



Enterprise Training Management and Delivery System (ETMDS)

An overview of the Navy e-Learning modernization initiative

19 July 2012

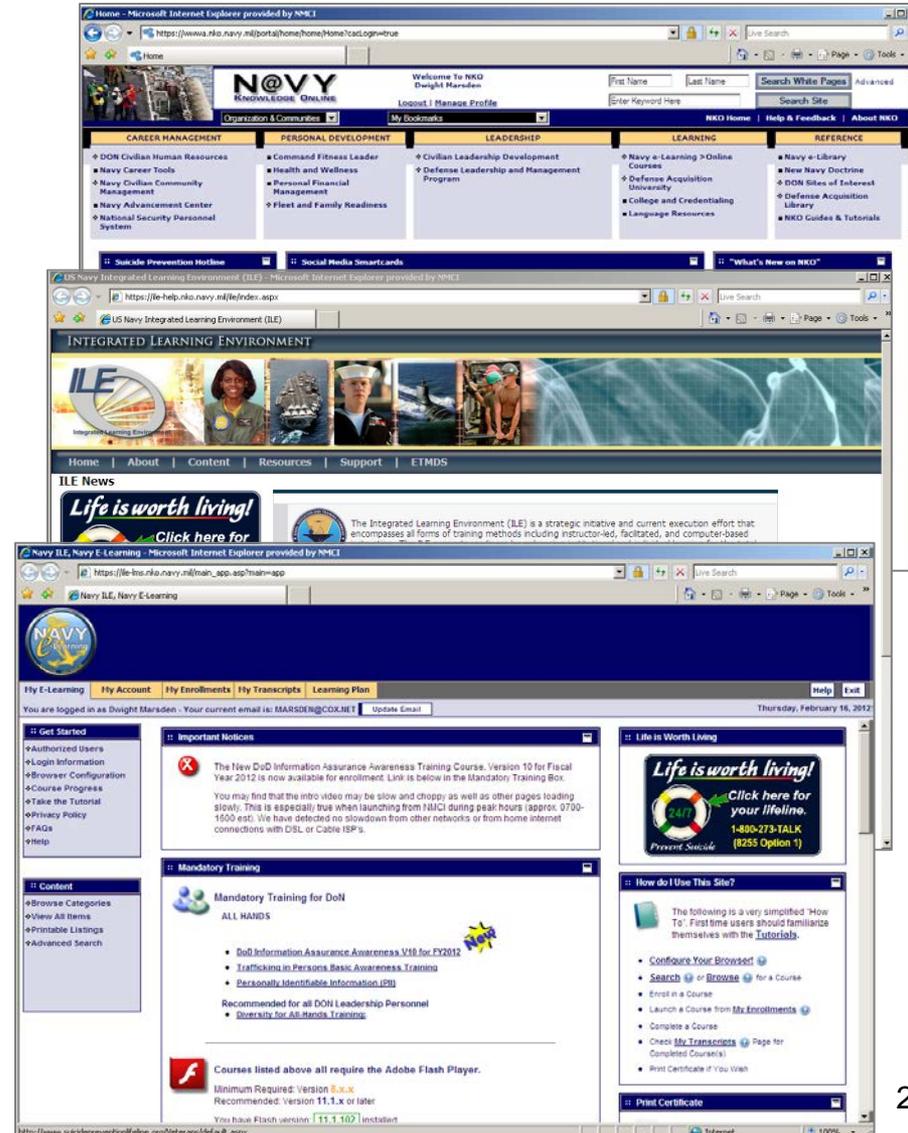


eSolutions for Sailor and Fleet Readiness



Navy e-Learning Environment Today

- On-demand access to Web-delivered courses available to the fleet and schoolhouses
- Largest e-learning environment in the world
 - Approximately 1,000,000 users
 - Catalog of 7,600 different course offerings, formats, etc.
 - Over 25 million course completions since 2004
- CONUS, OCONUS, afloat units (disconnected environment), Forward Operating Bases (FOBs), and detached squadrons
- Dependent on an inflexible, outdated IT architecture incapable of supporting long-term growth
- Recognized by U.S. Distance Learning Association for best practices in distance learning, 2011
- Launched May 2001



The image displays three screenshots of the Navy e-Learning Environment (ILE) website. The top screenshot shows the main navigation menu with categories like Career Management, Personal Development, Leadership, Learning, and Reference. The middle screenshot shows the Integrated Learning Environment (ILE) homepage with a banner and navigation links. The bottom screenshot shows a user's personal dashboard with sections for Get Started, Important Notices, Mandatory Training, and Life is Worth Living.

