



**Program Executive Office  
Command, Control, Communications,  
Computers and Intelligence (PEO C4I)**

# **Afloat Tactical Networks and CANES NDIA San Diego**

**November 2011  
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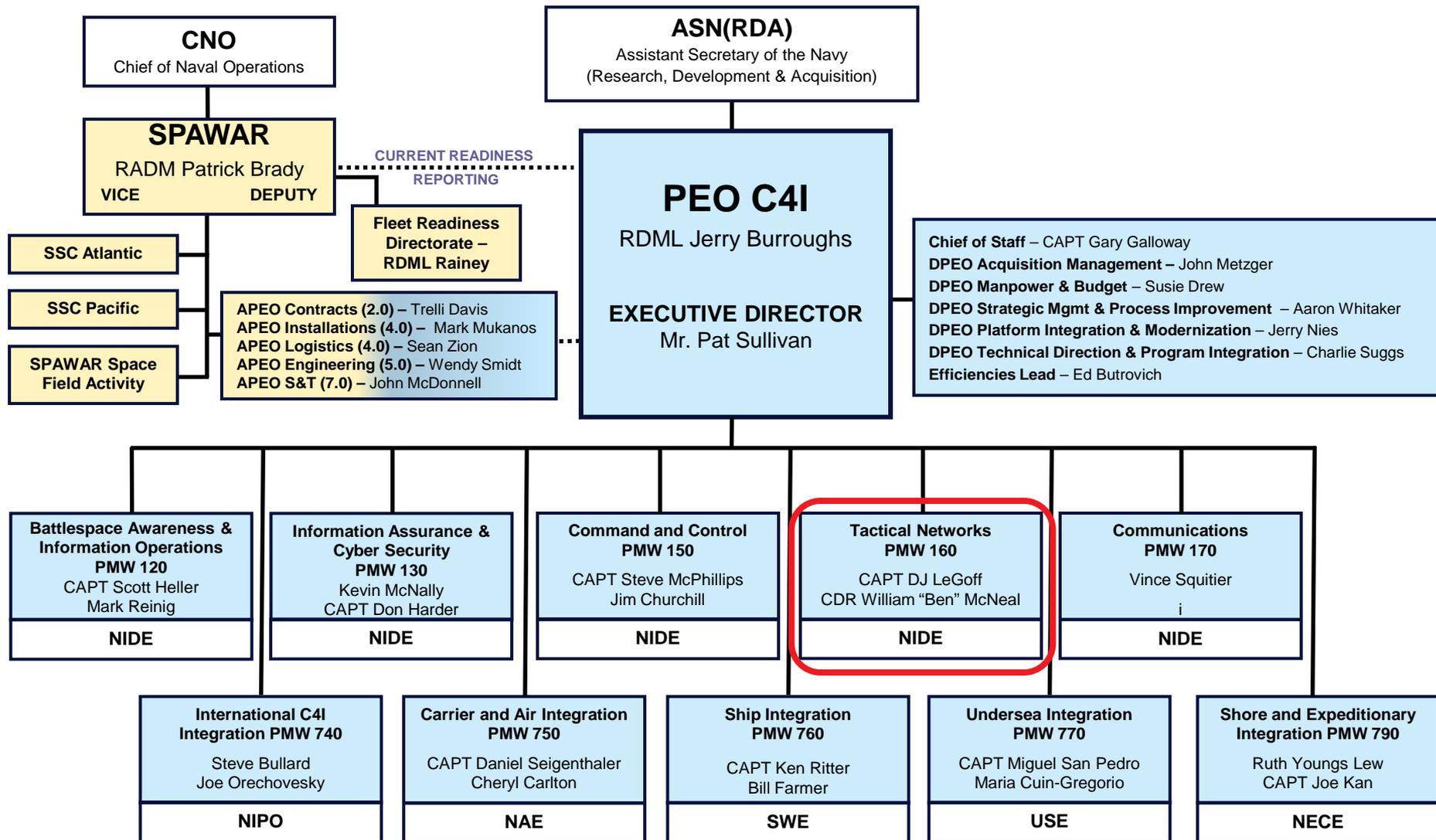
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***Information Dominance  
Anytime, Anywhere...***





