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SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

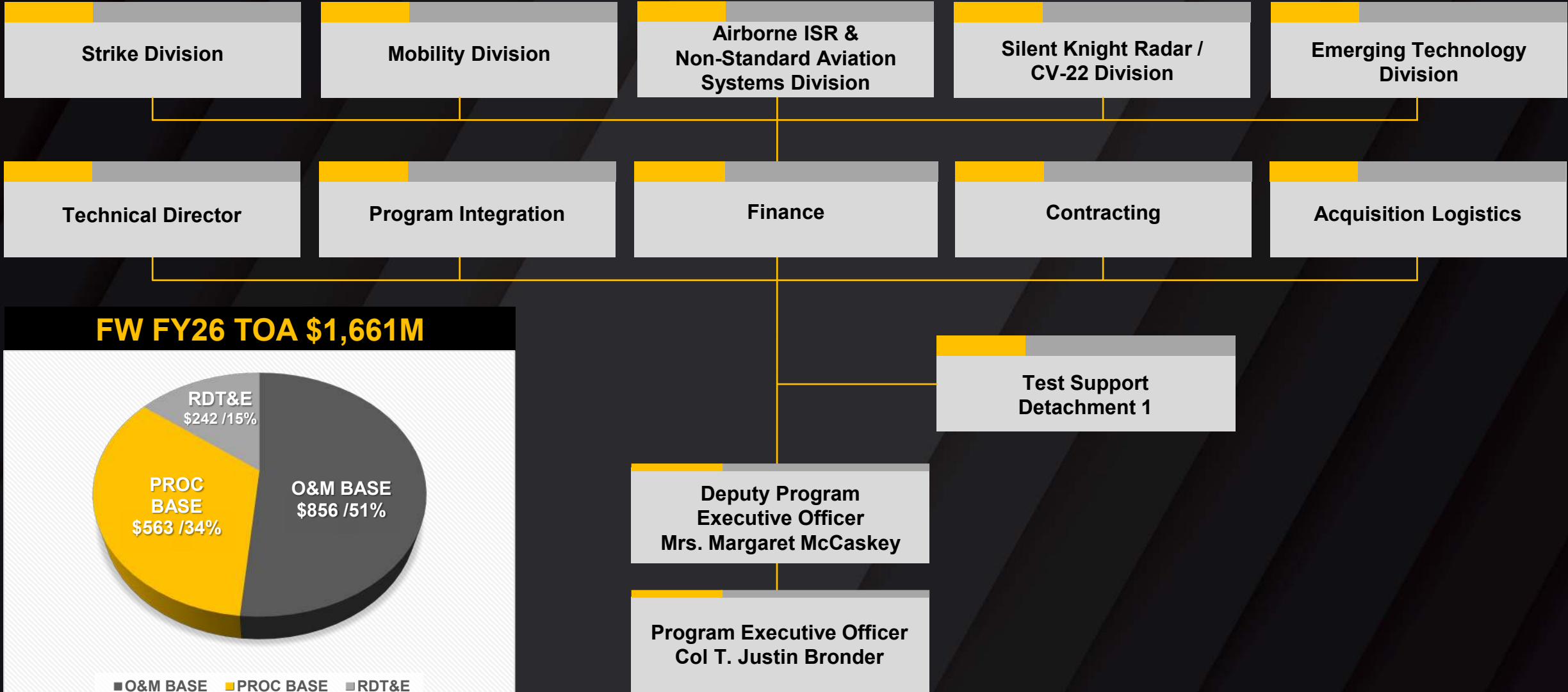
PROGRAM EXECUTIVE OFFICE FIXED WING OVERVIEW

