NAVWAR Enterprise

SEAPOWER THROUGH ENGINEERING

TOPIC LEARNING OBJECTIVES

Upon successful completion of this topic, the student will be able to:

1. Identify the commands that comprise Naval Information Warfare Systems Command (NAVWAR).
2. Identify the mission and areas of expertise of the NAVWAR Organization.
3. Recognize the functions performed by the major NAVWAR directorates and Program Executive Offices (PEOs).
4. Identify the core competencies of each NAVWAR Echelon III Activity.

STUDENT PREPARATION

Student Support Material

None

Primary References

1. https://www.navwar.navy.mil/

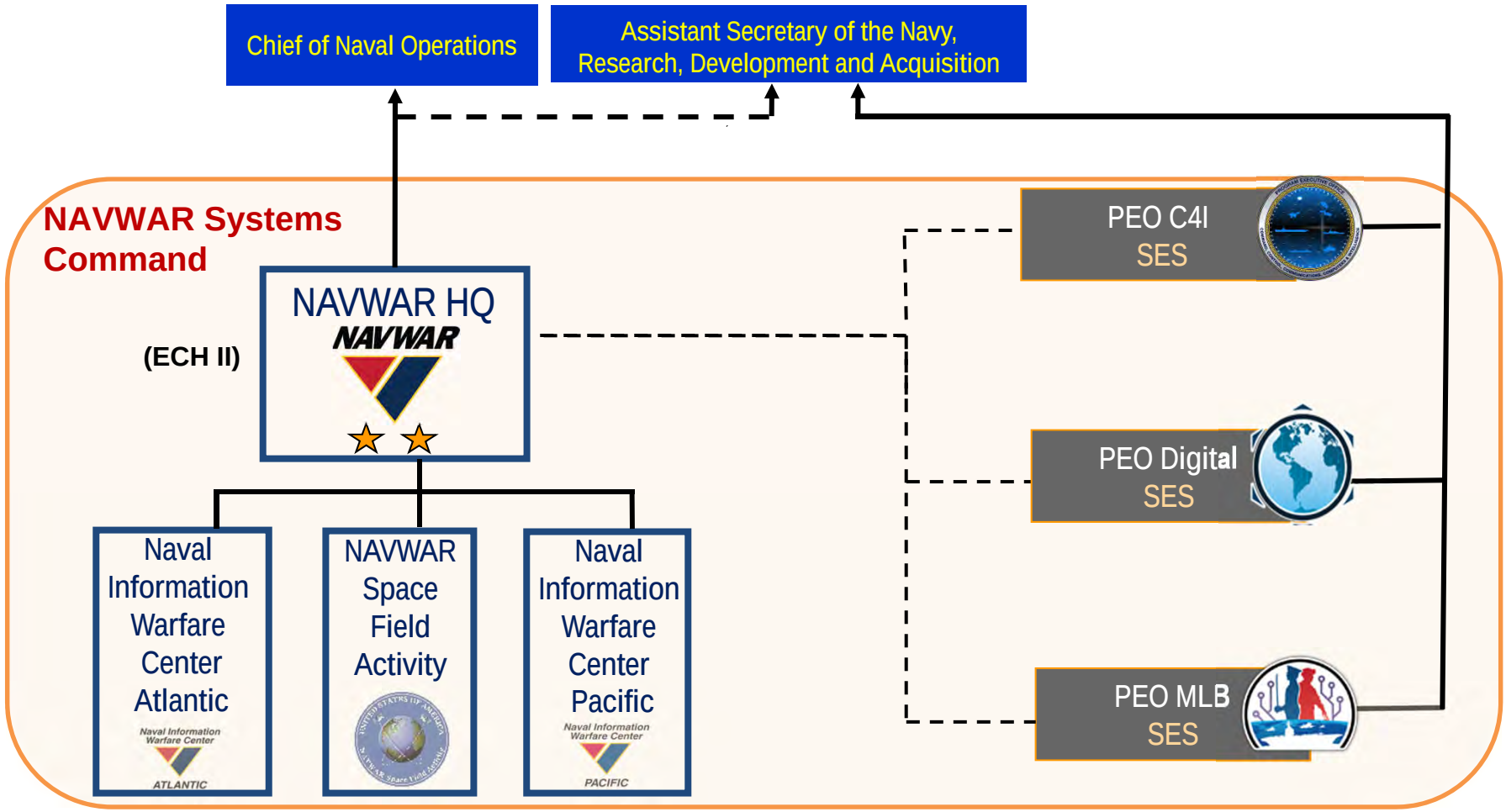
Additional References

None

Overview

- Team NAVWAR Overview
  - Organization
  - Mission
- NAVWAR Systems Command
  - Organization
  - Competencies
  - Echelon III Activities
- Affiliated Program Executive Offices (PEOs)
  - PEO Manpower, Logistics and Business Solutions (MLB)
  - PEO Digital and Enterprise Services (Digital)
  - PEO Command, Control, Communications, Computers and Intelligence (C4I)