ETMDS Business Value



Navy e-Learning

Current Architecture and Design
(Focused on *Functional* Success)

ETMDS

Enterprise-Oriented Architecture and Design
(Focused on *Navy* Success)

**Data embedded in applications;
poor business data quality**

TO

**Authoritative data managed separately
from business rules; Service-Oriented
Architecture (SOA)**

**Redundancies in functionality,
data, interfaces, and costs**

TO

**Progress toward standardized business
rules, processes, data, infrastructure
and lower costs**

**Costly proprietary software
and customized interfaces**

TO

**Solution built on Government Off The
Shelf (GOTS) products and commercial
interface standards; reducing total
ownership costs over time**

**Silo-architected applications
create barriers to interoperability**

TO

**Based on a modern, scalable architecture
that can readily adapt to future needs**

**Decentralized functional and
IT development activities**

TO

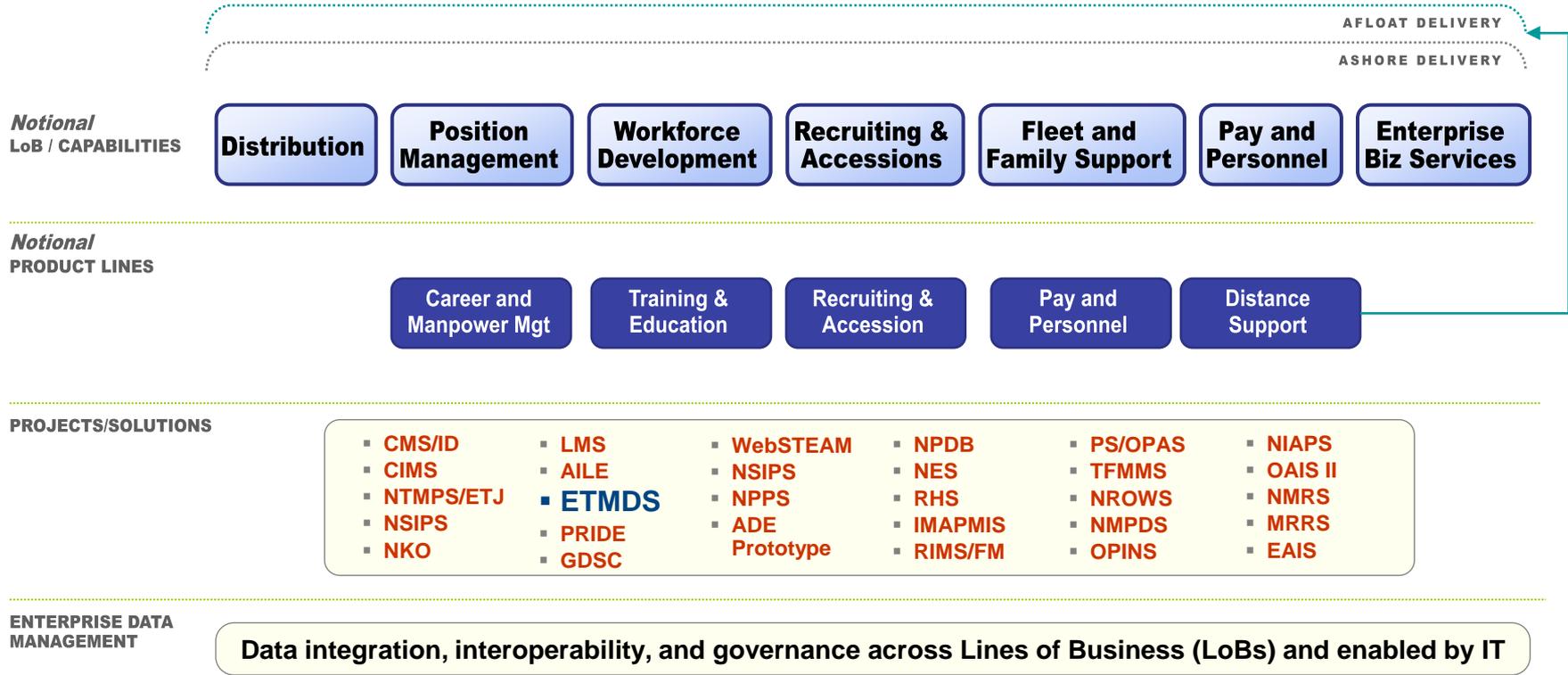
**Program authority in a PMO with
requirements from single source**



