



DEPARTMENT OF THE NAVY  
NAVAL SEA SYSTEMS COMMAND  
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IN REPLY REFER TO  
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NAVSEA INSTRUCTION 4790.30

From: Commander, Naval Sea Systems Command

Subj: CLASS MAINTENANCE PLAN POLICY

Ref: (a) SECNAVINST 5000.2G  
(b) OPNAVINST 4700.7M  
(c) OPNAVINST 4790.16B  
(d) NAVSEAINST 4790.27B  
(e) MIL-STD-3034A  
(f) NAVSEAINST 4790.8D  
(g) NAVSEAINST 4790.26A  
(h) DoD Instruction 5000.88 of 18 November 2020  
(i) COMUSFLTFORCOMINST 4790.3

Encl: (1) Glossary of Terms/List of Acronyms

1. Purpose. This instruction provides specific policy and responsibilities to satisfy Secretary of the Navy (SECNAV) policy for developing maintenance concepts per reference (a); and implements Naval Operations (OPNAV) policy to establish a maintenance program by ship class per reference (b) that includes detailed procedures for developing and implementing organizational-level, intermediate-level, and depot-level maintenance actions, tasks, and schedules.

2. Scope

a. This instruction applies to all Navy Weapons System Acquisition Category programs including new weapons system procurements; Hull, Mechanical, and Electrical procurements; and all maintenance and modernization programs under the cognizance of NAVSEA and affiliated Program Executive Offices (PEO). It applies throughout the life of all ships, ship systems, and equipment. For the purpose of this instruction, the term "ship" refers to submarines, surface ships, aircraft carriers, and craft. Enclosure (1) provides a glossary of terms and list of acronyms used in this instruction.

b. This instruction does not detract from the technical authority of other system commands or activities responsible for Naval Nuclear Propulsion, Strategic Systems, Safety of Flight, or Submarine Safety, Scope of Certification, or Fly-by-Wire.

c. The program directors and their respective systems listed below are excluded from this instruction's scope:

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(1) The Director, Strategic Systems Programs (DIRSSP) is responsible for providing material support acquisition and fleet support of ballistic missile and strategic weapon systems, including missiles, platforms, associated equipment, and installation and direction of necessary supporting facilities. Nothing in this instruction detracts in any way from those responsibilities. DIRSSP will be consulted in all matters pertaining to, or affecting, strategic systems.

(2) The Director, Naval Nuclear Propulsion Program (SEA 08) has responsibility for all matters pertaining to the maintenance, repair, and modification of naval nuclear propulsion plants and associated nuclear support facilities. Nothing in this instruction supersedes or changes these responsibilities and authorities. SEA 08 will be consulted in all matters pertaining to or affecting the maintenance, repair, or modification of naval nuclear propulsion plants or their associated nuclear support facilities.

d. The Common Maintenance Planning Working Group (CMPWG), chaired by NAVSEA Director of Maintenance Engineering (SEA 09MM), will coordinate and collaborate with DIRSSP and SEA 08 when warranted to assist with analysis of maintenance requirements and processes.

### 3. Background

a. Reference (b), Maintenance Policy for Navy Ships, sets policies and establishes responsibilities for planning, executing, and evaluating maintenance of U.S. and foreign navy ships; and establishes maintenance policies supporting the optimized fleet response plan, habitability requirements, and to meet ships' operational requirements and expected service life.

b. Reference (c) institutes Condition Based Maintenance (CBM) as the Chief of Naval Operations strategy for maintaining ships. CBM sustains adequate material condition and operational capability throughout the life cycle at the lowest total cost. CBM is maintenance based on objective evidence of need. OPNAV further states that CBM Plus (CBM+) will be used as a principal consideration in the selection of maintenance concepts, technologies, and processes for all new weapon systems, equipment, and materiel programs based on readiness requirements, life cycle cost goals, and Reliability Centered Maintenance (RCM) functional analysis formulated in a comprehensive reliability and maintainability engineering program. CBM+ is the implementation of CBM by integrating RCM derived maintenance requirements with enabling processes, technologies, and capabilities that enhance the readiness and maintenance effectiveness of Department of Defense (DoD) systems and components.