NAVWAR Organization



Team NAVWAR

Naval Information Warfare Systems Command

NAVAIR NAVSEA NAVFAC NAVSUP

NAVWAR

Naval Information Warfare Center ATLANTIC

Naval Information Warfare Center PACIFIC

FUNCTIONS

NC3-N Chief Engineer
Information Warfare Technical Authority
Cybersecurity Certification & Standards
System of System Test & Checkout
Operational Safety & Assurance Cert Authority
Afloat & Ashore Installation Services
Lifecycle Engineering & Sustainment
Mission & Acquisition Support to PEOs
Multi-Domain Research & Development

Lead

Fight

Information Warfare Enterprise

Prepare

NAVWAR

Acquire

Rapidly Delivering Information Warfighting Capability From Seabed To Space

Team NAVWAR Locations

More than 11,000 employees deployed globally and near fleet concentration areas

NAVWAR Mission

- NAVWAR provides research and development, systems engineering, testing and evaluation, technical, in-service and support services to its respective acquisition Program Executive Offices (PEOs) during all phases of a program's life-cycle

- MISSION
  - Identify, develop, deliver, and sustain information warfighting capabilities and services that enable naval, joint, coalition, and other national missions operating in warfighting domains from seabed to space; and to perform such other functions and tasks as directed

