



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
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In reply refer to:
OPNAVINST 4790.4D
N431H
23 January 2004

OPNAV INSTRUCTION 4790.4D

From: Chief of Naval Operations

Subj: SHIPS' MAINTENANCE AND MATERIAL MANAGEMENT (3-M) SYSTEM
POLICY

Ref: (a) OPNAVINST 4700.7J, Maintenance Policy for U.S. Navy
Ships
(b) SECNAVINST 4790.1, Department of the Navy
Maintenance and Material Management (3-M) System;
Policy for
(c) NAVSEAINST 4790.8B Ships' Maintenance
and Material Management (3-M) Manual
(d) MIL-P-24534A, Planned Maintenance System:
Development of Maintenance Requirement Cards,
Maintenance Index Pages, and Associated Documentation
(e) OPNAVINST 4790.16, Condition-Based Maintenance (CBM)
Policy

1. Purpose To establish policy and assign responsibilities for
the Ships' 3-M System in accordance with references (a) and (b).
This instruction is a complete revision and should be reviewed
in its entirety.

2. Cancellation OPNAVINST 4790.4C.

3. Background The previous Ships' 3-M System Manual, OPNAVINST
4790.4C, included both policy and implementation instructions.
This document only provides the current Navy policy. Reference
(c) provides implementation guidance for ships' maintenance and
material management.

4. Scope

a. The Ships' 3-M System applies to all ships, service
craft, small boats, and non-aviation Fleet test and support

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equipment. This includes, but is not limited to, Navy Meteorological Equipment, equipment of the Naval Air Traffic Control, Air Navigation and Landing Systems, Aircraft Launch and Recovery Equipment, Commander Naval Reserve Force, and Naval Education Training Command activities.

b. Common support equipment used by both ship's force and Naval aviation units shall have Planned Maintenance System (PMS) support provided under reference (c). Scheduling of this maintenance by naval aviation units may be done under the Naval Aviation Maintenance Program to avoid duplicative and redundant schedules.

c. The Ships' 3-M System does not apply to nuclear propulsion plants and associated test equipment under the cognizance of Commander, Naval Sea Systems Command (COMNAVSEASYS COM) (SEA 08), fleet ballistic missile systems, or aeronautical support equipment covered in the Naval Aviation Maintenance Program. Also excluded are civilian operated and maintained ships, small boats, and service craft, unless specifically included as a requirement in a Base Operating Contract (BOC) or other similar document. Civilian contracts may include 3-M support if applicable.

d. All reference (a) activities providing maintenance to ships and other applicable activities shall report their efforts to the Maintenance Data System (MDS) as described in references (a) and (c).

e. Shore activity level of participation in the Ships' 3-M System shall be at the request of the shore activity's senior command and will be provided on a cost reimbursable basis. Equipment used ashore which is identical to shipboard installed equipment will be maintained using existing 3-M coverage.

5. Discussion

a. The Ships' 3-M System is the nucleus for managing maintenance aboard all ships and applicable shore station equipment. This system provides all maintenance and material managers throughout the Navy with a process for planning, acquiring, organizing, directing, controlling and evaluating the manpower and material resources used to support maintenance. As a management tool, the Ships' 3-M System provides efficient and uniform methods of conducting and recording preventive, alterative and corrective maintenance as well as allowing easy access to the collected data.

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b. The Ships' 3-M System is designed to provide for managing maintenance and maintenance support to achieve maximum equipment operational readiness. The Ships' 3-M System shall provide for:

(1) Standardization - achieve uniform maintenance standards and criteria.

(2) Efficiency - effective use of available manpower and material resources in maintenance and maintenance support efforts.

(3) Documentation - recording maintenance and maintenance support actions to establish a reliable material history.

(4) Analysis - used to improve reliability and maintainability of systems and equipment, and to reduce cost of material ownership.

(5) Configuration Status Accounting - reporting and recording changes to installed equipment, equipment configuration specifications, and shipboard location.

(6) Scheduling - standardized method for planning, managing, executing and tracking maintenance requirements and accomplishments. This includes component requirements from the Class Maintenance Plans (CMP) and the Integrated Class Maintenance Plan (ICMP).

6. Policy

a. The Ships' 3-M System is a management tool that provides efficient and uniform methods for conducting and recording preventive, alterative and corrective maintenance. Preventive maintenance actions are those actions intended to prevent or discover functional failures. Preventive maintenance includes actions taken to prevent equipment from failing, such as changing the oil, cleaning filters, calibrating, etc. Alterative maintenance is the performance of authorized changes or modifications to upgrade or change the design of installed equipment. Corrective maintenance, are actions taken to fix equipment that has failed or is not working to desired performance standards. Planned Maintenance System (PMS) and Maintenance Data System (MDS) tools are provided to manage ship maintenance.

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b. PMS is a standardized method of planning, scheduling, and accomplishing preventive maintenance by ship's force. PMS maintenance procedures will be developed in accordance with Reliability-Centered Maintenance concepts as specified in references (d) and (e), based on sound engineering practice, technical standards, and practical experience. These procedures will be developed by the activities of the Systems Commands (SYSCOMs) responsible for the development and procurement of the systems/equipment for active, new construction, major conversion and activation of ships, boats, and crafts. The procedures are to be the minimum required to maintain equipment in an operable condition within specifications. PMS supersedes all organizational level planned or preventive maintenance systems or programs. Where a difference between the requirements and/or procedures of PMS and other technical publications or systems exists, PMS requirements will prevail. Differences shall be reported using PMS feedback reporting procedures.

c. To reduce PMS requirements while in extended maintenance periods and other times when equipment is not operated, an Inactive Equipment Maintenance (IEM) system will provide modified PMS procedures for the maintenance of systems and equipment.

d. MDS is the means which maintenance personnel can report applicable maintenance requirements and configuration changes on all categories of equipment. MDS will be set up so that maintenance personnel will record maintenance data only once.

e. Equipment Configuration Status Accounting.

(1) Configuration status accounting, or the ability to accurately document, track, and maintain the configuration of a ship's systems is a critical factor in maintaining proper shipboard logistics support. NAVSEASYSKOM maintains a central database with the ships' configuration data.

(2) For each ship class, a single activity called a Configuration Data Manager (CDM), has been designated the control authority for accuracy and completeness of the configuration information. Prior to ship delivery, the SYSCOM and the delivering activity are responsible for the initial accuracy and completeness of the central database. After delivery, it is imperative that the ship maintains and updates its configuration data in the Ship's Equipment File (SEF), through the submission of configuration change reports.