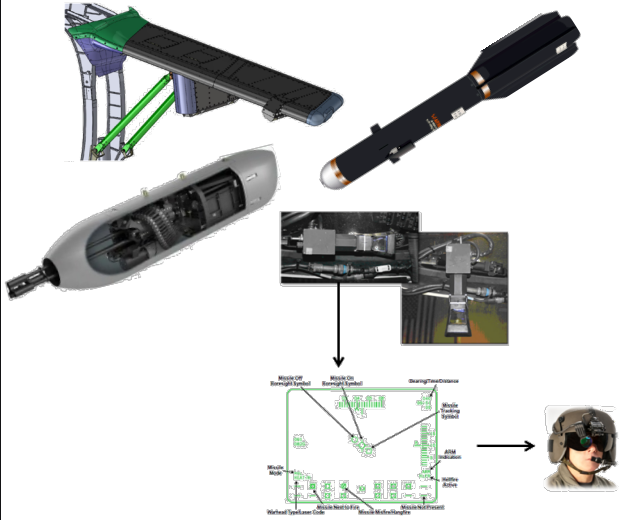
AN/APQ-187 Silent Knight Radar (SKR) + Nose door re-config

DVEPS

Sensor Data Fusion

## WEAPONS UPGRADES

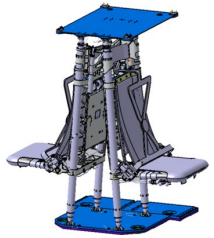
- Joint Air to Ground Missile (JAGM)
- Conformal Lightweight Armament Wing (CLAW)
- M-230 Recoil Dampers
- GAU-19 Gun Pod (GP-19) ECP
- Helmet Display Tracking System



**Block 1.2:**
**Performance Restoration / Weight Reduction**

- Lower Anti-Collision Light
- Crew Chief Split Window

Improved Crew Chief Seat



Next Generation Tactical Communications (NGTC)

**Future Modifications driven by restoration of payload and center of gravity**

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# SOF MV-75 Activities

**WHAT WE DELIVER:** The SOF MV-75 aircraft will provide long-range, high speed, all weather, infiltration (infil), exfiltration (exfil), and resupply of SOF teams in hostile, denied, and politically sensitive areas.

## ONGOING ACTIVITIES:

- Digital Integration of SOF MEP

## FUTURE ACTIVITIES:

- Continue engineering work to reduce design and production risk

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# MH-47G ACTIVITIES





**WHAT WE DELIVER:** The MH-47G Block II Chinook helicopter performs infiltration, exfiltration, air assault, resupply, and sling-load missions across a broad spectrum of environmental conditions. Additionally, it executes a wide variety of operations, including shipboard, platform-based, urban, waterborne, parachute, forward arming and refueling point, mass casualty, and combat search and rescue missions.

## ONGOING ADVANCEMENTS:

- Integrating advanced flight controls through Active Parallel Actuator Subsystem (APAS)