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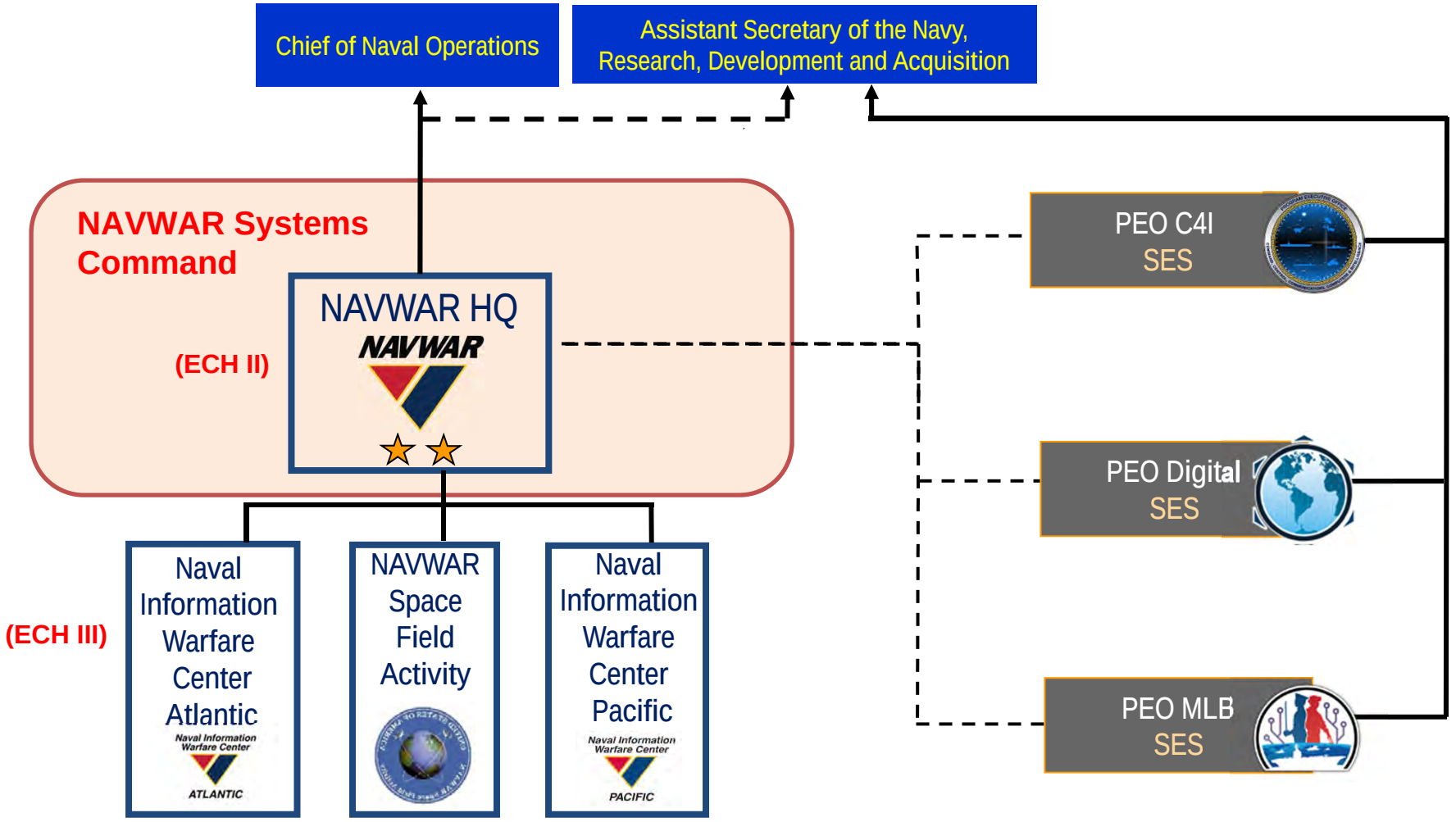