c. Reference (d) is the NAVSEA instruction that implements RCM, CBM, and CBM+ policy of reference (e) and delineates responsibilities for integrating RCM, CBM, and CBM+ into the life cycle maintenance processes for U.S. Navy ships.

d. Reference (e) is DoD's Military Standard for RCM process and describes the methodology used to determine maintenance requirements. RCM is the engineering discipline used to establish new maintenance requirements and to review existing maintenance

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requirements. RCM methods ensure that equipment conforms to legal and statutory guidance, supports adequate ship and personnel safety standards, and delivers its intended functionality. It provides a basis for reviewing process adherence for Class Maintenance Plan (CMP) requirements development.

e. Reference (f) is NAVSEA's maintenance and material management (3-M) manual that provides ships and applicable shore stations with a simple and standard means for planning, scheduling, controlling, and performing maintenance on all shipboard systems and equipment in a manner that will ensure maximum equipment and system operational readiness. The 3-M manual explains "what we do", while the Joint Fleet Maintenance Manual (JFMM) provides "how we do it".

f. Reference (g) establishes policies and responsibilities of the CMPWG and designates it as the primary organization tasked with developing, publishing, and sustaining processes, tools, and services used by those with responsibility for continuously improving maintenance requirements and maintenance requirement development processes to meet maintenance program goals and objectives.

g. Reference (h) requires that for all defense acquisition programs, the lead systems engineer (LSE), working for the program manager, will integrate reliability and maintainability (R&M) engineering as an integral part of the overall engineering process and the digital representation of the system being developed. The LSE will plan and execute a comprehensive R&M program using an appropriate strategy consisting of engineering activities, products, and digital artifacts, including: R&M allocations, block diagrams, and predictions; failure definitions and scoring criteria; failure mode, effects, and criticality analysis; maintainability and built-in test demonstrations; reliability testing at the system and subsystem level; and a failure reporting, analysis, and corrective action system maintained through design, development, test, production, and sustainment.

h. Reference (i), the JFMM, serves as a standardized, basic set of minimum requirements to be used by all Type Commanders and subordinate commands. It provides clear, concise technical instructions to ensure maintenance is planned, executed, completed and documented within all Fleet commands. It is a vehicle for implementing Regional Maintenance policies across all platforms. It contains a comprehensive set of process descriptions for use by schools to train navy sailor maintainers. The JFMM provides the "how we do maintenance and modernization."

#### 4. Policy

a. A class maintenance strategy relies on an effective R&M-engineering program as described in reference (h) to design equipment that will meet its minimal R&M requirement. The overall ship class maintenance program, as required by reference (b), will be developed and approved during acquisition with a minimum of two parts, the Maintenance Environment (ME) and the CMP. A summary from the ME will be part of the CMP with any sensitive information called out by reference.

(1) A CMP is defined as a compilation of all maintenance requirements, procedures and processes, Organization (O-level), Intermediate (I-level) and Depot (D-level) level, to maintain a ship's (any surface ship, aircraft carrier, submarine or craft assigned to the United States Navy) systems, equipment, components and all embarked systems and equipment, to maintain all within operational norms and mission capable from commissioning to decommissioning. The CMP must be provided by the CMP Developer in plain language and must be approved by COMNAVSEA 6 months prior to delivery of the first unit of the class to the Navy.