COLONEL JUSTIN BRONDER

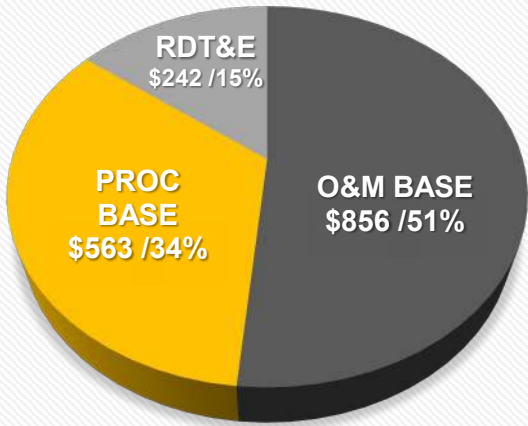
PROGRAM EXECUTIVE OFFICER, FIXED WING



PEO FIXED WING ACQUISITION TEAM



FW FY26 TOA \$1,661M



■ O&M BASE ■ PROC BASE ■ RDT&E

SPECIAL OPERATIONS AVIATION FW ENTERPRISE

PRIME INDUSTRY PARTNERS



Many Small Businesses

- USSOCOM
- Air Force
- Navy
- Army
- Operational Units
- Other



PROGRAM EXECUTIVE OFFICE FIXED WING (FW)

AISR / NSAS

Permissive Contested Highly Contested

Adaptive Air Command Data Exchange Collaborative Effects

AI/ML Attributes:

- Surveillance
- Reconnaissance
- Intelligence
- Targeting
- Threat Detection
- Threat Classification
- Threat Identification
- Threat Assessment

SWAT Data Exchange (AI/ML) Data Targeting

Provide Effects to Joint Forces Across the Spectrum of Conflict

A2E

MQ-1C Gray Eagle

MQ-9 Reaper

NSAV

C-27

LEA

U-28A

MOBILITY

MC-130J Commando II

Airborne Mission Networking

Terrain Following / Terrain Avoidance

Radio Frequency Counter Measures

MC-130J Combat Talon III

STRIKE

AC-130J Ghosthunter

OA-1K Skyraider II

Stand Off Precision Guided Munitions (SOPGM)

SILENT KNIGHT RADAR / CV-22

Silent Knight Radar (SKR)

CV-22B Osprey

EMERGING TECHNOLOGY

HSVTOL

Automation & Reduced Crew Workload

Collaborative Autonomy

DET 1

Pathfinder Events and Rapid Acquisition & Testing

OA-1K Test

SOPGM Test

AC/MC-130 Test

TRAINING SYSTEMS

AISR – Airborne Intel, Surveillance, & Reconnaissance NSAS – Non-Standard Aviation Systems A2E – Adaptive Airborne Enterprise LEA – Long Endurance Aircraft NSAV – Non-Standard Aviation

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SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