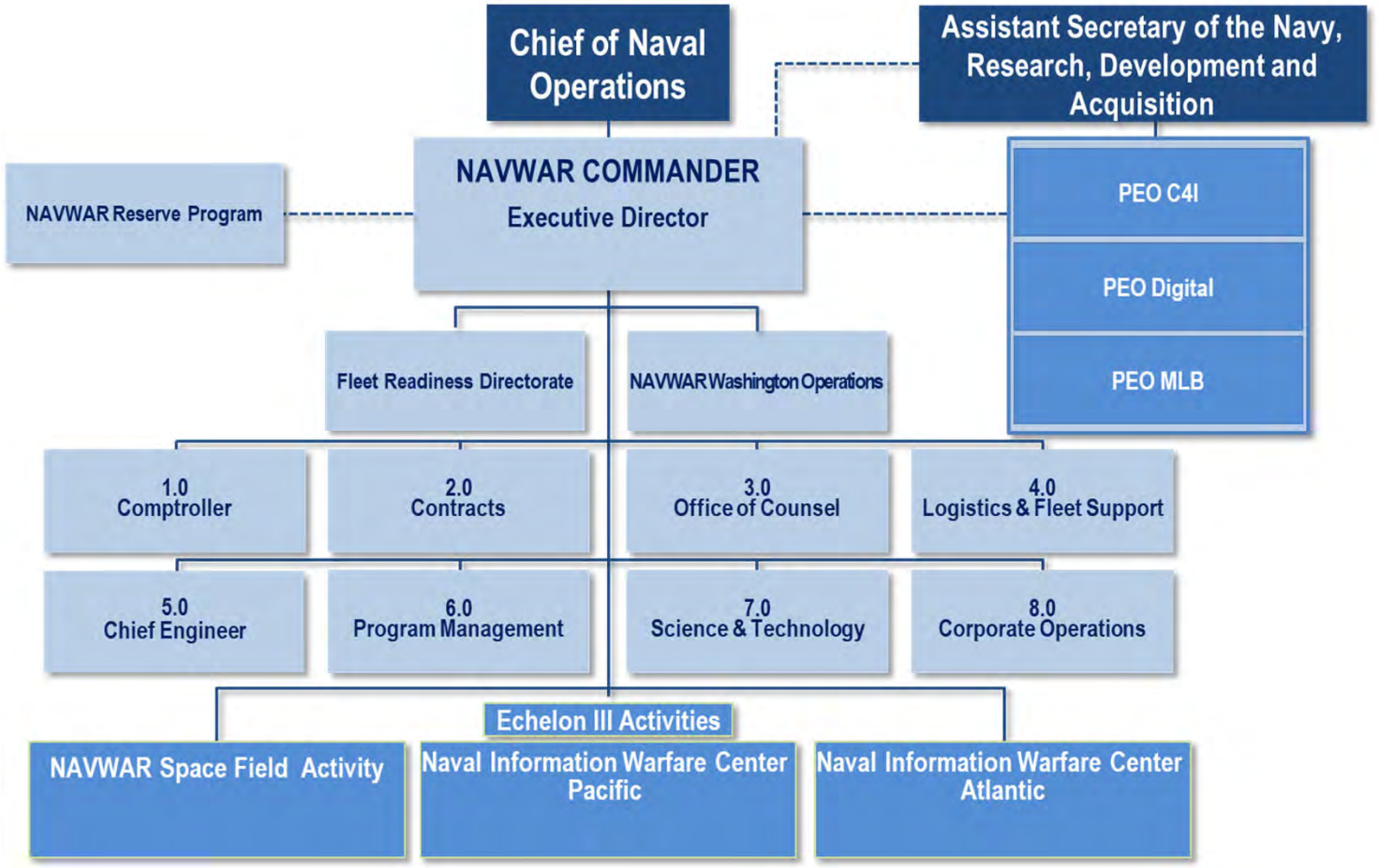
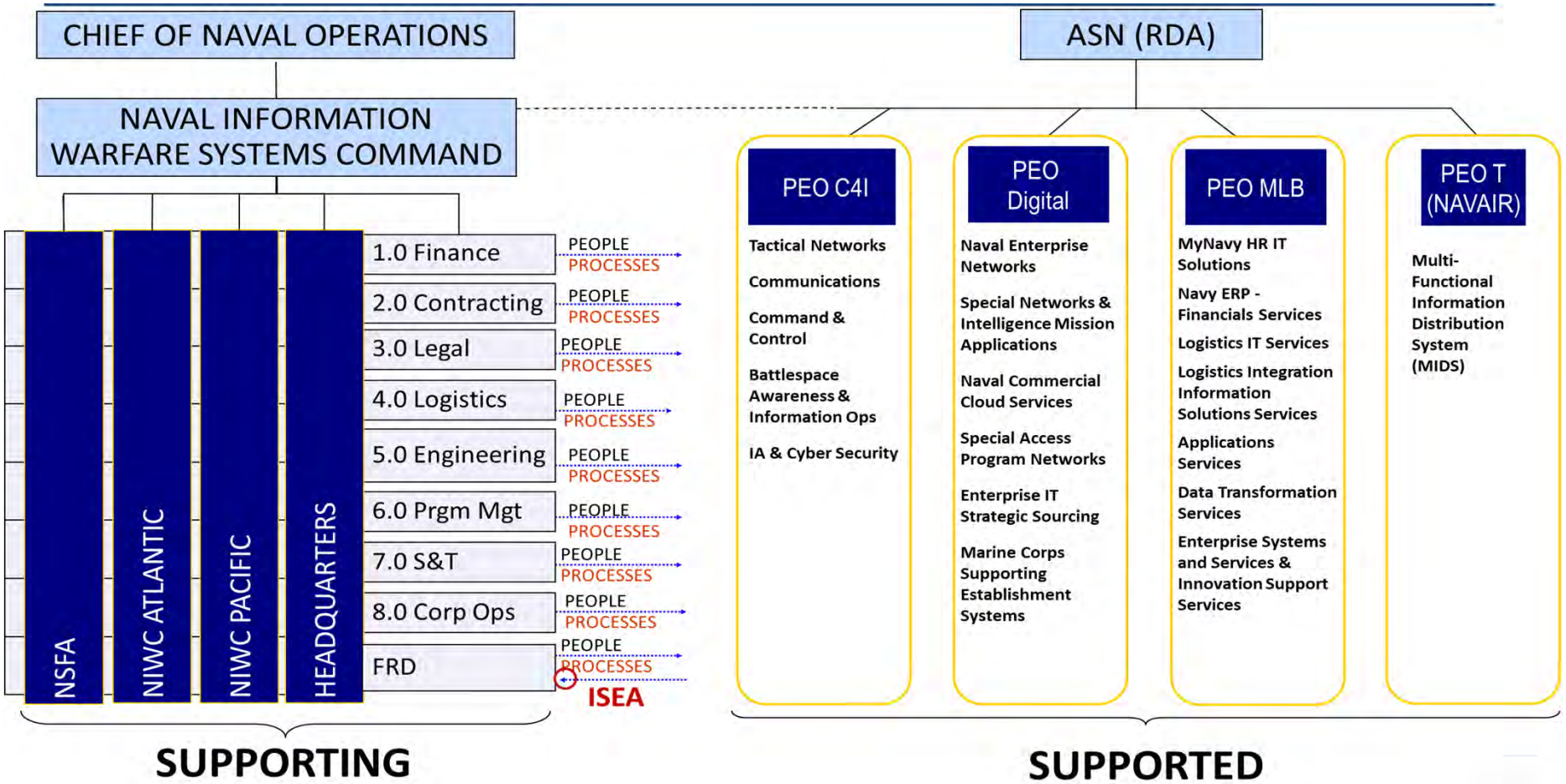


