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SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

PROGRAM EXECUTIVE OFFICE FIXED WING OVERVIEW

COLONEL JUSTIN BRONDER

PROGRAM EXECUTIVE OFFICER, FIXED WING

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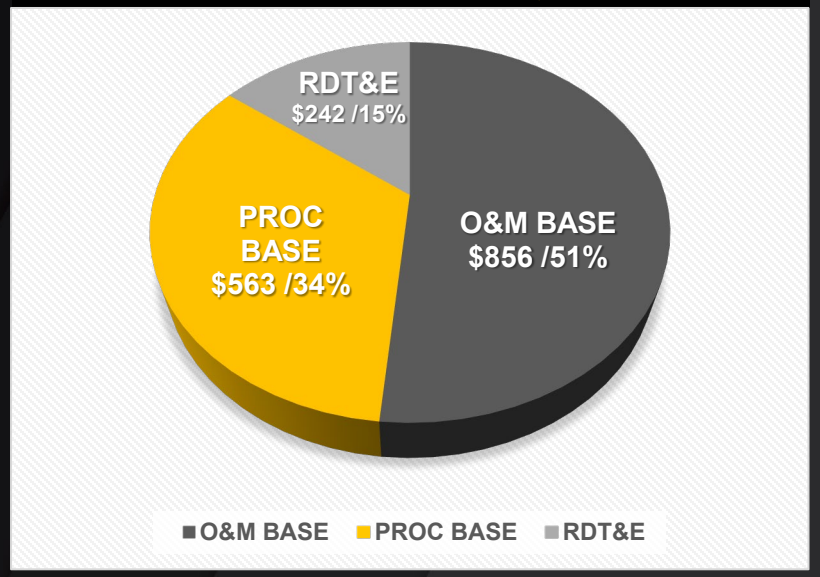
PEO FIXED WING ACQUISITION TEAM

- Strike Division
- Mobility Division
- Airborne ISR & Non-Standard Aviation Systems Division
- Silent Knight Radar / CV-22 Division
- Emerging Technology Division
- Technical Director
- Program Integration
- Finance
- Contracting
- Acquisition Logistics
- Test Support Detachment 1
- Deputy Program Executive Officer Mrs. Margaret McCaskey
- Program Executive Officer Col T. Justin Bronder

FW FY26 TOA $1,661M



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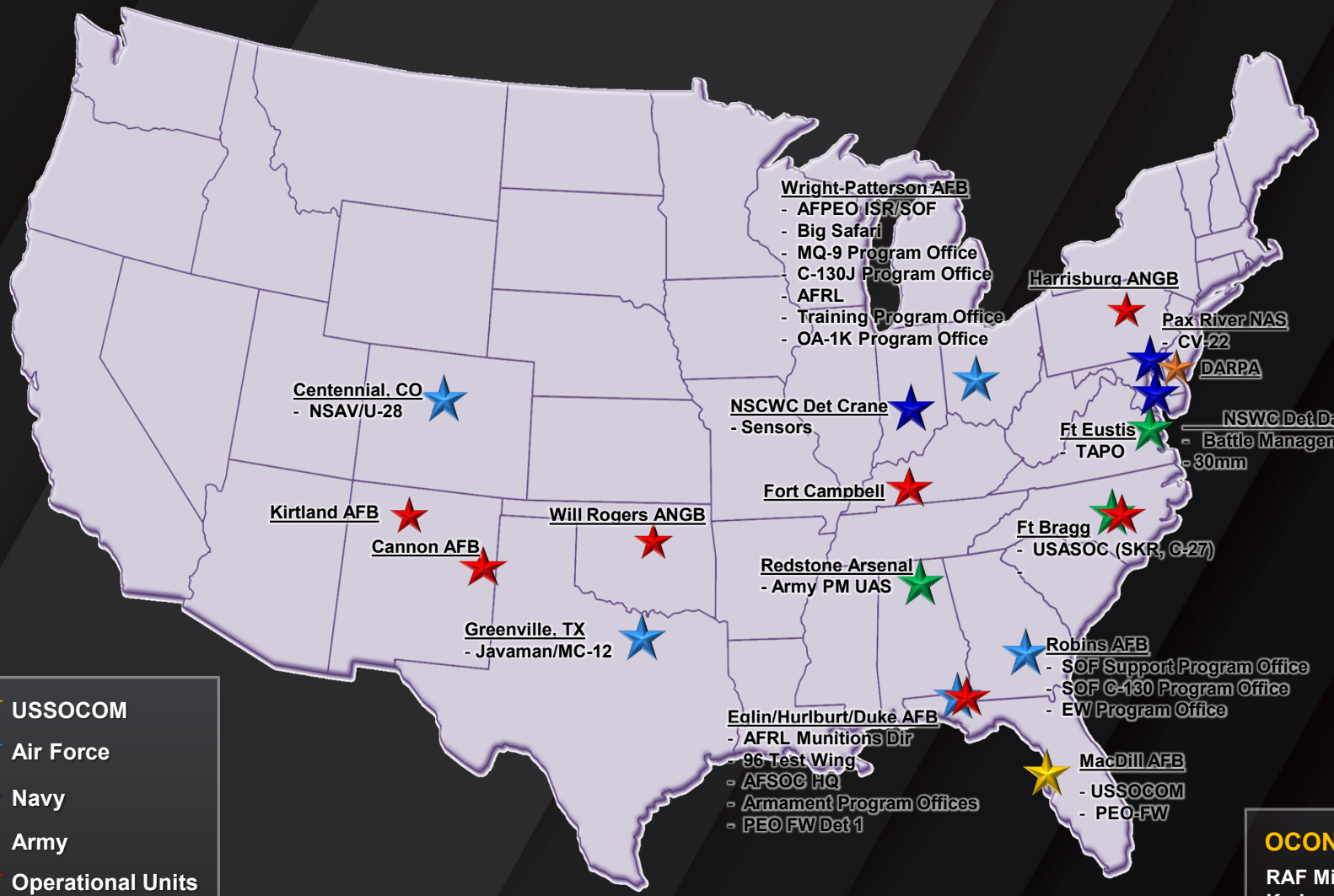
SPECIAL OPERATIONS AVIATION FW ENTERPRISE

