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

Systems Engineering Rigor within the Acquisition Process

27 October 2009
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About PEO C4I

Workforce

- Civilian: 204
- Military: 68

FY09 Total Obligation Authority ***(based on PB10)***

- Research & Development: $542M
- Procurement, Navy: $1,004M
- Operations & Maintenance, Navy: $437M
- Ship Conversion, Navy: $1351M

Programs - Total: 132

- ACAT I: 8* ACAT II: 4 ACAT III & Below: 119
- Rapid Deployment Capabilities (RDCs): 1

Platforms Supported – FY09

- Afloat: 260 Shore: 220 Expeditionary: 34

Includes: IAC – 3 IAM – 2 (1-DISA/1-PEO C4I)
IC – 2 PreMAIS/MDAP - 1

Navy C4I Key Facts

More than 170,000 C4I users

More than 5,200 radios fielded

More than 2,700 annual installations

More than 700 applications supported

Average/fielded bandwidth capability

- Carrier: 4 mbps - 24mbps
- Destroyer: 512 kbps - 8mbps
- Submarine: 128 kbps

Average technology refresh

- 18 months

Average time to market

- Initial fielding: 36 months
- Full Fielding: 8-10 years

updated 22 October 2009

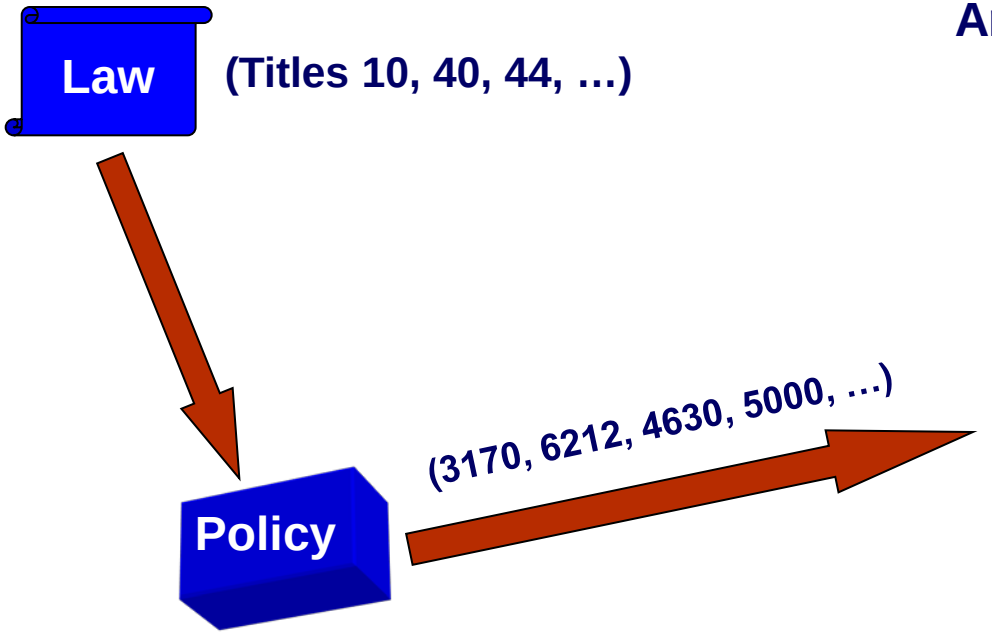
Unique Maritime Challenges Require New Focus on Systems Engineering

- Expansive Physical Environment
  - From the ocean floor to outer space and everything in between
- High Volume of Data
  - Linking Vessel, People, Cargo, Infrastructure data from multiple and disparate sources,
  - Then getting it to the tactical edge in a relevant format
- New Partners
  - Traditional: Coalition Partners and Interagency organizations drive Cross Domain and Releasable Solutions
  - Non-Traditional: new International and Interagency partners drive Non-classified solutions