NAVWAR Organization



NAVWAR directorates are also called competencies

NAVWAR/PEOs Matrix Organization



PEO program offices are augmented by personnel, and supported by processes, from multiple NAVWAR competencies

NAVWAR Directorates

- 1.0 Comptroller
  - Financial management
  - Cost estimating
  - Chief financial advisor to NAVWAR 00, PEO C4I, and PMs
  - Directs & Coordinates formulation and submission of NAVWAR inputs to Planning, Programming, Budgeting and Execution (PPBE)
- 2.0 Contracts
  - Acquisition Category (ACAT) and non-ACAT Program Contracting
  - Policy and Strategic Initiatives
  - Provide contracting support throughout a systems entire life-cycle, from Research and Development (R&D), production, sustainment, and phase out
  - Negotiate and award competitive contract vehicles, cradle to grave administration of contract actions

NAVWAR Directorates

- 3.0 Office of Counsel
  - Command legal support
  - Intellectual Property (IP)
  - Environmental
  - Civilian personnel law
  - Acquisition support
- 4.0 Logistics & Fleet Support
  - Programmatic support to program managers and PEO C4I for logistical support
  - Develop and maintain NAVWAR logistics policy and procedures

NAVWAR Directorates

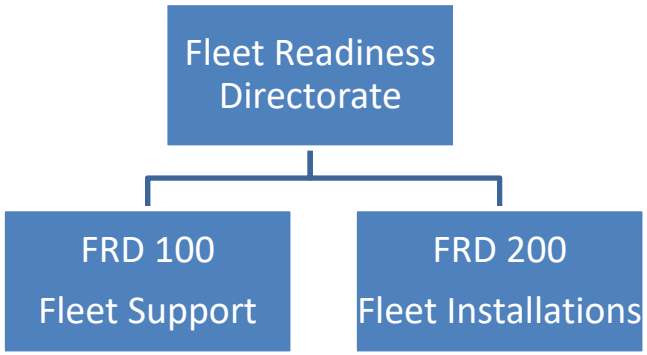
- 5.0 Chief Engineer
  - ***Technical authority for IT*** systems on ships, submarines, and shore installations
  - ***Technical authority for Cybersecurity***
  - Resolve cross-platform or major systemic performance concerns for ship systems working with Fleet, Program Managers, and Sponsors
  - Manage the corporate career field for engineers, scientists, mathematicians, and technicians