## FUTURE EFFORTS:

- Improved Communications

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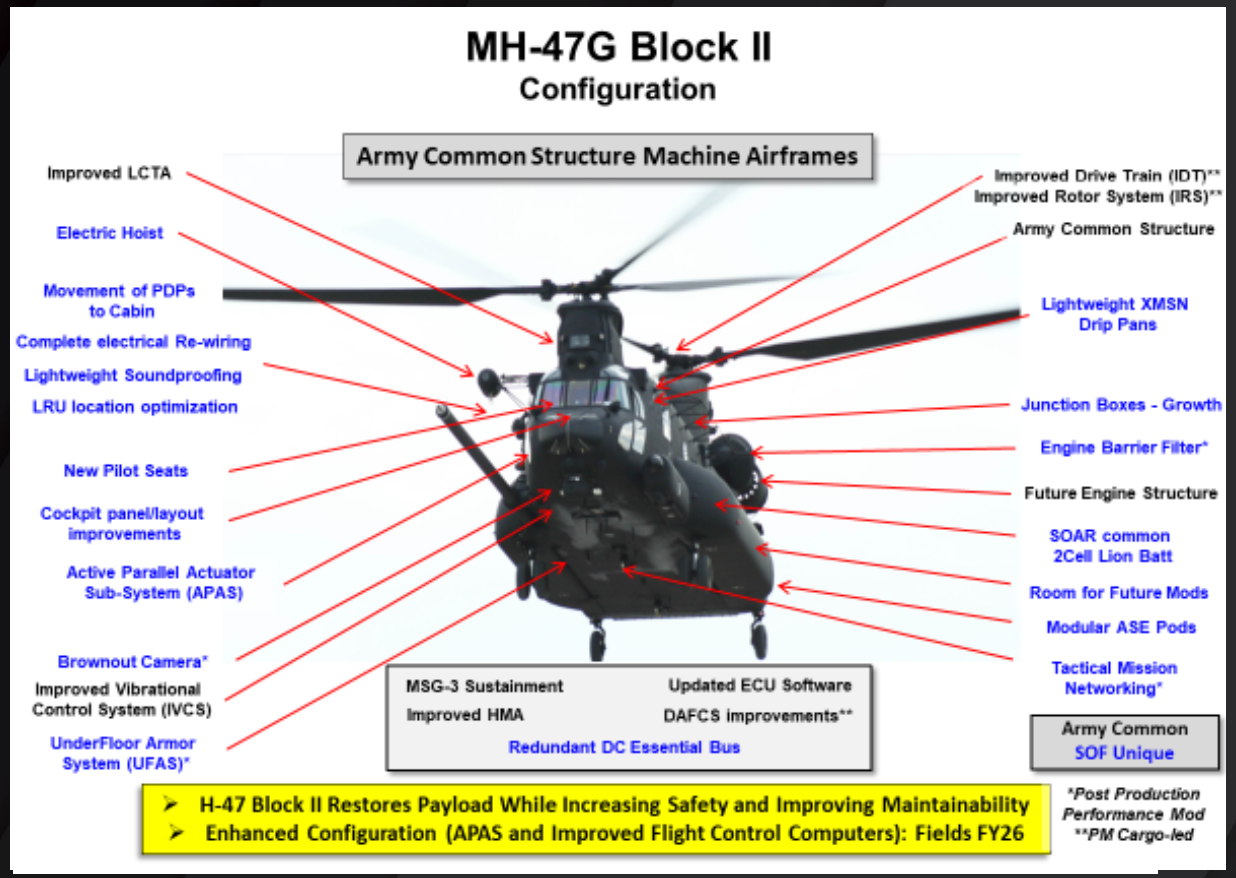
# MH-47G ACTIVITIES

## BLOCK II RENEW

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



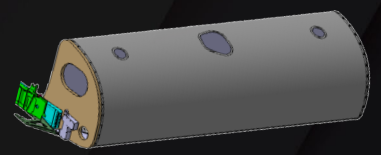

## ENHANCEMENT EFFORTS

- Active Parallel Actuator Subsystem (APAS)
- Engine Barrier Filter (Engine Intake Filtration)
- Improved Gun Mount (Improved Functionality)

Engine Barrier Filter

Improved Gun Mount ECP

APAS / Performance Enhancements



Fuel Pod/ Avionics Pod ECP

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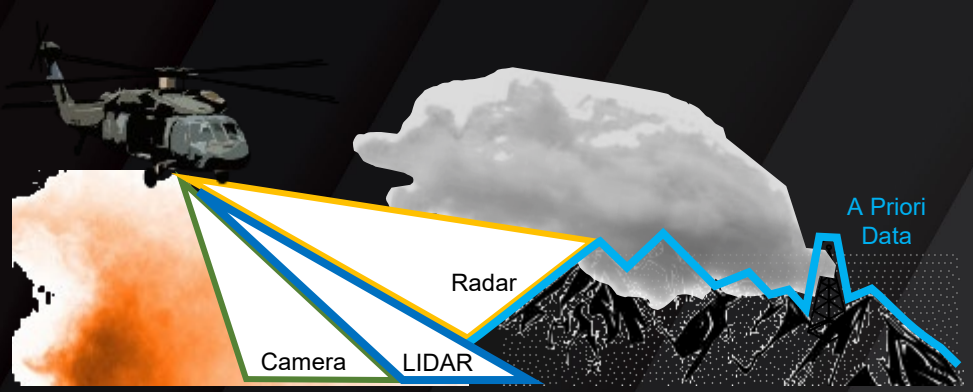
# MISSION SYSTEM ACTIVITIES