Where ETMDS Fits in PMW 240 Portfolio

ETMDS is a cornerstone acquisition in the Navy's shift toward development of consolidated, modernized solutions within the Total Force Lines of Business (LoBs).

Sea Warrior Program IT Solution Portfolios



ENTERPRISE DATA MANAGEMENT

Summary of ETMDS Capabilities and Benefits

ETMDS is intended to support new training and education methods with an MPTE-wide IT infrastructure of advanced tools for real-time global access to curriculum, personnel, and career data¹.



- **Architecture designed around data-centric environment**
 - **Agile, scalable Integrated Learning Environment (ILE) to accommodate data-driven and dynamic human capital requirements**
- **Learning content management**
 - **Improved support for course and assessment development/deployment; flexibility in content delivery; potential repository for repurposing content**
- **Learner services**
 - **Phase I: Modernized user interface “look and feel”**
 - **Phase II: Improved, more efficient courseware capabilities**
- **Enterprise training and management toolsets and data**
 - **Capabilities to enable decision-quality information, trend analyses, training asset management, administration, and student scheduling**
- **Credentialing (Future Capability)**
 - **Securely store and enable access to individual credentials to support Navy detailing process and Sailor career management**

¹ ETMDS Functional Area Description Document (FADD), 16 June 2010 signed by OPNAV N15 and N16. Capabilities above are categorized as presented in the FADD. Refer to ETMDS FADD for a complete overview of required capabilities and associated benefits.

Audiences Impacted

■ Users

- Navy (Active and Reserve component): 616,356
- Marines: 68,380
- DoN Civil Service: 182,010
- DoN Contractors: 54,489
- Dependents: 5,435
- Retirees: 60,859
- Coast Guard and others: 21,847

■ Stakeholders

- Naval Education and Training Command (NETC) and commands [e.g., Learning Centers, Schoolhouses, Naval Education and Training Professional Development Technology Center (NETPDTC), and Naval Service Training Command (NSTC)]
- Bureau of Medicine and Surgery (BUMED)
- Chief of Naval Reserve (CNR)
- Commander, Navy Installations Command (CNIC)
- Navy Personnel Command (NPC)
- Commander, Navy Recruiting Command (CNRC)
- Naval Sea Systems Command (NAVSEA)
- Space and Naval Warfare Systems Command (SPAWAR)
- Naval Air Systems Command (NAVAIR)
- Navy Cyber Forces (CYBERFOR)
- U.S. Fleet Forces Command (USFFC)