(2) The ME is defined as those conditions required to conduct maintenance on ship's systems, equipment and or components to maintain operational availability to ensure mission capability within agreed norms. Examples include but are not limited to: dry docking, underway, anchored, cold iron, aloft, divers, etc.

b. Maintenance requirements will support the ME and be developed and reviewed using the RCM methodology described in reference (e).

c. Government acquisition of a ship class or a weapons system via contracting with Original Equipment Manufacturers (OEM) must follow the processes and data requirements of reference (e). Reference (e) has an Acquisition Management Systems Control number authorizing it as the source document for Data Item Descriptions (DID). Reference (e) provides a list of DIDs for all RCM documentation including the CMP DID. The CMP DID contains the CMP report format, content, preparation instructions, intended use information, and data elements for maintenance requirements.

d. Where the government is the primary developer of a weapons system and the supporting CMP maintenance, the requirements of reference (e) and the data elements detailed in the CMP DID apply.

e. The description of the maintenance environment must include all relevant ship class information required by paragraph 702.1 of reference (b).

f. CMPs will be developed and maintained throughout the service life of all ships in the class to meet overall goals established in reference (b) paragraph 702.2. CMPs will include a listing of all prescribed maintenance tasks, with estimates, accomplished by organizational, intermediate, and depot level maintenance activities, including material condition assessment, life renewal (preventive and corrective maintenance), alterative maintenance (ship change and alteration) tasks and availability routines. Mandated CMP maintenance requirements must be approved by the cognizant Technical Warrant Holder (TWH) or other with delegated authority.

(1) Preventive Maintenance Requirements. These include condition-directed, time-directed, failure finding, lubrication, and servicing.

(2) Corrective Maintenance Requirements. Standard corrective maintenance requirements should be included in the CMP in cases where a repair is frequently or routinely executed and to the extent that it is cost effective to manage within the CMP framework.

(3) Alternative Maintenance Requirements. Alternative maintenance under this paragraph refers to design changes that improve maintainability or increase the inherent reliability of a system or equipment. Significant alternative maintenance requirements should be reflected in the CMP and should be managed and tracked until the change is completed for the affected ships in the class.

g. CMP requirements must, to the maximum extent practicable, be common across usage, common across echelon of execution, and common across equipment, ship classes, and ship types. Fully achieving these goals simultaneously may not be possible.

(1) Common across usage refers to the consistent application of measurable criteria to determine material condition and the need for corrective maintenance.

(2) Common across echelon of execution refers to the ability for the requirement to be executed by organizational level (O-Level) (ship's force or contracted maintenance), intermediate level, or depot level maintenance personnel.

(3) Common across equipment and ship classes refers to similarly designed and functioning equipment across multiple ship classes.

h. Applicable and effective CMP requirements, as described in reference (b), will be developed, modified, and approved considering class design, Required Operational Capabilities (ROC), Projected Operational Environment (POE), ME for the class, and life cycle management considerations. Changes to ship designs, performance execution requirements, construction techniques, missions, and capabilities can influence the applicability and effectiveness of existing maintenance requirements.

i. Maintenance requirements may be shared, to varying levels, by systems or equipment common across multiple functional usages or employed on multiple ship types. Changes to maintenance requirements in one application, without special focus, may be incorrectly applied to other uses. Special attention should therefore be exercised in managing the CMP for these systems to ensure that technical changes are properly implemented.

j. Measurement, testing, or verification of set points, tolerances, or material condition should be accomplished via a common assessment procedure or method.

k. If it is likely that ship's force personnel will execute the maintenance, then the associated procedure will be developed and sustained as a Planned Maintenance System (PMS) Maintenance Requirement Card per reference (f). If required for standardization of execution by other levels of maintenance or other organizations, then other formats may be used if explicitly approved by the system TWH or other with delegated authority.

l. Maintenance best practices, wherever such best practices may be found, should be considered for incorporation in CMP maintenance.

m. CMPs will be administratively managed as a living document, maintained up-to-date, and actively improved based on operational and maintenance experience.

(1) Local administrative processes and controls must be implemented as necessary in order to support proper and effective programming, planning, coordinating, executing, and recording of CMP maintenance.

