



PM AMSA Overview

COL Johnathan B. Frasier

Project Manager, Aviation Mission Systems and Architecture

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PEO Aviation Organization



Program Executive Office Aviation



Apache



Unmanned
Aerial Systems



Advanced
Turbine Engines



Future Attack
Reconnaissance
Aircraft



Future
Long Range
Assault Aircraft



Utility



Cargo



Fixed Wing



Multi-National
Aviation



Assured Airspace
Access Systems
(A3S)



Aerial Communications
& Mission Command
(ACMC)



Aviation Architecture
& Environment Exploitation
(A2E2)



Aviation Ground
Support Equipment
(AGSE)



PM Aviation Systems Transformation



- PM Air Traffic Control → • PM Assured Airspace Access Systems
- PM Aviation Mission Equipment → • PM Aerial Communications and Mission Command
- PM Degraded Visual Environment → • PM Aviation Architecture and Environment Exploitation
- PM Aviation Ground Support Equipment

PM AMSA focused on delivering Multi-Domain Operations Capability



AMSA Organization



COL John Frasier
Project Manager

MISSION:

Design, Develop, and Deliver Advanced Aviation Technologies that Provide Soldiers an Overmatching Operational Advantage

VISION:

Enable the Aviation Enterprise to Win Today and Tomorrow in a Unified Networked Operational Environment



Mr. Art Medellin
Deputy Project Manager



Mr. Matthew S. Bentley
Business Management
Division Chief



Mr. Anthony L. Samuels
Logistics Management
Division Chief



Mr. John Van Houten
Technical Management
Division Chief

ASSURED AIRSPACE ACCESS SYSTEMS (A3S)



LTC Adam B. Moodie
Product Manager

AERIAL COMMUNICATIONS & MISSION COMMAND (ACMC)



Mr. Gerry R. Cox
Product Manager

AVIATION ARCHITECTURE & ENVIRONMENT EXPLOITATION (A2E2)



LTC John D. Seitz
Product Manager

AVIATION GROUND SUPPORT EQUIPMENT (AGSE)



Mr. Stephen M. Roberts
Product Director



Mr. George O'Boyle
Deputy
Product Manager



Ms. Carson L. Wakefield
Deputy
Product Manager



Mr. Ray L. Scarborough
Deputy
Product Manager



Mr. Samuel E. Lamb
Deputy
Product Director



AMSA Scope



- **53 distinct Product lines, \$326M FY21 Annual Budget, Over 1,409 Fieldings in FY20**
- **Provide common commodities to Aviation Enterprise**
 - Communication, Networking, Planning, Mission Command, Mission Processing, APNT, AGSE, ATC
- **Enable Multi-Domain Operations by providing capabilities for the Enduring Fleet**
- **Provide risk reduction by providing capabilities for the Future Fleet**
- **Serve as PEO primary touchpoint to:**
 - APNT CFT
 - Network CFT
 - JADC2 CFT
 - Mission Command GOSC
 - Airspace Control
 - National Airspace Inter-Agency Working Group



AMSA Portfolio

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Aviation Mission Common Server

IDM-401

304B

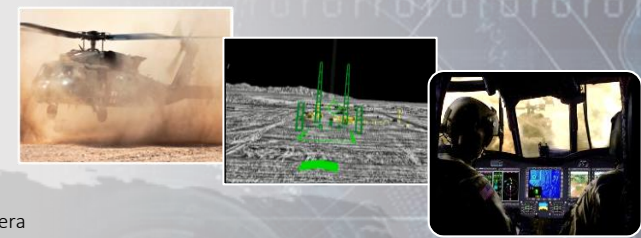
Improved Data Modem (IDM)

Synthetic Vision Avionics Backbone (SVAB)

Control Head

LiDAR

IR Camera



Aviation Architecture & Environment Exploitation

Tactical Airspace Integration System (TAIS) AN/TSQ-221

TAIS Airspace Workstation AN/FSQ-211 (AWS)

Doppler GPS Navigation System (DGNS) w/ GPS P31

Blue Force Tracking Avn 2 (BFT-2)/3

Embedded GPS Inertial Navigation (EGI)

Air Traffic Navigation, Integration Coordination System (ATNAVICS)

Mobile Tower System (MOTS)

Tactical Terminal Control System (TTCS)