ETMDS Software Components

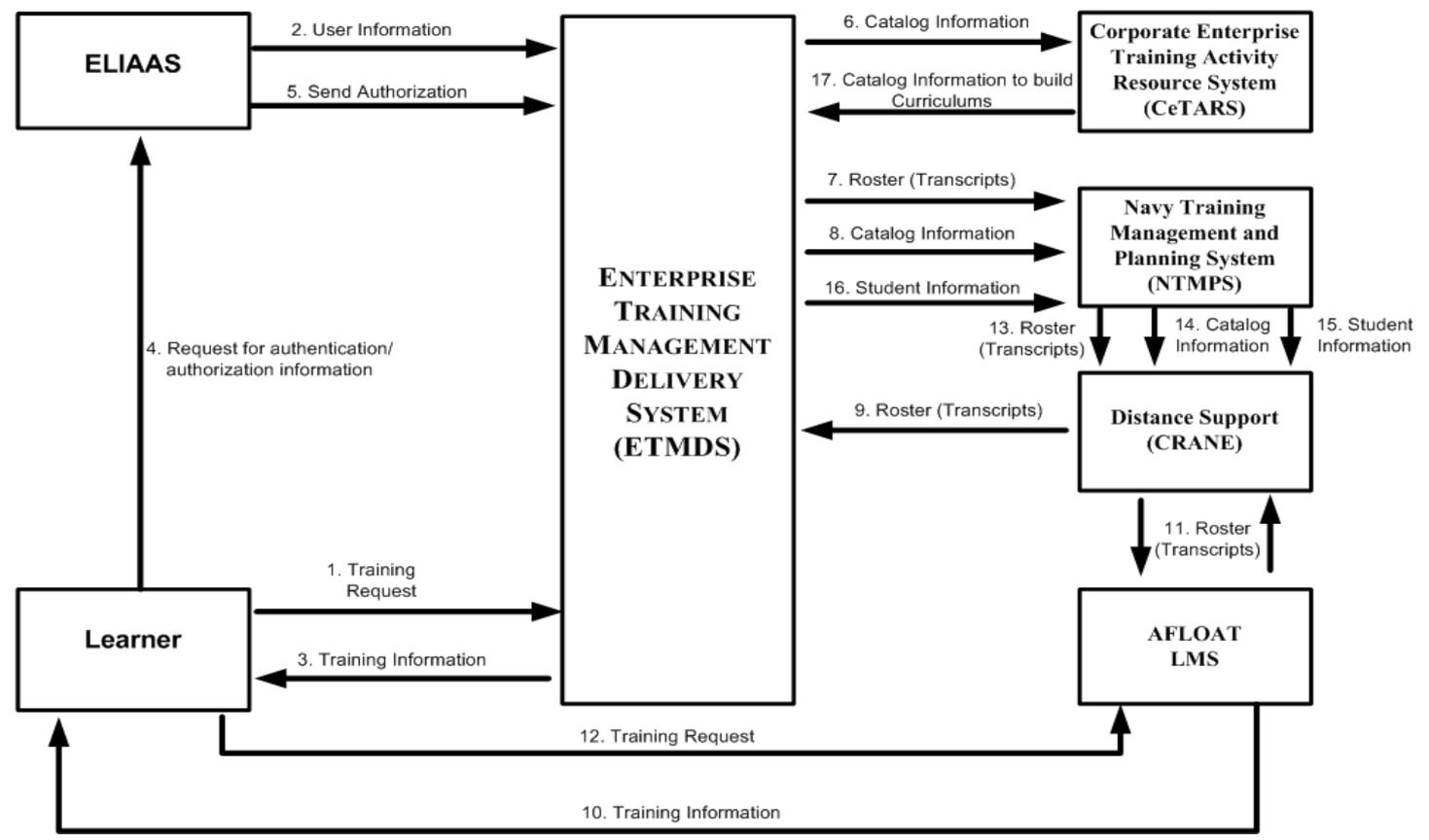
- **Industry Partner: Booz | Allen | Hamilton**
- **Government Off The Shelf (GOTS) Solution and broadly accepted Open Source products**
 - **AtlasPro learning suite:**
 - AtlasPro Learning Management System (LMS)
 - Rapid Online Content Creation Environment (ROCCE) / Learning Content Management System (LCMS)
 - Atlas Offline LMS
 - Assessment Engine
 - Pentaho Open Source Business Intelligence
 - Survey Engine
 - **Deployed at DAU, JCS J7, and Army's Program Management Office of the Warfighter Information Network–Tactical (WIN-T)**
 - **Established AtlasPro Users Group**
- **Software Development Plan**
 - Agile development methodology
 - Commenced in February 2011
- **Systems and Interfaces Involved**
 - ELIAAS, CeTARS/CANTRAC, NTMPS, Distance Support, Rustici, and AtlasPro SIPR LMS interface (manual)



AtlasPro, a certified Sharable Content Object Reference Model (SCORM) compliant solution, has been in use at DAU since 1997. AtlasPro has continuously evolved to incorporate leading-edge technologies.

ETMDS Information Flow: An Example

The chart below shows the operational nodes (or organizations) and their associated information exchange needs, which play a key role in re-architecting Navy e-Learning.