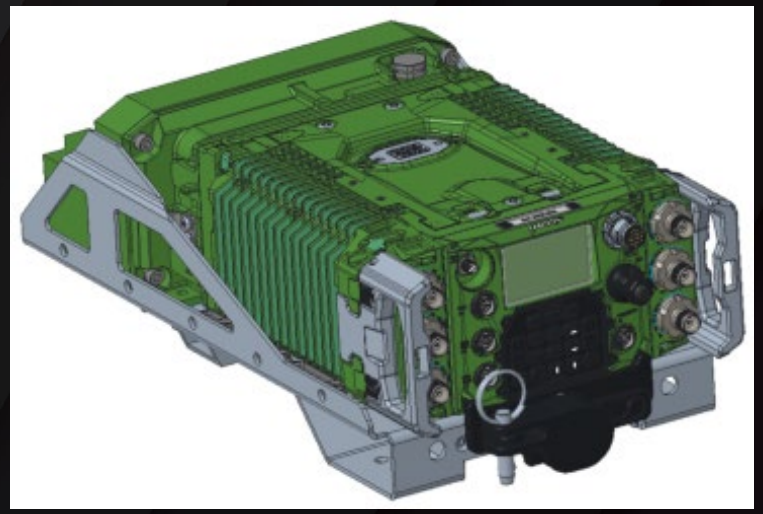

**WHAT WE DELIVER:** The Mission System office manages navigation, communication and sensor data fusion across the Army Special Operations Aviation fleet.

**ONGOING ADVANCEMENTS:**

- CAAS update
- Next Generation Tactical Communications
- Sensor Data Fusion

**FUTURE EFFORTS:**

- Cockpit modernization,
- Avionics trail blazing and alignment for/with conventional Army Aviation
- Leverage MV-75 ecosystem



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# MISSION SYSTEM ACTIVITIES

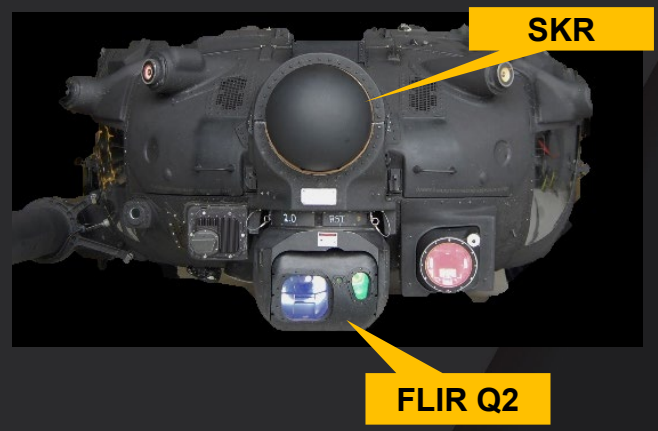
## SENSORS:

- Improved RW Electro Optical Sensor (IRES)
- Terrain Following / Terrain Avoidance Capability
- Degraded Visual Environment Pilotage System (DVEPS)

## AVIONICS:

- Tactical Mission Network Integration
- Mission Processor Upgrades

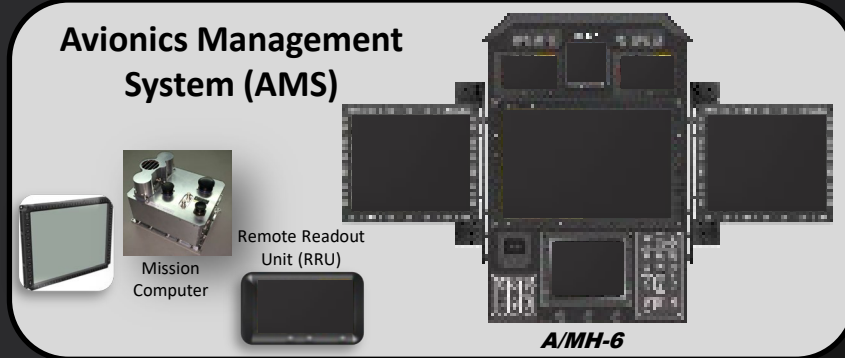
### EO/IR AND RF SENSORS



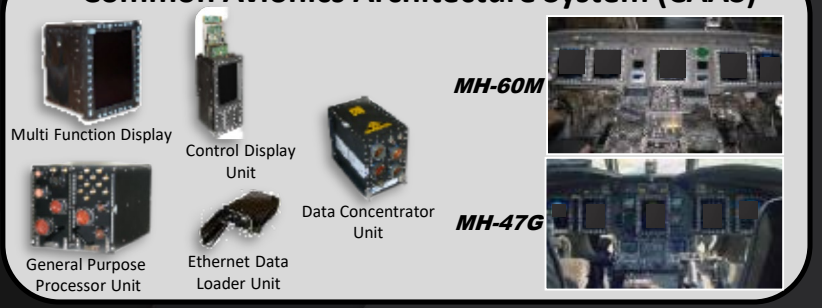

### IRES

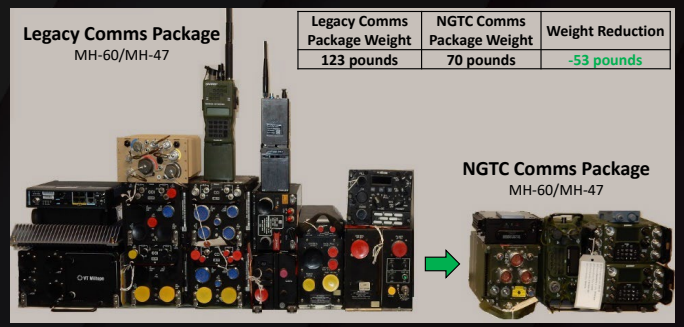
MX-10DR MX-10D

### Avionics Management System (AMS)




### Common Avionics Architecture System (CAAS)




| Legacy Comms Package Weight | NGTC Comms Package Weight | Weight Reduction |
|---|---|---|
| 123 pounds | 70 pounds | -53 pounds |

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# MISSION TRAINING ACTIVITIES

**WHAT WE DELIVER:** What we deliver: The training products provided under the simulator program provide the highest fidelity replication of the mission aircraft and supports individual, team, or full mission profile training. Additionally, the Combat Mission Simulators facilitate incident investigations by recreating flight data recorder information within a synthetic environment.

## ONGOING ADVANCEMENTS:

- Replacement of aging MH-47 CMS
- Flight line concurrence

## FUTURE EFFORTS:

- Leverage Artificial Intelligence

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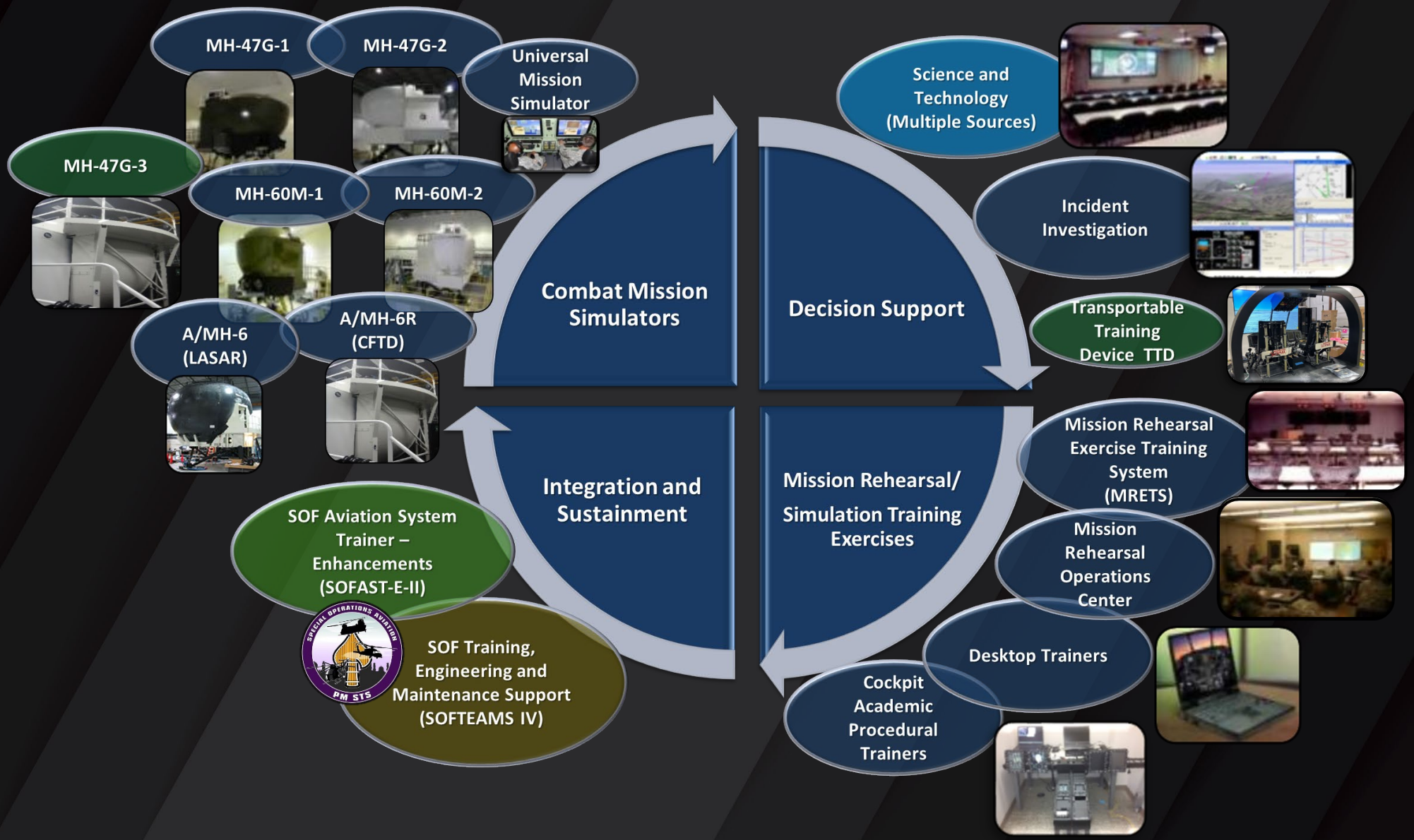
# MISSION TRAINING ACTIVITIES



# PEO ROTARY WING'S TECHNOLOGY INVESTMENTS

- **AIRCRAFT SURVIVALABILITY EQUIPMENT (ASE) NEXT**

- **AIRCREW WORKLOAD**
  - Manage cognitive burden over long duration missions in complex environments
  - Fleet consistency – common MEP to facilitate mission requirements

- **DATA PROCESSING**
  - Processor refresh to allow future growth within the avionics suite
  - Networks – leverage data sensed by the platform post mission
  - Common Architectures – minimize vendor lock, enhance portability

- **MOSA**
  - Successfully segregated communications from flight critical functions within CAAS
  - Low Probability of Intercept/Low Probability of Detection (LPI/LPD) Communications
  - 3rd party applications leveraging ARINC-661 is our vision for future MEP integration

# PEO ROTARY WING'S CHALLENGES

- **REACH**
  - Lightweight materials, higher energy density fuels
  - Advanced coatings
  - Airworthy rapidly installed/removed auxiliary fuel cells

- **SITUATIONAL AWARENESS**
  - Non-RF communications systems
  - Multi-Spectral sensors

- **LETHALITY**
  - Next Generation Sensors and Effectors – on and off board
  - Non-kinetic effects (NKE) will have an increasing role in shaping the battlespace
  - Ability to rapidly reconfigure Launched Effects payloads depending on mission requirements – must include backend integration to ensure new payload capability is recognized by the launch platform

- **Enduring Fleets will be flying for decades**
  - Simultaneous modernization and transformation
  - Obsolescence