# PEO C4I Organizational Structure





# Programs / Services



***We field and support C4I Tactical Networks Fleet-wide (LANs and WAN)  
Over 160,000 Afloat Network users  
Aircraft, ships and submarines  
Enables over 800 different applications***

## Network Systems

- Consolidated Afloat Networks and Enterprise Services (CANES)
- Integrated Shipboard Network System (ISNS)
- Submarine Local Area Networks (SubLAN)
- Combined Enterprise Regional Information Exchange System - Maritime (CENTRIXS-M)
- Sensitive Compartmented Information Networks (SCI Net)
- Patrol Coastal Network (PCNet)
- Maritime Operation Center Networks

## Network Services & Transport

- Automated Digital Network System (ADNS)
- Operating Environment
- Application Integration / Early Adopters
- Afloat Core Services (ACS)
- PC Workstations
- Wireless Reach Back System (WRBS)  
*(Transitioning to Fleet Readiness Directorate)*

***The LAN and WAN Program Office***



# PMW 160 at a Glance



**Government Workforce: 57**

**FY12 (OSD13) Total Obligation Authority - \$510M**

RDTE: \$22M  
OPN: \$448M  
OMN: \$40M

**FY13 (OSD13) Total Obligation Authority - \$511M**

RDTE: \$17M  
OPN: \$452M  
OMN: \$42M

**Programs and Projects – 9**

- 1 ACAT I AM
- 2 ACAT II
- 3 ACAT III
- 2 AAP
- 1 Project (pending)

**Installs by Execution Year 12: 280 Total**

- ADNS 35
- CANES 10
- CENTRIXS-M 28
- ISNS 103
- SCI NETWORKS 11
- SUBLAN 91
- WRBS 2

**Naval Networks Key Facts**

- 642 legacy network variants
- 300+ platforms
- Fielded on every ship in the inventory
- Over 380 software applications
- Average Time IOC to FOC:
  - CENTRIXS-M: 4 yrs
  - SCI : 6 yrs
  - SubLAN: 8 yrs
- Average Age of ISNS in the Fleet
  - CVN / Big Deck Amphib: 4.5 yrs
  - CRUDES / Amphib: 6 yrs
  - Subs (SubLAN): 6 yrs



# Transitioning the Afloat Network Environment



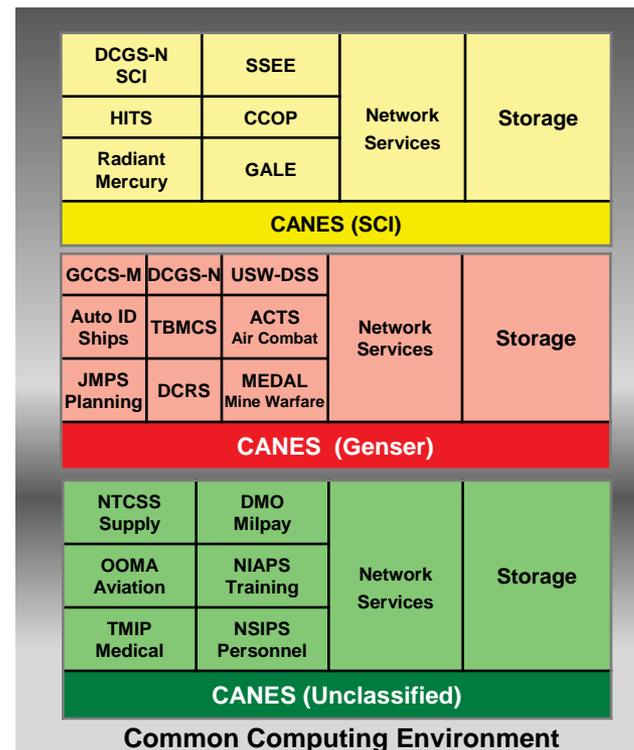
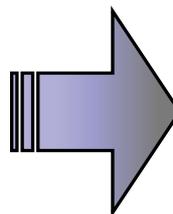
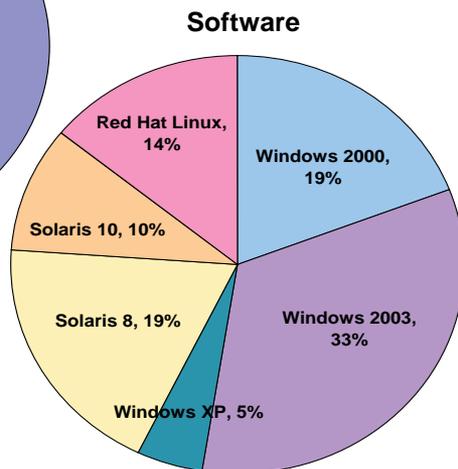
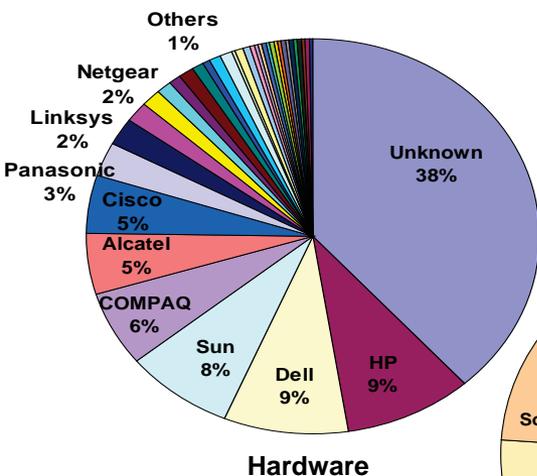
## Status Quo