(2) CMP requirements will be managed to minimize the risk of technical inaccuracies. Technical inaccuracies can occur with changes to equipment design, materials, operating fluids, operating envelopes, operating procedures, maintenance envelopes, and maintenance procedures, or when errors are introduced to documents that specify maintenance requirements.

(3) CMPs will be improved by reviewing and adjudicating, among several possible sources, Fleet feedback; shore maintainer recommendations; best practice advances in tools, processes, procedures, and technology; and data-driven reliability analyses to proactively challenge the current requirements.

n. Individual CMP and PMS requirements should be continuously reviewed by TWHs, In-Service Engineering Agents, Maintenance Planning Activities (MPA), and SEA 09MM, using NAVSEA-approved RCM analysis processes. In addition, RCM analysis should be triggered when adverse reliability, operational availability, or cost trends are observed. In some cases, no combination of maintenance tasks can satisfactorily meet operational goals at reasonable costs. Such cases will trigger consideration for development of cost-effective alternative maintenance.

o. Prior to requirements execution, recent and or similar maintenance should be reviewed to ensure that the functional intent of the maintenance has not already been met. In cases where requirements have been accomplished alternatively, the appropriate technical authority must be notified prior to receiving periodic maintenance requirement completion credit.

## 5. Responsibilities

a. Commander, Naval Sea Systems Command (COMNAVSEA)

(1) Reviews and approves initial CMPs.

(2) Distributes in-service ship maintenance planning responsibilities.

b. SEA 09MM

(1) Specifies certain policies, core processes, and detailed requirements for developing, managing, and reviewing CMPs.

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(2) Formulates, recommends, and implements certain policies and programs to ensure technical quality, continuity of purpose, cohesiveness, cost effectiveness, and conformance to Fleet and Command requirements for organizational, intermediate, and depot level CMP maintenance requirements.

(3) Coordinates with the appropriate PEO to ensure that ship ME and requirements can be supported and OPNAV CBM objectives can be met.

(4) Actively engages with PEO Programs in developing CMPs to meet ship maintenance goals of reference (b).

(5) Provides consultation to COMNAVSEA related to the suitability of an initial CMP.

(6) Provides support to Surface Ship Maintenance and Modernization Directorate (SEA 21), PEO Carriers (PEO CVN) – PMS 312, PEO Attack Subs (PEO SSN) – PMS 392 under Team Subs and designated MPAs (CPA, SUBMEPP & SURFMEPP) to keep in-service CMPs current.

(7) Maintains ship configuration linkage to O-Level maintenance requirements.

(8) Ensures all new maintenance requirements for new ship classes are developed in accordance with RCM processes per reference (e).

(9) Establishes certain policy, oversees, and coordinates the periodic RCM review of all CMP maintenance requirements.

(10) Provides for RCM artifact collection and storage for new maintenance requirements and after RCM reviews of existing requirements.

(11) Coordinates a CMP program review with each MPA at a minimum of once every 5 years. Each review validates adherence to the policies in this instruction. Intended scope is a joint 2- or 3-day review, conducted by a couple of individuals from each of the MPAs and the CMPWG. It is intended as a high-level programmatic review and not as an evaluation of technical issues with specific systems.

(12) Collaborates with MPAs, Fleet Sailor maintainers, subject matter experts, and TWHs in planning and facilitating continuous reviews using RCM analysis of CMP

maintenance requirements during Maintenance Effectiveness Review events towards fulfilling the 5-year CMP review policy.

(13) Develops and sustains RCM training, qualification, and certification requirements for personnel that develop new and review existing CMP requirements.

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(14) Pursues standardization of maintenance and products in support of the Navy's drive toward "one way of doing business" for ship maintenance per reference (b).

(15) Recommends cost effective improvements to existing CMPs based on maintenance history and that support the Navy's efforts toward integration, standardization, and fleet self-sufficiency.

c. NAVSEA, Naval Systems Engineering Directorate (SEA 05)

(1) Provides engineering expertise support to PEOs as requested for development of initial and review of in-service CMPs.