PRIME INDUSTRY PARTNERS

GENERAL ATOMICS
L3HARRIS FAST. FORWARD.
LEONARDO
LOCKHEED MARTIN
NORTHROP GRUMMAN
PARRY LABS
Raytheon Technologies
Honeywell
SNC SIERRA NEVADA CORPORATION
leidos
TSC TECHNOLOGY SERVICE CORPORATION

Many Small Businesses



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

OCONUS

RAF Mildenhall UK
Kadena Air Base JPN
Yokota Air Base JPN

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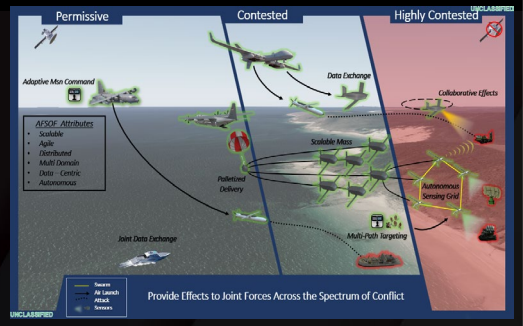
PROGRAM EXECUTIVE OFFICE FIXED WING (FW)

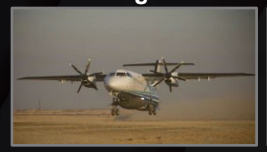
AISR / NSAS



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 Ghostrider

OA-1K Skyraider II

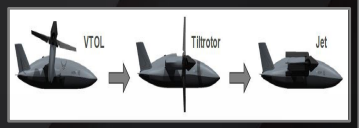
Stand Off Precision Guided Munitions (SOPGM)