DoD Advanced Automation System (DAAS) Product Improvement

EAGLE-M

Interim Voice Switch Replacement (IVSR)

Air Traffic Control Common Simulator (ACS)

Radio Replacement Program (RRP)

Fixed Base Precision Approach Radar (FBPAR) AN/FPN-67

7A Tactical Tower (Divesting)

Non-Directional Beacon (NDB) (Divesting)

Doppler Very High Frequency Omni-Directional Range (DVOR) w/DME

Instrument Landing System (ILS) w/ DME

Army Airfield Automation System (AAAS)

Digital Airport Surveillance Radar (DASR)

Assured Airspace Access Systems

Aviation Mission Planning System (AMPS)

FliteScene® Digital Map

Centralized Aviation Flight Records System (CAFRS)

Self-Propelled Crane, Aircraft Maintenance & Positioning II (SCAMP II)

Auxiliary Ground Power Unit (AGPU)

Flexible Engine Diagnostic System (FEDS)

Shop Equipment Contact Maintenance (SECM)

Avn Light Utility Mobile Maintenance Cart (ALUMMC)

Generic Aircraft Nitrogen Generator (GANG)

New Avn Tool Set II (NATS II) / Avn Foot Locker (AFL)

Non-Destructive Test Equipment (NDTE)

Pitot Static Test Set (PSTS)

Tool Set, Avn Unit Maintenance: No.2 Airmobile-Enhanced

Avn Intermediate Maintenance Shop Set (AVIM SS)

Digital Aircraft Weighing Station (DAWS)

Avn Vibration Analyzer (AVA)

Multi-Mode Avn Radio System (AN/ARC-231) (MARS)

Single Channel Ground & Airborne Radio System (SINCGARS) AN/ARC-201D

AN/ARC-220 HF Radio

Fuel Quantity Test Set (FQTS)

Battle Damage Assess & Repair System (BDAR)

Unit Maintenance Aerial Recovery Kit (UMARK)

AGNR Integration

Aviation Ground Support Equipment

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Aerial Communications & Mission Command



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Assured Positioning Navigation & Timing

- **Aviation APNT Strategy focused on PACE plan**

- Embedded Global Positioning Service (GPS) Inertial EAGLE-M (EGI)
- Multi-platform Anti-Jam GPS Navigation Antenna (MAGNA)
- Resilient Software Assurance Modifications (RSAM)
- Alternate PNT Capability



Multi-platform Anti-Jam GPS
Navigation Antenna
(MAGNA)



Embedded GPS Inertial
Navigation (EGI)



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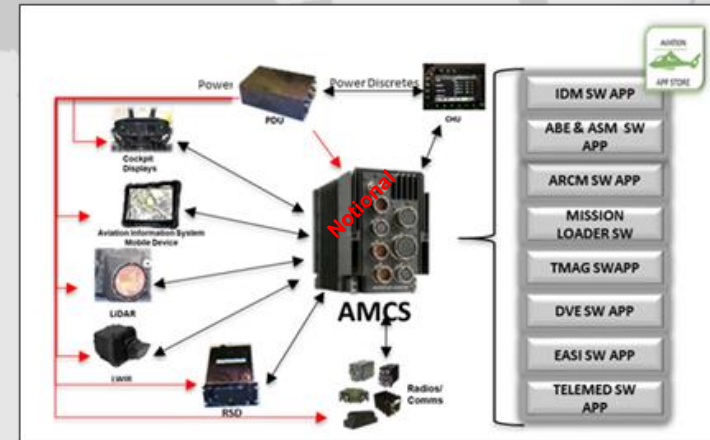


Aviation Mission Common Server

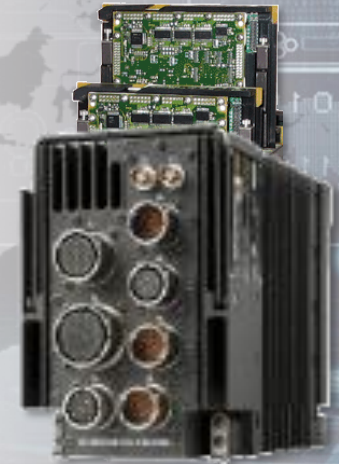


- **Aviation Mission Common Server (AMCS)**

- Modular avionics server with a distributive architecture that enables the ability to rapidly host software applications for various capabilities (i.e. sensor fusion, AI, cyber protection, etc).
- Provides the mission processing and integration of advanced communications needed for Joint All-Domain Operations
- Provides Army Aviation an Open System Architecture (OSA) digital backbone with Future Airborne Capability Environment (FACETM) Interfaces
- Facilitates the exploitation of native platform and platform sensor/weapon system data