Information Technology is a Game-changing Element of Warfare

Challenge:
Realistic Policy Implementation

Law begets Policy, Directives, and Guidance

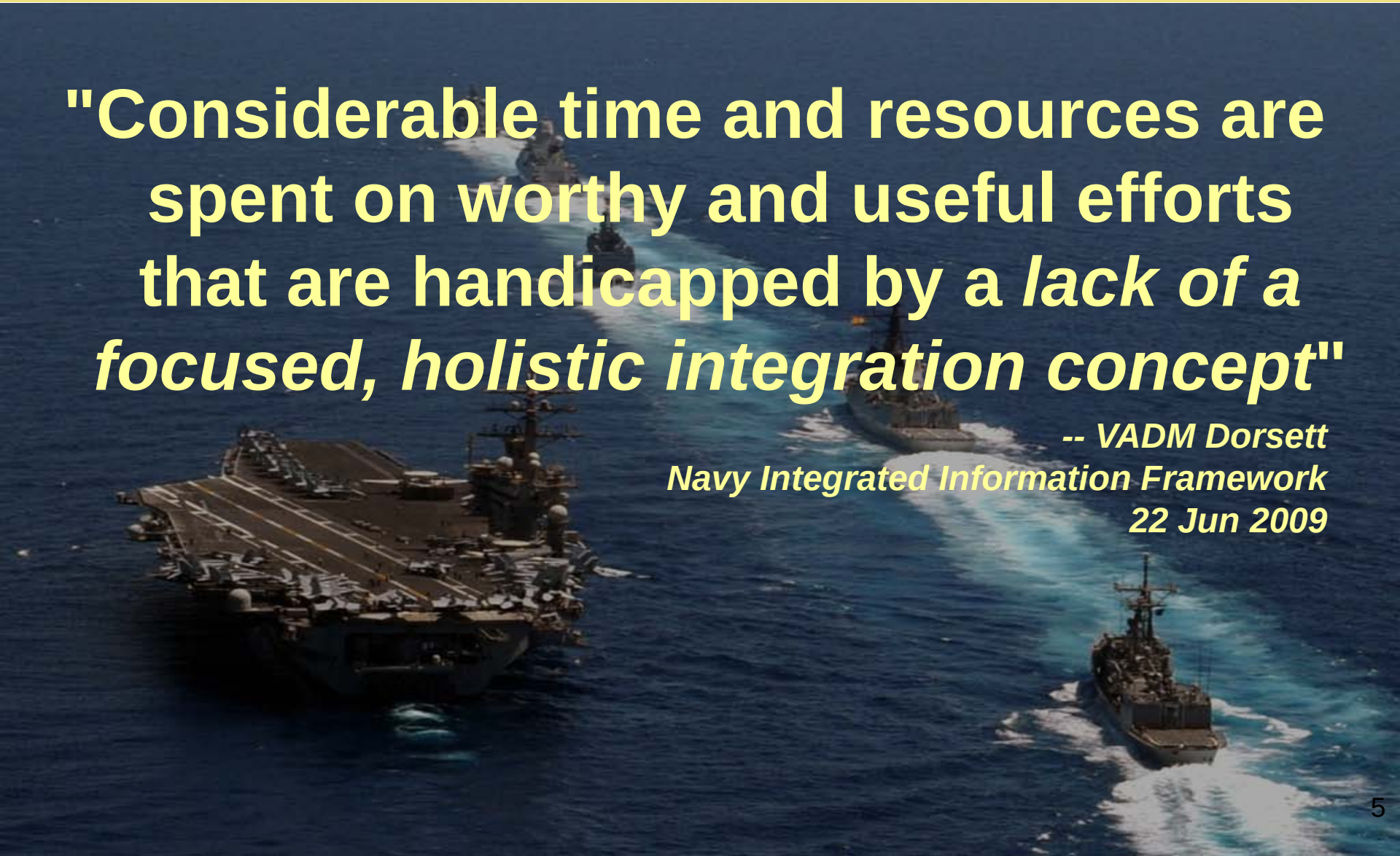


Development, complexity, and interpretation of Policy is overwhelming

Are we providing too much "help"?

Is he managing the Program, or the paperwork?

Need for Governance



"Considerable time and resources are spent on worthy and useful efforts that are handicapped by a *lack of a focused, holistic integration concept*"