- Multiple security vulnerabilities
- Multiple unique networks & h/w variants
- Multiple Operating Systems and versions
- Multiple protocols and legacy interfaces
- Inefficient use of server/storage resources

**Across multiple security enclaves**

## CANES

- Common Computing and Software Environment; Virtualization
- Cross Domain Solutions (CDS)
- Systems Management
- Technology Refresh





# CANES Overview

- Total Ownership Cost and Operational Relevance
  - Constant competition
  - Open architecture
  - Government owned data rights
  - Obsolescence and technology refresh
- CANES replaces existing shipboard network systems (ISNS, SCI Networks, CENTRIXS-M, SubLAN, VIXS)
  - CANES requirements derived from these programs
  - Mission Critical, MAC-1 derived from hosted applications
  - CANES replaces Legacy networks at a 4:1 ratio



# Realizing Consolidation in CANES



SCI Networks

CENTRIXS-M

ISNS

CANES

SubLAN

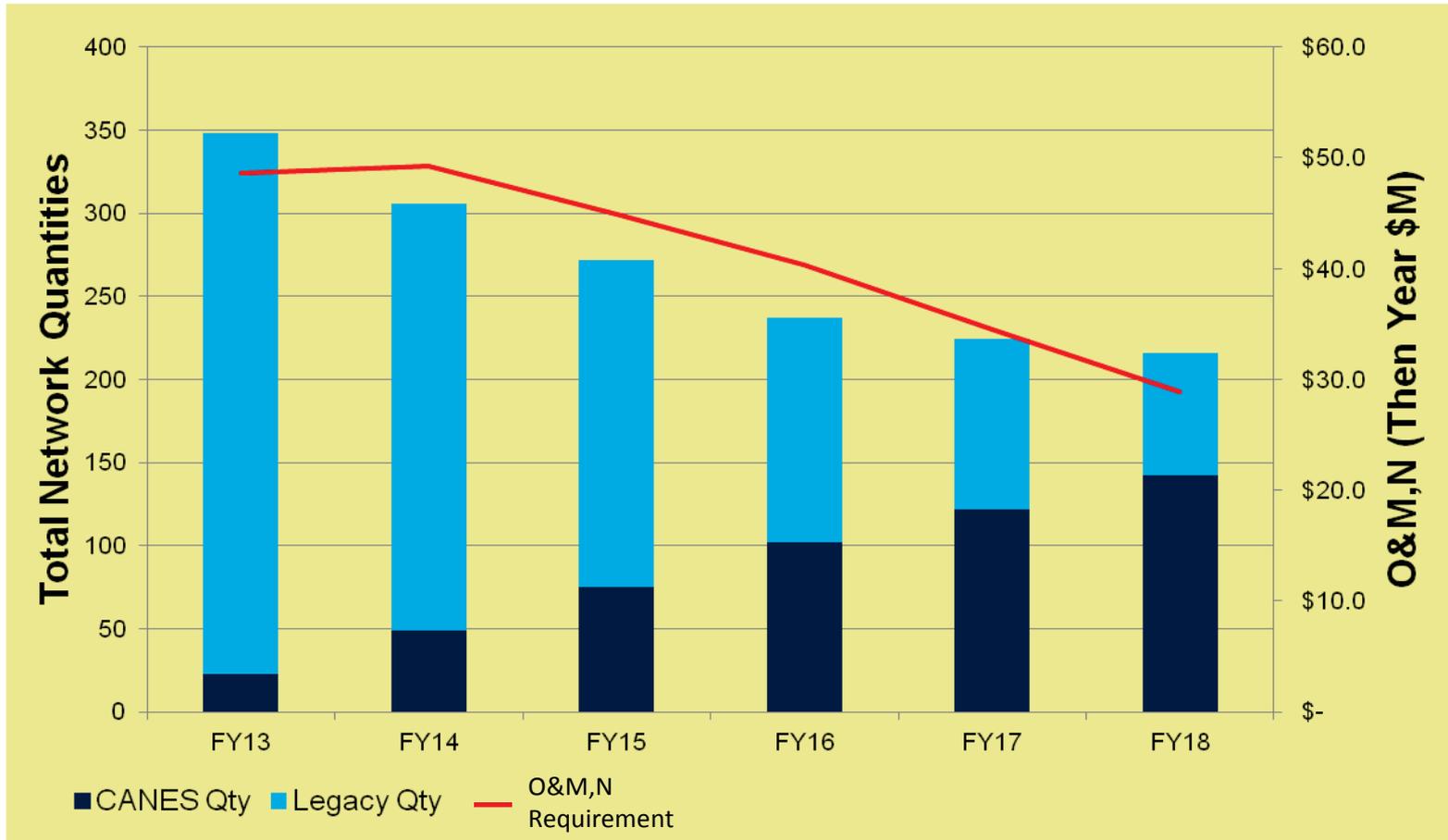
VIXS

ADNS

- OPN Other Direct Costs DCs reduced by almost 100 FTEs (a 27% reduction from FY11 to FY12)
  - Eliminated Redundant Support Infrastructure
  - Legacy Network Support “Sunsetting” and Consolidation of Activities ISO CANES Transition
  - Decreased Legacy Network Production Activity— most notably ISNS
  - Reduced Engineering Activities – ECRs/Design Changes



