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

PMW 760 Plan for C4I Capability Baselines to Achieve Cost and Schedule Efficiencies

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PMW 760 Overview
Ship Integration Program Office

- **New Construction (NEWCON) C4I**
  - Participating Acquisition Resource Manager (PARM) for C4I to PEO Ships, PEO LCS, and MDA
  - Deliver integrated and tested PEO C4I portfolio as part of overall ship acquisition

- **Modernization (MOD) C4I**
  - Plan C4I alteration installs into CNO and other avails
  - Integrate into NAVSEA “One Book” modernization planning efforts
  - Act as a source for Platform C4I Baseline Configuration Management
  - Transition planned alterations to SPAWAR Fleet Readiness Directorate (FRD) for installation
SPAWAR GOAL
ONE
Accelerate and Streamline Delivery of new capability and advanced technology to the Fleet to maintain U.S. technological superiority and to maximize warfighter advantage

SPAWAR OBJECTIVE
1.1
Decrease the number of deployed C4I configurations on DDGs

PEO C4I GOAL
ONE
Increase warfighting readiness through the improved development, testing, deployment, sustainment of, and training of C4I capabilities

PEO C4I OBJECTIVE
1.3
Deliver integrated, tested, and supported baselines for new and modernized capabilities

• PMW 760’s C4I Builds and Baselines effort:
  ➢ Provides the design, integration, testing, configuration management and training / ILS support for end-to-end modernized capabilities

*Partners in Reducing Variance in the Fleet*
C4I Baselines

Design and Integration “Wholeness” Efforts

- PMW 760 will instill System of Systems (SoS) engineering, testing, training, ILS and Configuration Management rigor into delivery of C4I Baselines

- SoS Systems Engineering Benefits
  - Reduced installation time and cost
  - Validated capability ISO integrated systems (e.g., combat systems)
  - Reduced variance in fielded baselines
  - Integrated and repeatable end-to-end tests
  - Timely and relevant end-to-end training
  - Increased Fleet reputation

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<tr>
<th>C4I Capability Baseline Target</th>
<th>Class</th>
<th>Date</th>
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<tbody>
<tr>
<td>DDG BMD Baseline 1.X</td>
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<td>LPD NEWCON Baseline</td>
<td>LPD 17 Class (NEWCON)</td>
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<tr>
<td>FF Baseline 1.X</td>
<td>FF 33 Class (NEWCON)</td>
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* GFE Delivery In-Line to NEWCON

- CSRR is the PEO C4I model for Platform PMW systems integration
- PEO IWS’s Advanced Capability Build (ACB) delivery is the model for AMOD (BL 9C.2) and AEGIS Ashore
- PMW 760 utilizing CSRR / ACB concepts for Platform C4I Design & Integration
- Pursuing Combat Systems engineering expertise to deliver C5I integrated solutions – IWS and MDA
Align PMW 760 with Standard Acquisition Philosophy

• Long Term (Strategic)
  ➢ Evaluate establishment of ACAT Program of Record for C4I Capability Baselines to support New Ship Construction and C4I Modernization

• Near Term
  ➢ Establish Configuration Management of SoS C4I Capability Baselines and Builds
    – Use existing configuration control structures, governance, and fielding strategies
    – Identify SW/HW, logical flow, and network configuration data in support of cybersecurity
  ➢ SoS Test and Evaluation strategy and plans
    – Pre-install (i.e., Developmental) Testing
    – SOVT
    – SOT
    – Total Ship C5I Interoperability Test (TSCIT); end-to-end SoS testing
  ➢ SoS Training
  ➢ Institute Life Cycle Support
    – Address seams for materials / systems used to complete or standardize the SoS C4I Capability Builds

Aligns to PEO C4I Strategic Objective 1.3 & SPAWAR Strategic Objective 1.1
C4I Baselines and Capability Builds

Systems Engineering Methodology

Concepts

Platform Operational Mission Requirements

Capability Requirements Decomposition

Allocation to Navy Technical Reference Model (NTRM)

Functionality Allocation to Program / System / Variant

Architecture, Interfaces & Integrated Design

CBR-I

Design Docs (i.e., E2E test, training, ILS)

CBR-D

Requirements & Design

Operations & Maintenance

SOT / TSCIT

Operational Mission Capability Training Verification

Shipboard Stage 7 End-to-End Test

Shipboard System SOVT Test

Pre-Install Verification Test (e.g., E2C, BTS, AIE)

CBR-R

Test & Validation
Fleet Benefits

• Opportunity for New Ship Construction to leverage C4I Modernization lessons learned and baseline approach
• Validated capability ISO combat systems (e.g. Aegis B/L 9.C2)
• Migrate to C5I approach for test and integration
• Increased cost efficiencies gained through commonality and application of Systems Engineering rigor
  – CM rigor - Reduced variance in C4I suite
  – End-to-end testing and evaluation
  – Relevant end-to-end training (ex: MTJ)
  – Reduced installation time
• C4I suite capability builds operationalized to platform mission areas
• Engineering design and integration efforts maintain internal and external System of Systems alignments
• PMW 760 = C4I Capability Design and Integration Agent
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Information Dominance Capabilities to the Warfighter

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