(2) Provides consultation to COMNAVSEA related to the suitability of an initial CMP.

(3) Monitors equipment performance, casualties, and material condition to determine trends that may indicate changes to CMP maintenance requirements.

(4) Supports the PEOs and SEA 09MM to facilitate maintenance commonality across CMPs.

d. NAVSEA TWHs. For ships and systems under their cognizance, regardless of organizational affiliation:

(1) Adhere to CMP requirements development and review processes for RCM as described in reference (e).

(2) Develop, review, and approve changes to technical maintenance requirements.

(3) Participate directly or through designated representatives in RCM reviews, and initiate RCM review when warranted by adverse trends.

(4) Serve as the Navy's technical point of contact for all issues affecting maintenance requirements.

(5) Coordinate with the MPAs to ensure that CMPs are kept current and best meet the goals prescribed in reference (b).

(6) Strive for requirements commonality across functions and ship classes.

(7) Establish set points, tolerances, and material-condition criteria required for maintenance requirements.

(8) Ensure maintenance requirements for system or equipment operation in abnormal or unusual states or across system boundaries cite the correct operational instructions or specially developed test procedures.



(9) Ensure external CMP references are accurate and support the requirement.

(10) Ensure CMP maintenance requirements reflect best maintenance practices from other CMPs or from other sources such as industry or other government organizations.

e. SEA 21 and the PEOs to include PEO CVN, PEO SSN, and PEO Strategic Submarines (PEO SSBN) are responsible to manage the in-service maintenance programs described in reference (b) over the life of all ships in a ship class.

(1) For ship classes in acquisition the PEOs and SEA 21 will:

(a) Develop the initial maintenance program composed of the ME and initial CMP during the ship class's acquisition phase.

(b) Ensure the Master Program Maintenance Plan, as outlined in reference (b), is applied to CMP development.

(c) Develop CMP requirements and associated RCM documentation.

(d) Submit a new ship class's plan for development of the initial CMP to COMNAVSEA for approval 6 months prior to the delivery of the first ship in that class. Submit the actual initial CMP upon completion of the Post Shakedown Availability of the first ship. This ensures authoritative databases such as SKED, Configuration Data Management Database-Open Architecture and Maintenance and Ship Work Planning are updated.

(2) For ship classes in-service the PEOs and SEA 21 will:

(a) Refine the CMP based on operational experience and whenever there is a major design change in the ship class such as those introduced during the class production run or modernization.

(b) Work with NAVSEA, Acquisition PEOs, MPAs, Fleet, and maintenance providers as directed to update and improve CMPs.

(c) Update the CMP maintenance strategy summary description whenever required by changes, including but not limited to operational experience, changes to the ROC and POE, changes to manning, changes to the maintenance support strategy, or changes to available maintenance infrastructure.

(d) Coordinate CMP related efforts with all involved parties including, but not limited to, other ship class PEOs, NAVSEA, appropriate technical authorities, Fleet, Type Commander (TYCOM) maintenance staffs, shipyards and other maintenance activities, acquisition sources, OEMs, and other CMP MPAs. This responsibility extends to all aspects of the CMP, including both the maintenance program and requirements sections.

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(e) Analyze in-service operational data and maintenance feedback through 3-M maintenance data, casualty reports, repair activity discrepancy reports, guarantee and warranty deficiencies, and other reporting sources to refine maintenance requirements.

(f) Maintain the integrity of and accessibility to CMP data as well as the IT structure. Facilitate change management control. Ensure modifications are made by planning manager authorized CMP management activity personnel with cognizant technical authority approval.

(g) Coordinate with NAVSEA and other cognizant PEOs and ship program managers to ensure that common, standard, best-practice maintenance requirements are implemented in their respective programs.