# Afloat Network Profile



***CANES consolidates 5 existing Afloat Network programs – 3x fewer baselines***



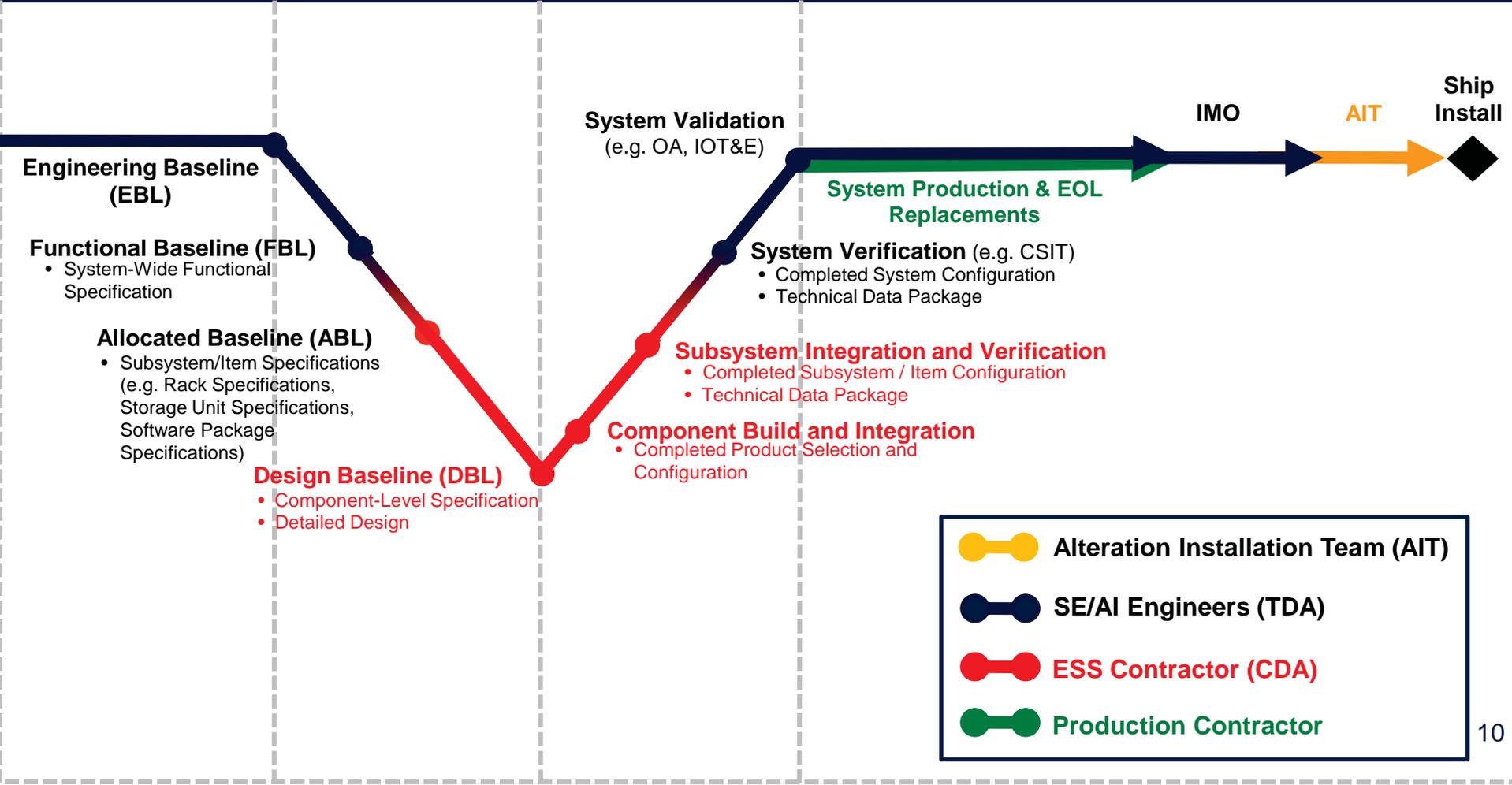


# Full Deployment Roles and Responsibilities



## System Engineering (SE) Phases

Capability Need Determination	Design	Build, Integrate, and Test	Produce, Install, and Sustain
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# CANES Acquisition / Contracting Next Steps



Acquisition Milestones	Estimated (Est.) Dates
EMD Contract Down-Select	Q2FY12
Operational Assessment	Q2FY12
Milestone C	Q3FY12
Full Deployment Decision	Q4FY13

Full Deployment Contracting Milestones	Estimated (Est.) Dates
Small Business Sources Sought / Request for Information (RFI)	February 2012
Industry Day	June 2012
Production Unit Contract RFP release	September 2012
Engineering Support Services (ESS) Contract RFP release	March 2013
Production Unit Contract Award	May 2013
ESS Contract Award	December 2013



# Managing ACAT I Program in Current Fiscal Environment



- Impacts of current fiscal Reality
  - CANES incurred ~5 month schedule delay due to FY11 Continuing Resolution (CR)
  - 10+ platforms unfunded over FYDP due to FY11 CR and Congressional Marks
  - ALT POM13 reduced program by \$120.1M
  - FY12 CRA Legislative Anomalies language submitted to execute program under FY12 CR
- Program Manager Priorities
  - Better Buying Power Initiatives
    - Target Affordability – increased cost discipline
    - Incentivize Productivity
    - Promote Competition
    - Reduce Bureaucracy



# Summary



- Revised program plan minimizes impacts, ensures technical maturity and maintains acquisition strategy
- Acquisition milestones still achievable within approved parameters and first CANES installation on DDG platform planned for late FY12
- CANES program still committed to maximize competition throughout program's lifecycle – two separate full and open competitions for Full Deployment (FD)
- CANES FD contracting strategy involves many moving parts – OCI concerns
- More details to be provided at CANES Industry Day; planned June 2012

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