NAVWAR Directorates

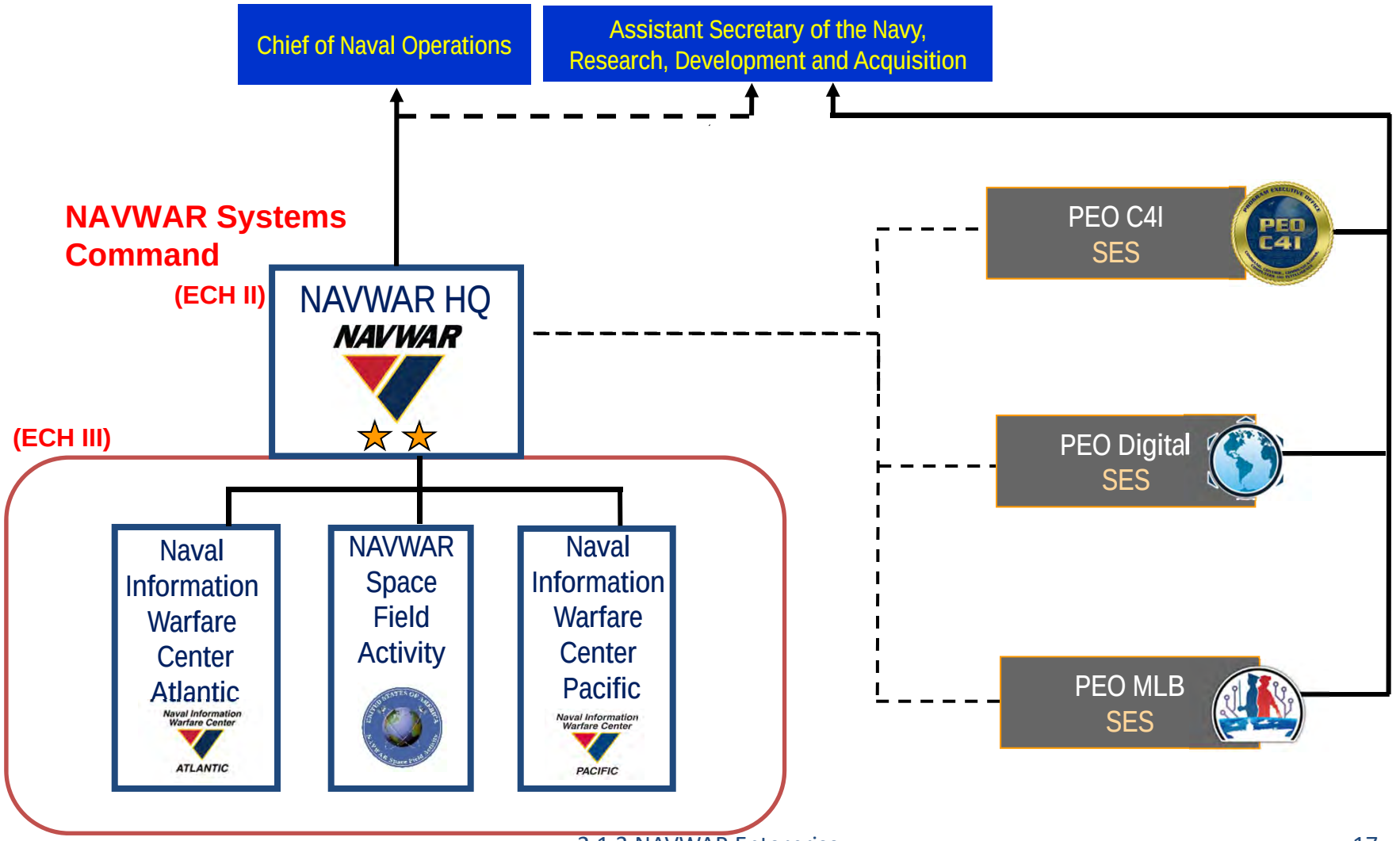
- 6.0 Program Management
  - Acquisition policy, process, and tools
  - Acquisition workforce management
  - Program management personnel and support
- 7.0 Science and Technology
  - Research and applied science
  - Forecasting, assessment and technology transition
- 8.0 Corporate Operations
  - Resource management and tracking
  - Human Resource Office (HRO), manpower, facilities, etc.
  - Knowledge management
  - Corporate strategy
  - Set IT policy and manage approval process
  - Inspector General

NAVWAR FRD
Fleet Readiness Directorate

- Fleet single point of entry
  - External engagement with Type Commander (TYCOM), Fleet Commander (FLTCOM), SYSCOMs, Regional Maintenance Center (RMCs), Naval Shipyards (NSY), NAVWAR Directorates, and external Program Management Officers (PMOs)
  - Leadership for installation, Fleet support, and cyber readiness
- NAVWAR single point of accountability
  - Internal coordination with Naval Information Warfare Center (NIWC), NAVWAR Directorates, and Program Management Warfare (PMWs) (100s, 700s)
- Ensure execution rigor across the Enterprise
  - Contract with industry for afloat and ashore support
  - Coordinates software loading and testing in CNO avails; HW/SW repair/patch and sustainment

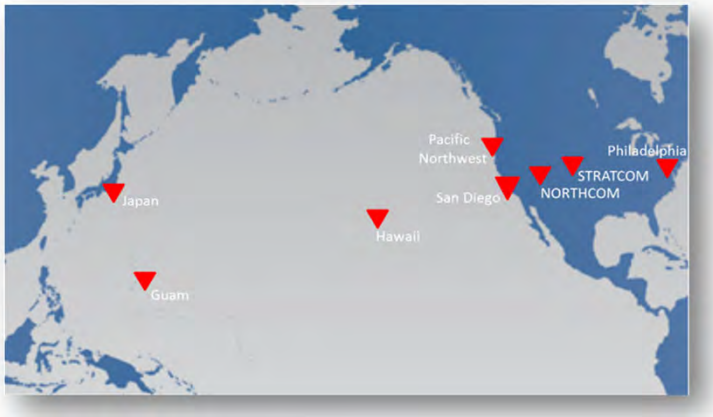


NAVWAR Echelon III Activities



Naval Information Warfare Center (NIWC) Pacific

- Mission: To conduct warfare research, development, prototyping, engineering, test and evaluation, installation, and sustainment of integrated command, control, communications, intelligence, surveillance and reconnaissance (C4ISR), cyber, and space systems across all warfighting domains