(h) Designate the MPA organization for each ship class. Closely coordinate with the MPA to ensure that CMPs are kept current, meet the requirements of this instruction, and best meet the goals prescribed in reference (b).

f. MPAs

(1) Work with PEOs, NAVSEA technical authority, and SEA 09MM to review and accept a new ship class's CMP and to accept changes to in-service CMPs.

(2) Ensure new maintenance requirements for planned modernization and upgrade programs are developed and integrated with the CMP.

(3) Monitor equipment performance, casualties, and material condition to determine trends that may indicate changes to CMP maintenance requirements.

(4) Identify maintenance issues to the appropriate TWH when indicated by adverse trends in cost, scheduling, performance, or material condition.

(5) Maintain expertise and currency of the latest equipment, practices, processes, procedures, and techniques relevant to sustaining an effective CMP.

(6) Administer assigned or delegated aspects of Life-Cycle Management for intermediate and depot level portions of CMPs.

(7) Maintain ship configuration associations to intermediate and depot level CMP maintenance requirements. Maintain ship configuration associations to organizational level CMP maintenance requirements (submarines).

(8) Support RCM artifact collection and storage for new maintenance requirements and for RCM reviews of existing requirements.

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(9) Remain cognizant of material condition and costs associated with “slow to degrade” and “distributed” systems to avoid severe cost escalation due to accumulation of slow deterioration of such systems later in the ship’s service life.

(10) Review requirements to ensure they are consistent with this instruction, appropriate technical guidance, regulations, and laws. Coordinate actions required to resolve inconsistencies in a timely manner.

(11) Monitor planning, execution completion, and recording of CMP task accomplishment.

(12) Serve as overall Life-Cycle Manager (LCM) for systems without LCMs when so assigned.

(13) Develop, document, and follow management processes for effectively administering CMPs, to include maintaining version control; obtaining and recording TWH approval of technical changes; documenting roles and responsibilities for CMP administration within the organization; establishing processes for coordinating with external organizations; and reporting, resolving, and implementing technical feedbacks.

(14) Conduct engineering analyses and studies supporting CMP policy goals and objectives as required.

(15) Work closely with other MPAs to share and incorporate lessons learned and best practices into CMPs across ship classes.

(16) Ensure CMP maintenance requirement changes are made by appropriately qualified and certified RCM developers and practitioners per reference (e).

g. Naval Sea Logistics Center

(1) Coordinates with PEO Programs to ensure CMP development efforts use common, standard, best-practice maintenance requirements for like-equipment across all ships.

(2) Administers the organizational level CMP requirements per reference (f).

(3) Ensures all new maintenance requirements for in-service ships are developed in accordance with RCM processes per reference (e).

6. Records Management

a. Records created as a result of this instruction, regardless of format or media, must be maintained and dispositioned per the records disposition schedules located on the Department of the Navy/Assistant for Administration (DON/AA) Directives and Records Management Division

(DRMD) portal page: <https://portal.secnave.navy.mil/orgs/DUSNM/DONAA/DRM/Records-and-Information-Management/Approved%20Record%20Schedules/Forms/AllItems.aspx>.

b. For questions concerning the management of records related to this instruction or the records disposition schedules, please contact your local records manager.

7. Review and Effective Date. Per OPNAVINST 5215.17A, SEA 09MM will review this instruction annually on the anniversary of its effective date to ensure applicability, currency, and consistency with Federal, DOD, SECNAV, and Navy policy and statutory authority using OPNAV 5215/40 Review of Instruction. This instruction will automatically expire 10 years after its effective date unless reissued or cancelled prior to the 10-year anniversary date, or an extension has been granted.