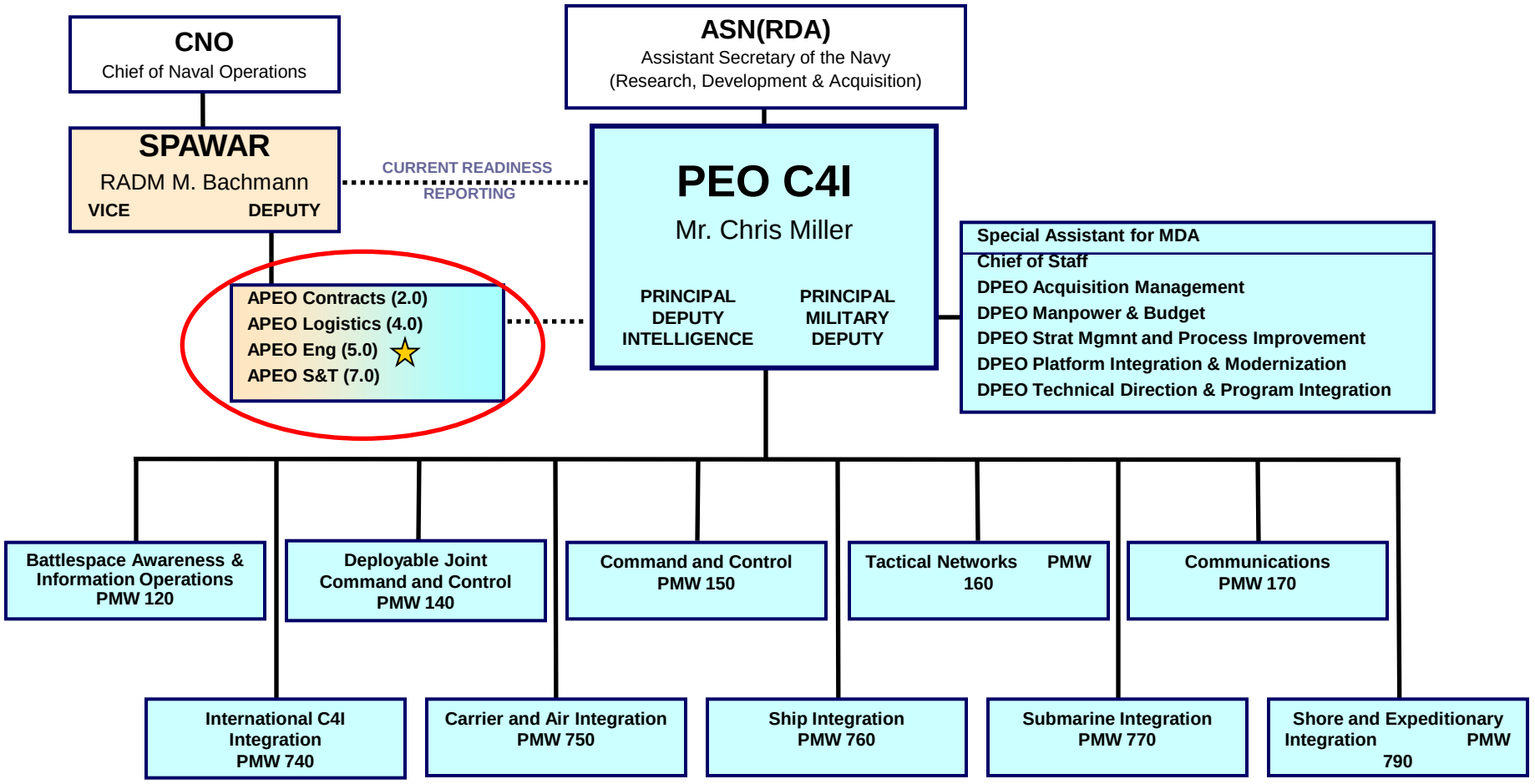
-- VADM Dorsett
Navy Integrated Information Framework
22 Jun 2009

Systems Engineering Governance

- Drivers
  - Paradigm shift in corporate culture
  - Increased focus on fielding integrated and interoperable systems
  - Need for up front and early adoption of systems engineering practices
- Systems Engineering Governance
  - Technical Authority and Standards
  - Enterprise Engineering and Certification

Enabled Through a Competency Aligned Organization (CAO)

Competency Aligned Organization (CAO)