The chart above is the Operational Node Connectivity Diagram OV-2, an artifact of the ETMDS architectural design.

Benefits of Agile Software Development Process

- **Contemporary best practice in software industry**
- **Functioning software modules produced in one-month increments**
 - Reduces the overall risk associated with software development
 - Ensures value is maximized throughout the development process by building on increments and obtaining user feedback
- **Each increment has four main work streams**
 - Usability/user interface design
 - Software development and tuning
 - Functional unit testing
 - Defect reports (e.g., change requests and bug reports)
- **Each increment employs simplicity of design, communication, and feedback between the software engineering team and Government**
 - Kickoff and retrospective meetings, functional reviews, weekly status and analyses and design-related dialogue
 - Culminates in end-of-increment review and software demonstration

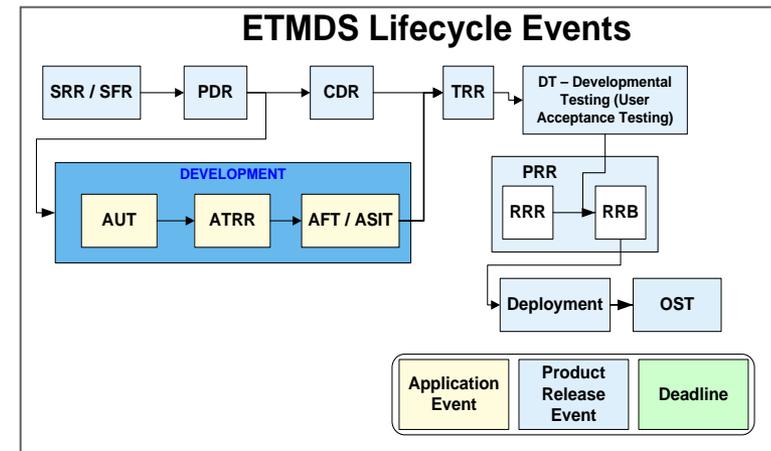
ETMDS Defining Characteristics

- ETMDS is **NOT** a single system; rather a complex set of integrated applications, data, hardware, and digital capabilities
- Acquisition partnership of NETC, PMW 240, and NETPDTC
- Requirements separated into Core and Post-core Phases
 - Core: Modernize existing Navy e-Learning capabilities (Winter 2012)
 - Post-Core: Additional training management capabilities IAW leadership direction
- Common Access Card (CAC) for NIPR (current) and SIPR (future)
- Developmental tools must produce SCORM-conformant output (IAW DoDI 1322.26)
 - Content sponsors may use development toolsets that will support exporting to a SCORM 2004-compliant content package
- Primary operating site: NETPDTC / Enterprise Data Center, Pensacola FL
- Continuity of Operations (COOP) site: Great Lakes, IL

ETMDS Is Driven by DoD 5000 Systems Engineering Methodology

The DoD 5000 Model governs how all DoD organizations perform acquisitions. The Model's Systems Engineering Methodology is a rigorous, disciplined process of artifacts and events as highlighted below.