  
W. J. GALINIS

**Distribution:**

This instruction is cleared for public release and is available electronically only via the NAVSEA Public Web site located at <http://www.navsea.navy.mil/Resources/Instructions/>

GLOSSARY OF TERMS/LIST OF ACRONYMS

3-M	Maintenance and Material Management
Alterative Maintenance	Alterative Maintenance is used in RCM analysis processes to describe making a change to the design of a component, equipment, or system to reduce the probability of failure to an acceptable level (in cases where there are no maintenance tasks that can do so).
CBM	Condition-Based Maintenance
CBM+	Condition-Based Maintenance Plus. CBM+ is a term used to describe system/equipment sensor-triggered maintenance actions.
CDMD-OA	Configuration Data Management Database-Open Architecture. This is a U.S. Navy information system.
CMP	Class Maintenance Plan, the principal document containing the approved maintenance strategies and requirements for all ships in a class.
CMPWG	Common Maintenance Planning Working Group
COMNAVSEASYS COM	Commander, Naval Sea Systems Command
DID	Data Item Description
DIRSSP	Director, Strategic Systems Programs
DoD	Department of Defense
DRMD	Directives and Records Management Division
ICMP	Integrated Class Maintenance Plan
ISEA	In-Service Engineering Agent
JFMM	Joint Fleet Maintenance Manual
LCM	Life-Cycle Manager
LSE	Lead Systems Engineer
M&SWP	Maintenance and Ship Work Planning. This is a U.S. Navy information system.
ME	Maintenance Environment - is define as those conditions required to conduct maintenance on Ship's systems, equipment and or components to maintain operational availability to ensure mission capability within agreed norms. Examples include but are not limited to: Dry Docking, Underway, Anchored, Cold Iron, Persons Aloft, Divers, etc...
MIL-STD	Military-Standard
MPA	Maintenance Planning Activity – the activity primarily responsible for the management of those enterprises CMPs. PMS 312-C CPA, is responsible for aircraft carriers. SEA 21 SURFMEPP, is responsible

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	for Surface combatants and Littoral ships classes. SEA 07 SUBMEPP is responsible for all submarine classes.
MRC	Maintenance Requirement Card
Maintenance Planning Manager	Maintenance Planning Manager performs husbandry agent duties for aircraft carriers. Surface ship equivalent is the Port Engineer.
NAVSEA	Naval Sea Systems Command
NAVSEA 09MM	NAVSEA (SEA 09MM), Director of Maintenance Engineering
NAVSEA 05	NAVSEA (SEA 05), Naval Systems Engineering Directorate
NAVSEA 07	NAVSEA (SEA 07), Undersea Warfare Directorate
NAVSEA 08	NAVSEA (SEA 08), Naval Nuclear Propulsion Program
NAVSEA 21	NAVSEA (SEA 21), Surface Ship Maintenance and Modernization Directorate
NAVSEAINST	NAVSEA Instruction
NAVSEALOGCEN	Naval Sea Logistics Center
NCS	Naval Control Systems
NSTM	Naval Ships' Technical Manuals
O-Level	Organizational Level
Organizational, Intermediate, and Depot level	These terms are used to describe the level (echelon) at which maintenance is performed. Organizational means Ship's Force, Intermediate typically refers to execution at Regional Maintenance Centers, and Depot stands for shipyard or OEM performance.
OEM	Original Equipment Manufacturer
OPNAV	Naval Operations
OPNAVINST	Naval Operations Instruction
PEO	Program Executive Office - are responsible for all aspects of life-cycle management of their assigned programs.
PMS	Planned Maintenance System
POE	Projected Operational Environment
Port Engineer	Title of an assigned individual who performs husbandry agent duties for surface ships.
R&M	Reliability and Maintainability
RCM	Reliability-Centered Maintenance - is an engineered process that ensures maintenance tasks are applicable and performed in an efficient, cost-effective, reliable, and safe manner.
ROC	Required Operational Capabilities
SECNAV	Secretary of the Navy
SECNAVINST	Secretary of the Navy Instruction
SKED	This is the name of the U.S. Navy information system used to

	schedule ship organizational maintenance.
SPM	Ship Program Manager
TWH	Technical Warrant Holder. A TWH leads technical efforts under their warrant throughout the Navy, independent of organizational boundaries.
TYCOM	Type Commander