AMCS





Air to Ground Networking Radio (AGNR)



- **Air to Ground Networking Radio (AGNR)**

- Multi-band, multi-mode two-channel ground radio system to provide VHF/FM, SINCGARS, TSM, and MUOS
- Replaces ARC-201D legacy radio
- Provides voice, data and advanced network communications to warfighter
- Brings modernized Crypto
- Utilizing new Aviation Mission Common Server to control radio

Prime Contractors:

Harris Corp, Rochester, NY
Collins Aerospace, Charlotte, NC



PRC-162 Manpack



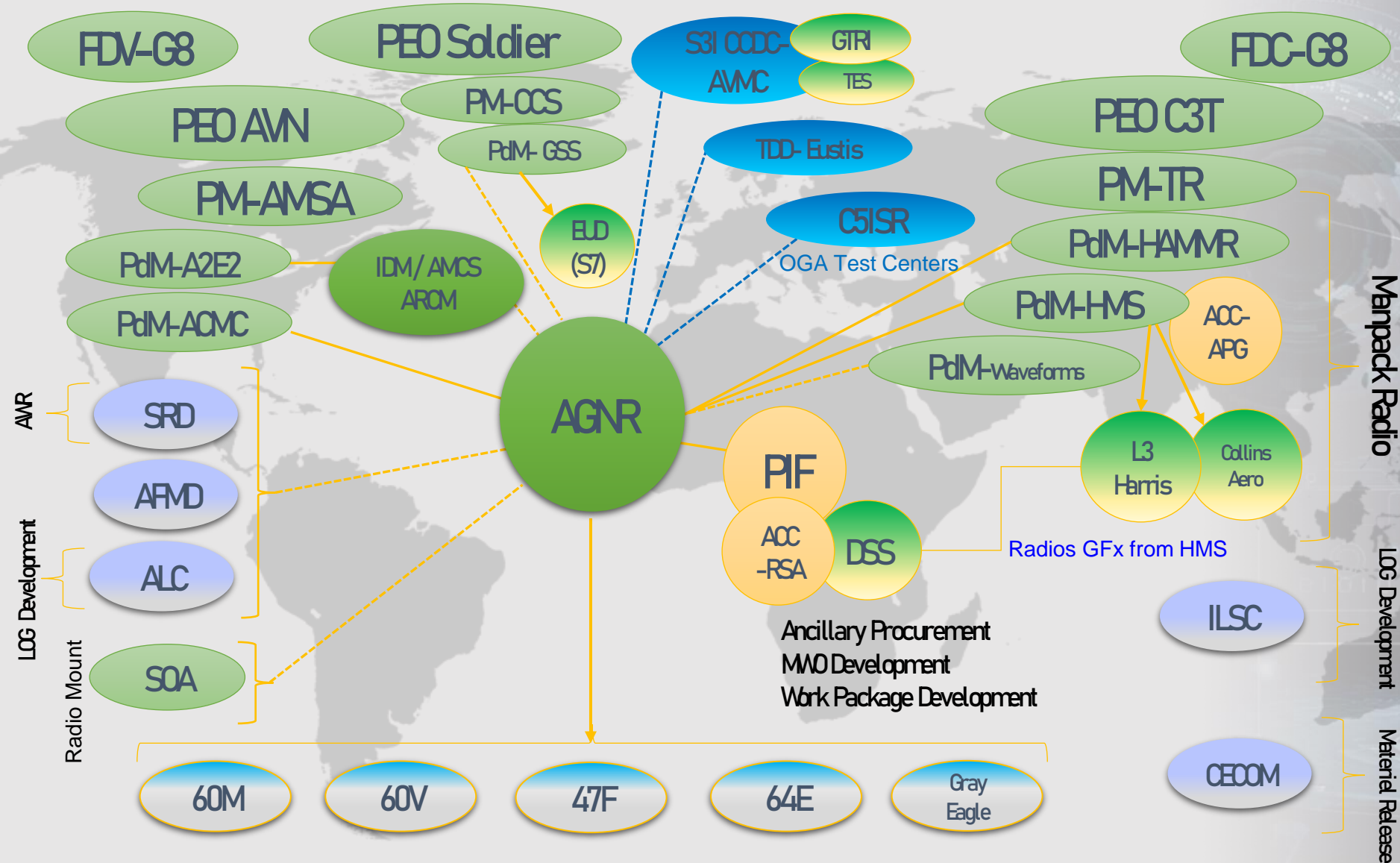
PRC-158 Manpack



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AGNR Stakeholder Diagram



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Integrated Mission Planning and Airspace Control Tools (IMPACT)

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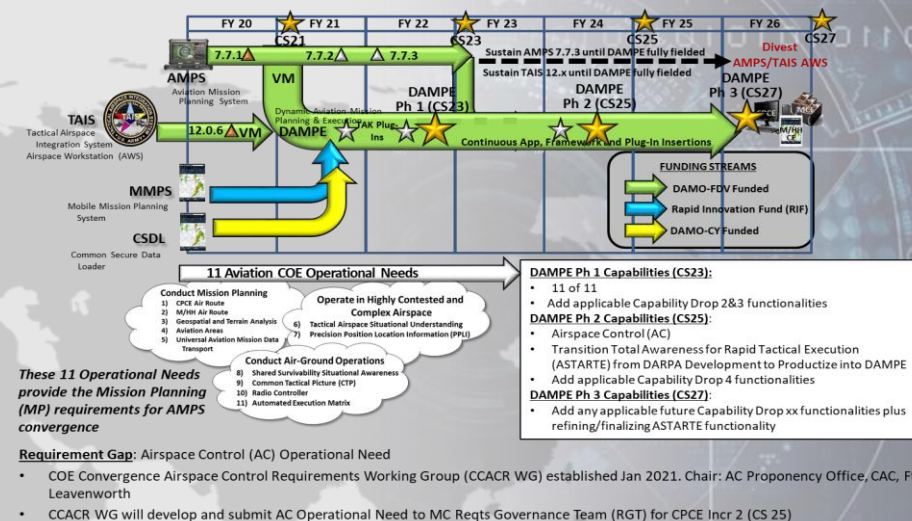
• TAIS Software

- TAIS is a software-centric mission command system for automated Airspace Control (AC), and enroute Air Traffic Services (ATS) for Corps, Divisions and ATS companies.
- TAIS will evolve to facilitate Air Space Total Awareness for Rapid tactical Execution (ASTARTE) and Joint All Domain Command and Control (JADC2). Common Operating Environment (COE) Convergence of TAIS into the Dynamic Aviation Mission Planning and Execution (DAMPE) will be instantiated across Command Post and Mobile/Handheld Computing Environments (CEs).