PROGRAM EXECUTIVE OFFICE
FIXED WING MOBILITY
LT COL ANDREW STURGEON

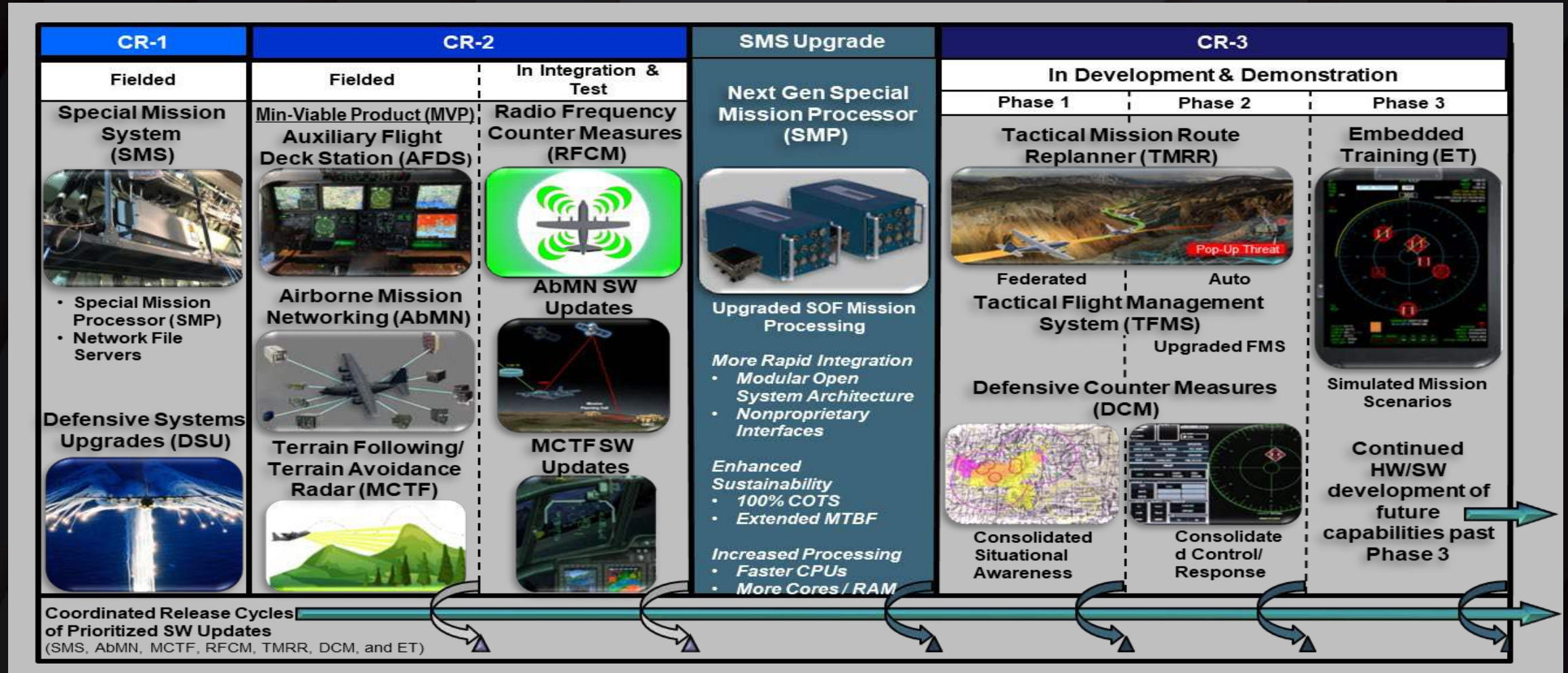
DIVISION CHIEF



MC-130J

Primary objective:

- Deliver MC-130J Combat Talon III SOF mission systems capable of performing networked low-level infil/exfil, air refueling and precision airdrop in contested environments.



MC-130J CAPABILITY NEEDS

Need to rapidly evolve to provide the SOF value proposition in contested / denied environments

- Extended range and endurance for global reach
- Improved situational awareness and communication systems
- Advanced defensive systems to protect against modern threats
- Increased payload capacity for diverse mission sets
- Precision airdrop and landing capabilities

Key enablers to meet this challenge

- Advanced EO/IR Situational Awareness and Threat Warning systems
- Assured Position, Navigation, and Timing – robust navigation
- Certified Multi-Level Security processing solutions
- Open Mission Systems compatible and complaint systems
- Enhanced cybersecurity measures

Areas of Interest

- Autonomous or semi-autonomous capabilities to reduce crew workload
- Artificial intelligence-assisted decision-making tools
- Next-gen communication systems for seamless data sharing
- Modular hardware supporting rapid integration for changing mission needs



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SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

PROGRAM EXECUTIVE OFFICE FIXED WING MOBILITY INTEGRATED STRIKE PROGRAMS

LT COL SHAWNA MATTHYS

DIVISION CHIEF



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OA-1K SKYRAIDER II

CAPABILITIES

- Austere takeoff and landing
- Range and Endurance
- Two crew stations
- Open systems architecture
- Eight (8) external stores stations
- Multiple radios and datalinks
- Integrated Flight and Mission Management
- Multi-sensor HD Overlay and Control

STATUS

- 18x OA-1K aircraft delivered
- Over 6400 training flight hours accomplished
- Wing structurally reinforced for greater load-carrying capacity than commercial AT-802

Modular / Open baseline built on proven commercial airframe provides cost-effective multi-role platform with capacity for rapid reconfiguration tailored to mission need

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STRIKE PORTFOLIO

SOF-unique aircraft and air-delivered precision effects, enabling Special Operations Air Components to see, sense, and strike globally

- **AC-130J Ghost Rider**

- Current: Precision strike package, defensive systems, 2x gun systems (30mm/105mm), 10 CLTs, wing wiring and weapon pylons improvements
- Future: Deliver enhanced precision effects through mission optimization modifications & weapon modernization

- **OA-1K Skyraider II**

- Current: EO/IR FMV, APKWS, Hellfire, LOS/BLOS comms
- Future: Modular sensor payload & weapon enhancements