- Technologies:
  - Cyber operations
  - Command and control communications and network
  - Production, installation and in-service engineering
  - Intelligence, surveillance, and reconnaissance and information operations
  - Science and technology
  - Marine mammal program
  - Autonomous unmanned systems

Naval Information Warfare Center
PACIFIC

Focus on R&D, testing, evaluation, and life-cycle support of C4ISR Systems

NIWC Pacific Key Capability Areas

- Full life-cycle engineering for information warfare capabilities
- Cloud based digital development environment, Development Security Operations (DevSecOps), cloud-enabled digital twins (“Digital Abe”, “Digital TR”), agile software development
- Robust research, development, and technology transition
- C4ISR for unmanned vehicles
- Machine learning, Artificial Intelligence (AI), data science, decision optimization
- Applied electromagnetics, photonics, atmospheric propagation
- Offensive and defensive cyber capability development
- Rapid prototyping and delivery
- Positioning, navigation, and timing laboratory and test facilities
- Unique testing facilities - San Clemente Island, Ballistic Missile Defense (BMD)/Link 16 combined test bed, live virtual and constructive environment

NIWC PAC

Special Purpose Networks

Naval Information Warfare Center (NIWC) Atlantic

- Mission: To deliver information warfare solutions that protect national security
  - Includes: communication systems (radios), networking systems (routers/switches), cyber operations (red team/forensics/network defense), intelligence, surveillance, reconnaissance (sensors/decision support applications), business systems (benefits/personnel), and information security
- Five Departments
  - Fleet C4I and readiness
  - Expeditionary Warfare
  - Enterprise Systems
  - Shore C2ISR and Integration
  - Science and Technology

Naval Information Warfare Center ATLANTIC

Focused on Enterprise IT solutions and cradle-to-grave support of C4ISR systems

NIWC Atlantic Key Capability Areas

- Surface ship and submarine C4I test and integration facilities
- NAVWAR National Security Operations Center/Cyber Forensics, Vulnerability Assessment Team
- Cyber Forensics Criminal Investigations Laboratory
- Cyber Computer Network Defense Laboratory
- DoD Component Enterprise Data Center
- Commercial and DoD satellite communications production and installation
- Vehicle C4I systems integration, testing, and production
- Electromagnetic interference and electromagnetic compatibility testing
- Global Distance Support Help Desk
- Air Traffic Control systems development and installation
- Marine Corps Installations Command Electronic Security Systems

NIWC PAC/LANT

NIWC Pacific

Tactical Systems Afloat and Ashore

Driving improvements in sensors, C2, decision-making systems, expanding use of ambient intelligence, machine learning, artificial intelligence, big data management, networks, automated decision support

NIWC Atlantic

Enterprise IT and Business Systems

Established/operates Naval DevSecOps Platform; Architecting advanced capabilities via Flank Speed, MyNavyHR IT Transformation, key PEO MLB & DES efforts; spearheading critical IT solutions in apps, cloud, cyber sensors, 5G, software engineering

Basic & Applied Research and Development

Building future IW systems, full mission autonomy for UxVs, nanosatellites…pioneering work in cyber warfare, predicative analytics, quantum physics for "Navy After Next"

Expeditionary Tactical Capabilities

Accelerating Marine C4ISR capabilities in tactical comms, intel, combat data networks…transforming vehicles as networked, precision sensing, lethal, self-contained units; providing cross-SYSCOM mission modeling of kill chains to drive Project Overmatch assessments/solutions

NAVWAR Space Field Activity

(NSFA)

- Mission: To lead U.S. Navy's participation in the National Reconnaissance Office (NRO)
  - Provide naval warfare and acquisition expertise to national reconnaissance programs
  - Coordinate naval space research, development, and acquisition activities with national reconnaissance programs
  - Provide and coordinate training and tools to enable the fleet to use national space capabilities
  - Conducts ***intelligence-related activities*** essential for U.S. national security
- NSFA Responsibilities:
  - Facilitate interaction between the DoN and NRO
  - Coordinate all research, development, and acquisition functions/activities

Focused on space-based intelligence collection

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NAVWAR Program Executive Offices

