AIR-1.0 Mission Statement

“Provide effective acquisition management across NAVAIR and Naval Aviation PEO’s by developing and providing a competent professional workforce, applying smartly designed policies, processes, toolsets and best practices to enable delivery of effective and suitable weapons systems to our customers today and into the future”
**AIR-1.0 Overview**

**ORGANIZATION**

- **Asst. Cmdr.**
- **Deputy Asst. Cmdr.**

**STAFF**

- CHIEF OF STAFF
- DEPLOYMENT CHAMPION
- DEPUTY FOR OPERATIONS
- HQ RESOURCES
- PROGRAM SUCCESS ORIENTATION TEAM LEAD

**APEO's**

- AIR-1.0
- AIR-2.0
- AIR-4.0
- AIR-5.0
- AIR-6.0
- AIR-7.8
- AIR-10.0
- AIR-11.0

**ACQ POLICY & PROCESS DEPT**

- AIR-1.1

**AV / SHIP INTN DEPT**

- AIR-1.2

**PM & PERSONNEL SUPPORT**

- AIR-1.3

**INTL PROGRAMS DEPT**

- AIR-1.4

**ACQ FORCE MGMT**

- AIR-1.5

**ENVIRO PROGRAMS DEPT**

- AIR-1.6

**NAVIGATION SYSTEMS**

- (ACE) PMA209

**AIR COMBAT ELEC (ACE) PMA209**

**MAD AIRCRAFT PMA228**

**ENGINEERING SYSTEMS PMA210**

**TRAINING SYSTEMS PMA200**

**SUPPORT EQUIPMENT PMA202**

**FUNDING DISTRIBUTION**

- **PRODUCT VS. SUPPORT**

  - PRODUCT: 83%
  - GOVT: 12%
  - CSS: 5%

**FY10 PLAN**

- **TOTAL $ MANAGED:** $1.26B

- **PROGRAMS ASSIGNED**
  - ACAT II (OR EQUIVALENT): 2
  - ACAT III: 4
  - ACAT IV: 9
  - ABBREVIATED ACQUISITION PROGRAMS: 73

- **PLANNED MAJOR EVENTS**
  - ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM IBR
  - FLIGHT DECK CRANIAL MS C
  - CH-46 LAIRCM DEPLOYMENT

- **CURRENT INITIATIVES**
  - AVIATION/SHIP INTEGRATION

**WORKFORCE**

**ASST. CMDR. PROGRAM OFFICE WORKFORCE:**

- 1,988 TOTAL GOVT* (CIV/ MIL) / CSS)
- FY10 PLANNED WORKYEARS

*DOES NOT INCLUDE STAFFING FOR 1.0 COMPETENCY FUNCTIONS

**UPDATED:** 3 June 2010
AIR1.0 Programs

**Support Equipment**
CAPT Fred Hepler

**H-46E/T58**
LtCol David Walsh

**Air Combat Electronics**
CAPT Tracy Barkhimer

**Aircrew Systems**
CAPT Roger Ligon

**Training Systems**
CAPT John Feeney

- PMW/A-170 $19.9M
- PMA-202 $100.7M
- PMA-260 $281.3M
- PMA-226 $27.6.0M
- PMA-209 $336M
- PMA-205 $310.6M

FY11 TOA $1.07B
• AIR1.0 PMAs use agile, Fleet prioritized, capability roadmap development processes to:
  - Identify potential technology maturation needs by capability element and product area.
  - Enable successful program investment decisions by DON.
  - Feed multi-service Common Capability Roadmaps through the Aviation Common Systems Board.
  - Coordinate requirements with T/M/S specific PMAs.
Aircrew Systems Technology

Gaps

- **Enhanced Visual Acuity Sensor Technology**
  - Aircrew mounted multi-wavelength digital sensors (e.g. NIR, SWIR, ...).
  - Applications to enhance pilot acuity in degraded visual conditions.

- **Advanced Battery Technology**
  - Smaller form-factor and longer life.
  - Aircrew survival radio bulk reduction.
  - Increasing use of aircrew mounted battery operated equipment.

- **Advanced Aircrew-Mounted Display Technology**
  - Miniature, high resolution digital displays (>2k x 2k pixel) for aircrew mounted applications. (e.g. digital goggles or HMDs).
  - Affordable HMD applications across all T/M/S for increased SA of flight parameters and cuing.

- **Hearing Conservation Technology**
  - Reduced-bulk technologies capable of exceeding 40 db noise attenuation with talk-through capability for aircrew and maintainer applications.

- **Fire Retardant Textile Design**
  - Affordable replacement for legacy Aramid fibers used in DoD flight clothing applications.
Trainer Technology Gaps

- **Visual Systems**
  - Fidelity and resolution
  - FOV/Masking techniques
  - Correlated database enhancements

- **Modeling**
  - Behaviors (intelligent entities - smart threats and teammates)
  - Environmental (improve fidelity, atmospheric, weather, and acoustics)
  - Threat systems and weapon models
  - Degradation models (comms and link)
  - Natural language processing and speech generation

- **Instructor Operator Stations and Debrief Systems**
  - Display and control design
  - Automated performance measurement, diagnosis, trend analysis, and readiness tracking

- **Motion**
  - Physiological and tactical performance research
  - Motion cueing - guidelines for implementing technologies (low cost alternatives)

- **Live, Virtual, and Constructive Interaction**
  - Fusion of real-time stimulation across platforms, fidelity, SAFs, and environments
• Ground Support Systems
  • Commercially available On-Board Diagnostic Equipment
  • Condition Based Maintenance and Workload Mgmt.
  • Wireless/Download real time status
  • Self-Aligning/Internal Calibration equipment (NCR)

• Automated Test Systems (ATS)
  • DoD Open Systems Framework
    • Joint service support, Fleet efficiencies (SmartTPS, Directed Test), Fleet Engineering Investigation (EI) support, data collection and analysis, classified processing
  • Net centric data environment for Fleet and Engineering
  • Early Identification and mapping of emerging weapon systems technology to test requirements
    • Comm. Bus architecture for ATE

• Technology Gaps
  • high bandwidth, low latency, real-time interaction
  • MAF
  • RESUL

• Level O-Level
  • I-Level

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**Avionics Technology Gaps**

NAVAIR Public Release 11-1470 Distribution Statement A
• Air Force leads GPS and NAVWAR technology development efforts for DoD

• Technology Gaps
  • Technologies that support maintaining good Positioning, Navigation, and Timing (PNT) during long periods of GPS denial
  • Vision Aiding/Terrain Aiding position technologies
  • An aircraft network timing unit with an atomic clock
  • Signals of opportunity navigation technologies development
Technology Insertion Mechanisms

• **Technology push**
  - New technology becomes available to improve performance or reduce size, weight, power consumption or cost

• **Technology pull/new requirement**
  - New or improved requirements that demand increased performance (new or existing systems)

• **Planned or unplanned obsolescence**
  - Existing system is no longer maintainable or economically feasible
AIR-1.0 Key Takeaways

• A Milestone Decision Authority (MDA) for multiple NAVAIR programs which provide excellent Small Business opportunities
• Has had a history of great successes while incorporating Small Businesses into program acquisition strategies
• Receptive to incorporating and championing SBIR technologies that can mitigate AIR-1.0 current and future programmatic challenges