- **Stand-Off Precision Guided Munitions**

- Current: Griffin, Hellfire variants, LSDB, SCM & SGM
- Future: Long-range weapon systems, air-launched loiter munitions & collaborative weapons



STRIKE FUTURE NEEDS

Providing ready capability today, rapidly evolving relevant & resilient capability for tomorrow to win across the spectrum of deterrence, competition, and conflict

- Driving operational needs: sophisticated threat systems, contested/congested electromagnetic environment, no expectation of GPS
- Critical technologies to reach the end state
 - Automation & autonomy
 - Secure, resilient communications
 - Advanced navigation and sensing
 - Modular payloads/effects
- R&D focus areas: Autonomous/collaborative systems, stand-off strike capabilities, modular sensing & targeting, heterogenous (kinetic & non-kinetic) effects, autonomous/collaborative systems

Irregular Warfare / Counter-Violent Extremist Orgs

- Close-in
- GPS-reliant
- Laser-guided
- Data Linked

Near Peer Competition

- Stand-off attack
- Contested environment, next-gen guidance
- Open, modular seekers and sensors
- Networked, collaborative, autonomous

READY – RELEVANT – RESILIENT

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SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

PROGRAM EXECUTIVE OFFICE FIXED WING SILENT KNIGHT RADAR / CV-22

LTC SETH GREEN

DIVISION CHIEF



SILENT KNIGHT RADAR / CV-22 PORTFOLIO

AN/APQ-187 Silent Knight Radar (SKR)

- SOF Common Terrain Following/Terrain Avoidance (TF/TA) SKR provides a Low Probability of Intercept/Low Probability of Detection (LPI/LPD) capability to provide SOF aircraft with maneuverability in aerial denied peer/near peer environment
- Integrated with 160th SOAR's MH-47 and MH-60 helicopters and AFSOC's MC-130J and CV-22 aircraft
- SKR provides all-weather, proven TF/TA to enable clandestine infiltration/exfiltration of SOF operators in any location

CV-22B Osprey

- Medium lift tiltrotor aircraft that combines the airfield independence of a helicopter with the long range and high speed of turboprop aircraft
- Partner with V-22 Joint Program Office (PMA-275) and industry to integrate SOF-unique capabilities
- Performs infiltration/exfiltration and resupply missions for Special Operations Forces (SOF) in all weather
- Operated by Air Force Special Operations Command (AFSOC)



SILENT KNIGHT RADAR / CV-22 FUTURE NEEDS

AN/APQ-187 Silent Knight Radar Needs

- Processing Capacity and Open Architecture
 - Industry availability processors
 - Open architecture approach
 - Interoperability with existing system
- Counter-UAS Detection/Identification/Tracking Capability
- Active Electronically Scanned Array

CV-22B Osprey SOF-p Needs

- Rapid Prototyping, A-Kit Development/Integration/Install
- Next generation defensive systems against modern threats
- Modernized electric cargo winch
- Multi-outlet, 115v 60hz cargo area power supply



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SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

PROGRAM EXECUTIVE OFFICE FIXED WING AISR/NSAS

LT COL EROL DIZON

DIVISION CHIEF



AIRBORNE ISR PORTFOLIO

UNMANNED ISR



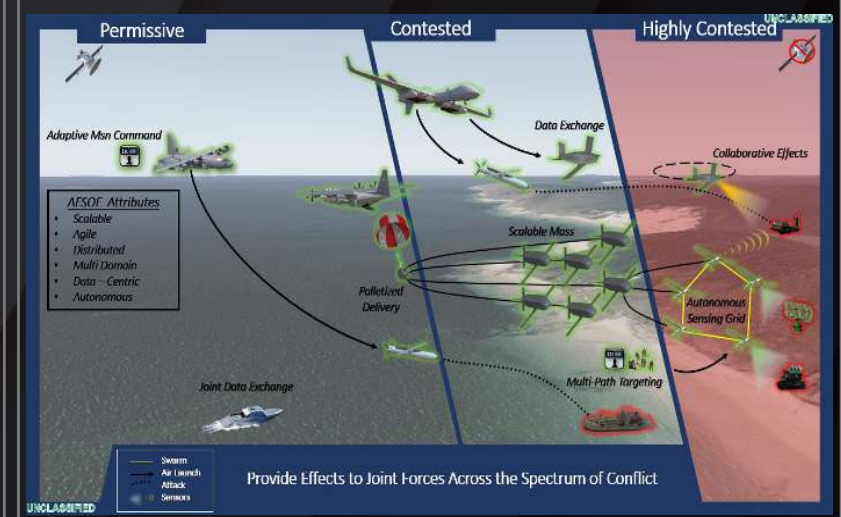
MANNED ISR



NON-STANDARD AVIATION



ADAPTIVE AIRBORNE ENTERPRISE



- Provide world-class ISR and mission-specific tactical mobility capabilities for varied SOF operational users
- Organized into four distinct yet interrelated areas encompassing nine airborne platforms and numerous subsystem payloads and effects
- Varied mission sets: ISR, Strike, and Tactical Mobility
- Supporting AFSOC, USASOC, JSOC, and other operational users
- Focused on developing new capabilities while supporting operations

MEDIUM ALTITUDE LONG ENDURANCE TACTICAL

MALET Programs: Comprises Current Unmanned Portfolio

- **Driving Operational Needs:** Modify current platform capabilities for effective operations in Near-Peer fight
- **Desired Innovations:** Open-architecture, podded solutions to increase survivability through increase standoff range, air battlespace awareness, kinetic and non-kinetic countermeasures



Capabilities to increase survivability and effectiveness

ADAPTIVE AIRBORNE ENTERPRISE (A2E)

Capability Description:

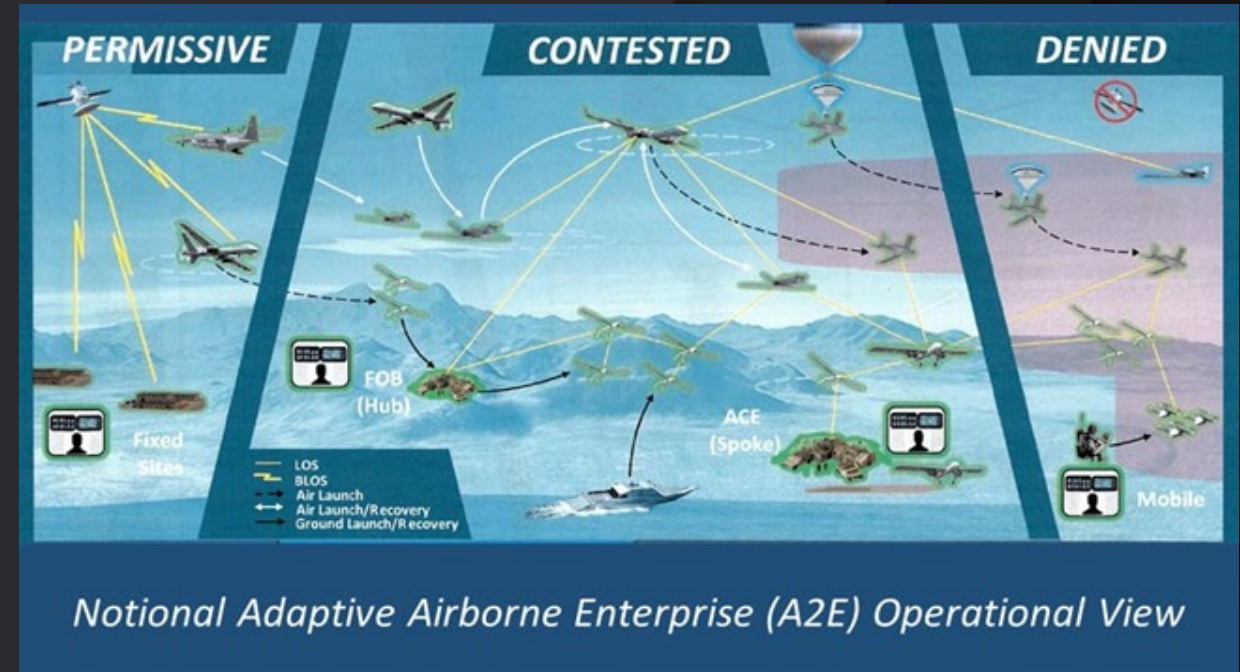
- Develop human-machine common control interfaces commanding a family of uncrewed and optionally-crewed systems
- Platform agnostic, interoperable systems leveraging autonomy, and launched effects

On-Going Efforts:

- Requirements development, open mission systems architecture, common control interface, legacy platform integration, initial development of evolutionary autonomy capabilities

Future:

- Increased autonomy, multi-aircraft control interface software, increased survivability, multi-domain operations, survivable air launched platforms, integration of varied UAS platforms, and continued development of system autonomy and sensors



Human Machine Interface: Software/hardware allowing multi-platform/multi-domain control

Autonomy: Continued mission command in contested and denied environments when connectivity is lost

Air Launched Platforms: Weapons system integration on legacy platforms and development of Grp 2/3 sUAS capabilities

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SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

PROGRAM EXECUTIVE OFFICE FIXED WING EMERGING TECHNOLOGIES

MR. DEREK DANIELS

TECH DIRECTOR



EMERGING TECHNOLOGIES

Accelerating SOF Capabilities: PEO-FW Seeks Rapidly Integrable Technologies

Candidate Technologies

Emphasis on TRL 3-5 concepts with clear SOF application and reasonable probability of future integration into one or more airborne platforms

- Mission Autonomy
- Long-Endurance Propulsion Systems
- Cyber Resilient Architectures / Alt-PNT
- Digital Interoperability
- Networked Systems
- High-Speed, Long-Range Strike
- Advanced Sensing & ISR Capabilities
- Signature Management
- Advanced Survivability
- Enhanced Logistics & Rapid Deployment
- Human-Machine Interface

Industry Challenge → Focused Concepts

Capability Pathfinders

Emphasis on TRL 5-7 technologies; funding and opportunities available to demonstrate one or more systems and accelerate development

- Mission Ops & F2T2EA
- AC/MC-130J Mission Autonomy
- Adaptive Airborne Environment (A2E)
- Cooperative R&D Agreements (CRADA)
- High-Speed Vertical Takeoff & Landing
- Aviation Engineering Analyses (AEA)
- Airborne Mission Network Architecture
- Battle Management System Maturation
- Auto Route Replanning & Threat Avoidance
- Emerging Technology Laboratory / JFTX

Industry Challenge → Clear Transition Path

Tech Insertion to SOF Platforms

Emphasis on TRL 7-9 systems, ready for prime-time—documented requirement and demand signal from operational community

- MC-130J Combat Talon III
- AC-130J Ghost rider
- OA-1K Skyraider II
- CV-22 Osprey
- MQ-9—Med-Altitude Long Endurance Tactical
- Silent Knight Radar
- Stand-Off Precision Guided Munition
- A2E System of Systems

Industry Challenge → Efficient Integration

PEO-FW Line of Effort 1: Mission Autonomy & Applied AI

PEO-FW Line of Effort 2: Precision Engagement & Survivability

PEO-FW Line of Effort 3: Next Gen Mobility & ISR

PEO-FW Line of Effort 4: Enabling Technologies

HUMANS ARE MORE IMPORTANT THAN HARDWARE



PEO FW – Recognized Acquisition Leaders

**Four-time DoW-level Packard Awards:
MC-130J, SOPGM – SGM & SCM, and OA-1K**

GHOST JUNIOR ACQUISITION DEPLOYMENT PROGRAM

- Created in 2007 – surge in SOF ISR requirements drove need for additional acquisition-operator teaming → *excellent opportunity for junior AF professionals*
- ‘First Gen’ GHOSTs validated the program’s value → enduring and evolving for 17+ years and 321+ GHOSTs
- Significant value/impact for SOCOM and Air Force (and now Space Force) Acquisitions



BATTLE MANAGEMENT SYSTEM (BMS)

Rapid Design. Integrated Solutions. Tactical Advantage.



OUR MISSION

BMS delivers **government-owned architectures & tactical solutions** enabling joint partners to win in **tomorrow's integrated battlespace**.