- PEO Digital & Enterprise Services
  - Naval Enterprise Networks
  - Special Networks And Intelligence Mission Applications
  - Naval Commercial Cloud Services
  - Special Access Program Networks
  - Enterprise Information Technology Strategic Sourcing
  - Portfolio Manager Marine Corps Supporting Establishment Systems

- PEO C4I
  - Five program offices focused on capability development (100s)
  - Five program offices focused on platform integration (700s)
  - Command and control, intelligence sharing, terminals, etc. (CANES, NMT, GCCS-M, DCGS-N)

- PEO Manpower, Logistics & Business Solutions
  - MyNavy HR IT Solutions
  - Navy ERP - Financials Services
  - Logistics IT Services
  - Logistics Integration Information Solutions Services
  - Enterprise Systems and Services & Innovation Support Services
  - Applications Services
  - Data Transformation Services

PEO MLB

- PEO Manpower, Logistics and Business Solutions (PEO MLB) is the DoN's manpower, logistics, and business solutions information technology (IT) acquisition agent
  - Provides systems and solutions that enables DoN's day-to-day administrative, business, and financial operations
  - Provides Sailors, Marines, DoN civilians, and their support systems with the services needed to complete their missions and tools to manage their careers
- Portfolios:
  - MyNavy HR IT Solutions
  - Navy Enterprise Resource Planning (ERP) - Financials Services
  - Logistics IT Services
  - Logistics Integration Information Solutions Services
  - Applications Services
  - Data Transformation Services
  - Enterprise Systems and Services & Innovation Support Services

PEO Digital and Enterprise Services

- PEO Digital and Enterprise Services (PEO Digital) is DoN's enterprise-wide information technology acquisition agent
  - PEO Digital is digitally transforming systems to evolve and deliver modern capabilities and technologies to maintain the competitive edge while meeting demand signals from our user communities
- Portfolios
  - Naval Enterprise Networks
  - Special Networks And Intelligence Mission Applications
  - Naval Commercial Cloud Services
  - Special Access Program Networks
  - Enterprise IT Strategic Sourcing
  - PfM MCSES - Portfolio Manager Marine Corps Supporting Establishment Systems
    - PMM 170 - Networks and Infrastructures
    - PMM 172 - Customer Support and Strategic Sourcing

PEO C4I

Capability Development Program Management Offices

- Battlespace Awareness & Information Ops (PMW 120):
  - Provides intelligence, meteorological, oceanographic and information operations data, products and services that provide information warfare capabilities for Sailors
- Information Assurance and Cyber Security (PMW 130):
  - Provides cyber security products and services to ensure protection of Navy and joint information and telecommunications systems from hostile exploitation
- Navy Command and Control (PMW 150):
  - Provides joint command and control solutions, including targeting support, chemical-biological indications and warnings, and logistics support
- Tactical Networks (PMW 160):
  - Provides affordable, interoperable, and secure net-centric enterprise capabilities
- Communications and GPS Navigation (PMW/A 170):
  - Provides radios, terminals, and antennas, with the exception of Airborne Maritime Fixed Radios, and is PEO C4I's single C4I communications integrator

Mission: Accelerated delivery of required capability that is affordable, integrated and interoperable

PEO C4I

Platform Integration Program Management Offices

- International C4I Integration (PMW 740):
  - Delivers integrated C4I capabilities to international partners in support of combatant commanders and national security objectives
- Carrier and Air Integration (PMW 750):
  - Delivers integrated C4I suites to carriers, command ships, and new construction platforms
- Ship Integration (PMW 760):
  - Delivers integrated C4I capabilities to the Navy's unit- and group-level ships in new construction and as part of the Navy Modernization Plan
- Undersea Integration (PMW 770):
  - Develops submarine-specific systems and delivers integrated C4I suites to modernization and new construction
- Shore and Expeditionary Integration (PMW 790):
  - Integrates shore network solutions with major afloat platforms and delivers integrated C4I

Summary

- What are the organizations that comprise the NAVWAR enterprise?
- What is the NAVWAR mission?
- Name the FRD branches and summarize their functions

Summary

- Name the NAVWAR directorates and summarize their functions
  - 1.0 :
  - 2.0 :
  - 3.0 :
  - 4.0 :
  - 5.0 :
  - 6.0 :
  - 7.0 :
  - 8.0 :
- Identify the NAVWAR Echelon III activities and their core competency
  - NIWC Pacific:
  - NIWC Atlantic:
  - NSFA: