EXPANDING THE COMPETITIVE SPACE
SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

Col Melissa Johnson, Program Executive Officer
FIXED WING
Program Executive Office Fixed Wing (FW)

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TECHNOLOGY INSERTION

- Sensors
- Mission Automation
- Survivability
- Kinetic Effects / DE
PEO-FW CY20 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)
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

- T-20 Jump
- MQ-27 Scan Eagle
- RQ-21 Black Jack
- Aerosonde
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 Mobility Programs

Common Mission Systems

MC-130J

CV-22

EC-130J

Training Systems
**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 in contested environments.

- **On-Going Efforts:**
  - Terrain Following Radar Integration and Automated Route Re-planner
  - Airborne Mission Networking
  - Radio Frequency Countermeasures
  - Open Mission Systems (OMS) Integration
  - Special Mission Processor Tech Refresh
  - Cloud-based Mission System Integration

- **Future:**
  - Automated Mission Systems Functionality for Joint All-Domain Operations
C-130 Modifications

- **Capability Description:** Perform Sustainment Mods to Improve Aircraft Reliability and Maintainability, Correct Deficiencies, Address Obsolescence, Incorporate Mission Enhancements, and Critical Safety Changes

- **On-Going Efforts:**
  - Paratroop Doors Light Weight Armor
  - Joint Threat Warning System-Air Rack
  - Avionics Upgrades and GPS Hardening

- **Future:**
  - Loadmaster Signal Lights
  - OMS Software Capabilities
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 Radar Integration
  - Full-azimuth Defensive Weapon System
  - Color Helmet Mounted Display
  - Radio Frequency Countermeasures Upgrades

- **Future:**
  - Airborne Mission Networking
  - Automated Mission Systems Functionality for Joint All-Domain Operations
Integrated Strike Programs

- Small Diameter Bomb
- Hellfire Variants
- Small Glide Munitions
- GRIFFIN
- Mission Operator Pallet
- 105mm Cannon
- 30mm Gun
- Common Launch Tube
**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:**
  - Improved Defensive Systems
  - Infrared Suppression
  - GPS-Hardened Mission Operator Pallet
  - Upgraded Electro Optical/Infrared (EO/IR) Sensor

- **Future:**
  - Improved Crew Situational Awareness
  - 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:**
  - Autonomous/Synchronized Targeting
  - Data link integration
  - Composite warheads
  - Selectable effects

- **Future:**
  - Post-Launch selectable effects
  - Next-generation guidance sensors

[Images of Griffin Missile, Small Glide Munition (SGM), Laser Small Diameter Bomb, and Common Launch Tube (CLT)]

- Employs Griffin and SGM
**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
FW Tech Insertion & NSAS Programs

Sensors

Survivability

Mission Automation

Kinetic Effects

C-146A Wolf Hound

C-145A Sky Truck

C-208 Caravan
**Special Applications for Contingencies**

- **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
**NSAv**

- **Capability Description:** Non-Standard Aviation (NSAv) supports worldwide Special Operations Force Tactical/Strategic missions.

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

- **Future:** Continued avionic obsolescence avoidance and compliance

- **Challenges:** Maintaining civil aviation compliance in an obsolescence environment
AvFID

• **Capability Description**: Aviation Foreign Internal Defense (AvFID) provides Combat Aviation Advisor proficiency in preparation for Partner Nation training in Special Operations Force Techniques, Tactics & Procedures (TTP)

• **On-Going Efforts**: Platform upgrades and munitions testing

• **Future**: Avionic obsolescence avoidance and TTP refinement

• **Challenges**: Maintaining civil aviation compliance in an obsolescence environment
QUESTIONS?