WHAT WE DO

Government developed and maintained software and hardware

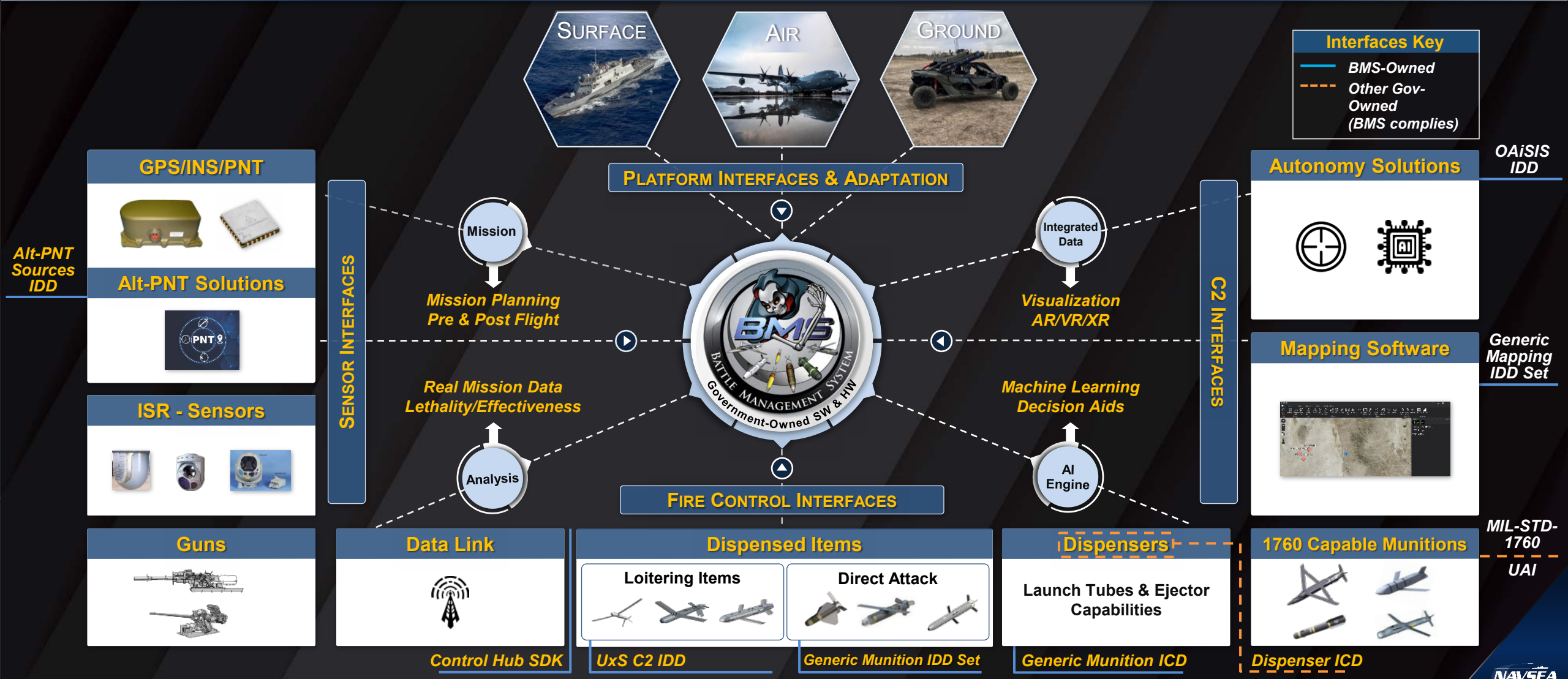
Scalable solutions based on platform or enterprise needs

Incorporating the latest technologies into fielded weapon systems



BMS OPEN ARCHITECTURE & CORE GOVERNMENT-OWNED INTERFACES

Developed by NSWCCD, BMS is a well-established DoW portfolio currently fielded on Manned & Unmanned military efforts supporting the USN, USMC, USAF & USA



Interfaces Key

- BMS-Owned
- - - Other Gov-Owned (BMS complies)

Alt-PNT Sources IDD

OASIS IDD

Generic Mapping IDD Set

MIL-STD-1760 UAI

Control Hub SDK

UxS C2 IDD

Generic Munition IDD Set

Generic Munition ICD

Dispenser ICD

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SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

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

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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>