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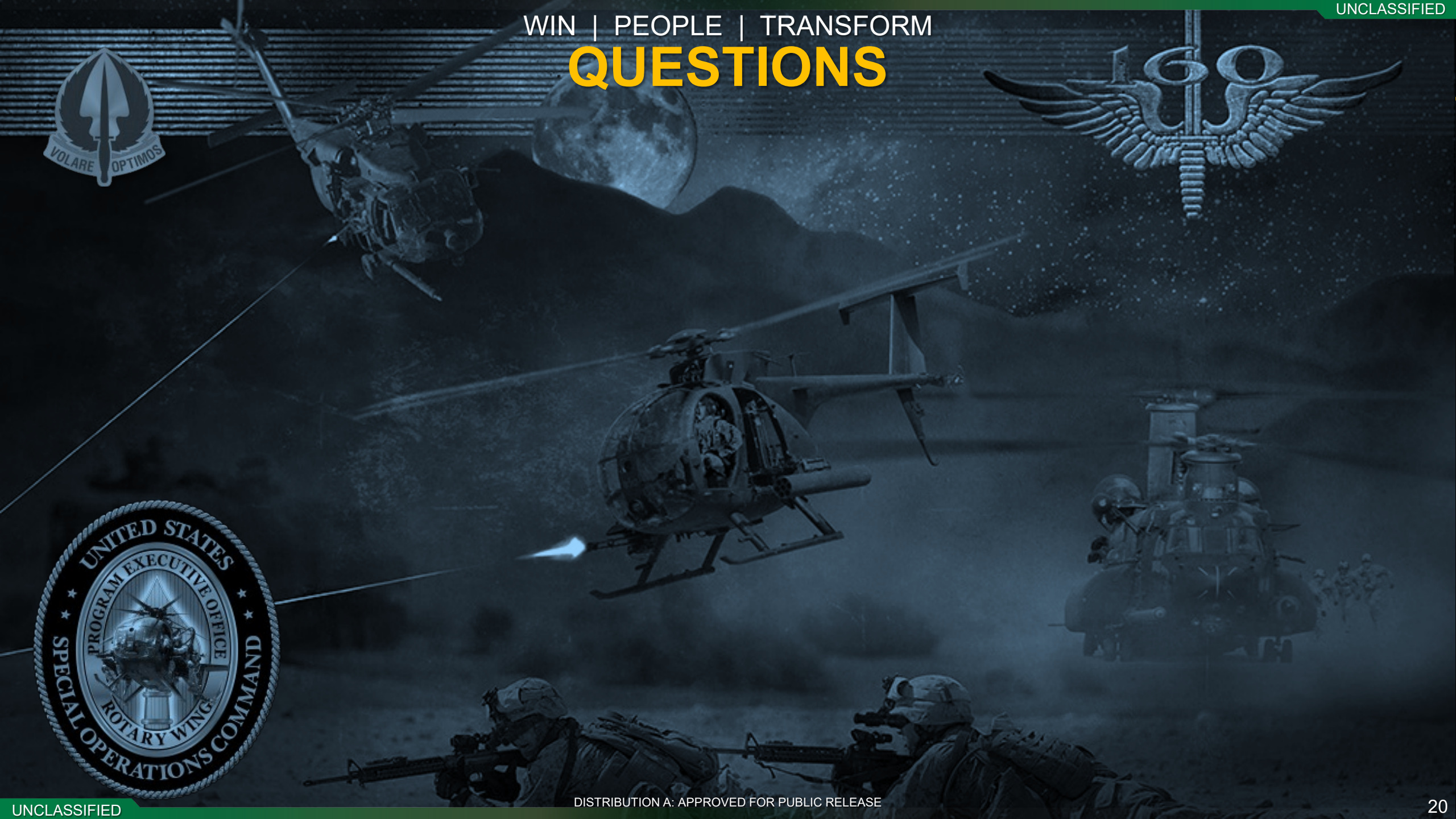
# QUESTIONS



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# DOING BUSINESS WITH SOCOM

## Office of Small Business Programs
**(Will engage with companies of any size!)**

First stop for questions, concerns, or assistance
POCs: Ashley Farrier and Paul Ward
Ashley.Farrier@socom.mil
Paul.Ward@socom.mil
osbp@socom.mil
813.826.9475

## Engage SOF (eSOF) on Vulcan

Pathway to present SOF relevant capabilities to USSOCOM
POC: Kimberly Carberry
Kimberly.r.Carberry.civ@socom.mil
eSOF@socom.mil
https://www.engageSOF.com
https://www.Vulcan-SOF.com

## SOFWERX

Unclass, open forum partnering with industry to solve Warfighter problems
https://www.sofwerx.org

## TECHNICAL EXPERIMENTATION

https://www.socom.mil/SOF-ATL/Pages/technical-experimentation.aspx