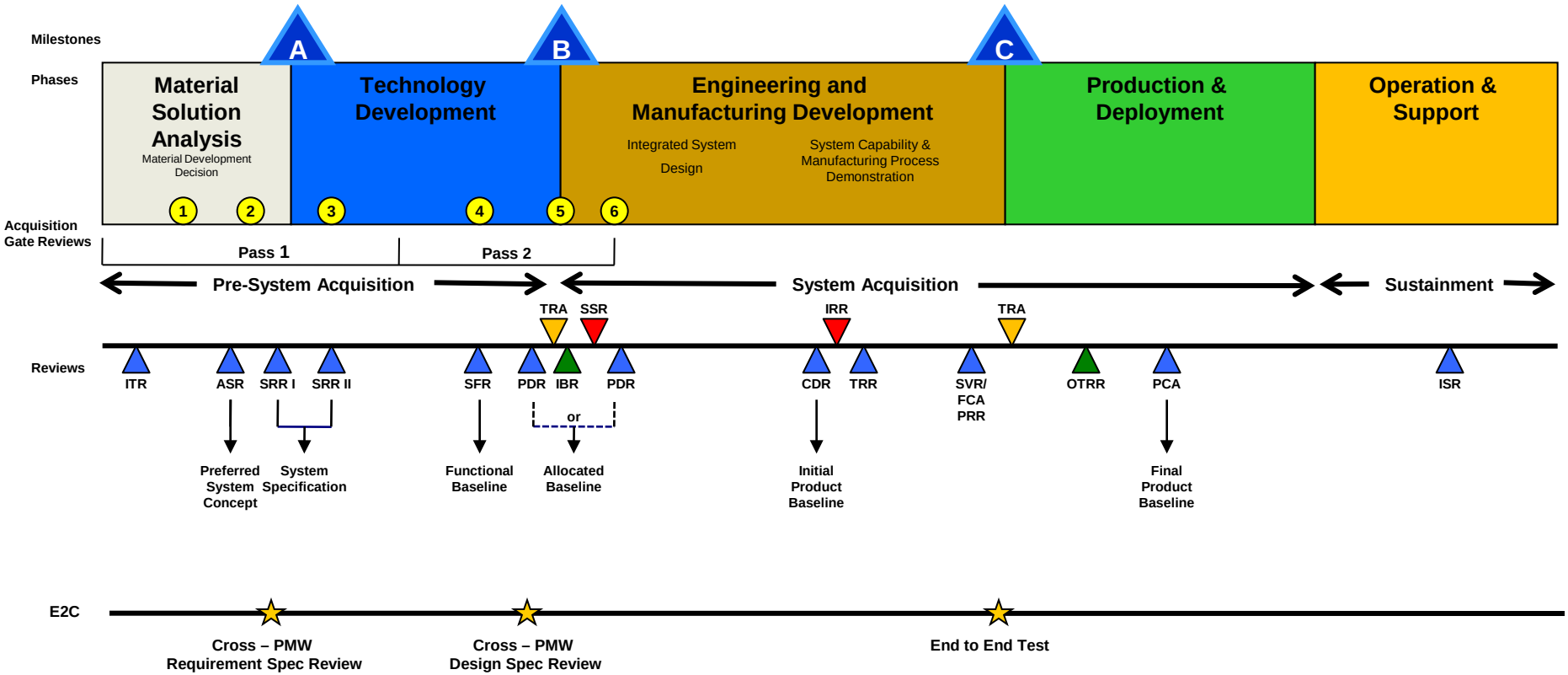
CAO implementation increases consistency and collaboration within engineering and acquisition

Updated 27 May 09

Systems Engineering
Rigor Applied to Acquisition

- Technical Authority provides:
  - Engineering expertise during system development and deployment
  - MDA with an independent assessment of program technical health
  - Consistent enterprise standards and processes to ensure interoperability with traditional and non-traditional partners within the GIG
- Enterprise Engineering and Certification (E2C):
  - Design system interoperability early in the systems engineering lifecycle
  - Test end-to-end capability packages for interoperability
  - Enforce acquisition programs to collaborate on engineering design, development and interoperability challenges prior to fleet installation