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

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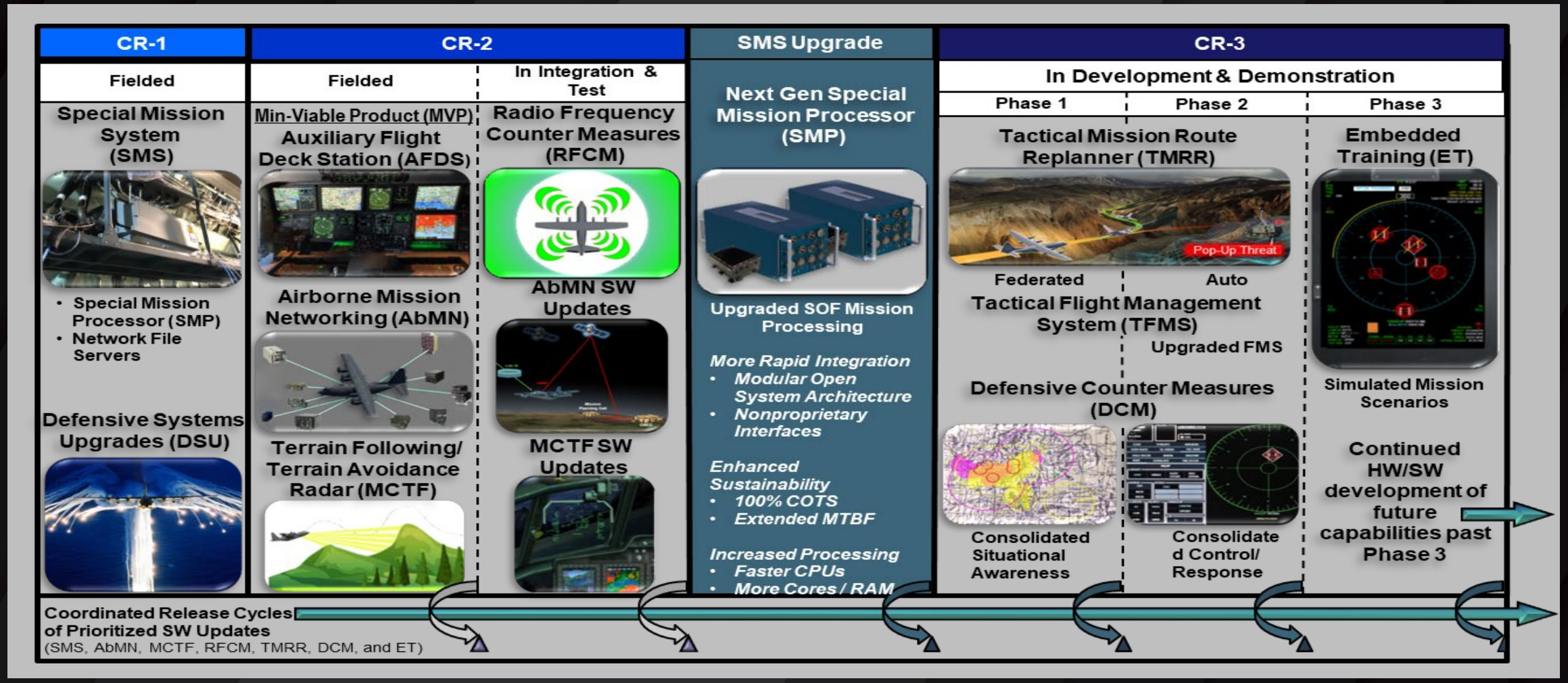
MC-130J

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.



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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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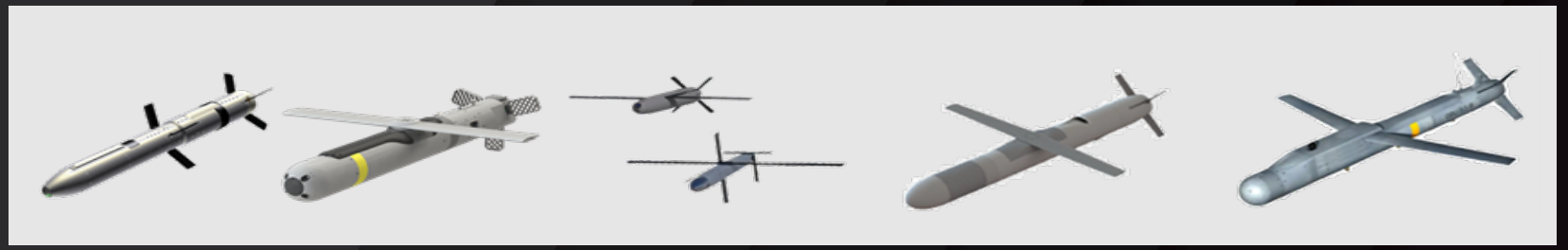
STRIKE PORTFOLIO

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

- **AC-130J Ghostrider**
  - 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



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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

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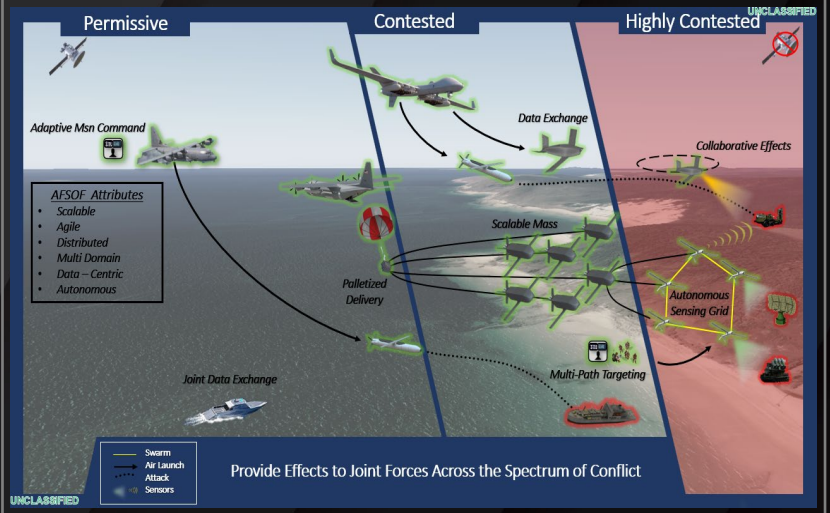
AIRBORNE ISR PORTFOLIO