- TAIS software was designed to meet both AC and ATS requirements.

• AMPS Software

- AMPS is a software-centric mission command system with dedicated hardware for pre-mission planning, risk assessment, transfer of mission data to aviation platforms, and post-mission analysis.
- AMPS provides connectivity to Army Mission Command Systems and will evolve to facilitate Joint All Domain Command and Control (JADC2). Common Operating Environment (COE) Convergence of AMPS, Mobile Mission Planning System (MMPS), and Common Secure Data Loader (CSDL) into Dynamic Aviation Mission Planning and Execution (DAMPE) will be instantiated across Command Post Computing Environment (CE), Mounted CE, and Mobile/Handheld CE.

IMPACT Path Forward



Getac X500 G2/G3 Ultra
Rugged Notebook

Core functions

- Route generation
- Performance planning
- Communications Planning
- Terrain Analysis
- Data Transfer
- Mission Rehearsal

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Key Stakeholders



- **DA (G-3/5/7, G4, G8)**
- **USAACE**
- **Futures Command**
 - FVL CFT
 - APNT CFT
 - Network CFT
 - JADC2 CFT
 - STE CFT
- **ASAALT**
 - PEO C3T
 - PEO Soldier
 - PEO IEWS
 - RCCTO
- **AMC**
 - AMCOM
 - CECOM
- **US Army Combined Arms Center**
- **FAA**
- **USAASA**

PM AMSA works across the Army Enterprise to enable
Interoperability and Convergence



Questions