System Engineering Technical Reviews (SETR) & the Acquisition Lifecycle

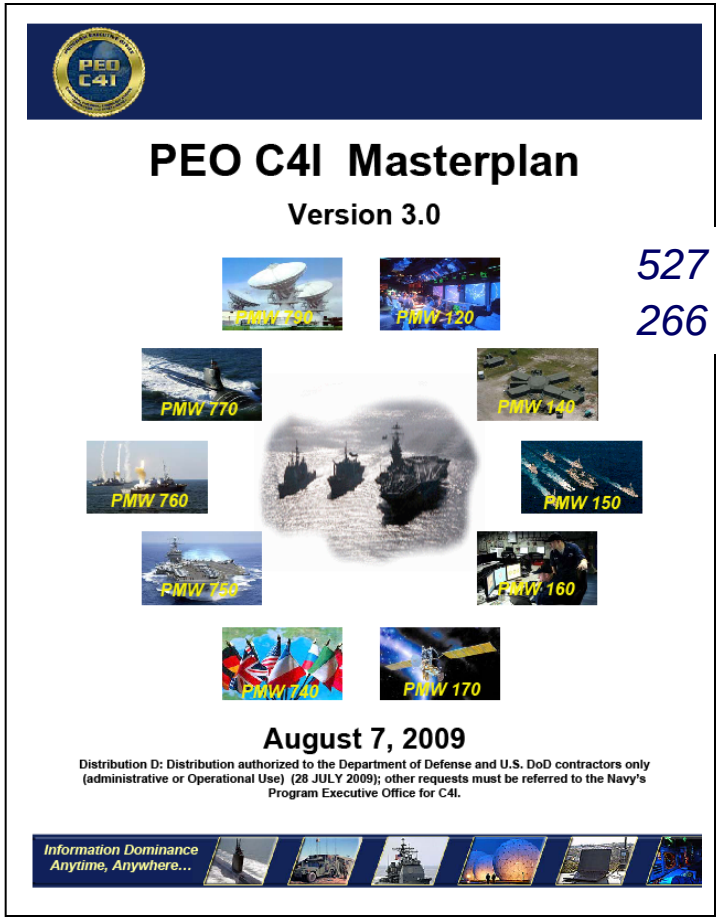


Technical reviews and E2C activities occur as the system matures throughout the program life cycle

NOTE: Gate Reviews are NOT SETR Events

PEO C4I Masterplan

Documents Portfolio Implementation across FYDP and beyond



527 Pages
266 Figures

Purpose- Provides an understanding of what transition is required across the PEO C4I portfolio in order to meet modern network-centric warfare needs

- what is planned and budgeted
- baseline architectures
- future architectures
- portfolio roadmaps
- future technical vision
- recommendations for modernization initiatives

Intended Audience- Intended to be used as a ready reference for all PEO C4I portfolio stakeholders, including program managers, resource sponsors and warfighters.

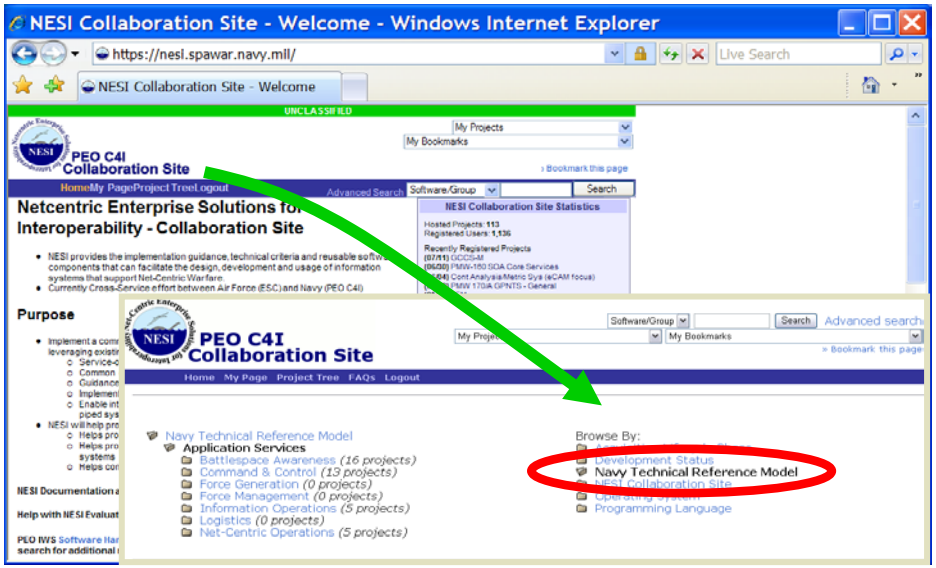
Updates- Living document updated annually.

Available at:

https://nserc.navy.mil/peo_c4i/se2/dpeo/dpeotechdir/PEO%20C4I%20Masterplan%20Version%2030/Forms/AllItems.aspx

Net-centric Enterprise Solutions for Interoperability (NESI)

- "A distillation of several higher level strategies into a manageable set of guidance"
- Framework of actionable engineering guidance
- Content evolves to support growing experience with net-centricity, interoperability and program needs



- Publicly available content
  - http://nesipublic.spawar.navy.mil

Master Plan utilizes the Navy Technical Reference Model to bin programs by functional area

Moving Forward

- Increase focus on enterprise standard development and implementation
- Standardize processes, best practices and lessons learned
- Work with stakeholders to develop enterprise level requirements to support the future warfighter

We get it.

We also integrate it, install it and support it. For today and tomorrow.