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

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ADAPTIVE AIRBORNE ENTERPRISE (A2E)

Capability Description:

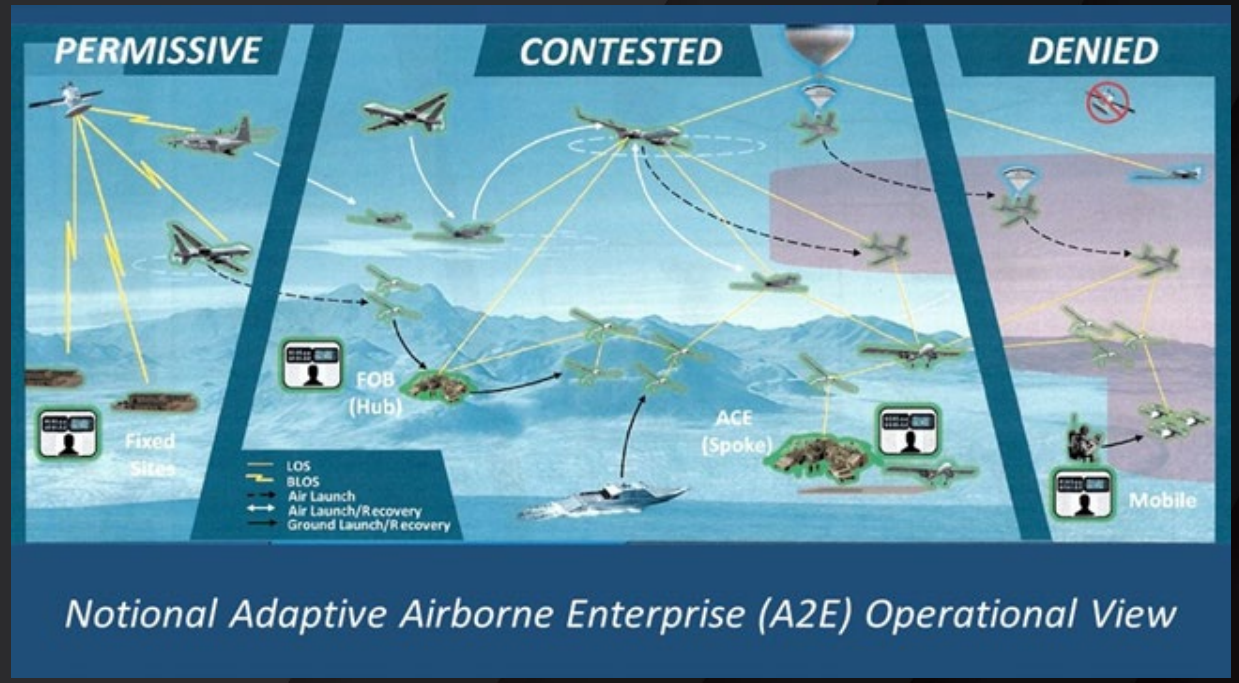
- Develop human-machine common control interfaces commanding a family of uncrewed and optionally-crewed systems
- Platform agnostic, interoperable systems leveraging autonomy, and launched effects

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



Notional Adaptive Airborne Enterprise (A2E) Operational View

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

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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 Ghostrider
- 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

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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

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BMS OPEN ARCHITECTURE & CORE GOVERNMENT-OWNED INTERFACES

Developed by NSWCDD, 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)*

PLATFORM INTERFACES & ADAPTATION

GPS/INS/PNT

Alt-PNT Sources IDD

Alt-PNT Solutions

ISR - Sensors

SENSOR INTERFACES

Mission

Mission Planning Pre & Post Flight

Real Mission Data Lethality/Effectiveness

Analysis

Integrated Data

Visualization AR/VR/XR

Machine Learning Decision Aids

AI Engine

C2 INTERFACES

Autonomy Solutions

OAiSIS IDD

Mapping Software

Generic Mapping IDD Set

FIRE CONTROL INTERFACES

Guns

Data Link

Control Hub SDK

Dispensed Items

Loitering Items

UxS C2 IDD

Direct Attack

Generic Munition IDD Set

Dispensers

Launch Tubes & Ejector Capabilities

Generic Munition ICD

1760 Capable Munitions

MIL-STD-1760

UAI

Dispenser ICD

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
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