Program Executive Office Fixed Wing (FW)

**ISR - FIND**
- MQ-1C Gray Eagle
- MQ-9 Reaper
- EOTACS
- MTUAS
- MEUAS 3.0
- JAVAMAN
- MC-12W
- U-28A/PC-12

**MOBILITY - INFILTRATE**
- CV-22 Osprey
- EC-130J Commando Solo
- C-146A Wolfhound
- C-145A Skytruck
- MC-130H Talon II

**STRIKE - FINISH**
- MQ-9 Reaper
- MQ-1C Gray Eagle
- AC-130U Spooky
- AC-130W Stinger II
- AC-130J Ghostrider
- Stand Off Precision Guided Munitions

**TECHNOLOGY INSERTION**
- Sensors
- Mission Automation
- Survivability
- Kinetic Effects / DE

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Acquisition Support Enterprise
PEO-FW CY19 Execution Priorities

• Accelerate capabilities to the field to meet current and future fight

• Improve overall adaptability and affordability throughout system lifecycle

• Aggressively identify, leverage and implement new technology and new ways of using current technology
Airborne Intel, Surveillance, and Recon (AISR)

- SAFC
- EOTACS
- MEUAS
- MTUAS/G3UAS
- MALET
- Manned
Special Applications for Contingencies (SAFC)

• **Capability Description:** Develops and integrates Group 1-3 UAS technology and payloads

• **On-Going Efforts:** Multiple payload/platform improvements

• **Future:**
  – Reduced size, weight, power
  – Reduced operator in the loop
  – Standardized architecture and interfaces
  – Multiple UAS’s working a common mission
Small UAS (SUAS)/ Expeditionary Organic Tactical Airborne ISR Capability (EOTACS)

- **Capability Description:**
  Tactical ISR

- **On-Going Efforts:** Payload modification

- **Future:**
  - Common GCS
  - Reduced launch/recovery footprint
  - Autonomy
Group 3/Medium Endurance/Multi-Mission Tactical UAS (G3UAS/MEUAS/MTUAS)

- **Capability Description:**
  Provide ISR

- **On-Going Efforts:**
  - GPS Hardening
  - Reduced deployed footprint
  - Modularity/Commonality

- **Future:**
  - Beyond Line of Sight (BLOS) / Tactical Common Data Link
  - Signature Reduction
  - Alternate Precision Navigation & Timing
Medium Altitude Long Endurance Tactical

• **Capability Description:**
  Provide tactical ISR

• **On-Going Efforts:**
  – Common software with USAF
  – Enhanced sensors
  – GPS hardening

• **Future:**
  • Airborne mission networking
  • Signature reduction
  • Precision guided munitions integration
  • Human Machine Interface (HMI) improvements
**Manned ISR**

- **Capability Description:** Provide Tactical Airborne Intelligence, Surveillance, and Reconnaissance (ISR)

- **On-Going Efforts:**
  - Sensor upgrades
  - Remote SIGINT operation
  - GPS-hardening

- **Future:**
  - Increased comms bandwidth / data transport
  - Alternate Precision, Navigation, & Timing
SOF C-130s, CV-22, and Mission Systems

- MC-130H
- MC-130J
- SMS
- Multi-Mode Radar
- CV-22
- EC-130J
- Color Helmet Mounted Display
- Low Cost Mod (Link 16)
MC-130 Recapitalization

- **Capability Description:** Modified C-130Js to Perform Low-level Infiltration/Exfiltration, Detect and Deny Radio Frequency (RF) Threats, Airdrop, Resupply and In-Flight Refueling

- **On-Going Efforts:** RF Countermeasures (RFCM), Terrain Following (TF) Radar and Airborne Mission Networking (AbMN)

- **Future:**
  - Automated route re-planning
  - Size, weight, and power reduction
  - EW enhancements
C-130 Modifications

- **Capability Description:** Sustainment Mods to improve reliability and maintainability

- **On-Going Efforts:** Avionics upgrades, structural improvements

- **Future:**
  - Emergency equipment bins
  - Light-weight armor
CV-22B Osprey

• **Capability Description:** Provides Long Range, High Speed, All-Weather, Infil/Exfil, and Resupply of Teams in Hostile, Denied, and Politically Sensitive Areas in a Single Period of Darkness

• **On-Going Efforts:**
  – Terrain Following/Terrain Avoidance radar
  – Color Helmet Mounted Display
  – Suite of Integrated RF Countermeasures (SIRFC) upgrades

• **Future:** Forward defense weapons system
NSAv and AvFID

• **Capability Description:** Non-Standard Aviation (NSAv) supports worldwide Special Operations Force Tactical/Strategic missions. Aviation Foreign Internal Defense (AvFID) provides Combat Aviation Advisor (CAA) proficiency in preparation for Partner Nation training in Special Operations Force Techniques, Tactics & Procedures

• **On-Going Efforts:** Cockpit, communication and cabin upgrades

• **Future:** Continued avionic obsolescence avoidance and compliance
Integrated Strike Programs

- Small Diameter Bomb
- Hellfire Variants
- Small Glide Munitions
- Mission Operator Pallet
- 105mm Cannon
- 30mm Gun
- Common Launch Tube

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AC-130W/J

• **Capability Description:** Modified MC-130J with a Precision Strike Package (PSP) to deliver Close Air Support (CAS) and Air Interdiction (AI) missions

• **On-Going Efforts:**
  – GPS-Hardened Mission Operator Pallet
  – Upgraded Electro Optical/Infrared (EO/IR) Sensor

• **Future:**
  – Improved Defensive Systems
  – Improved Crew Situational Awareness
  – Infrared (IR) Suppression
  – All-Weather Sensors and Radio Frequency Countermeasures
Stand Off Precision Guided Munitions

- **Capability Description:** Procure and Develop Stand-Off Precision Guided Munitions

- **On-Going Efforts:**
  - Data link integration
  - Composite warheads
  - Selectable effects

- **Future:**
  - Guided ammunition
  - Post-launch selectable effects
  - Autonomous/synchronized targeting
  - Next-generation guidance sensors

- **Small Glide Munition (SGM)**
- **Griffin Missile**
- **Laser Small Diameter Bomb**

**Common Launch Tube (CLT)**
- Employs Griffin and SGM
FW Technology Insertion Process and Enablers

Lab Capabilities

User Requirements

PEO-FW Tech Insertion
Identify Innovative Solutions

Tech Insertion Roadmaps

POM & Budget

Industry Engagement

Fiscal Year Priorities
Funding
PM Tracking
Contract Vehicle
Schedule
Technology maturation

Transition

Capability Collaboration Events

Contracts / Agreements

Cougar Demo Platform

Funding Resources

BAAs

OTAs

CRADAs

SBIR

JCTD

Eng Analysis

RIF
AC-130J High Energy Laser

- **Objective:** Demo a Precise Airborne Low Kinetic Weapon System Capable of Ground Based Scalable Effects

- **HEL Development Approach:**
  - Perform Risk Reduction at low power levels
  - Identify “best of breed” sub-systems
  - Inform DoD on Performance of Airborne Electric High Energy Lasers
QUESTIONS?