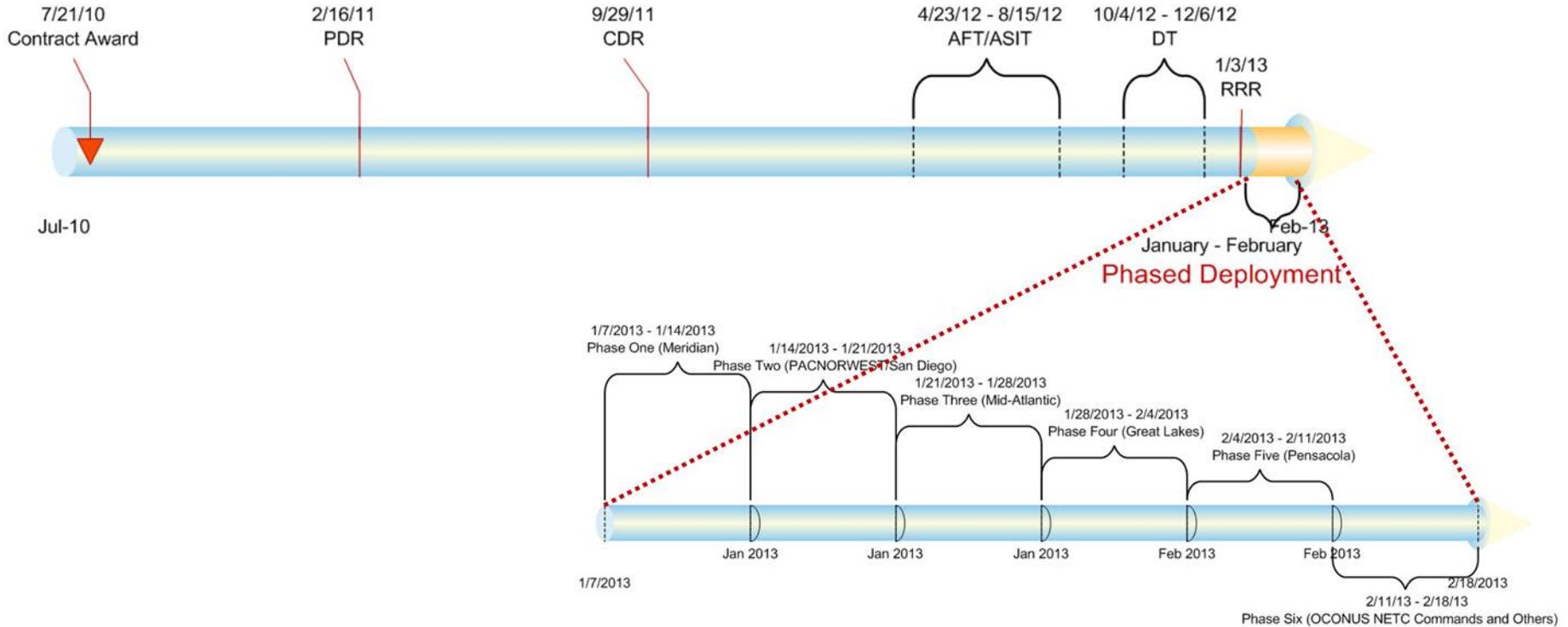
- **Single Acquisition Management Plan**
- **Integrated Master Plan and Master Schedule**
- **Integrated Logistics Support and Training**
- **Risk Assessment and Management Plan**
- **Testing and Evaluation Master Plan**
- **Information Assurance**
- **Human Systems Integration Plan**
- **Configuration Management Plan**
- **Change Management and Communications Plan**



The ETMDS acquisition will follow the DoD 5000 Systems Engineering Methodology to ensure a rigorous, thorough process of capability delivery.

ETMDS Core (Phase 1) Schedule*

ETMDS Implementation Timeline



PDR = Preliminary Design Review (*Flag-Level Participation*)
 CDR = Critical Design Review (*Flag-Level Participation*)
 AFT = Application Functional Testing
 ASIT = Application System Integration Testing
 DT = Development Testing
 RRR = Release Readiness Review (*Flag-Level Participation*)

Call to Action: As ETMDS Core progresses through development, senior leader sponsorship and involvement is essential to smoothly transition into ETMDS Post-Core requirements definition. This will entail introducing significantly changed business processes in support of the Navy's training vision and readiness goals.

* This schedule is based on the Integrated Master Schedule (IMS), as of July 2012

Points of Contact

- **Program Management Project Office**

Ms. Laura Knight, Program Manager, Sea Warrior Program
Program Executive Office, Enterprise Information Systems (PEO-EIS PMW 240)
2451 Crystal Drive #1139
Arlington, VA 22202-4804
COMM: 703-601-0245
EMAIL: laura.knight1@navy.mil

- **Acquisition/Technical Project Office**

Roger White, Assistant Program Manager for Training & Education, PMW 240
6490 Saufley Field Road
Pensacola, FL 32509
COMM: 850-452-1001 x1482
EMAIL: roger.white@navy.mil

- **Functional Project Office**

Virgil Hart
Navy Education and Training Command (NETC) N72
9549 Bainbridge Ave.
Norfolk, VA 23511
COMM: 757-444-2996 x3220
EMAIL: virgil.hart@navy.mil